Mercury™ IT Governance Center

Installation Guide

Version 5.5.0

MERCURY INTERACTIVE

Mercury Interactive Corporation
1325 Borregas Avenue
Sunnyvale, CA 94089 USA
Tel: (408) 822-5200
Fax: (408) 822-5300

If you have any comments or suggestions regarding this document, please send them via e-mail to documentation@merc-int.com.

Publication Number: InstallationGuide-0304A

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Chapter 1 Introduction

This document describes the requirements and procedures for installing and configuring Mercury IT Governance (ITG) Center.

Note

A typical installation is guided by a Mercury Interactive Product Consultant. For any questions concerning the role of the Product Consultant during or following installation, visit the Mercury Interactive website at http://www.mercuryinteractive.com.

About This Document

This guide provides information necessary to install Mercury ITG Servers. Each chapter or appendix covers specific areas of server installation and includes the following information:

Installation and Configuration	Describes the procedures for downloading, installing and configuring Mercury ITG Center.
Accessing the Mercury ITG Client	Describes the procedures for logging onto the standard interface and Workbench interface.
Server Directory Structure	Describes the files and subdirectories contained in *ITG_Home* directory.
Optional Configuration	Describes how to enable certain features in Mercury ITG Center by making changes to the `server.conf` file.

Server Configuration Parameters	Lists common server parameters used in the `server.conf` and `logging.conf` files.

Intended Audience

The intended audience for this document include:

- System administrators responsible for installing Mercury ITG Servers
- Security administrators responsible for network security
- Database administrators involved in setting up and maintaining the database schema
- Administrators responsible for maintaining the day-to-day operations of Mercury ITG Servers

Document Conventions

Table 1-1 lists the types of conventions used in this document.

Table 1-1. Document conventions

Convention	Description	Example
Button, menu, tabs	Names of interface components that can be clicked (such as buttons, menus, and tabs) are shown in bold.	**Apply** button
Fields, Windows, Pages	Names of windows, fields, and pages are shown as displayed.	New Request window
`Code`	Code input and output are shown as displayed.	`CauchoConfigFile C:/`*`ITG_Home`*`/conf/resin.conf`
Link	Linked URLs, filenames, and cross references are shown as blue italicized text.	*www.merc-int.com*
Variable	Variables are shown as italicized text.	*ITG_Home*/bin directory

Table 1-1. Document conventions

Convention	Description	Example
Note	Used to identify note boxes that contain additional information.	Note
Caution	Used to identify caution boxes that contain important information. Follow the instructions in all caution boxes, failure to do so may result in loss of data.	Caution
Example	Used to identify example boxes that contain examples of related procedure.	Example

Additional Resources

Mercury Interactive provides the following additional resources to help you successfully install Mercury ITG Servers:

- *Related Documentation*
- *Customer Support*
- *Education Services*

Related Documentation

The Library includes additional documents related to the topics discussed in this guide. Access the Library through the Mercury ITG Center online help or the Download Center at *http://itg.merc-int.com/support/download/login.jsp*.

Upgrade Guide

This document contains information on topics related to upgrading an instance, including: new features, upgrade impacts, and upgrade process.

System Administration Guide	This document provides information necessary to implement, configure, and maintain Mercury ITG Servers.
Migrators Guide and Reference	This document provides details for configuring and using the Mercury ITG Migrator Object Types to migrate or archive data from Mercury ITG Center instances.
Security Model Guide and Reference	This document presents an overview of the data security model and provides instructions for controlling access to different entities.
Open Interface Guide and Reference	This document provides details for integrating third-party products with Mercury ITG Center entities.

Customer Support

Customer support for the Mercury ITG Center and additional product information can be accessed from the Mercury Interactive Support Web site at *http://support.mercuryinteractive.com*.

Downloads for the Mercury ITG Center can be accessed from the Download Center at *http://itg.merc-int.com/support/download/login.jsp*.

Education Services

Mercury Interactive provides a complete training curriculum to help you achieve optimal results using the Mercury IT Governance Center. For more information, visit the Education Services Web site at *http://www.merc-training.com/main/ITG*.

Chapter 2
System Requirements

Besides the Mercury ITG Center software, there are several other necessary system components that must also be prepared in order to use Mercury ITG Center. This chapter discusses what is required for the following components in order to complete the Mercury ITG Center software installation:

- *Clients*
- *Server*
- *Database Objects*

All installed files will reside on a single server computer. Each Mercury ITG client must have a supported Web browser installed. No additional application installation is required.

For more information on system requirements, see *Mercury IT Governance Center Compatibility Matrix* available from the Download Center at *http://itg.merc-int.com/support/download/login.jsp*.

Clients

All clients accessing Mercury ITG Center must have Internet Explorer 5.0, 5.5 (Service Pack 2), or 6.0 (Service Pack 1) installed.

Users who will be accessing the Workbench (Mercury ITG Center's interface for configuration, administration, and advanced processing activities) require 40 MB of disk space in addition to normal browser install requirements. This space is used to store client-side Java files. To access the Workbench, the user must have the Java Plug In installed on their machine. This is automatically installed the first time the user accesses the Workbench. Java Plug In version 1.4.1_02 is required.

For a complete list of supported browsers, see *Mercury IT Governance Center Compatibility Matrix* available from the Download Center.

Server

A full installation of the Mercury ITG Server requires a minimum of 425 MB of disk space on the server. The installation requires an additional 200MB of temporary space to extract the installation files.

Sites running Mercury ITG Servers vary widely in scope and complexity. Simply basing hardware sizing on the number of transactions entered into the system may not be sufficient. The amount of load on the server can vary depending on the complexity of system usage. For additional information regarding server and database requirements, see *System Administration Guide*.

This section contains information on the following server components:

- *File System*
- *Preferred Platforms*
- *Web Server*
- *SQL*Net*
- *Email Server*

File System

The following file system objects are required:

- Version 1.3.1_07 or higher of the Java Developer's Kit (JDK). The JDK contains the Java Virtual Machine (JVM), which is the engine that runs the Mercury ITG Server. Mercury ITG Center requires a JDK of at least 1.3.1_07 to run properly.

The Java Runtime Environment (JRE) is NOT supported at this time. For the latest supported JVM versions, see *Mercury IT Governance Center Compatibility Matrix* available from the Download Center.

- The Mercury ITG Center program files.
- The Mercury ITG Center installation needs the System and SYS level access to the database where it is installed. Mercury ITG Center needs access to certain high-level views, and the proper grants must be given to the database schema.

Preferred Platforms

The Mercury ITG Server may be installed on any UNIX or Windows machine with at least a supported 1.3.1_07 version of the Java Developer's Kit. Note that the Java Runtime Environment (JRE) is NOT supported. However, certain vendors have more robust implementations of the JDK, which result in improved performance for the Mercury ITG Server. The preferred platforms include:

- Solaris 2.6 or higher
- IBM AIX 5.1L
- Windows 2000 Server or Windows 2000 Advanced Server
- Windows Server 2003
- Windows NT 4.0 on Intel x86 architecture, with Service Pack 3 or higher
- HP-UX 11 and 11i or higher
- Red Hat Linux Server 2.1

Windows 2000 Datacenter Server is NOT supported at this time.

Web Server

The Mercury ITG Server ships with an embedded Web server. Integration with a stand-alone web server is only required in order to run a cluster

configuration, or to run the web server on a port less than 1024. External Web servers supported include Apache, Microsoft IIS, and Netscape iPlanet on the supported server platforms.

SQL*Net

The computer that hosts the Mercury ITG Server must also have SQL*Net v2 installed to communicate with the Mercury ITG schema. SQL*Net must be configured to recognize the connection string of the Oracle database that contains the Mercury ITG schema.

Email Server

Mercury ITG Center can send email Notifications to individuals, identifying pending actions or notifying users of status changes for various Packages, Requests, or Tasks. Mercury ITG Center can integrate with any SMTP-compliant mail server, including Microsoft Exchange, UNIX sendmail, and others. The only required information is the IP address of the email server and the logon name of one or more valid users on the email server. The Mercury ITG Server uses these logon names as the From address for its Notifications.

Database Objects

A set of tables and other database objects is maintained by Mercury ITG Center in an Oracle database to store and process configuration and transaction data. Installation of these objects requires a schema on an Oracle 8.1.7.4 or higher database running SQL*Net v2. For more detailed information on compatible Oracle versions, consult the Compatibility Matrix available on the Download Center.

The amount of tablespace required depends on the volume of Requests and Packages, and on the complexity of the anticipated Workflows. The following are required for a standard installation of Mercury ITG Center:

- 200 MB of data space
- 200 MB of index space
- 300 MB for CLOB table space

Database requirements depend highly on the number of users, types of processes implemented, and type of activity performed. For details on how to size an installation, contact Mercury ITG Support.

Database Administration Tips

To ensure maximum performance and organization of Mercury ITG Center, certain configurations need to be checked regarding the setup of the database on which the Mercury ITG schema will be installed. The following list outlines the optimum Oracle database configuration. For more information, consult the Oracle database administration documentation. For a complete list of Mercury ITG database and server configuration parameters, see *System Administration Guide*.

Note

If you are installing the Mercury Change Management Extension for Oracle E-Business Suite, refer to the Extension for Oracle E-Business Suite documentation for an alternate set of database administration tips and requirements.

To optimize the Oracle database configuration:

1. Generate three separate tablespaces:

   - Mercury ITG data (at least 200 MB of space)
   - Mercury ITG indexes (at least 200 MB of space)
   - CLOB (at least 300 MB of space)

   Be sure to specify the correct tablespaces when installing the Mercury ITG schema.

2. Generate at least one rollback segment for each of the new tablespaces mentioned above. For Oracle 9i or above, use undo tablespace.

   These rollback segments should reside in a separate tablespace reserved for rollback segments. They should be generated with OPTIMAL size constraint to ensure that the rollback segments automatically deallocate space as it becomes free.

3. Generate an additional tablespace to be used as the temporary tablespace for the Mercury ITG user.

   Be sure to specify this tablespace during the Mercury ITG schema installation.

4. Generate unlimited quota on the data, index, and temporary tablespaces for Mercury ITG Center.

5. The following grants are also necessary:

```
grant connect to &username;
grant create session to &username;
grant create database link to &username;
grant create procedure to &username;
grant create sequence to &username;
```

Using Oracle 10G

In order to use Oracle 10G with Mercury ITG Center, the existing `oracle_jdbc.jar` file in the *`ITG_Home`*`/lib` directory needs to be replaced with the Oracle 10G JDBC driver. Download the Oracle 10G JDBC driver from the Oracle Metalink Web site. Rename the file to `oracle_jdbc.jar`. Replace the existing `oracle_jdbc.jar` file in the *`ITG_Home`*`/lib` directory with the new file.

Oracle 10G SQL*Plus will not work with Oracle 8i except version 8.1.7.4. To use Oracle 10G SQL*Plus with Oracle 8i, upgrade your existing Oracle 8i database to version 8.1.7.4.

There is a known problem with Oracle 10G. When attempting to insert data from one Oracle 8i database to another Oracle 8i database using a database link, Oracle error ORA-03113 will be generated. There is currently no workaround for this Oracle error.

Chapter 3

Installation and Configuration

This chapter describes the procedures for downloading, installing and configuring Mercury ITG Center. The following topics are discussed:

- *Downloading the Installation Package*
- *Application Installation*
- *Server Configuration*
- *Additional Configuration & System Considerations for Windows*
- *Mercury Change Management Extension Installation*
- *Mercury ITG Center Best Practice Installation*
- *Starting the Mercury ITG Server*

Note

A typical installation is guided by a Mercury ITG Product Consultant. For any questions concerning the role of the Product Consultant during or following installation, contact Mercury Interactive.

The procedures in this chapter are required for proper installation and configuration. For more information about available optional configurations for the system, see *"Optional Configuration"* on page 51.

Downloading the Installation Package

The Mercury ITG Center installation files are distributed from the Download Center at *http://itg.merc-int.com/support/download/login.jsp*. A username and password is required for accessing software downloads.

Once logged into the Download Center, you will be provided with links to all the software you have purchased. Download the following files:

1. Mercury ITG Center installation archive files

   This file is found in the Software Installs section of the Download Center. Use the file appropriate for the server operating system.

   UNIX: `mitg550en.tar`

   Windows NT/2000: `mitg550en.zip`

2. Extensions

   If one or more of the Mercury Change Management Extensions are being installed, download the Extension installation archive from the Download Center for each Extension purchased.

   - Extensions are available in the Software Installs section of the Download Center.

   - Download the installation archive for each Extension to be installed. For example, if the Extension for Oracle E-Business Suite has been purchased, download the file `mitg-550-oracleApps.jar`. There may be additional files to download depending on which Extensions are installed.

     Refer to the instructions on the Web page and the Extension-specific installation guides (also provided on the Extensions Web page) for more details.

Once the installation files for the server's operating system have been obtained, follow the instructions in *"Application Installation"* on page 12 and *"Server Configuration"* on page 27 to install and configure the Mercury ITG Server and database schema.

Application Installation

The installation archive described in the previous section contains all files and scripts necessary to generate the Mercury ITG Server and database schema. Performing the Mercury ITG Center installation will:

- Install the Mercury ITG Server files

- Create and configure all database objects used by the server to store data
- Configure the Mercury ITG Server (optionally)
- Generate security keys for password encryption within the Mercury ITG Server.

Note

Mercury ITG Center cannot be installed into a directory path whose name contains a space.

The process for installing Mercury ITG Center is described below. Some of the installation steps depend on the platform onto which Mercury ITG Center will be installed (Unix or Windows). Refer to the sections corresponding to the selected platform to obtain detailed instructions for that step. The installation steps must be performed in the order specified below.

1. *Installation Research and Considerations*
2. *Creating a Mercury ITG User*
3. *Installing the Java Virtual Machine*
4. *Creating the Mercury ITG Schemas Before Installing*
5. *Installing the Mercury ITG Server*
6. *Generate the Database Links*
7. *Additional Database Configuration*

Installation Research and Considerations

Before proceeding with the Mercury ITG Center installation, you need to gather certain system information and make a few other Mercury ITG Center installation related decisions. These items are discussed in the following sections:

- *Options for Installing the Mercury ITG Server*
- *Information Required for the Mercury ITG Center Installation*

Options for Installing the Mercury ITG Server

You have options on how to perform certain tasks related to the Mercury ITG Server installation. Refer to the following sections for a discussion of a few key installation options:

- *Use the Graphical or Console Installation? (Unix only)*
- *Automatically Create the Database Schema?*
- *Configure the Server During or After the Installation?*
- *Compile JSP Files?*

Use the Graphical or Console Installation? (Unix only)

On Unix platforms, Mercury ITG Center installations can be run in either graphical or console mode. When determining the mode in which to run the installation, there are several factors to consider:

- The graphical install is more user friendly. It allows you to go back and change parameters before starting the installation.
- In some cases, console installations may be the only option. If you choose to install graphically and are accessing the target machine remotely, additional software/configuration may be required (for example, to access a Unix system from a Windows system, software that will allow the Unix application to redirect the display to Windows will be required).

Automatically Create the Database Schema?

The Mercury ITG Server requires two distinct database schemas to store application data. A DBA may create these schemas prior to installation, or the installer will create them. To create the schemas prior to the installation, follow the instructions in *"Creating the Mercury ITG Schemas Before Installing"* on page 21. The installation will then populate the schemas with the database objects and data required to run the server.

Configure the Server During or After the Installation?

The Mercury ITG Server requires configuration before it can be started. This can be done during the installation. To configure during the installation, you will be prompted to input the values of the variables in *"Server Configuration"* on page 27. If you choose not to configure the server during installation, any information gathered will be inserted into the server configuration file, and complete configuration can be performed as a post-installation step. This is

useful if certain configuration information is not available at the time of installation.

Compile JSP Files?

The installation ask whether JSP files should be compiled. Although compiling JSP files will add about 15 minutes to the installation process, it is strongly recommended that JSP files are compiled in order to improve performance. If left uncompiled, the Mercury ITG Server will need to compile the JSP files the first time the page is accessed.

Information Required for the Mercury ITG Center Installation

The base Mercury ITG installation will ask for several parameters to create and configure the Mercury ITG Server. All information must be entered, and will be validated before the installation can continue. *Table 3-1* lists the information that will be required to complete the installation process.

Table 3-1. Required Installation Information

Prompt	Description
License Configuration File	The Mercury ITG Server is activated by license keys. The license keys are provided in a license.conf file, which needs to be obtained before installation. Contact Mercury Interactive Support if you do not have a valid license.conf file.
JAVA_HOME	The directory in which Java is installed.
Install Location	The directory in which the Mercury ITG Server will be installed and configured. If the directory does not exist it will be created. The directory path can not contain a space.
ORACLE_HOME	The directory in which the Oracle client tools are installed. The directory path can not contain a space.
SQL*PLUS	The location of the SQL*PLUS utility. SQL*PLUS is not needed for the installation, but it required by the Mercury ITG Server.

Table 3-1. Required Installation Information [continued]

Prompt	Description
Database Access Information	In addition to installing the Mercury ITG filesystem, the installation will create and populate database schemas needed to store application data. In order to access the database, the installation will ask for a username and password, and the valid components of a JDBC URL. If you choose to have the installation create the schemas, you will need to enter the system username and password. If you chose to create the schemas before installation, you must enter the Mercury ITG schema username and password. The JDBC URL is used by the Mercury ITG Server to connect to the Oracle database. It is of the form: jdbc:oracle:thin:@*Hostname*:*Port*:*SID* For Oracle Real Application Clusters (RAC), the JDBC_URL parameter must contain the host and port information for all databases to which the Mercury ITG Server will connect. An example to enable the Mercury ITG Server to communicate with the databases Jaguar1 and Jaguar2 appears below: `jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP) (HOST=jaguar) (PORT=1521)) (ADDRESS=(PROTOCOL=TCP) (HOST=jaguar2)(PORT=1521))) (CONNECT_DATA=(SERVICE_NAME=J920)))`
Mercury ITG Schema	The username and password of the Mercury ITG schema.
Reporting Meta-Layer Schema	The username and password of the Mercury ITG Reporting Meta-Layer schema.
Tablespaces	The table, index, CLOB and temporary tablespaces of the Oracle database that should be used in the creation of schemas and database objects.
Windows Service Name	The name of the service for the Mercury ITG Server (Windows only). The installation will preface the service name with Mercury ITG to better identify the service. The service name is also used to create the Start Menu item.

Note

The JDBC URL is used by the Mercury ITG Server to locate its database schema. The value should be in the format: jdbc:*subprotocol*:*subname*:*DB address*

- *subprotocol* is "oracle"
- *subname* is "thin"
- *DB address* is in the format: "@*hostname*:*port*:*database SID*". This is the address of the database on which the Mercury ITG schema resides.
  - *hostname* is the DNS name or IP address of the computer running the database.
  - *port* is the port used by SQL*Net to connect to this database. Its value is generally 1521, but the actual value can be obtained by looking at the corresponding entry in "tnsnames.ora".
  - *database SID* is the SID of the database. This is usually identical to the database connect string. If it is different, an extra parameter is necessary. See the special instructions in *"Special Considerations"* on page 29.

For Oracle Real Application Clusters (RAC), the JDBC URL must contain the host and port information for all databases to which the Mercury ITG Server will connect. An example to enable the Mercury ITG Server to communicate with the databases Jaguar1 and Jaguar2 appears below:

```
jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=
   (PROTOCOL=TCP) (HOST=jaguar) (PORT=1521)) (ADDRESS=
   (PROTOCOL=TCP) (HOST=jaguar2)(PORT=1521))) (CONNECT_DATA=
   (SERVICE_NAME=J920)))
```

Creating a Mercury ITG User

The process for creating a Mercury ITG user is different depending on which platform the Mercury ITG Server is using (Unix or Windows). Refer to the following section that corresponds to the selected platform to obtain detailed instructions.

- *Creating a Mercury ITG User for Windows*
- *Creating a Mercury ITG User for Unix*

Creating a Mercury ITG User for Windows

It is highly recommended that a new Windows user is generated for the installation and all subsequent Mercury ITG Server maintenance. This user should be configured to be a member of at least the Administrators and Domain Users groups. Always logon to the Windows Server as this user when performing any Mercury ITG Server maintenance, such as stopping or restarting the Mercury ITG Server. This helps avoid filesystem permission issues, which can be difficult to track.

This user should have full access to the installation directory for Mercury ITG Center and all of its subdirectories. The Administrators group must have at least read-only access to these directories.

Creating a Mercury ITG User for Unix

Mercury ITG Center may be installed under an existing UNIX account, or a custom account generated specifically for it, depending upon site preference. However, it is recommended that a custom account is generated for installing and administering Mercury ITG Center. Always logon to the UNIX server as this user when performing any Mercury ITG Server maintenance, such as stopping or restarting the Mercury ITG Server. This helps avoid filesystem permission issues, which can sometimes be difficult to track.

Mercury ITG Center does not require root access to be installed. You should not install the server as the root user.

Installing the Java Virtual Machine

Since the Mercury ITG Server is Java-based, the server machine that hosts the Mercury ITG Server must also host a JVM. JVMs native to each operating system are available either from Sun Microsystems or the operating system vendor, usually in the form of a Java Development Kit (JDK). Mercury ITG Servers support multiple versions of JVM based on the operating system running on the server machine. For a list of supported JVMs, see *Mercury IT Governance Center Compatibility Matrix* (available on the Download Center).

The process for installing the Java Virtual Machine (JVM) is different depending on which platform (Unix or Windows), the Mercury ITG Server is

being installed. Refer to the following section that corresponds to your platform to obtain the correct instructions.

- *Installing the JVM on Windows (JDK Version 1.3.1_07 or 1.4.x)*
- *Installing the JVM on Unix*

Installing the JVM on Windows (JDK Version 1.3.1_07 or 1.4.x)

The Mercury ITG Server requires a Java Virtual Machine (JVM). The JVM is contained within the Java Developer's Kit (JDK). Mercury ITG Center supports both versions 1.3.1_07 and 1.4.x of the JDK. If the appropriate version of the JDK has not been installed on your computer, complete the following instructions. Otherwise, skip to *"Installing the Mercury ITG Server on Windows"* on page 23.

To install the JVM on Windows:

1. Download the appropriate JDK for the operating system from the Javasoft Website.

   `http://java.sun.com`

2. Install the JDK according to the instructions provided.

   Hereafter, the directory where it is installed will be referred to as *JVM_Install_Dir*.

The JDK cannot be installed into a directory path whose name contains a space.

3. After the installation of the JVM, verify that the user that Mercury ITG Center will be run under has the java executable in its path. The easiest method to verify this is to logon and run the command:

   ```
   java -version
   ```

   This should output text that returns the version of java. If an error message is received, modify the PATH environment variable as appropriate.

4. Ensure that the JAVA_HOME environment variable has been set correctly.

   To check this, run the following command:

```
echo %JAVA_HOME%
```

If this does not echo the correct path to Java, set it to the correct value.

To set the value of JAVA_HOME in DOS, use:

```
set JAVA_HOME="JVM_Install_Dir"
```

Installing the JVM on Unix

The Mercury ITG Server requires a Java Virtual Machine (JVM). The JVM is contained within the Java Developer's Kit (JDK). For the Solaris operating system, use version 1.31_07 or 1.4.x. For more information about supported versions of JDK for other Unix operating systems, see *Mercury IT Governance Center Compatibility Matrix* (located on the Download Center). If the appropriate JDK has not been installed on the computer, complete the following instructions. Otherwise, skip to *"Installing the Mercury ITG Server on Unix"* on page 24.

To install the JVM on Unix:

1. Download the appropriate JDK for the operating system.

   The appropriate JVM for the operating system should be publicly available on the server vendor's Web site.

2. Install the JVM according to the vendor's instructions.

   In some cases, a particular vendor provides custom installation packages that can be automatically installed with a command such as `pkgadd`. Other vendors provide a simple tar file that should be extracted. The directory where the JVM (regardless of the mechanism) is installed will be referred to as *JVM_Install_Dir*.

Note

Many operating systems require that OS-specific patches be applied before the JVM is installed. Carefully follow all instructions provided by the server vendor while installing the JVM.

3. After the JVM has been installed, verify to the user that Mercury ITG Center will be run under the java executable in its path.

To do this, logon and run the following command:

```
java -version
```

This command should output text such as `java version 1.3.1`. If an error message is received, modify the PATH environment variable as appropriate

4. Ensure that the *JAVA_HOME* environment variable has been set correctly. To check this, run the command:

```
echo $JAVA_HOME
```

If this does not echo the correct path to Java, set it to the correct value.

To set the value of JAVA_HOME:

In Bourne shell (SH, BASH, or KSH), use:

```
JAVA_HOME="JVM_Install_Dir"
export JAVA_HOME
```

In CSH, use:

```
setenv JAVA_HOME "JVM_Install_Dir"
```

Creating the Mercury ITG Schemas Before Installing

The Mercury ITG Server requires two distinct database schemas to store application data. A DBA may create these schemas prior to the installation. Creating database schemas require privileges that a DBA might not want to grant to a Mercury ITG administrator.

To properly create the schemas and the permissions between them:

1. Unpack the Mercury ITG Center installation bundle as outlined in *"Installing the Mercury ITG Server"* on page 22.

   A directory named `mitg550` will be created. The system directory resides within the `mitg550` directory and contains the scripts that should be used to create the database schemas.

2. Run the script `CreateKintanaUser.sql` against the database into which Mercury ITG Center will be installed.

The script will prompt for a username and password, and the tablespaces that should be used by the Mercury ITG schema.

```
sh> sqlplus system/<password>@<SID> \
     @CreateKintanaUser.sql \
      Mercury_ITG_username \
      password \
      data_tablespace \
      index_tablespace \
      temporary_tablespace \
      CLOB_tablespace
```

3. Run the script CreateRMLUser.sql.

   The script will ask for a user name and password for the Reporting Meta-Layer schema, tablespace information, and the Mercury ITG schema user name. The script will create the RML schema and establish the permissions between the RML and the Mercury ITG schema.

```
sh> sqlplus system/password@SID \
     @CreateRMLUser.sql \
      RML_username \
      RML_password \
      data_tablespace \
      index_tablespace \
      temporary_tablespace \
      Mercury_ITG_username
```

4. As the SYS user, run the `GrantSysPrivs.sql` script located in the `sys` directory.

To create the schemas prior to installation, it is necessary to specify **Please use existing schemas** when prompted by the installation. When prompted for schema information during the installation, supply the same values as those used in this procedure.

Installing the Mercury ITG Server

The Mercury ITG Server has been designed to connect to an Oracle 8.1.7.4 (or higher) database. The following steps are required to install the database objects and data used by the server. The steps in this section can be performed on any UNIX or Windows NT/2000 computer with SQL*Net connectivity to the database on which the Mercury ITG database objects are to be installed.

The process for installing the Mercury ITG Server depends on the selected platform (UNIX or Windows):

- *Installing the Mercury ITG Server on Windows*
- *Installing the Mercury ITG Server on Unix*

Note

If Mercury ITG Center is to be used in conjunction with Mercury Object Migrator or GL Migrator, Mercury ITG database objects must be installed on the same database as Object Migrator and/or GL Migrator. Furthermore, it is recommended that the existing Object Migrator/GL Migrator schema be used to house the Mercury ITG database objects as well. This configuration simplifies some aspects of the integration between Mercury ITG Center and Object Migrator/GL Migrator.

Installing the Mercury ITG Server on Windows

The installation utility for a Windows NT/2000 Server is an executable file that performs the steps required for a basic server installation. The executable and supporting files are contained in a zip file. The typical installation will automatically install the following components onto the server:

- Mercury ITG Center Program Files
- Mercury ITG Database Objects
- Start Menu item
- Windows service

To install the Mercury ITG Server on Windows:

1. Extract all files from `mitg550en.zip` to the file system.

   A directory named `mitg550` will be created.

2. Locate the executable file `mitg550en.exe` that was extracted and double-click it.

3. Enter the information prompted by the installation program (see *"Information Required for the Mercury ITG Center Installation"* on page 15).

   Once all information has been entered, the installation will install the Mercury ITG Center files and configure the database. Status bars will indicate the status of the installation. A summary of the installation will display any problems that were encountered.

Once the installation is complete, Mercury ITG Center is installed as a Windows service. The properties for this service may be viewed through the Services Control Panel item.

4. To complete the service setup, select the Mercury ITG service in the Services Control Panel and click **Startup**.

   It is recommended that the startup type is set to **Automatic** so that the Mercury ITG Server restarts automatically when the computer is rebooted. Also, if a custom Mercury ITG user is generated as recommended, set the `Log On As` parameter to this username.

5. To save the settings, click **Save**.

A Start menu item corresponding to the Windows service name entered during the installation will also be created. The menu provides links to Mercury ITG documentation and an uninstall program.

If you chose not to configure the Mercury ITG Server during installation, see *"Server Configuration"* on page 27.

Note

Do not map the *ITG_Home* directory to be accessible from an external Web server. This introduces a potential security risk. Using the Mercury ITG Web server is recommended.

Installing the Mercury ITG Server on Unix

To install the Mercury ITG Server on Unix:

1. Extract the files into an empty directory from the download bundle by running:

   ```
   tar xvf mitg550en.tar
   ```

   All the files and scripts necessary to install Mercury ITG Center will be extracted. The location where the files will be extracted is inconsequential, since the installation will prompt for the location where the software should be installed. After extracting the files, there should be a `mitg550` directory containing the `mitg_install.sh` shell script, several Jar files, a system and a SYS directory.

2. Start the installation by running the installation script and specifying the installation mode:

```
sh mitg_install.sh [-swing|-console]
```

Table 3-2. Unix Installation Modes

Mode	Meaning
-swing	GUI mode. A window will appear which walks the user through the installation.
-console	Command line mode. The installation script will be run within the terminal session.

The script performs the following actions:

- Prompts for information required for installing the server (see *"Information Required for the Mercury ITG Center Installation"* on page 15).
- Generates all database tables in the tablespace specified.
- If Oracle Applications is being used and the Object Migrator or GL Migrator will be integrated, the install script grants the Mercury ITG schema access to some Oracle Applications database objects as needed.
- Creates all database objects (indexes, packages, views) and application data.
- Generates password security keys.
- Generates the server configuration file.

To improve the performance of Mercury ITG Center, the installation will rebuild statistics for the cost-based optimizer for versions 8.1.6 and higher. In order to do this, the following privileges must be granted to the Mercury ITG schema as SYS (or on 9i, SYSTEM as sysdba):

```
grant select on v_$parameter to Mercury_ITG_Schema
grant select on v_$mystat to Mercury_ITG_Schema
grant select on v_$process to Mercury_ITG_Schema
grant select on v_$session to Mercury_ITG_Schema
grant execute on dbms_stats to Mercury_ITG_Schema
```

The installation will not finish until the privileges have been granted.

Generate the Database Links

If Mercury ITG Center is to be run with the Extension for Oracle E-Business Suite and the Object Migrator or GL Migrator, there may be an additional consideration to be taken prior to completing the database portion of the

installation. If it has been decided to generate a new schema for Mercury ITG Center other than the schema in which Object Migrator/GL Migrator resides, then database links must be generated from the Mercury ITG schema to all valid source and destination databases. This database link should connect to each Oracle schema that is part of a standard Oracle Applications installation.

The process for generating the database links is the same for both Unix and Windows.

Note

It is not necessary to generate database links if Mercury ITG Center is installed into the existing Object Migrator/GL Migrator schema. In this case, the existing links generated during Object Migrator/GL Migrator installation can also be used by Mercury ITG Center.

From the Mercury ITG schema, enter the following SQL commands:

```
SQL> create database link DEV_LINK
SQL> connect to APPS identified by APPS
SQL> using 'DEV'
```

Repeat this procedure for all databases that Mercury ITG Center is to access. A database link is required even for the database on which the Mercury ITG schema resides to migrate Oracle Applications Objects to or from this database.

If all steps have been completed successfully, the database portion of the Mercury ITG Center installation is complete.

Note

Refer to the Extension for Oracle E-Business Suite installation documentation for additional details.

Additional Database Configuration

For Mercury ITG Center to be able to keep track of the open database sessions it is using, ensure that a public grant exists on the V_$SESSION Dynamic Performance Table. To do this, connect as SYS to the database containing the Mercury ITG schema and run the following SQL command:

```
SQL> grant select on v_$session to public;
```

Server Configuration

The next step in installing Mercury ITG Center is configuring the server to meet local network requirements. If you chose to configure the server during installation, you do not need to perform these steps.

Note

Like the installation, the tool for configuring the Mercury ITG Server runs in both a graphical and console mode. As such, it has the same system configuration limitations and the installation, and requires an X-Windows session when running graphically.

This section contains the following steps for configuring the Mercury ITG Server to meet local requirements:

- *Setting the JAVA_HOME Environment Variable*
- *Standard Configuration Process*
- *Special Considerations*
- *Generating Password Security*

Setting the JAVA_HOME Environment Variable

The following script reads the value of the JAVA_HOME environment variable to determine if JAVA_HOME is set to the correct path to Java on a system:

In a UNIX shell (SH, BASH, KSH, CSH), run:

```
echo $JAVA_HOME
```

In DOS, run:

```
echo %JAVA_HOME%
```

If this does not echo the correct path to Java, set it to the correct value.

To set the value of JAVA_HOME:

In Bourne shell (SH, BASH, or KSH), run:

```
JAVA_HOME="JVM_Install_Dir"
export JAVA_HOME
```

In CSH, run:

```
setenv JAVA_HOME "JVM_Install_Dir"
```

In DOS, run:

```
set JAVA_HOME="JVM_Install_Dir"
```

Standard Configuration Process

This section outlines the standard configuration process and describes all of the required settings for a typical installation.

To configure the Mercury ITG Server:

1. From the *ITG_Home*/bin directory, execute `kConfig.sh` from a UNIX or DOS command line by running:

   ```
   sh kConfig.sh
   ```

Note

The configuration tool can also run in console mode. To do this, run the following from a UNIX or DOS command line:

```
sh kConfig.sh -console
```

2. The configuration wizard will walk you through the configuration of the Mercury ITG Server.

   Enter a value for each parameter as appropriate to the server. For a detailed description, move the cursor over the variable name. Some values are defaulted and should not be changed except in special circumstances. Others are simply defaulted with typical values but may be overridden if desired.

The parameters to be entered are shown in *Table A-1 on page 56*, along with an example of each. All confidential information, such as passwords, remains hidden and is encrypted before it is stored.

Use forward slashes (/), NOT backslashes (\), for ALL file path separators, regardless of the operating system. Mercury ITG Center automatically uses the appropriate path separators when communicating with Windows, but expects to read only forward slashes from the configuration file.

The last section in the server configuration utility is Custom Parameters. This is where necessary additional parameters are entered to account for non-standard configurations. Normally this section is left blank.

3. After all parameter values have been entered, select **Enter** (depending on the mode) to apply the configuration.

4. The configuration tool performs several additional steps at this point:

   a. Writes the configuration parameters specified in the file named `server.conf`, which are read by the Mercury ITG Server.

   b. Generates the files used to access Mercury ITG Center (Workbench and standard interfaces).

   c. Generates other files needed internally by the Mercury ITG Server, such as JBoss configuration files.

Special Considerations

In some special cases, it may be necessary to add additional parameters to the server configuration. This can be done in the Custom Parameters section of the server configuration utility. To add a new parameter, type the parameter name in the Parameter field, its value in the Value field, and click **Add**. The parameter names must be preceeded by the prefix com.kintana.core.server. For example, if a custom parameter named NEW_PARAMETER is being added, com.kintana.core.server.NEW_PARAMETER should be entered in the Key field.

Any parameters that are added to the Custom Parameters list are accessible from within the application as Tokens of the form [AS.*parameter_name*].

In addition to any custom parameters that are added for specific configuration purposes, there are some standard parameters that may be needed in special situations. These parameters are documented in *Table 3-3*. Normally these parameters are defaulted correctly, but the defaults can be overridden by explicitly adding them to the Custom Parameters folder.

Table 3-3. Special Configuration Parameters

Parameter	Description	Sample Value
com.kintana.core.server.DB_ CONNECTION_STRING	When specifying the JDBC_URL parameter, the SID of the database on which the Mercury ITG schema resides is requested. It is assumed that the connection string for this database is the same as the SID. However, this is not always the case. If the connect string (for connecting to the database via SQL*Plus from the Mercury ITG Server computer) is different than the database SID, please add this parameter and supply the correct connect string.	PROD
com.kintana.core.server.NON_DOM AIN_FTP_SERVICES	**Windows NT only!** FTP servers on Windows NT typically require the entry of the NT domain along with the username (in the form “Domain\Username”) when opening an FTP session. By default, Mercury ITG Center includes the domain name when entering the username in an FTP session to a Windows NT computer. If an FTP server that does not require the domain name is used, this parameter can be used to override the default functionality. Contact Mercury Interactive support for more information.	WAR-FTPD
com.kintana.core.server.TEMP_DIR	General Mercury ITG temp directory. This currently defaults to a /temp/ subdirectory of the /logs/ directory, but might be moved due to system constraints. Include the full path when using this parameter.	

Generating Password Security

To ensure password security, Mercury ITG Center utilizes a client/server encryption model utilizing the ElGamal Algorithym that generates a public/private key pair. All client/server encryption is done using the server’s

public key and only the server is able to decrypt the data using the private key. This means that the client application does not have access to decrypted data.

Generating the Private and Public keys

Public and private keys are generated during the installation of Mercury ITG Center, residing in `ITG_Home/security`. All passwords are encrypted using these keys. The key pair only needs to be generated once. If you feel that the security of the server has been breached, follow the steps below to regenerate the key pair and re-encrypt all passwords.

To create the private and public key pair

1. Run the `kKeygen.sh` script located in `ITG_Home/bin` directory from a UNIX or DOS prompt by running:

   ```
   sh kKeygen.sh
   ```

   This script generates the new key pair which is used to encrypt passwords during server configuration. Any new passwords generated later are also encrypted using this key pair.

2. The script will prompt for the following information (if server.conf does not exist):

   - The JDBC_URL (such as `jdbc:oracle:thin:@DBhost.domain.com:1521:SID`) is needed for the server to communicate to the database
   - Username for the Mercury ITG database schema
   - Password for the Mercury ITG database schema

On completion of the script, the two keys are placed in the `ITG_Home/security` directory. These files are `public_key.txt` and `private_key.txt`.

On UNIX, the `kKeygen.sh` script sets the files to be read-only permission for the user running the script. If this user differs from the user starting the server, the server may not be able to read the keys and will be unable to start.

After the script has been run on Windows, the files remain readable by anyone. It is up to the System Administrator to make sure non-trusted users do not have read privilege to those files.

Additional Configuration & System Considerations for Windows

If configured correctly, Mercury ITG Center will be able to execute commands on remote computers and move files. While the UNIX operating system was designed with this in mind, Windows needs additional components (such as a FTP server) installed.

Configuring the FTP Server

Mercury ITG Center uses FTP to perform file migrations from one computer to another. To transfer files between computers on a network, each source and destination computer must be running an FTP server. On UNIX platforms, this is very straightforward, but Windows NT computers usually require some additional FTP server configuration to function with Mercury ITG Center. Any standard FTP server for Windows NT/2000 will work. The Microsoft Internet Information Server for Windows NT (IIS) contains a FTP server as one of its components. IIS is a standard component of Windows NT/2000 4.0 Server.

To configure the FTP server for each computer, ensure that the NT user account—with which Mercury ITG Center uses to open a connection—has access to the directories where the files will be moved. Some FTP servers require mapping such directories to FTP aliases, and a configuration utility is provided to do this (for IIS, this is called the Internet Service Manager). Configuration steps vary depending on the type of FTP server used. The best way to determine whether or not Mercury ITG Center is able to transfer files to a particular Windows NT Server is to manually test it first. If it is possible to open a FTP session and then “cd” to different directories, Mercury ITG Center should be able to do the same.

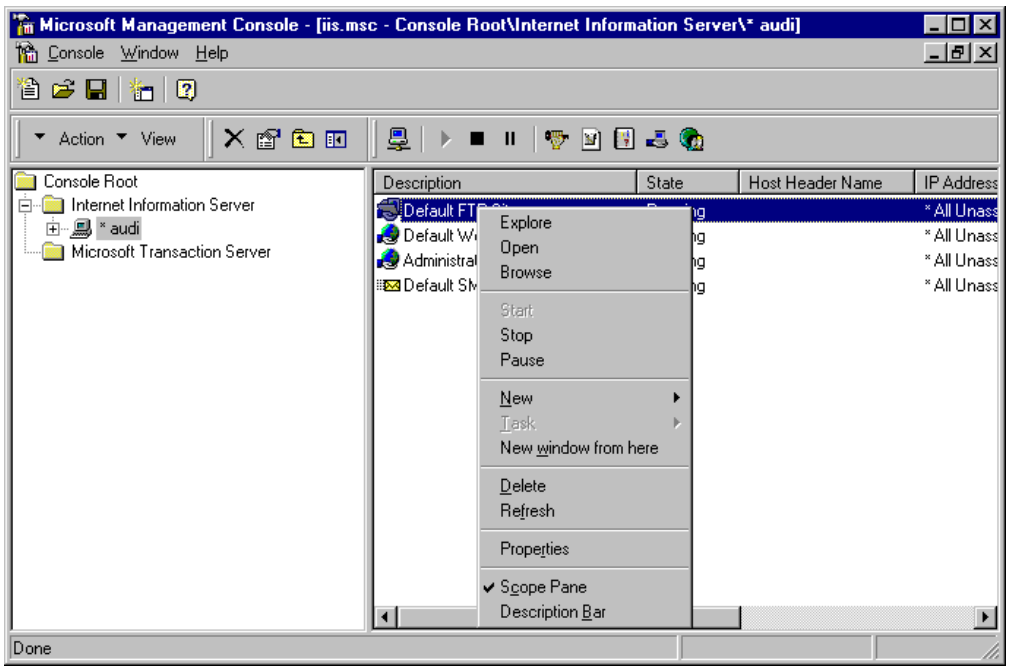
For the File and Directory Chooser components to work properly, the FTP server Directory Listing Style must be set to **UNIX** and not **MS-DOS**.

To set the Directory Listing Style:

1. In Windows NT, open the Internet Service Manager.

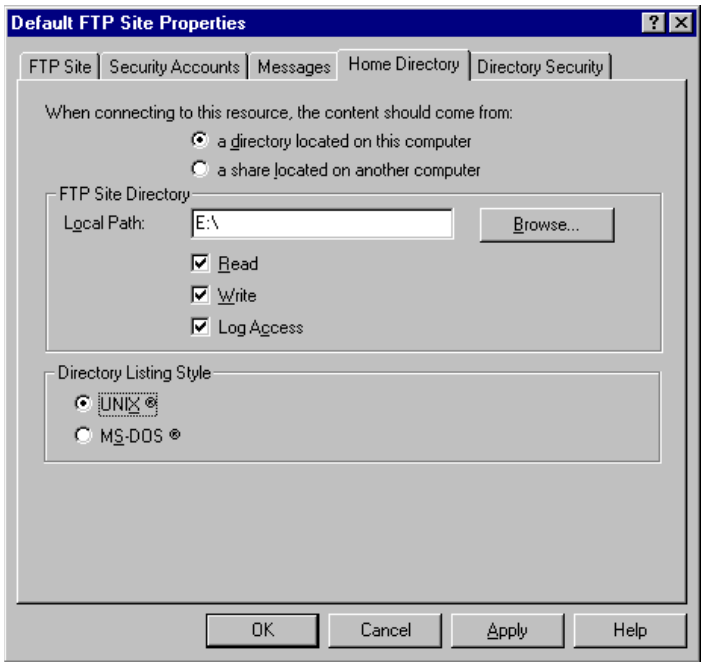
2. In the left-hand panel, open the Internet Information Server under Console Root.

   Select the proper machine name.



3. Right-click on the Default FTP Site that appears in the right-hand panel and go to **Properties**.

   The Default FTP Site window opens.



4. Click on the **Home Directory** tab.
5. Under Directory Listing Style, select **UNIX**.
6. Click **OK**.

Mercury Change Management Extension Installation

To install Extensions, run the `kDeploy.sh` script located in the *`ITG_Home`*`/bin` directory. This script needs to be run for each Extension that is installed. After running the Extension install, there may be additional installation instructions. If an Extension is being installed, the Mercury ITG Server must be running.

See the installation guide for each Extension for more details on installing that particular Extension.

If no Extensions are being installed, proceed directly to *"Starting the Mercury ITG Server"* on page 35.

Server Modes

The Mercury ITG Server supports a Restricted Mode feature. The server modes are an important part of an Extension install or upgrade that requires an isolated Mercury ITG Server.

Mercury ITG Center supplies script *`ITG_Home`*`/bin/setServerMode.sh` to manually set the server mode in situations where it is desirable to obtain exclusive access to a running server.

The following modes are supported:

- Restricted Mode – The server will only allow logins of users with an Administrator Access Grant. The server will not run scheduled executions, Notifications, or the concurrent request manager.
- Normal Mode – The server will run as it runs now, with all enabled users able to logon and all services available according to `server.conf` parameters.

- Disabled Mode – The server is prevented from being started. This only happens when the Mercury ITG Center core upgrade has exited prior to finishing.

Mercury ITG Center Best Practice Installation

Mercury Interactive now delivers the former "Kintana Solutions" as standard licensed Mercury IT Governance Center products that contain Best Practice content.

If the product license your organization has purchased includes Best Practice content, run the following command:

```
sh kDeploy.sh -bestpractices
```

Starting the Mercury ITG Server

To start the Mercury ITG Server:

UNIX: In the *ITG_Home*/bin directory, there is a file named kStart.sh. Run this script to start the server.

Windows NT/2000: Open the Services Control Panel, select the Mercury ITG Center service (Mercury ITG Center services start with the words Mercury ITG) and click **Start** to start the server.

Chapter

4

Accessing the Mercury ITG Client

Mercury ITG Center features two interfaces: the standard interface and the Workbench interface. The standard interface uses HTML and Javascript to provide users with access to many key areas of functionality, and allows users of each product to perform common tasks without requiring a Power License. All Mercury ITG users logon to the standard interface.

Mercury ITG Center also features a Workbench interface. The Workbench is a Java applet designed to help Administrators, product configurers, and power users to perform advanced configuring and processing tasks, such as creating entities (like Request Types, Object Types, and Workflows) and administering licenses. The Workbench is accessed from the menu in the standard interface.

Once the Mercury ITG Server is running, users can logon to Mercury ITG Center from their desktop computers. To access a logon screen, simply run Netscape or Internet Explorer and navigate to the Web access point.

This chapter contains procedures for accessing the Mercury ITG client using the following methods:

- *Logging onto Mercury ITG Center*
- *Launching the Workbench*

Logging onto Mercury ITG Center

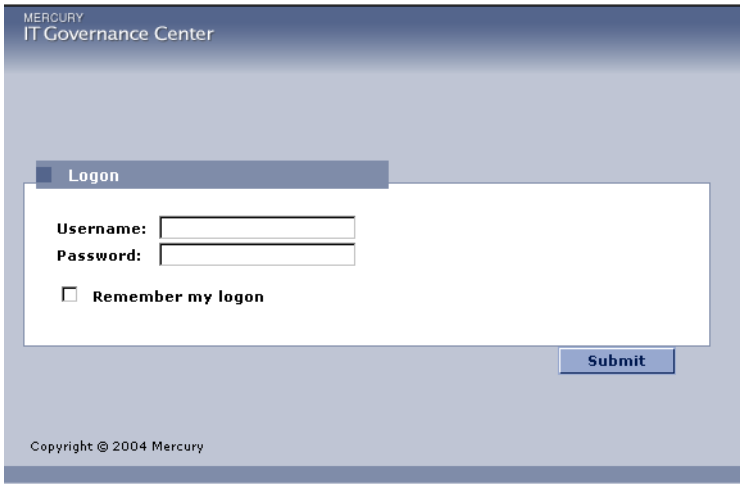
All Mercury ITG users will logon to Mercury ITG Center using the same URL. The URL for Mercury ITG Center is formed by taking the value of the BASE_URL parameter as configured in *Table A-1 on page 56* and appending `/itg/web/knta/global/Login.jsp` as shown in this example:

```
http://wwwserver.mydomain.com:port/itg/web/knta/global/
Login.jsp
```

To log on to Mercury ITG Center:

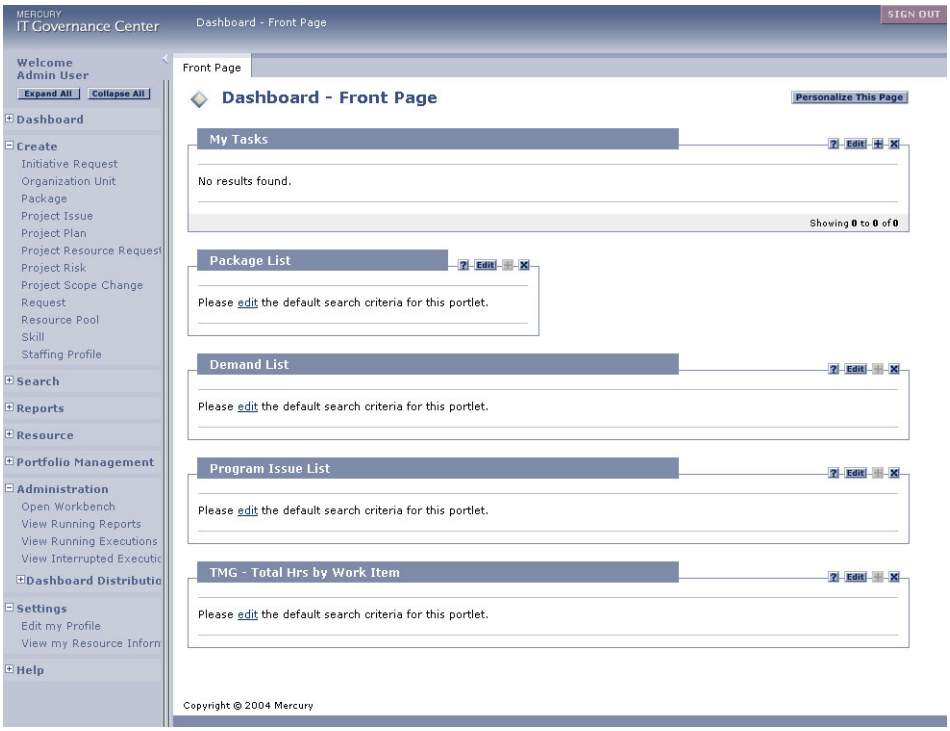
1. Enter the URL for your site.

   The Mercury ITG Center logon screen appears.



2. Enter username `admin` and password `admin`, click **Logon**.

   Mercury ITG Center provides a default account for logging on the first time. The Mercury ITG client will be displayed in the window. It is recommended that the password of the admin account is disabled or changed once accounts for all of users have been generated.



Accounts (users and licenses) for the standard interface are set in the Workbench's Users window. For more information on configuring licenses and user access, see *Security Model Guide and Reference*.

Launching the Workbench

The Workbench provides an interface accessing advanced processing and configuration functionality in Mercury ITG Center. This interface is available to users with a product Power License. For detailed information on licensing as it relates to the standard interface and user permissions, see *Security Model Guide and Reference*.

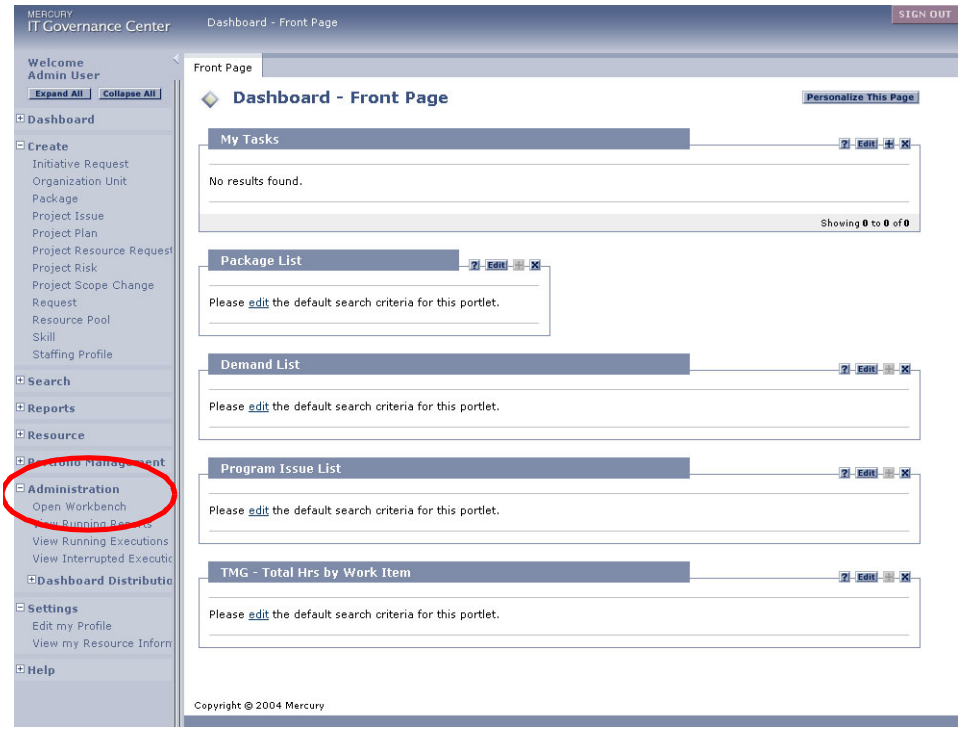
Note

If a pop-up blocker has been installed in the web browser, the Workbench will not open.

The Workbench is launched from within the standard interface.

To launch the Workbench:

1. Logon to Mercury ITG Center.



2. From the menu, select **Administration > Open Workbench**.

When the Workbench is accessed for the first time, Mercury ITG Center detects whether or not the correct version of Java Plug-in is installed on the computer. If it is not, users are taken through a procedure for installing the Java Plug-in. This procedure only needs to be performed once.

Depending on the client's connection to the server, this may take several minutes. Subsequent logons will be much quicker, as the client will not have to install any additional components on their machine.

Java Plug-In Required for All Workbench Users

Mercury ITG Center requires the Java Plug-in for accessing the Workbench. Installing the Java Plug-in means that Mercury ITG users are not dependent on any specific version of the JVM to run Mercury ITG Center on their Internet browsers. The Java Plug-in is fully compatible with the Mercury ITG client.

The first time Mercury ITG users access the Workbench, Mercury ITG Center detects whether or not the correct version of Java Plug-in is installed on their computer. If it is not, users are taken through a procedure for installing the Java Plug-in. This procedure only needs to be performed once.

To support this feature, the following server configuration parameters are defaulted in the server.conf file:

Server Parameter Name	Default
JAVA_PLUGIN_VERSION	1.4.1_02
JAVA_PLUGIN_PATH_IE	http://java.sun.com/products/plugin/autodl/jinstall-1_4_1_02-windows-i586.cab
JAVA_PLUGIN_PATH_NS	http://java.sun.com/j2se/1.4.1/

Java Plug-In Defaulting Issues

Users of the Workbench may run into issues resulting from the Java Plug-In setting itself as the default JVM for their browser.

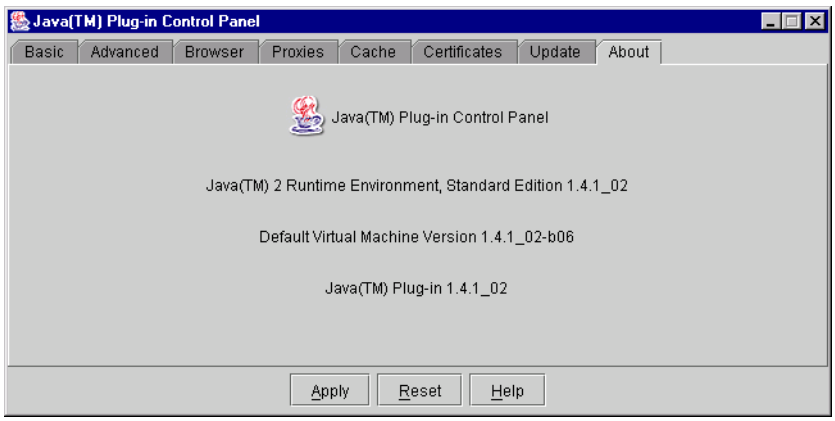
- The Workbench may throw a “class not found” exception error.
- The user may have other applications requiring different versions of the Java Plug-In.

To resolve these issues, remove the default browser associations for all versions of the Java Plug-In.

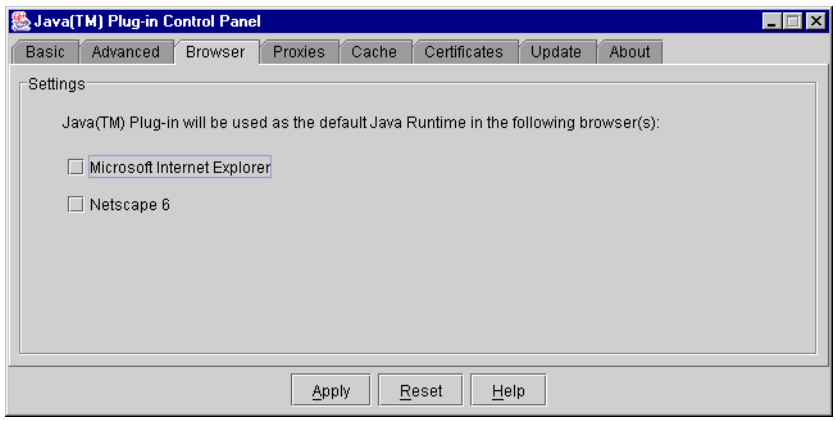
To remove the default browser associations for the Java Plug-In:

1. Open the Windows Control Panel and open the Java Plug-In icon.

   Each Plug-in version will have a icon, but by opening them and inspecting the **About** tab, the newly installed Java Plugin 1.4.1_02 can be identified.



2. Click the **Browser** tab and uncheck the default browser associations.



3. After changes have been applied, other applications will be able to use their desired version of the Java Plug-in and the Workbench will function properly.

Chapter 5

Server Directory Structure

A Mercury ITG administrator needs access to server log files and tools to start, stop, and report on the state of the server. This chapter presents the organization of the server directory tree and describes the available administrative tools.

The Mercury ITG Server generally requires very little maintenance. However, as is the case with virtually all client-server applications, a server that runs for long periods of time may require periodic attention. To ensure continued smooth operation, it is recommended that the server be periodically (once per month is recommended) stopped and restarted.

To help familiarize administrators with the server directory structure, this chapter briefly describes the following files and subdirectories contained in *ITG_Home* directory:

- *Bin Directory*
- *Docs Directory*
- *Integration Directory*
- *Logs Directory*
- *Reports Directory*
- *Server Directory*
- *Server Configuration File*
- *SQL Directory*
- *Transfers Directory*
- *Other Directories*

For more information on Mercury ITG Server administration, see *System Administration Guide*.

Bin Directory

The `bin` subdirectory of *ITG_Home* contains all of the scripts necessary to configure and administer the server. Some of these scripts have already been discussed earlier in this document (for example, `kConfig.sh` in *"Server Configuration"* on page 27). Other key scripts located in the `bin` directory include:

- *kCancelStop.sh*
- *kDeploy.sh*
- *kGenTimeMgmtPeriods.sh*
- *kGenTimePeriods.sh*
- *kJSPCompiler.sh*
- *kRunServerAdminReport.sh*
- *kStart.sh*
- *kStatus.sh*
- *kStop.sh*
- *kUpdateHtml.sh*
- *kWall.sh*

kCancelStop.sh

If the server has been scheduled to stop by a command such as `kStop.sh -delay 10` (which stops the server in 10 minutes), the stop request can be cancelled by running this script. Authentication may be required to do this, which works in the same way as for `kStop.sh`. Use the `-user` *`username`* flag.

kDeploy.sh

This script is a command-line tool used to install Mercury ITG deployments onto a Mercury ITG Server. Deployments are software bundles containing files that enhance the functionality of Mercury ITG Center. `kDeploy.sh` is the tool used to install Mercury Change Management Extensions.

Deployment names are of the form:

`mitg-`*`VVV-IIIIII`*`.jar`

where *VVV* is the Mercury ITG Server version number and *IIIIII* (variable-length name) is a unique identifier for the deployment.

For a list of the command-line parameters for `kDeploy.sh`, run the following command:

```
sh kDeploy.sh -h
```

For more information on using kDeploy.sh to install Extensions, see the documentation that pertains to the Extension(s) available at your site.

kGenTimeMgmtPeriods.sh

(Used for Time Management) This script seeds data in the KTMG_PERIODS Table. This script takes the number of periods to be seeded and the start date from which the periods need to be seeded.

Usage: `kGenTimePeriods.sh` *`num start_date`*

The *`num`* value is the number of time periods required. The *`start_date`* is the start date from which the periods will be seeded. For a new installation, running this script is optional. Running `kGenTimePeriods.sh` with no arguments will default the number of time_periods to 24.

kGenTimePeriods.sh

(Used for Costing/Resourcing/etc.) This script generates the period information and seeds the data in the database tables that contain this information: knta_periods and knta_period_groups. It takes in the start year and end year parameters, then generates the monthly periods and period groups from the start year till the end year. If any of the periods between the specified years already exist, then these periods and period groups will not be regenerated. Only periods between the minimum of the specified start year and the existing minimum period year—and the maximum of the existing maximum Period Year and the specified end Year—will be created.

kJSPCompiler.sh

This script is used to precompile all JSP files in the Mercury ITG Server. Precompiling JSP files will result in significant performance improvements in the standard interface.

kRunServerAdminReport.sh

Runs diagnostic reports on the Mercury ITG Server. Run `kRunServerAdminReport.sh` to view a list of reports to choose from. This utility provides a summary of how much activity is currently on the system and how many database connections are being made.

kStart.sh

This script is used only on UNIX systems to start the Mercury ITG Server as a background process. For more details about starting the server, see *"Starting the Mercury ITG Server"* on page 35.

kStatus.sh

Run this script to check the state of the Mercury ITG Server at any time. The load value refers to the number of active user sessions.

kStop.sh

Use this script to stop the Mercury ITG Server. This script requires some arguments. When stopping the server, it is possible to choose to stop it now with the -now flag, or after a delay of a certain number of minutes with the flag `-delay #minutes`. Using the `-delay` option results in a message automatically being sent to all currently-connected Mercury ITG users suggesting that the server will stop after the specified delay. In addition, this script may require authentication (if the server parameter REMOTE_ADMIN_REQUIRE_AUTH has been set to True). In this case, the flag `-user username` is also required. For more information on available flags, run `kStop.sh` without any options to show the usage notes.

kUpdateHtml.sh

Updates the Logon HTML files with the latest configuration. This script is automatically run by the server configuration utility. If any changes are made to `server.conf` by hand, this script should be run to make sure the changes are propagated.

kWall.sh

To send out a message to all users currently logged on to the Workbench, use `kWall.sh`. When this script is run, it prompts for the Mercury ITG username and password and the desired message text. The message is displayed in a

dialog on the monitor screen of anyone who is logged onto Mercury ITG Center at that time.

Docs Directory

The `docs` subdirectory contains all documentation files included with your product. Since these files are in PDF format, you will need Adobe Acrobat Reader to view them. These documents can also be accessed from the Workbench **Help** menu.

Integration Directory

The `integration` subdirectory contains several directories used for integration purposes. For example, the *`ITG_Home`*`/integration/webserver` directory contains folders for each of the external Web server that can be integrated with the Mercury ITG Server. Files used to perform the integration are located in these folders. For more information on using the folders and files in the `integration` subdirectory, see the relevant document that pertains to the integration involved.

Logs Directory

There are two log directories in the server directory structure. The first log directory is *`ITG_Home`*`/logs`. This directory contains the `reports` subdirectory, which contains a log file for each Mercury ITG report that is run, and directories named `PKG_`*`number`* and `REQ_`*`number`*. These subdirectories contain execution logs for Change Management Packages and Request Management Requests, respectively. The *`number`* variable in the directory name corresponds to the ID of the Package or Request that is being executed.

The other log directory is *`ITG_Home`*`/server/kintana/log`. This directory contains all logs generated by Mercury ITG Center. As the server runs, logging messages are generated and written into the file `serverLog.txt`. When this file reaches the size indicated by the ROTATE_LOG_SIZE server parameter, it is renamed to `serverLog_`*`timestamp`*`.txt`, and a new `serverLog.txt` is started. In addition, the Java servlets used to serve the Web pages generate their own logfiles, named `servletLog.txt`. The amount of information

present in the server log files depends on the debugging level set in the server configuration. The server parameters SERVER_DEBUG_LEVEL and DEFAULT_USER_DEBUG_LEVEL control the debugging level. If a problem arises and it is necessary to obtain more information in the logs, logon to the Workbench as an Administrator and set the server debug level to high from the menu (**Edit > Server Settings**).

Reports Directory

The `reports` subdirectory contains the HTML files for all reports that have been run through the client.

Server Directory

The `server` subdirectory contains a directory named `kintana`, which contains folders that hold various types of files used by the Mercury ITG Server. In a Single Server configuration, the `server` subdirectory will only contain the `kintana` directory, which is the default name used for the Mercury ITG Server instance.

In a server cluster configuration, each server must have its own directory within *`ITG_Home`*`/server`. The name of the directory must match the name of the Mercury ITG Server instance as configured by the KINTANA_SERVER_NAME server parameter in the `server.conf` file. Therefore, if there are three Mercury ITG Servers in a server cluster configuration, the `server` subdirectory must contain three directories, each with a unique name that matches the name of a Mercury ITG Server instance within the server cluster. For more information on server cluster configuration, see *System Administration Guide*.

Server Configuration File

The `server.conf` file contains the values of all of the server parameters provided when the server configuration utility was run in *"Server Configuration"* on page 27. It is automatically generated by the configuration utility. Anytime configuration changes are required, it is recommended that the

server configuration utility is used and the instructions outlined in *"Server Configuration"* on page 27 are followed.

However, it is sometimes more convenient to edit the server.conf file directly. If this is done, run the script `kUpdateHtml.sh` in the bin subdirectory to propagate the changes. The Mercury ITG Server reads the values from `server.conf` each time it is started, and writes them to a database table for quick runtime access. Therefore, anytime the value of a server parameter is changed, or a new server parameter is added, the server must be stopped and restarted for the configuration changes to be applied.

SQL Directory

The `sql` subdirectory contains source code for the built-in Mercury ITG reports.

Transfers Directory

The `transfers` subdirectory is used as temporary storage for files being transferred between the server and remote computers.

Other Directories

Other directories contain reference files as indicated by their name, and it is likely that they do not need to be accessed.

Chapter 6
Optional Configuration

Certain features in Mercury ITG Center can be enabled by making changes to the `server.conf` file. Mercury ITG Administrators should decide whether or not to use these features in their system.

This chapter discusses the following additional features:

- *Logon ID*
- *One Way Password Hash*

Logon ID

The Mercury ITG Administrator can set a parameter in the `server.conf` file that changes the text on the logon screen interface and enables the Administrator to enter any unique name for both the user's logon ID and username.

The Administrator must make the following edit in the `server.conf` file:

```
com.kintana.core.server.LOGON_METHOD=LOGON_ID
```

The following changes will occur:

- A new field named Logon Id displays on the **User Information** tab of the User window. This field enables the Administrator to enter unique names in the Logon ID and Username fields and differentiate between the user's logon ID and username. The Administrator can enter a meaningful username, such as the Employee ID number, instead of an automatically generated username which would be cryptic and have no meaning to the user.
- A new field named Enter New Logon Id displays on the Copy User window. This field enables the Administrator to differentiate between the user's logon name and username when copying a user's information.

- The username defined by the Administrator appears in the Created By and Assigned To fields.
- For both the Workbench and the standard interface, the text on the logon screen interface changes from Username to Logon ID.
- Users must enter their logon ID on the Logon screen to access the product.

One Way Password Hash

Mercury ITG Administrators have the option of implementing one-way hashes for user passwords to have additional security for user passwords. This is done by adding a new parameter to the `server.conf` file.

After converting the user password encryption to a one-way hash, the user password encryption can later be converted back to a standard encryption. However, converting the user password back to standard encryption will lose all of the users passwords. The Administrator will need to assign a new default password for all Mercury ITG users.

Administrators can select one of the following options for using passwords:

- To convert user passwords to one-way hashing so they cannot be decrypted:

  a. Run the `kConvertUserPasswords.sh` script.

     The script requests that a password option be selected. Based on the selection, the script requests that a new parameter be added to the server.conf file.

  b. Add the following line to the `server.conf` file:

     ```
     com.kintana.core.server.USER_PASSWORD_ENCRYPTION=HASH
     ```

- To convert user passwords to standard encryption:

  a. Run the `kConvertUserPasswords.sh` script.

     The script requests that a password option be selected. Based on the selection, the script requests that a new parameter be added to the `server.conf` file.

  b. Add the following line to the `server.conf` file:

```
com.kintana.core.server.USER_PASSWORD_ENCRYPTION=STANDARD
```

Note

If LDAP is currently being used, you can continue to use LDAP successfully after the user passwords are set to one-way hashing. However, if the Mercury ITG administrator converts the user passwords back to standard encryption, all LDAP user passwords will be lost.

Appendix A

Server Configuration Parameters

This appendix lists the following types of server configuration parameters:

- *Server.conf Parameters*
- *Logging.conf Parameters*

Server.conf Parameters

Table A-1 lists the server configuration parameters used in the `server.conf` file. The Required column shows whether the server parameter is a required parameter for setting up a Mercury ITG Server. A value of TRUE in this column indicates that the parameter is required. A value of FALSE in this column indicates that the parameter is optional. A condition in this column indicates that the parameter is required based on the condition of another parameter. For example, the KINTANA_LDAP_ID parameter is only required when the AUTHENTICATION_MODE parameter is set to LDAP.

In a Server Cluster configuration, required parameters must be set for the primary server. Secondary servers will inherit the parameter value from the primary server. To override the inherited value, set the parameter to the desired value in the appropriate secondary server section of the `server.conf` file. For more information on setting up

Mercury ITG Servers in a Server Cluster configuration, see *"Configuring the Primary and Secondary Mercury ITG Servers"* on page 39.

Use forward slashes (/) when entering directory paths in the `server.conf` file, regardless of the operating system being used. Mercury ITG Center automatically uses the appropriate path separators when communicating with Windows. Under any circumstance, do NOT use back-slashes (\) when entering directory path in the `server.conf` file, since Mercury ITG Center will not recognize back-slashes.

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
ALLOW_SAVE_REQUEST_DRAFT	Allows Requests to be saved without automatically submitting them in the standard interface.	FALSE	TRUE FALSE	FALSE	FALSE
ATTACHMENT_DIRNAME	Absolute pathname of the directory where attached documents will be stored. This directory: • Must give read/write access to web browsers • Should be outside the directory tree when using an external web server	TRUE			c:/itg/attachments
AUTHENTICATION_MODE	Required for the Mercury ITG Server to determine the user authentication method. Specify multiple modes by using a comma-delimited list of valid values.	TRUE	KINTANA LDAP NTLM SITEMINDER	KINTANA	KINTANA KINTANA, LDAP
BASE_PATH	Full directory where the Mercury ITG Server is installed.	TRUE			c:/ITG/

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
BASE_URL	Web location of the Mercury ITG Server. This URL should point to the top directory in which the Mercury ITG Server is installed.	TRUE			http://www.mydomain.com:8080
CONC_LOG_TRANSFER_PROTOCOL	Transfer protocol to use when transferring Concurrent Request logs and patching README files.	If ORACLE_APPS_ENABLED = TRUE	FTP SCP		FTP
CONC_REQUEST_PASSWORD	Password of the Concurrent Request user.	If ORACLE_APPS_ENABLED = TRUE			fnd (encrypted)
CONC_REQUEST_USER	Any valid user on the system containing the Oracle Applications Server that can be used to retrieve concurrent request output files (via FTP or SCP, as specified by the CONC_LOG_TRANSFER_PROTOCOL parameter).	If ORACLE_APPS_ENABLED = TRUE			applmgr
DATE_NOTIFICATION_INTERVAL	Determines the interval (in minutes) that the Mercury ITG Server will check to send date-based notifications.	FALSE		60	60
DAYS_TO_KEEP_INTERFACE_ROWS	Defines the duration (in days) that rows in the open interface tables will be kept before they are purged.	If ENABLE_INTERFACE_CLEANUP = TRUE		1	5
DB_CONNECTION_STRING	Set this parameter to the Oracle Real Application Clusters (RAC) service name.	If RAC is used			K92RAC

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
DB_PASSWORD	Password of the database schema containing Mercury ITG tables as specified by the DB_USERNAME parameter. The server configuration utility automatically encrypts the password value. To manually edit this value, surround the encrypted password with the #!# delimiter.	TRUE			#!#password#!#
DB_USERNAME	Database schema containing Mercury ITG tables.	TRUE			knta
EMAIL_NOTIFICATION_ CHECK_INTERVAL	Determines the interval (in seconds) that the Mercury ITG Server will check if there are notifications waiting to be sent out.			20	20
EMAIL_NOTIFICATION_ SENDER	Email address of the default sender of email notifications. This sender will also receive any error messages associated with email notifications.	FALSE			sender@itg.com
ENABLE_RESOURCE_COST_ UPDATE_SERVICE	Determines whether the Resource and Cost update service will be enabled.		TRUE FALSE		
ENABLE_STATISTICS_ CALCULATION	Specifies if statistics for the cost-based optimizer will be collected automatically to improve system performance. By default, statistics will be rebuilt every Sunday at 1AM.		TRUE FALSE	TRUE	TRUE

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
EXTERNAL_WEB_PORT	Allows the Mercury ITG Web Server Module to connect to the Mercury ITG Server using the AJP13 protocol. This parameter can be set to any unique port greater than 1024 and less than 32768. In a Server Cluster configuration, this parameter must be defined for each secondary server.		>1024 and <32768		
HTTP_PORT	Used to identify the port being used to communicate with the built-in HTTP server. This port number must be unique and distinct from the web server, SQL*Net, and RMI ports.	TRUE	Any unique port above 1024	8080	8080
HOURS_TO_KEEP_DEBUG_ MESSAGE_ROWS	Determines the duration (in hours) that rows in the KNTA_DEBUG_MESSAGES table will be kept.	TRUE		24	24
I18N_CARAT_DIRECTION	Specifies the caret position on input fields (such as text fields). If unspecified, the caret position will be the same as I18N_SECTION_DIRECTION.		ltr rtl		ltr
I18N_ENCODING	Specifies the character encoding to be used in all HTML pages of the standard interface. This parameter defaults to ISO-8859-1 encoding. It is recommended that this parameter be set to UTF-8.				UTF-8
I18N_LAYOUT_DIRECTION	Specifies the default layout direction of HTML pages in the standard interface. This parameter defaults to `ltr`.		ltr rtl	ltr	ltr

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
I18N_REPORT_ENCODING	Specifies the character encoding to be used to generate reports in Mercury ITG Center. This parameter should be set to an encoding algorithm that Oracle can interpret. If the Mercury ITG Server is running on Winodws, it is recommended that this parameter be set to `IW8MSWIN1255`.				IW8MSWIN1255
I18N_REPORT_HTML_ CHARSET	Specifies the HTML character set to used in Mercury ITG reports. This parameter should map to the character set specified in I18N_REPORTS_ENCODING. For Windows, this parameter should be set to `windows-hebrew`.				windows-hebrew
I18N_SECTION_DIRECTION	Specifies the layout direction of custom sections (such as Request Detail sections). If unspecified, the layout direction will be same as I18N_LAYOUT_DIRECTION.		ltr rtl		
INSTALLATION_CURRENCY	Sets the currency symbol that will be used in currency fields through Mercury ITG Center. If this parameter is not set, the currency symbol will be defaulted from the INSTALLATION_LOCALE setting.		All currency types supported by Java		
INSTALLATION_LOCALE	Locale information (language and country codes) of the Mercury ITG installation. The language code should match the Mercury ITG installation language.	TRUE	*language_ code_ COUNTRY_ CODE*	en_US	en_US de_DE

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
JDBC_URL	Locator for the database that contains the Mercury ITG database schema. This parameter must be specified correctly to enable the Mercury ITG Server to communicate with the database. The JDBC_URL parameter uses the following format: `jdbc:subprotocol:subname:@hostname:port:SID` The JDBC_URL parameter uses the following variables: • *subprotocol:subname* is a directive to Java and must always be oracle:thin. • *hostname* represents the DNS name or IP address of the system running the database. • *port* is the port used by SQL*Net to connect to the database. Obtain the value by referring to the database entry in the tnsnames.ora file. The default value is 1521. • *SID* represents the database system ID.	TRUE			jdbc:oracle:thin:@DBhost.domain.com:1521:SID

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
JDBC_URL (continued)	For Oracle Real Application Clusters (RAC), the JDBC_URL parameter must contain the host and port information for all databases to which the Mercury ITG Server will connect. An example to enable the Mercury ITG Server to communicate with the databases Jaguar1 and Jaguar2 appears below: `jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP) (HOST=jaguar)(PORT=1521)) (ADDRESS=(PROTOCOL=TCP) (HOST=jaguar2)(PORT=1521))) (CONNECT_DATA=(SERVICE_NAME=J920)))`				
JSP_RECOMPILE_ENABLED	Determines whether changes to JSP files will be picked up on a running server. When this parameter is set to FALSE, a JSP file will only be checked for changes the first time it is accessed. This improves system performance since the server will spend less time processing a request. If a change is made to a JSP file in this mode, the server will need to be restarted in order for the change to be visible. If JSP pages are expected to be updated regularly, set this parameter to TRUE. This will slightly increase the processing overhead to the JSP server, but JSP changes will be visible immediately.		TRUE FALSE	FALSE	FALSE

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
KINTANA_LDAP_ID	Mercury ITG account on the LDAP server. Used by the Mercury ITG Server to bind to the LDAP server.	If AUTHENTICATION_MODE=LDAP			
KINTANA_LDAP_PASSWORD	Mercury ITG password on the LDAP server. The server configuration utility automatically encrypts this password. To manually edit this value, surround the encrypted password with the #!# delimiter.	If AUTHENTICATION_MODE=LDAP			#!#password#!#
KINTANA_SERVER	Name of the Mercury ITG environment that contains information about the Mercury ITG Server machine (such as host name, username, and password). This environment must be configured before Mercury ITG Migrators or commands involving Secure Copy can run. This parameter can be used interchangeably with the SERVER_ENV_NAME parameter.				
KINTANA_SERVER_NAME	Name of the Mercury ITG Server instance. If multiple Mercury ITG Servers are running on the same machine, this name must be unique for each server. If the server is running on Windows, this name MUST match the name of the Windows service name.	TRUE			Mercury

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
KINTANA_SESSION_ TIMEOUT	Duration (in minutes) before the Mercury ITG Server terminates a user session due to inactivity. A value of 0 denotes no timeout.	TRUE	0 to 720	120	120
LDAP_BASE_DN	Specifies the base in the LDAP server from where the search will start. If not specified, the LDAP server will be queried to determine the base.	If AUTHENTICA TION_MODE= LDAP			o=itg.com
LDAP_GROUP_RECURSION_ LIMIT	Determines the number of levels of sub-groups traversed when importing users from groups.	If AUTHENTICA TION_MODE= LDAP			
LDAP_SSL_PORT	SSL port number on the LDAP server. If LDAP server is SSL-enabled, set this value to the SSL port on the LDAP server to secure all transactions. If not specified, all transactions will be carried over the port specified by the LDAP_URL parameter.	If AUTHENTICA TION_MODE= LDAP		636	636
LDAP_URL	Comma-delimited list of LDAP URLs. The Mercury ITG Server will query the URLs in the order specified. If a port number is not specified, the default port number 389 will be used.	If AUTHENTICA TION_MODE= LDAP		ldap://ldap .theurl. com:389	ldap://ldap. itg.com:389

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
LOCAL_IP	If LOCAL_IP is set to the IP address of the machine running the firewall, clients inside the firewall can connect, but clients outside cannot (no route to host). If LOCAL_IP is set to the machine name of the machine running the firewall, clients inside the firewall can connect, but clients outside cannot (cannot resolve host name). If LOCAL_IP is set to an IP address that is different from the machine running the firewall, clients outside the firewall can connect, but clients inside the firewall cannot (since address translation from the different IP address to the IP address on the machine running the firewall is not done). To resolve this issue, register the external IP address on the external DNS server and set LOCAL_IP to the name of the machine running the firewall. Clients running inside the firewall will connect to the internal DNS server and the machine name will be resolved to the IP address. Clients running outside the firewall will connect to an external DNS server and the machine name will be resolved to a different IP address. Both external clients will then be able to connect (each to a different IP address).				

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
LOGON_TRIES_INTERVAL	Logon attempt time interval. Defines the time interval (in minutes) during which logon attempts will be monitored.	TRUE		1	1
MAX_EXECUTION_ MANAGERS	Determines how many command executions can run simultaneously. If one or more package lines are selected for execution, an execution manager is used to run the package lines serially. Installations that process a high volume of packages may require a larger number of execution managers.	TRUE		15	15
MAX_LOGON_TRIES	Maximum number of logon attempts. Defines the maximum number of logon tries that the Mercury ITG Server will accept in the time interval specified by the LOGON_TRIES_INTERVAL parameter.	TRUE		0	1
MAX_RELEASE_EXECUTION_ MANAGERS	Distribution execution dispatcher. Determines how many command executions can run in a Release Distribution simultaneously. This parameter is similar to the MAX_EXECUTION_MANAGERS parameter, except that it is used for Releases only. Installations that process a high volume of packages may require a larger number of execution managers. If the server is overloaded, lowering this value may reduce workload but may cause execution delays.	TRUE	>1	15	15

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
MAX_STATEMENT_CACHE_ SIZE	Maximum number of prepared statements that are cached per database connection (prepared statement cache). This is part of the DB connection pool settings.	FALSE	>0		
MAX_WORKER_THREADS	Maximum number of worker threads. Determines how many threads can run simultaneously to process scheduled tasks (such as reports and Request commands). If the server is overloaded, lower this value to reduce the server's workload. If there are a lot of pending scheduled tasks and additional capacity is available on the server, raise this value to improve performance.	TRUE		10	10
MULTICAST_CLUSTER_ NAME	Unique name of the Mercury ITG cluster. Do not configure two Mercury ITG Server clusters with the same cluster name running on the same subnet.			BASE_ URL value for the primary server	http://wwwserver. mydomain.com/ itg/
MULTICAST_DEBUG	If this parameter is set to TRUE, all incoming and outgoing multicast messages will be logged to the server log.		TRUE FALSE	FALSE	FALSE
MULTICAST_IP	Multicast IP address.		224.0.0.0 to 239.255.255. 255	225.39.39. 244	225.39.39.244
MULTICAST_LEASE_MILLIS	Time in milliseconds a server sends out heartbeats.			2000 (20 seconds)	1500
MULTICAST_PORT	Multicast IP port.			9000	9000

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
NOTES_LENGTH_LOAD_ LIMIT	Sets the number of characters in Notes to load for a Request when it is first opened. Use this parameter to improve the load time of the Request Detail page.				
OM_WATCH_DOG_INTERVAL	Do NOT change this parameter unless instructed by Mercury Interactive support.	FALSE		1	1
ORACLE_APPS_ENABLED	Indicates whether Mercury ITG Center will be integrated with Oracle Applications. To use Object*Migrator, GL*Migrator, or Patch*Migrator, this parameter must be set to TRUE.		TRUE FALSE		TRUE
ORACLE_HOME	Full path to the *Oracle_Home* directory on the Mercury ITG Server machine. The `Oracle_Home/network/admin` directory should contain the proper TNS names, or a file, required to connect to the Mercury ITG database schema.	TRUE			d:/orant
PASSWORD_EXPIRATION_ DAYS	Default expiration period (in days) of passwords for new users.	TRUE	0 to 366	0 (no expiration)	0
PASSWORD_REUSE_ RESTRICTION_DAYS	Duration (in days) to restrict reuse of old password since the last date that password was changed.	TRUE	0 to 2192	0 (no restriction)	0
PENDING_COST_EV_ UPDATE_SERVICE_DELAY	Duration (in seconds) to wait when the Pending Cost EV Update Service completes before restarting.	FALSE	>0	30	30
PENDING_COST_EV_ UPDATE_SERVICE_ENABLED	Enables a service which asynchronously propagates external updates to Pending Cost EV Updates when updates could not be made immediately.	FALSE	TRUE FALSE	TRUE	TRUE

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
PORTLET_DATA_CACHE_ TIMEOUT	Sets a time limit for data cached in the portlets to be stored before being declared stale. This applies when trying to query live data rather than sorting existing data in a portlet. This parameter will only be used when its value is less than the dashboard session timeout. Otherwise the user's session will timeout and must reload all data.				
PORTLET_EXEC_TIMEOUT	Duration (in seconds) before portlets time out. Used to limit long-running queries in portlets. Adding a portlet without any criteria may cause long-running queries. Using a timeout in this case avoid taking up database CPU when users end their sessions before portlets are completed.			20	20
REMOTE_ADMIN_REQUIRE_ AUTH	Determines if user authentication is required for remote administration. If the parameter is set to TRUE, users running `kStop.sh` to shutdown the server will be required to supply a valid Mercury ITG username and password. If the parameter is set to FALSE, any user with access to `kStop.sh` will be able shutdown the server.		TRUE FALSE		TRUE
RESOURCE_CACHE_SIZE	Used for caches of internal string resources.	FALSE	>0		
RESOUCE_COST_UPDATE_ SERVICE_DELAY	Duration (in seconds) between each iteration of the Resource and Cost update service.				

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
RESTRICT_BYPASS_ EXECUTION_TO_MANAGERS	Determines if users can bypass execution when they are eligible to act on a Workflow Step in a Package. If this parameter is set to FALSE, users will always have the option to bypass an execution when they are eligible to act on it. If this parameter is set to TRUE, only users with the Package Manager access grant will have this privilege.		TRUE FALSE		FALSE
RMI_URL	Uses the following format: `rmi://hostname:port /KintanaServer` The Mercury ITG Server will listen on the specified port to initiate RMI client/server communication. The port number must be an unique number, distinct from the web server, SQL*Net, and HTTP ports.	TRUE	*port* must be greater than 1024	*port* is 1099	rmi://platinum. itg.com:1099/ KintanaServer
RML_PASSWORD	Password of the Oracle schema name as specified by the RML_USERNAME parameter	TRUE			
RML_USERNAME	Oracle schema name for the Meta Layer schema. This value must be the same as the schema name used during the installation or upgrade process	TRUE			
SCHEDULER_INTERVAL	Determines the interval (in seconds) before the scheduler wakes up to verify if there are services ready to run.	TRUE		60	60

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
SCPCLIENT_TIMEOUT	Duration (in milliseconds) that SCP clients need to provide feedback after a file transfer has initiated. If the client provides feedback within the specified duration, the program will complete. Otherwise, the program will timeout. To avoid timeouts, set this parameter to the maximum time it would take to transfer a file.				10000
SEARCH_TIMEOUT	Determines the duration (in seconds) before searches time out. Used to limit long-running queries in search pages. Submitting a search without entering selective data may cause long-running queries. Using a timeout in this case avoids taking up database CPU when users end their sessions before searches are completed.			60	60
SERVER_ENV_NAME	Name of the Mercury ITG environment that contains information about the Mercury ITG Server machine (such as host name, username, and password). This environment must be configured before Mercury ITG Migrators or commands involving Secure Copy can run. This parameter can be used interchangeably with the KINTANA_SERVER parameter.				
SERVER_NAME	DNS name or IP address of the machine hosting the Mercury ITG Server.	TRUE			wwwserver. mydomain.com

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
SERVER_TYPE_CODE	Platform where the Mercury ITG Server is installed.		UNIX WINDOWS		WINDOWS
SERVLET_MAX_POST_MBS	Sets the maximum size, in MB, for file attachments.			10	
SHOW_BASE_URL_ON_ NOTIFICATION	Indicates if the URL for the Mercury ITG main logon page will be displayed at the top of each email notification.		TRUE FALSE		TRUE
SMTP_SERVER	Hostname of the SMTP-compliant mail server that acts as the gateway for email notifications. To take advantage of Mercury ITG email notification capabilities, this parameter must be configured.	FALSE			mailserver. mydomain.com
SQLPLUS	Name of the command-line SQL*Plus executable (should be located in the `Oracle_Home/bin` directory).	TRUE	sqlplus (Unix) plus80 (Windows)		sqlplus
STATS_CALC_DAY_OF_ WEEK	The day of the week the statistics should be calculated. Valid values range from 1 (Sunday) to 7 (Saturday).	If ENABLE_ STATISTICS_ CALCULATIO N=TRUE	1 to 7	1	1
STATS_CALC_INTERVAL	Determines how often the service will wake up to check if it is time to refresh statistics.	If ENABLE_ STATISTICS_ CALCULATIO N=TRUE		3600	3600
STATS_CALC_WAKE_UP_ TIME	The hour of the day the statistics should be calculated. Statistics calculation will begin within an hour of the time given. Valid values range from 0 (midnight) to 23 (11PM).	If ENABLE_ STATISTICS_ CALCULATIO N=TRUE	0 to 23	1	1

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
STATS_CALC_WEEK_ INTERVAL	The number of weeks that should occur between statistic calculation. If set to 1, statistics will be collected each week; if set to 2, statistics will be calculated every other week.	If ENABLE_ STATISTICS_ CALCULATIO N=TRUE	1 to 52	1	1
TIME_ZONE	Time zone of the Oracle database. Set this parameter to the same time zone as the Oracle database, unless if the database and the Mercury ITG Server are in different time zones. In such cases, set this parameter to valid 3-digit standard time zone (such as PST, MST, CST, EST, or GMT). Do not use daylight savings modified time zones (such as EDT or PDT). For assistance in these cases, contact Mercury Interactive support.	FALSE			
USER_PASSWORD_MAX_ LENGTH	Maximum length of user passwords	FALSE		16	16
USER_PASSWORD_MIN_ DIGITS	Minimum number of digits required in the user password	FALSE		0	0
USER_PASSWORD_MIN_ LENGTH	Minimum length of user passwords.	FALSE	0 or greater	4	0
USER_PASSWORD_MIN_ SPECIAL	Minimum number of non-alphanumeric special characters required in the user password.	FALSE		0	0
VISUALIZATION_EXEC_ TIMEOUT	Determines the duration (in seconds) that Costing and Resource Management visualizations can run before timing out.	FALSE		60	60

Table A-1. Server.conf parameters

Parameter	Description	Required	Valid Values	Default	Example
WORKBENCH_ PRESENTATION_KEY	If there are any standalone Workbench users and a custom presentation key is being used, this parameter will need to be added for that installation.	FALSE		knta	knta
WORK_ITEM_BREAKDOWN_ SERVICE_DELAY	Duration (in seconds) to wait when the Work Item Breakdown Service completes before restarting.	FALSE	>0	30	30
WORK_ITEM_BREAKDOWN_ SERVICE_ENABLED	Enables a service which asynchronously decomposes the (scheduled and actual) effort of Work Item assignments into daily units. These daily units provide the building blocks for Resource Management visualizations	FALSE	TRUE FALSE	TRUE	TRUE
WORK_ITEM_UPDATE_ SERVICE_DELAY	Duration (in seconds) to wait when the Work Item Update Service completes before restarting.	FALSE	>0	120	120
WORK_ITEM_UPDATE_ SERVICE_ENABLED	Enables a service which asynchronously propagates external updates to Work Items when updates could not be made immediately.	FALSE	TRUE FALSE	TRUE	TRUE

Logging.conf Parameters

Table A-2 lists the server configuration parameters used in the `logging.conf` file located in the *`ITG_Home`*`/server/kintana/conf` directory.

Table A-2. Logging.conf parameters

Parameter	Description	Valid Values	Example
DEFAULT_SERVER_LOGGING _LEVEL	Specifies the default logging level of the Mercury ITG Server. This parameter controls the verbosity of logs generated by the Mercury ITG Server. Available settings include: • NONE: no information (including errors) are logged. • ERROR: only errors are logged. • INFO: errors and additional information are logged. • DEBUG: verbose logging of debugging messages. • ALL: Displays all log messages being produced.	NONE ERROR INFO DEBUG ALL	ERROR
DEFAULT_USER_DEBUG_ LEVEL	Specifies the default debug level of a user's client session. This parameter controls the verbosity of a user's logs on the client, application server, and database. The value may be different for different client sessions, and can be changed through the front-end GUI as a user preference. Available settings include: • NONE: no information (including errors) are logged. • ERROR: only errors are logged. • INFO: errors and additional information are logged. • DEBUG: verbose logging of debugging messages. • ALL: Displays all log messages being produced.	NONE ERROR INFO DEBUG ALL	ERROR

Table A-2. Logging.conf parameters

Parameter	Description	Valid Values	Example
ENABLE_CONSOLE_LOGGING	Enables the Mercury ITG Server to log messages to the console.	TRUE FALSE	TRUE
FILE_RECHECK_INTERVAL	Specifies how often (in seconds) the logging.conf file will be checked for changes while the Mercury ITG Server is running.		30
ROTATE_LOG_SIZE	Mercury ITG Server logs will be rotated when this size (in kBytes) has been reached.		250
SERVER_DEBUG_LEVEL	Corresponds to the Debug Level drop-down list in the Server section of the Server Settings window. Specifies the debug level of the Mercury ITG Server. This parameter controls the verbosity of logs generated by independent server processes (such as EmailNotificationAgent).	NONE LOW HIGH	NONE

Appendix

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