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Optimal Trace

Enterprise Server User Guide

Release 5.3

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CHAPTER 1

Introducing Optimal Trace Enterprise Server

Optimal Trace Enterprise Server provides access to a centralized repository of Optimal Trace projects and manages communication between multiple Optimal Trace Enterprise users. A computer that hosts the server software is referred to as a repository server.

Optimal Trace Enterprise Server controls access to the database, manages concurrent editing of projects by multiple users and ensures the integrity of data being written to the database. If you wish to make use of the collaboration features in Optimal Trace, you will need at least one repository server on your network.

Optimal Trace Enterprise Server requires a dedicated server machine on your network to act as the repository server. This machine should be connected to the network in such a way as to be accessible from every workstation on which you will be running Optimal Trace. Optimal Trace Enterprise Server connects to a database (Oracle, Microsoft SQL Server, or MySQL) running locally on the repository server or on another machine available on the network.

Who Should Read This Guide

This document is intended for database administrators (DBAs) who are responsible for the installation and maintenance of Optimal Trace Enterprise Server.

Getting Help

If ever you have any problems or you would like additional technical information or advice, there are several sources. In some countries, product support from Micro Focus may be available only to customers who have maintenance agreements.

If you obtained this product directly from Micro Focus, contact us as described below. If you obtained it from another source, such as an authorized distributor, contact them for help first. If they are unable to help, contact us as described below.

However you contact us, please try to include the information below, if you have it. The more information you can give, the better Product Support can help you. But if you don't know all the answers, or you think some are irrelevant to your problem, please give whatever information you have.

- The name, release (version), and build number of the product.

- Installation information, including installed options, whether the product uses local or network databases, whether it is installed in the default directories, whether it is a standalone or network installation, and whether it is a client or server installation.

- Environment information, such as the operating system and release on which the product is installed, memory, hardware/network specifications, and the names and releases of other applications that were running.

- The location of the problem in the product software, and the actions taken before the problem occurred.

- The exact product error message, if any.

- The exact application, licensing, or operating system error messages, if any.

- Your Micro Focus client, office, or site number, if available.

Contact

Our web site gives up-to-date details of contact numbers and addresses. To connect, enter *www.microfocus.com* in your browser to go to the Micro Focus home page, or go to *http://supportline.microfocus.com*.

CHAPTER 2

Running Optimal Trace Enterprise Server

This section describes how to run Optimal Trace Enterprise Server. For instructions regarding licensing and upgrading Optimal Trace Enterprise Server, refer to the *Optimal Trace Installation Guide*.

Running Optimal Trace Enterprise Server

To run Optimal Trace Enterprise Server:

1. Click **Start>Programs>Micro Focus>Optimal Trace Enterprise>Optimal Trace Server>Optimal Trace Server**.
    The **Optimal Trace Server** dialog box appears.

2. Enter the database connection information.

3. Click **Start**.
    The **Starting Server** dialog box appears and displays a message stating the server has started successfully.

4. Click **OK**.

    The **Starting Server** dialog box closes and the **Optimal Trace Server** dialog box displays a **Stop** button. You must keep this dialog box open while the Optimal Trace Enterprise Server is running.

Checking the Connection

After the server is started, check that the Optimal Trace Enterprise client can connect to and use the Optimal Trace Enterprise Server. To check the connection:

1. Open Optimal Trace Enterprise client.
2. Click **Tools>General Options**. The **General Options** dialog box appears.
3. Click the **Server Settings** tab.
4. Type the host name where your Optimal Trace Enterprise Server is installed.

5. Accept the default port and polling interval settings.
6. Click **Save**.
7. Create a new projectn the repository by selecting **Create a new remote project in the repository**.
8. Add some data and save. There will be no error messages if everything is installed and configured correctly. If there are problems, click **Test Connection** to test the connection and send the results to your network administrator.

Stopping the Server

To stop the server, click **Stop**. This will stop all server processes started by the Optimal Trace Enterprise Server.

Configure as a Service

Optimal Trace Server is automatically registered as a Windows service during installation. Before starting the service you must run through the steps in Running Optimal Trace Enterprise Server [p. 7] to ensure that the server can be started with the specified options. To start or stop the service from the Microsoft Management Console:

1. Ensure that Optimal Trace Server is not already running.
2. Click **Start**>**Settings**>**Control Panel**>**Administrative Tools**>**Services**.
3. Right-click Optimal Trace Server and choose **Start** or **Stop**.

Stopping the Service

To stop the Optimal Trace Windows service:

1. Navigate to the Control Panel and click **Administrative Tools**>**Services**.
2. Navigate to **Micro Focus Optimal Trace Server <RELEASE_NUM>**.
3. Right-click and choose **Properties.**
4. Click **Stop** to stop the service if it is running.
5. Change the **Startup type** to *Manual*.

Email Configuration

The Optimal Trace Email Settings are used to configure access to an SMTP server. Optimal Trace notification emails are sent to registered users by the Optimal Trace Server using the SMTP server details you provide. Your mail server administrator should ensure that the Optimal Trace Email Settings that you use will allow sending mail to all of your Optimal Trace users' email addresses. It is best to discuss the Email Settings that Optimal Trace Server uses with your company email Administrator. It is best practice to create a dedicated email account for use by Optimal Trace Server. See the Optimal Trace Enterprise Help for more information on the Notifications feature.

Your email administrator will provide:

•   The name of your company's mail server (SMTP server)

- The email user name that Optimal Trace Server will use (Username)

- The password for the Optimal Trace Server user name (Password)

- Whether or not the email server requires a Secure Connection (SSL).

When you have finished entering the email configuration, you can test that it's working by clicking **Test Email Settings**(and enter your own email address to receive the test message). Note also that some spam filters may block this message, so you will need to work through this process with your email Administrator. Sample values would be something as follows:

SMTP Server: WidgetCoSMTPMailServer

Username: <Optimal Trace server user>@widgetcodomain.widgetco.com

Password: <password>

The test email that you receive will simply contain *Optimal Trace Email Settings Test* in the subject line. If you do not receive a mail, you may need to check your email servers spam filter as the message may have been blocked (e.g. if you do not specify a domain in your user name, some spam filters may block the message).

NOTE

Optimal Trace supports SMTP authentication (RFC 2554 - http://www.ietf.org/rfc/rfc2554.txt) mechanisms LOGIN and PLAIN.

Example Email Configuration Using GMail

Google's GMail can be configured to be used by Optimal Trace Server as the mail notifier. This can be useful if you are evaluating Optimal Trace Server and don't want to set up a dedicated Optimal Trace user on your company's email system. Enter the following settings if you want Optimal Trace Server to use your GMail mail account to send notifications from:

- SMTP Server: smtp.gmail.com

- Username: <you>@gmail.com

- Password: <your gmail password>

- Use Secure Connection: checked

Setting Up Windows Integrated Authentication

Optimal Trace supports two types of authentication modes:

Basic Authentication
> User authentication for accessing Optimal Trace projects is managed at the product-level by Optimal Trace. When using basic authentication, user credentials are manually created, saved, and managed using Optimal Trace Administrator.

Windows Integrated Authentication
> User authentication for accessing Optimal Trace projects is delegated to using existing user credentials stored on a domain controller on a network. Using Windows Integrated Authentication allows you to suppress a login prompt when accessing Optimal Trace

projects provided users have a valid Windows user account name and password and are currently logged into the domain controller.

NOTE

When using either type of authentication mode, you must configure user permissions in Optimal Trace Administrator to open, modify, and delete Optimal Trace projects . For more information, refer to the *Optimal Trace Administrator User Guide*.

This topic describes the steps required to set up Windows Integrated Authentication using NTLM or Kerberos authentication protocols.

NOTE

Optimal Trace supports other types of authentication protocols, however, only the configuration files for NTLM and Kerberos are installed with Optimal Trace.

1. On the **Advanced** tab of the **Optimal Trace Server** dialog box, select **Use Windows Integrated Authentication**, and then restart the server.

   Selecting this option applies Windows Integrated Authentication to all security enabled projects in the Optimal Trace repository being accessed from this server.

2. Configure the Kerberos initialization file (`krb5.ini`).

   This file specifies the default realm and key distribution center. This file is installed with Optimal Trace Enterprise in the following location:

   `<OS_DIR>\krb5.ini` (for example: `C:\WINXP\krb5.ini`)

   Configure the file to use the desired realm and key distribution center as in the following example:

   ```
   [libdefaults]
   default_realm = EXAMPLE.COM

   [realms]
   EXAMPLE.COM = {
   kdc = dc-01.example.com:88
   }
   ```

   NOTE

   This file must be installed on every Optimal Trace Enterprise client computer.

3. Optionally, configure the Java Authentication and Authorization Service (JAAS) file (`ot_jaas.config`).

   This file specifies the type of authentication protocol login module and sets parameter values for the module. This file is installed in the following location of the Optimal Trace Enterprise client installation folder:

   `<PRODUCT_INSTALL_DIR>\Program Files\Micro Focus\Optimal Trace\Optimal Trace Enterprise Edition\ot_jaas.config`

   By default, the JAAS file specifies NTLM and Kerberos login modules and their parameters as follows:

```
OTAuthentication{
  com.sun.security.auth.module.NTLoginModule required debug=false debugNative=false;

  com.sun.security.auth.module.Krb5LoginModule required client=true debug=false
  useTicketCache=true tryFirstPass=true;}
```

NOTE

You can add additional login modules in this file. The login module specification must appear between the brackets after OTAuthentication and be terminated with a semi-colon. This file must be installed on every Optimal Trace Enterprise client computer.

About Migrating an Optimal Trace Database

When upgrading to the current release of Optimal Trace, you may need to migrate your Optimal Trace database depending on which Optimal Trace release it was created in. The list below describes the different considerations for migrating an Optimal Trace database.

Prior to Optimal Trace 5.0

When migrating databases created in an Optimal Trace release prior to 5.0, you must perform an incremental migration. For more information, see Migrating Databases Created Prior to 5.0 [p. 11].

Optimal Trace 5.0

If your database was created in Optimal Trace 5.0, you must use the **Migration** utility. For more information, see Migrating Databases from 5.0 [p. 11].

Optimal Trace 5.1

If your database was created in Optimal Trace 5.1, you are prompted to migrate the database when you start Optimal Trace Enterprise Server. For more information, see Migrating Databases from 5.1 to 5.3 [p. 13].

Optimal Trace 5.2

For SQL Server databases created in Optimal Trace 5.2, you are prompted to migrate the database when you start Optimal Trace Enterprise Server. You do not have to migrate an Oracle or MySQL database created in Optimal Trace 5.2.

Migrating Databases Created Prior to 5.0

To migrate remote projects stored in a database created in an Optimal Trace release prior to 5.0, you must perform an incremental migration. First, you must migrate the projects or databases to 5.0, and then proceed with the migration from 5.0 to the current release of Optimal Trace. For more information, see Migrating Databases from 5.0 [p. 11], and Migrating Databases from 5.1 to 5.3 [p. 13].

Migrating Databases from 5.0

To migrate remote projects stored in an Optimal Trace 5.0 database to work with the current release of Optimal Trace, you must use the **Migration** utility. Prior to migrating your existing database, you must create a new database in which to migrate data.

NOTE

Depending on the size of your database, it may take several hours to migrate your data from 5.0. Additionally, the database transaction log may grow to approximately 5 times the size of the database. Make sure you allocate enough space for the database transaction log. For SQL Server databases, you can reduce the size of the transaction log. For more information, see Reducing the Transaction Log Size for a SQL Server Database [p. 12].

This topic describes how to use the **Migration** utility to migrate a 5.0 database to work with the current release of Optimal Trace.

1. Stop your Optimal Trace server. For more information, see Stopping the Server [p. 14].
2. Back up your database. For more information, see Backing Up an Optimal Trace Database [p. 13].
3. Create a new database in which to migrate your data. Click **Start>Programs>Micro Focus>Optimal Trace Enterprise>Optimal Trace Server>Optimal Trace Migration Utility**. The **Optimal Trace Migration Utility** appears.
4. In the **Database Host Name** box, type the database host name.
5. Select the database type (MySQL, SQLSERVER, or Oracle) from the **Database Type** list.
6. Type the database port number if not using the default port in the **Database Port** box.
7. Under **Source Database**, type the name of the database to migrate and specify the user name and password in the appropriate boxes.
8. Under **Destination Database**, type the new name of the database and specify the user name and password in the appropriate boxes.
9. Click **Migrate**.

The **Migration** utility runs and migrates remote projects stored in the database to work with the current release.

Reducing the Transaction Log Size for a SQL Server Database

To reduce the size of the transaction log created during the migration of a SQL Server database, perform the following steps prior to starting the Optimal Trace Migration utility:

1. Open the `server.properties` file from the following location:

   `<INSTALL_DIR>\Program Files\Micro Focus\Optimal Trace\Optimal Trace Server Edition\`

2. Change the value of `useSingleTransaction` to `false`.
3. Save and close the file.
4. In **SQL Server Enterprise Manager**, open **Database Properties** set the **Recovery model** option to `Simple`.
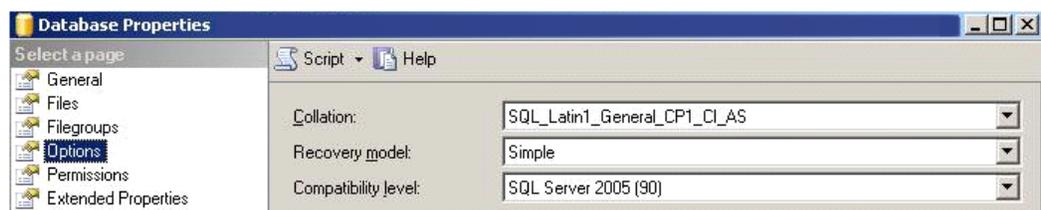
5. Start the Optimal Trace Migration utility.

NOTE

After migrating your database, remember to reset the Recovery model option to its original value.

Migrating Databases from 5.1 to 5.3

To migrate remote projects stored in an Optimal Trace 5.1 database to work with the current release of Optimal Trace, perform the following steps:

1. Back up your database. For more information, see Backing Up an Optimal Trace Database [p. 13].

2. Install the current release of Optimal Trace Enterprise Server.

3. Start Optimal Trace Enterprise Server and open your existing Optimal Trace 5.1 database. A message box appears prompting you to migrate your database.

4. Click **Yes** to migrate the database.

Migrating Local Projects

When attempting to open an Optimal Trace local project created prior to the current release, you will receive a message asking you to confirm that you want to migrate your project to the current release. Click **Yes** to open the project. When you click **Save** or you choose **File>Save**, the project is migrated to the current release of Optimal Trace.

Backing Up an Optimal Trace Database

Before upgrading from a previous release, Micro Focus recommends backing up your database. This is recommended to safeguard your data in the rare case where an error occurs during the migration process that leaves your data in a half-migrated state.

Backing up a MySQL Database

To backup a MySQL database:

1. Open a command prompt.

2. Change directory to `c:\mysql\bin` or wherever MySQL is installed.

3. Type **`mysqldump -q optimaltrace > c:\temp\OptimalTrace-data-backup.sql`**. You may need user/password included in the command line for this.

This creates a backup file called `OptimalTrace-data-backup.sql` in the `c:\temp\` directory. You can move this somewhere else for safe keeping.

Backing up an Oracle Database

Creating a backup of the tablespace which contains the Optimal Trace schema is beyond the scope of this document. Please contact your Oracle Database Administrator or refer to Oracle

documentation. To avoid a potential problem with Oracle's OPEN_CURSORS setting that you may encounter when migrating, it is best to set this Oracle setting now. To do this, change the value of OPEN_CURSORS to 20000 in the following files:

- `init.ora in <oracle_install_dir>\admin\OEMREP\pfile`

- `init.ora in <oracle_install_dir>\admin\Oracle\pfile`

- `init.ora in <oracle_install_dir>\admin\prod\pfile`

And then reboot the machine. For more information on this Oracle issue, see:
`http://www.praetoriate.com/oracle_tips_mamt_parameter_file.htm`.

Backing up a MS SQL Server 2005/2008 Database

To backup a SQL Server database:

1. Start Microsoft SQL Server Management Studio.
2. Navigate to the Optimal Trace database to back up, and then right-click.
   A context-sensitive menu appears.

3. Select **Tasks>Back Up**.
   The **Back Up Database** dialog box appears.

4. Enter the required information, and then click **OK**.

Stopping the Server

If the server is running from the GUI, click **Stop**. If the server is running as a windows service, stop it as follows:

1. Open the Windows Control Panel and launch **Administrative Tools>Services**.
2. Navigate to **Micro Focus Optimal Trace Server <RELEASE_NUM>**.
3. Right-click and choose **Properties** from the menu.
4. Select **Stop**.
5. Change the **Startup type** to Manual.

Advanced Configuration Options

The **Advanced** tab of the **Optimal Trace Server** dialog box contains options from which you can modify the behavior of Optimal Trace Enterprise Server.

Figure 1. Advanced Tab of the Optimal Trace Server Dialog Box
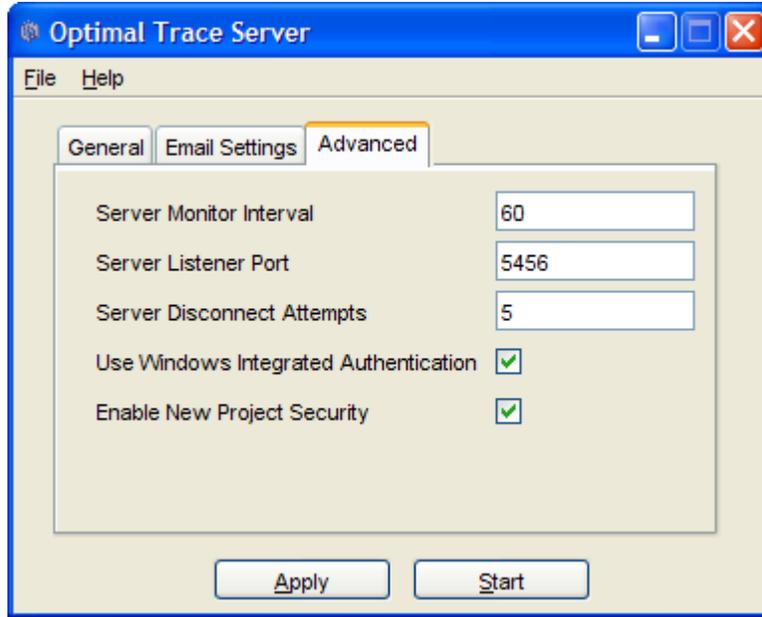
Table 1. Optimal Trace Server Advanced Configuration Options

Option	Description
Server Monitor Interval	An Optimal Trace server maintains a connection to its Optimal Trace clients so that it can monitor these client processes to ensure that the connection between them is valid. The interval specified here is the number of seconds between each message. This message is a `ping` that is sent from the Optimal Trace clients to the Optimal Trace server. This interval specifies how often this message should be sent, specified in seconds.
Server Listener Port	This is the TCP/IP port that an Optimal Trace server runs on. If you are running a firewall on your machine, ensure that this port is left open for inbound connections to the srver.
Server Disconnect Attempts	The Optimal Trace server will disconnect any Optimal Trace clients that have not 'pinged' it after this specified number of attempts. As part of this disconnect process, all locks held by the client will be released and other clients will be free to work on the Projects that may have been locked by the client. By default, if the Optimal Trace server does not get any pings from a client after 5 minutes (60 seconds * 5 attempts), the client will be disconnected and any locks on any projects it may have held will be released.
Use Windows Integrated Authentication	Sets the type of user authentication used by Optimal Trace Enterprise Server to Windows Integrated Authentication. This option is not set by default. For more information, see Setting Up Windows Integrated Authentication [p. 9].
Enable New Project Security	Enables project security as the default security setting for all new projects created in Optimal Trace. This option is not set by default.

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