

EASYLABEL Print History Console Setup SQL Server

Overview

The EASYLABEL[®] Print History Console is a complete solution to:

- Create automatic backups of your label formats
- Log and search past print jobs that include data and images of printed labels
- Log user actions
- Remotely monitor print jobs

An Introduction and tutorials on what the EASYLABEL Print History Console can do and how to use it are available on our website www.tharo.com/easytutor.

The Print History Console can be configured to store data in an MDB database or a Microsoft SQL Server.

- The MDB database setup is quick, easy and suitable for many applications.
- The Microsoft SQL database setup will work with an existing Microsoft SQL Server or the free SQL Server Express. The SQL Server Express database can be used as the main database or as a local database that will synchronize with the main SQL server in the event of a network connection issue. This method is recommended for customers that need to track many concurrent print jobs or are prone to network connection issues.

This document will cover the SQL Server method and how to:

- Setup a free Microsoft SQL Server Express if you do not have an existing SQL Server
- Configure your Microsoft SQL Server to be used as the EASYLABEL history database
- Configure EASYLABEL clients to connect to the EASYLABEL history database
- Use a backup SQL Server database that will synchronize with main EASYLABEL history database
- Connect the Print History Console to the EASYLABEL history database on the SQL Server

This document is meant as a guide for an IT professional and only provides the basic information needed to perform the initial setup. Tharo Systems does not support Microsoft SQL Server.

Minimum Requirements:

- EASYLABEL Platinum, Multi-User, Terminal Server or Net Print Server
- EASYLABEL version 6.3.1 or higher
- Windows 7 or higher
- Microsoft SQL Server

Installing Microsoft SQL Server 2017 Express

The EASYLABEL DVD contains an installer for Microsoft SQL Server 2017 Express Edition. The installer, which is named `sql_server_2017_express_x64.exe`, can be found in the SQL folder on the EASYLABEL DVD. You may choose to install a different/newer version of Microsoft SQL Server. These instructions are for the SQL Server 2017 Express included on the DVD. Other versions of SQL Server Express may have different sequences of steps during installation.

1. Start the installer executable `sql_server_2017_express_x64.exe`. You may see a "User Account Control dialog" or similar message asking if you want to allow this app to make changes to your PC. Click the "Yes" button to continue.
2. Choose a directory (the displayed default is usually fine) for the installation files to be extracted to and click "OK". You will see a progress bar while the files are extracted.
3. When file extraction is complete, you will see a screen with the title "SQL Server Installation Center", click on "New SQL Server stand-alone installation or add features to an existing installation". It is the top item in the list.
4. On the License Terms screen, if you accept the license terms, check the "I accept the license terms" box and then click the "Next" button.
5. On the "Microsoft Update" screen, check the box "Use Microsoft Update" and then click the "Next" button.
6. On the "Install Rules" screen, you may get a warning about the Windows Firewall. We will correct this later in the section labeled "Configure Windows Firewall to allow remote connections". If the rest of the rules show a "Passed" status, click the "Next" button.
7. On the "Feature Selection" screen, keep all 3 items checked then click the "Next" button.
8. On the "Instance Configuration" screen, make sure the radio button next to 'Named instance' is selected; you can optionally rename the instance name to any name you choose. We will keep the default name which is "SQLEXPRESS". The Instance ID should be "SQLEXPRESS". Click the "Next" button.
9. On the "Server Configuration" screen, change the Startup Type of SQL Server Browser from 'Disabled' to 'Automatic', so that it looks like the following:

Service	Startup Type
SQL Server Database Engine	Automatic
SQL Server Browser	Automatic

10. There is no need to check the checkbox "Grant Perform Volume Maintenance Task privilege to SQL Server Database Engine Service". Click the "Next" button.
11. On the "Database Engine Configuration" screen under "Authentication Mode": Select the radio button next to "Mixed Mode (SQL Server authentication and Windows authentication)". Enter/create and confirm the password for the SQL Server system administrator (sa) account. The administrator password could be "sqlsa" for example. If your Windows user name is not shown under 'Specify SQL Server administrators', you can click the 'Add Current User' button to add yourself to the SQL Server administrator group. Click on the "Next" button and the actual installation will begin.
12. On the "Complete" screen, if everything went smoothly, the Status of all Features should be 'Succeeded', click on the "Close" button.
13. Click X to close the "SQL Server installation Center". The installation of SQL Server 2017 Express is complete.

Creating the History Database

To create the EASYLABEL history database and associated tables:

1. Locate the CreateEASYLABELTables.sql file. This file can be located on the EASYLABEL DVD in the SQL folder, or if you have installed EASYLABEL it can be found in the 'Documents' folder in the directory you installed EASYLABEL in (default: "C:\Program Files (x86)\Tharo\EASYLABEL\Documents")
2. Find your computer name by going to Control Panel -> System and Security -> System.
3. Open a command prompt (Start -> Windows System -> Command Prompt), and type in the following command. Be sure to replace each bracketed section <...> with actual value for your installation.

```
sqlcmd -S <your computer name>\<sql server instance name> -i <path to the SQL script>\CreateEASYLABELTables.sql
```

Example: Your computer name is 'Myserver123', your SQL Server instance name is 'SQLExpress', and the file 'CreateEASYLABELTables.sql' is under the folder "C:\Program Files (x86)\Tharo\EASYLABEL\Documents", then you should type in the following at the command prompt and then press the Enter key:

```
sqlcmd -S Myserver123\SQLExpress -i "C:\Program Files (x86)\Tharo\EASYLABEL\Documents\CreateEASYLABELTables.sql"
```

4. If you see the following lines, the database was created successfully.

```
Changed database context to 'TSEASYLABELHistory'.
```

```
Changed database context to 'TSEASYLABELHistory'.
```

```
Changed database context to 'TSEASYLABELHistory'.
```

```
Changed database context to 'master'.
```

Configure SQL Server to use static/fixed ports

1. Start the SQL Server 2017 Configuration Manager. You may see a "User Account Control" dialog or similar message asking if you want to allow this app to make changes to your PC. Click the "Yes" button to continue.
2. Expand "SQL Server Network Configuration" section by clicking on the ">" to the left of it.
3. Click on "Protocols for SQLEXPRESS"
4. Right click the TCP/IP protocol and select "Properties" from the pop-up menu.
5. On the "Protocol" tab make sure "Enabled" is set to "Yes".
6. Select the "IP Addresses" tab. Scroll down to the 'IPAll' section.
7. Set the "TCP Dynamic Ports" entry to be blank (remove the 0 if it's there) and then set the "TCP Port" to 1433.
8. Click on the "OK" button to close the TCP/IP Properties Window.
9. You will get a message stating the changes will be saved but will not take effect until the service is stopped and restarted. Click "OK" to close the dialog box.
10. On the left of the screen click "SQL Server Services", then on the right side under "Name", right click "SQL Server" and choose "Restart" from the menu.
11. Choose "File -> Exit" from the menu to close the "SQL Server 2017 Configuration Manager".
12. Reboot the system when convenient.

Configure Windows Firewall to allow remote connections to the SQL Server

1. Go to Control Panel → System and Security → Windows Firewall.
2. Click 'Advanced settings' on the left side to open the 'Windows Firewall with Advanced Security' window.
3. Click on 'Inbound Rules' to select it.
4. Click on 'New Rule...' under "Actions" on the right hand side of the window.
5. Click on the radio button next to "Port" then click on the "Next" button.
6. Make sure 'TCP' and 'Specific local ports' are selected. Enter 1433 as the port number and click the "Next" button.
7. Make sure 'Allow the connection' is selected and click on the "Next" button.
8. The next screen allows you to specify which computer connection environments you want to connect to the SQL Database Engine. Check the appropriate selections (the "public" option is usually not selected) and then click the "Next" button.
9. Type in a name for this rule and then click on the "Finish" button.
10. Follow steps 1-9 again to create a new rule for the SQL browser service on UDP port 1434.

Once this has completed successfully, the EASYLABEL history database (TSEASYLABELHistory) is ready for use.

The default history database user is named "**tseasyuser**" and the default login for that user is "**tseasylogin**" and the password is "**TS1EASY#pass**".

EASYLABEL Setup

1. Open EASYLABEL
2. Select “Settings” | “Program Options”
3. Select the “History” tab
4. Set the “Enable History Logging” option to “Yes”
5. Click on the “Primary History Database” option and click the “Prompt” button that appears to the right of it to open the “Data Link Properties” window.
6. Select “Microsoft OLE DB Provider for SQL Server” and click the “Next >>” button
7. In the “Connection” window, enter the server name
8. Select “Use a specific user name and password” and enter the user and password.
(The default username is “tseasylogin” the default password is “TS1EASY#pass”)
9. Select “Allow saving password”
10. Select “TSEASYLABELHistory” as the database on the server.
11. Click the “Text Connection” button to confirm that EASYLABEL can connect to the database and then click the “OK” button to acknowledge the message.
12. Click the “OK” button on the “Data Link Properties” window to return to the “History” tab in EASYLABEL.
13. You can now choose which of the following you wish to log in the database. Most users will choose to select “Yes” for all options.
 - **Log Job Details**
Log the information for all print jobs. This includes information such as: format name, date, time, user name, computer name, etc. This option is required before setting other print job logging options.
 - **Log Job Status**
Log the status updates for print jobs. This will log when the job is queued, when printing is started and ended, and any errors that may occur during the printing process.
 - **Log Label Data**
Log the label data for every printed batch of every print job. When this is used in conjunction with the “Log Label Format” option, it is possible to view and reprint any batch of any print job.
 - **Log Label Format**
Save a copy of the label format file for each print job. This will allow the Print History Console to display an image for a printed label. The label format file can also be saved if the original version is accidentally lost.
 - **Log Saving of Formats**
Log information about every save of a label format file. This allows for viewing the history of all changes to the label format.
 - **Log User Changes**
Log changes to EASYLABEL user profiles, such as the user description and access rights.
14. Click the “OK” button and EASYLABEL will start logging the selected history in the specified database.
15. Repeat steps #1 - #14 for all EASYLABEL clients that will use this history database.

Print History Console Setup

The first time you open the Print History Console, you will be prompted to connect the print history Console to your history database on the SQL Server. Enter the appropriate selections and credentials based on your choices above. Keep in mind that most user will want to check the “Save Password” option. The Print History Console is now ready for you to search the history logged by any EASYLABEL client connected to the same database. To learn how to use the EASYLABEL Print History Console, you can view the interactive tutorial on tutorial webpage www.tharo.com/easytutor.