



LicenseWatch FAQ

System Administrator Guide

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What Happens During Installation?

The following takes place during typical install:

- The server is updated with MDAC (Microsoft Data Access Components) and the .NET Framework
- Files are copied to C:\Program Files\LicenseWatchPlatinum
- The folder C:\Program Files\LicenseWatchPlatinum\Client is shared with the name LWClient
- 2 virtual directories are created under local machine / default website:
 - o LicenseWatch (LicenseWatch user interface)
 - o LWClientRequestHandler (used by LicenseWatch clients)
- A windows service is created and started; LW Client Package Handler (runs time-consuming jobs as low-priority background jobs)
- A database (default name LicenseWatchPlatinum) is created either on an existing SQL server or a new instance of MSDE

LicenseWatch Installation Prerequisites

- You must have control over the target system. You must be allowed to reboot the server. You must have logon information for the server
- You must have a valid license code for the customer
- Supported platforms:
 - o Windows 2000 Server
 - o Windows 2003 Server
- You can only run the setup program from a local CD drive or a local copy of the CD contents

See also

Is .NET Framework 1.1 Installed?

Windows 2003: Is ASP.NET Allowed on the Server?

Paths to Data- and Log Files When Creating a Database on a Remote SQL Server

Cannot Access LicenseWatch Website

If the error text contains *Access Denied* and *Resolvelidentity* then the server could be a domain controller, see *Resolving the Resolvelidentity Error*.

See also

Is IIS (Internet Information Server) Installed?

Is .NET Framework 1.1 Installed?

Is ASP.NET Registered Correctly in IIS?

Windows 2003: Is ASP.NET Allowed on the Server?

Create a Test-Website on the Server

LicenseWatch on a SharePoint or CMS System

No Data is Received from Clients

See

How is the Client Launched?

Check if the LWClientRequestHandler website is running correctly

Is Client Packages Being Processed Correctly?

Does the User Have Write Privileges on the Local Machine?

Create a Test-Website on the Server

Database Problems

See

Paths to Data- and Log Files When Creating a Database on a Remote SQL Server

How should LicenseWatch connect to the SQL Server?

There is already an Instance of MSDE on the machine!

Moving the Database to a Different Server

What SQL Server Instances are installed on a Machine?

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Hardware and WMI Problems

See

Why Does Clients Report Different Types of Hardware Information?

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Getting Help about WMI and Custom Hardware Scans

Miscellaneous

See

Why is There Both a LicenseWatch and a LicenseWatchPlatinum Folder?

Resolving the ResolveIdentity Error

What SQL Server Instances are installed on a Machine?

LicenseWatch on a SharePoint or CMS System

Is IIS (Internet Information Server) Installed?

The IIS is installed if you can find *Internet Information Services* under Control Panel / Administrative Tools.

Installation of IIS on Windows 2003:

- Go to Control Panel / Add or Remove Programs
- Click Add/Remove Windows Components
- Choose Application Server and click Details
- Check ASP.NET and Internet Information Services

Installation of IIS on Windows 2000:

- Go to Control Panel / Add/Remove Programs
- Click Add/Remove Windows Components
- Check Internet Information Services

Is .NET Framework 1.1 Installed?

Windows 2003 Server has .Net Framework 2.0 installed by default. .Net Framework 1.1 should be installed when installing LicenseWatch.

How to check if .Net Framework 1.1 is installed; the following folder must exist:

<Windows folder>\Microsoft.NET\Framework\v1.1.4322

.NET Framework 1.1 can be downloaded from Windows Update.

Is ASP.NET Registered Correctly in IIS?

If .NET Framework 1.1 was installed before IIS, ASP.NET 1.1 might not be registered correctly in IIS.

How to check if ASP.NET 1.1 is registered in IIS:

- Go to Control Panel / Administrative Tools / Internet Information Services
- Right-click the LicenseWatch website and choose Properties
- Click Configuration
- In the list of extensions .aspx must refer to
C:\WINDOWS\Microsoft.NET\Framework\v1.1.4322\aspnet_isapi.dll or
C:\WINNT\Microsoft.NET\Framework\v1.1.4322\aspnet_isapi.dll

How to register ASP.NET 1.1 in IIS:

Note: If other websites are installed on the server and those websites use another version of ASP.NET, then the actions below will disrupt them:

- Start a command prompt
- Change to folder `<windows folder>\Microsoft.NET\Framework\v1.1.4322`
- Run `aspnet_regiis -i`
- Run `iisreset`

Windows 2003: Is ASP.NET Allowed on the Server?

- Go to Control Panel / Administrative Tools / Internet Information Services
- Go to Web Service Extensions
- ASP.NET v1.1.4322 must have status *Allowed* – if not click *Allow*

Does the Default Website Exist?

LicenseWatch installs 2 websites under the default website. Test if the default website runs by opening the URL <http://localhost>. If the Internet Explorer cannot find the URL, then the default website might be stopped. If the default website runs, you will typically get an *Under Construction* message. Alternatively, the IIS is not installed, see *Is IIS (Internet Information Server) Installed?*

Paths to Data- and Log Files When Creating a Database on a Remote SQL Server

You can choose to create the LicenseWatch database on an existing SQL Server. If that server runs on a remote machine, you have to be aware of the following:

- Paths to data- and log files are local paths on the machine that runs the SQL Server. Using the *Browse* buttons won't make any sense
- You must find means of verifying where to place data- and log files, ask the local system administrator

How should LicenseWatch connect to the SQL Server?

During setup you can choose between 2 connection methods:

- Use Windows NT Integrated security also known as Windows Authentication
- Use a specific user name and password also known as SQL Server Authentication

It is strongly recommended to use SQL Server Authentication. If you use Windows Authentication, then all the users that access the LicenseWatch UI must have privileges to access the database server. This will, in our experience, cause a lot of headache for the local system administrator.

When choosing SQL Server Authentication we recommend using the existing database user, sa. Alternatively, you must create a new database user with administrator privileges.

There is already an Instance of MSDE on the machine!

The LicenseWatch Setup program does not support creating an instance of MSDE if other MSDE instances exist on the machine.

It is usually not a good idea to use an existing instance of MSDE for LicenseWatch, because it is often installed by other systems such as BackUpExec. Such a database server may be configured differently and it can be difficult to manage the database or even get access to it.

We recommend using a different server or setting up a new SQL Server.

Moving the Database to a Different Server

First step is to create a new empty LicenseWatch database on the new server. There are 2 possibilities:

- Create a new empty LicenseWatch database by running the LicenseWatch setup program. Choose Custom Install and uncheck LicenseWatch website

OR

- Copy the existing LicenseWatch database with data using SQL Server management tools

Second step is to change LicenseWatch configuration to point to the new database. This is done by changing a DSN string in different configuration files. If you use the recommended SQL Server Authentication the DSN string will have the following form:

Data Source=[server];Initial Catalog=[database];User ID=[username];Password=[password]

You must replace the following:

- [server]: The name of the SQL Server. If you use a MSDE instance installed by the LicenseWatch setup program on the local machine, then [server] should be [server host name]\LicenseWatchMSDE
- [database]: Database name. Default is LicenseWatchPlatinum
- [username]: User name, sa is recommended
- [password]: Password. If password is blank, just write Password=

You must replace the DSN string in the following files:

- C:\Program Files\LicenseWatchPlatinum\Web\LWAdmin\Web.config
- C:\Program Files\LicenseWatchPlatinum\Web\LWClientRequestHandler\Web.config
- C:\Program Files\LicenseWatchPlatinum\Services\LWClientPackageHandler\LWClientPackageHandler.exe.config
- C:\Program Files\LicenseWatchPlatinum\Services\LWSMSClient\LWSMSClient.exe.config if the SMS Client is installed

In each configuration file will have you will find the DSN string under appSettings:

```
<?xml version="1.0" encoding="utf-8" ?>
<configuration>
  <appSettings>
    <add key="DSN" value="Password=;User ID=;Initial Catalog=;Data Source=;"/>
  </appSettings>
</configuration>
```

The LicenseWatch windows services; LW Client Package Handler and LW SMS Client (if installed), must be restarted before the new database connection settings takes effect for background jobs.

How is the Client Launched?

The setup program creates a share for the folder C:\Program Files\LicenseWatchPlatinum\Client. The share is accessed from other machines with:

```
\\[server]\LWClient
```

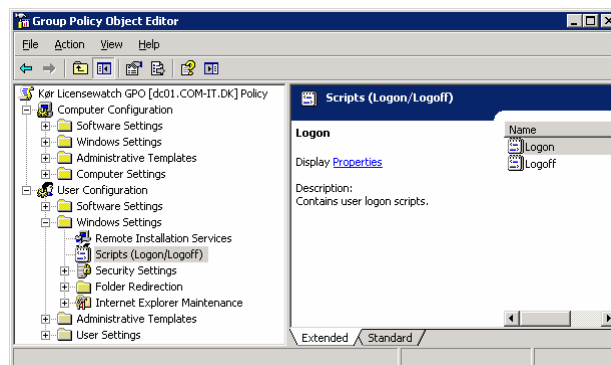
This share contains the LicenseWatch client executables. The command for launching the client is:

```
\\[server]\LWClient\LWPreloader.exe [server]/LWClientRequestHandler
```

The argument *[server]/LWClientRequestHandler* specifies the URL for the website that clients use to communicate with the server. Note that the URL does not start with *http://*.

The command can be run manually, from the login script or from an AD group policy.

To create an AD group policy, point to a VB script file from User Configuration / Scripts / Logon:



The VB script file must have the following contents:

```
Set objShell = CreateObject("Wscript.Shell")
strCommandLine = "\\[server]\LWPreloader.exe [server]/LWClientRequestHandler"
objShell.Run(strCommandLine)
```

The program LWPreloader.exe is not the actual client, but a preloader. The preloader will copy the client executables to C:\Program Files\LicenseWatch depending on the system settings LWClient_RunType and LWClient_LocalPath. Then the client executable LWClient.exe is launched.

The files are only copied if they are updated on the server.

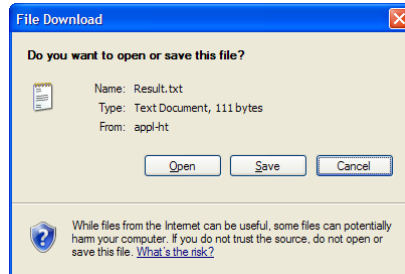
Check if the LWClientRequestHandler website is running correctly

The LWClientRequestHandler website is used by clients to communicate with the server.

To check if this website is running correctly; go to this URL:

`http://[server]/LWClientRequestHandler/GetFileInfo.aspx`

The website is running if you get the dialog:



The file Result.txt should contain XML data looking like this:

```
<GetFileInfo>
<BlockedFiles>
</BlockedFiles>
<MeteringUsageStat>
</MeteringUsageStat>
</GetFileInfo>
```

Content may vary depending on your system configuration.

If the URL does not return the result.txt file, then there the website is not running, or you do not have privileges to access it.

See also *Create a Test-Website on the Server*.

Is Client Packages Being Processed Correctly?

In the LicenseWatch main menu, go to Administration / Client packages. Here you can see client packages in queue (tab *Waiting packages*) and processed packages (tab *Old packages*). You control the logging of client packages with system setting *System_LogPackages*. By default, only packages that failed are logged.

If packages are not moved from *Waiting packages* to *Old packages*, there can be different scenarios:

- Packages are not complete. The client was interrupted before all data could be sent. This rarely occurs, you should take any action
- The LW Client Package Handler service has stopped. Restart the service

Does the User Have Write Privileges on the Local Machine?

As explained in *How is the Client Launched?* the client executables is copied to the local machine. By default they are copied to a folder under the program files folder. The logged on user must therefore have privileges to create that folder and copy files to it. This can be tested by manually creating a folder under the program files folder.

If the user doesn't have sufficient privileges, there are 3 options:

- Give privileges to the user

- Change the location of the client executables by setting the system setting LWClient_LocalPath. You must of course choose a location where the user has sufficient privileges, such as @MYDOCUMENTS (equals %USERPROFILE%\My Documents) or @COOKIES (equals %USERPROFILE%\Cookies)
- Don't copy client executables; launch the client directly from the server. This can be done by setting the system setting LWClient_RunType to *Run from server*. This option has some limitations. Metering is not supported with this option, because file LWProcessWatch.dll must be copied to the local disk in order for metering to work. In large installations with many clients, launching the client from the server may present a severe bottleneck, especially if clients log on at the same time

Create a Test-Website on the Server

Creating a simple test-website can help you narrow the scope of possible error conditions when the LicenseWatch are not working correctly.

First, create a folder anywhere on the server, i.e. c:\webtest. Create two files in the folder: test.html and test.aspx. Use notepad to open the files and write the word *Test*.

Go to Control Panel / Administrative Tools / Internet Information Services.

Select local computer / Web Sites / Default Web Site. Right click and select New / Virtual Directory. Set the alias name to *webtest* and point to c:\webtest.

Go to the URL http://[server]/webtest/test.html. You should see the text *Test*. If not, there is a general problem with the Internet Information Server. Try running iisreset. See *Does the Default Website Exist?* and *Is IIS (Internet Information Server) Installed?*

Go to the URL http://[server]/webtest/test.aspx. You should see the text *Test*. If not, there is a problem with the installation and registration of ASP.NET in the Internet Information Server. See *Is .NET Framework 1.1 Installed?*, *Is ASP.NET Registered Correctly in IIS?* and *Windows 2003: Is ASP.NET Allowed on the Server?*

Why Does Clients Report Different Types of Hardware Information?

Hardware information is acquired via WMI (Windows Management Instrumentation). Hardware information may vary depending on:

- Operating system: Newer versions of Windows may provide more information than older versions.
- Hardware: The hardware manufacturers decide what information is made available through WMI. I.e. on most newer machines the serial number is available, whereas it may be missing on some older machines

A prerequisite for the hardware scan is that WMI is installed on the machine, see *Some Clients Can't Scan Hardware / Installation of WMI*.

Some Clients Can't Scan Hardware / Installation of WMI

WMI (Windows Management Instrumentation) is not a standard component of Windows 95 and 98. You have to install WMI on these machines before hardware can be scanned by the LicenseWatch client. Setup program for WMI for Windows 95/98 can be found on the CD in the folder \Bin\ExtraUtil\WMI.

Using the LicenseWatch Client in a Citrix / Terminal Server Environment

If you run the LicenseWatch client in a Citrix or other terminal server environment, then all the clients will report the same hostname: the name of the terminal server.

Therefore you must change the command to launch the client so that it reports the logon name as hostname. Add the argument -U to the command:

```
\\[server]\LWClient\LWPreloader.exe [server]/LWClientRequestHandler -U
```

This will cause the client to report VIRTUAL_[logon name] as hostname.

In order to launch with the -U argument on Citrix clients and without the -U on normal clients you could use the following code snippet in the logon script:

```
if %SESSIONNAME% == .. goto NOT_REMOTE_SESSION
if /i %SESSIONNAME% == .Console. goto NOT_REMOTE_SESSION
  \\[server]\LWClient\LWPreloader.exe [server]/LWClientRequestHandler -U
  goto END
:NOT_REMOTE_SESSION
\\[server]\LWClient\LWPreloader.exe [server]/LWClientRequestHandler
:END
```

... or, translated to VBScript:

```
Dim WshShell
Set WshShell = WScript.CreateObject("WScript.Shell")
strSessionName = WshShell.ExpandEnvironmentStrings ("%SESSIONNAME%")
If strSessionName = "Console" or strSessionName = "" Then
  WshShell.Run "\\[server]\LWClient\LWPreloader.exe [server]/LWClientRequestHandler", ,TRUE
Else
  WshShell.Run "\\[server]\LWClient\LWPreloader.exe [server]/LWClientRequestHandler -U", ,TRUE
End If
```

Why is There Both a LicenseWatch and a LicenseWatchPlatinum Folder?

LicenseWatchPlatinum is the standard installation folder where all LicenseWatch system files are placed.

The LicenseWatch folder contains the client executables and is created when the client is launched; see *How is the Client Launched?*

Resolving the ResolvedIdentity Error

You might get an error message when trying to access the LicenseWatch User Interface website ([server]\LicenseWatch) that contains the word *ResolvedIdentity*. This problem can occur if the Windows Server is set up as a domain controller. In this setup the IWAM_servername account is missing some privileges. See the article <http://support.microsoft.com/default.aspx?scid=kb:en-us:824308>. The problem can be resolved like this:

- Click Start point to Programs point to Administrative Tools and then click Domain Controller Security Policy.
- Click Security Settings.
- Click Local Policies and then click User Rights Assignment.
- In the right pane double-click Impersonate a client after authentication.
- In the Security Policy Setting window click Define these policy settings.
- Click Add and then click Browse.
- In the Select Users or Groups window select the IWAM account name click Add and then click OK.
- Click OK and then click OK again.

- To enforce an update of computer policy type the following command: `secedit /refreshpolicy machine_policy /enforce`
- At a command prompt type `iisreset`.

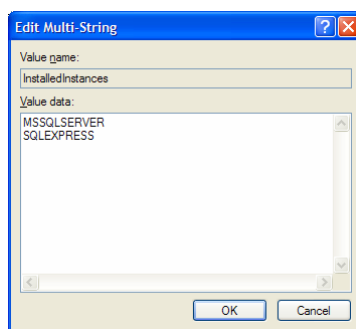
System Folder Aliases

For system setting *LWClient_LocalPath* and file scan start folders it is possible to specify the following system folder aliases:

- @WINDOWS. The Windows folder (i.e. C:\Windows)
- @PROGFILES. The program files folder (i.e. C:\Program Files)
- @SYSTEM. Windows system folder (i.e. C:\Windows\System32)
- @MYDOCUMENTS. Current users documents folder (i.e. %USERPROFILE%\My Documents)
- @DESKTOPDIRECTORY. Current users desktop folder (i.e. %USERPROFILE%\Desktop)
- @COOKIES. Current users cookies folder (i.e. %USERPROFILE%\Cookies)

What SQL Server Instances are installed on a Machine?

SQL Server instances are registered in the registry. Look under `HKEY_LOCAL_MACHINE\Software\Microsoft\Microsoft SQL Server`. The value `InstalledInstances` will contain a list of SQL Server instances, i.e.:



`MSSQLSERVER` is a default instance that has the name of the server. A name such as `LICENSEWATCHMSDE` refers to a named instance that can be accessed like this: `[server]\LICENSEWATCHMSDE`.

Uninstall/Reinstall of MSDE

Go to Control Panel / Add or Remove Programs and remove the program called *Microsoft SQL Server Desktop Engine*.

Uninstall doesn't remove all files which can cause problems when reinstalling MSDE, you may see an error like "Setup failed to configure the server." Therefore you may want to follow these manual steps after uninstalling MSDE:

- Delete LicenseWatch data files `LicenseWatchPlatinum.Idf` and `LicenseWatchPlatinum.mdf`
- Delete the folder `C:\Program Files\Microsoft SQL Server` if it exists

Error during Installation: Setup failed to configure the server

This error is caused by a bug in the uninstallation of MSDE, see *Uninstall/Reinstall of MSDE*


Manual Uninstallation of LicenseWatch

- Go to Control Panel / Administrative Tools / Services
- Stop service LW Client Package Handler
- Stop service LW SMS Client if it exists
- In the registry go to HKEY_LOCAL_MACHINE/SYSTEM/CurrentControlSet/Services. Delete the key *LWClientPackageHandler* and the key *LWSMSClient* if it exists.
- Go to Control Panel / Administrative Tools / Internet Information Services
- Go to local computer / Web Sites / Default Web Site
- Delete the 2 virtual directories LicenseWatch and LWClientRequestHandler
- Run iisreset
- Uninstall MSDE if that was installed as part the LicenseWatch installation, see *Uninstall/Reinstall of MSDE*
- Delete the LicenseWatch folder from the start menu
- Remove sharing on the folder C:\Program Files\LicenseWatchPlatinum\Client
- Delete the folder C:\Program Files\LicenseWatchPlatinum

Getting Help about WMI and Custom Hardware Scans

In order to create hardware scans other than the predefined, you must find out what WMI classes to use. This type of information can sometimes be found on the hardware manufacturers' website.

The WMI browser shows you all available WML classes on the local machine or any other machine in your

network. It has a search engine button  that searches information about the selected class on the Internet.

Another option is to install WMI Administrative Tools which can be downloaded from Microsoft:

<http://www.microsoft.com/downloads/details.aspx?FamilyID=6430f853-1120-48db-8cc5-f2abdc3ed314&DisplayLang=en>

Problems with Windows Installer

We have experienced different problems with Windows Installer. Typical errors are failure of MSDE installation and failure when running the LW Upgrade Preloader MSI package.

One cause of error can be when using Remote Desktop to access the server sp that the installation runs within a terminal server session. This can be avoided by logging on directly to the server using this command to start Remote Desktop:

```
mstsc /console
```

Another cause of error is unsuccessful registration of Windows Installer. This can be resolved by issuing the following command on the server:

```
msiexec /regserver
```

Finally, try to get the newest version of the Windows Installer on www.microsoft.com.

Problems when Restoring the Database

Restoring the database requires that there are no open connections to the database. Go through the following steps to free all connections to the LicenseWatch database:

- Run iisreset
- Close Query Analyzer and similar tools that accesses the database
- Go to Control Panel / Administrative Tools / Services
- Stop service LW Client Package Handler
- Stop service LW SMS Client if it exists
- Restart service MSSQLSERVER

Ultimately, you can use SQL management tools to kill open connections to a database.

Manuel installation of MSDE

If the LicenseWatch setup program doesn't succeed in installing MSDE, then you have to do a manual installation of MSDE. Run the following command:

```
[LicenseWatch Setup CD path]\Bin\MSDE\setup.exe DISABLENETWORKPROTOCOLS=0  
TARGETDIR="C:\Program Files\LicenseWatchPlatinum\DATABASE\" DATADIR="C:\Program  
Files\LicenseWatchPlatinum\DATABASE\DATA\" SECURITYMODE=SQL INSTANCENAME=LicenseWatchMSDE  
SAPWD=xxx
```

If you prefer blank sa password, replace the argument SAPWD=xxx with BLANKSAPWD=1.

Changing the License Code Directly in the Database

Run the following SQL command:

```
update systemsettingvalue set settingvalue = '[license code]' where systemsettingid = 22
```

If you are using MSDE then you have to use the osql tool to issue the SQL command:

```
C:\Program Files\Microsoft Sql Server\80\tools\binn\osql -S [Server]\licensewatchmsde -U  
sa -P [password] -d licensewatchplatinum -q "update systemsettingvalue set settingvalue =  
'[license code]' where systemsettingid = 22"
```

LicenseWatch on a SharePoint or CMS System Server

Under certain conditions there may be problems installing LicenseWatch on a server that has SharePoint or some other CMS system installed. The problem is that these systems monopolize the default website.

Generally, there are 2 ways to deal with this:

First option: Run standard LicenseWatch installation and then use the management tools for SharePoint or other system to avoid having that system process requests to the virtual directories LicenseWatch and LWClientRequestHandler.

Second option: Create *LicenseWatch* as a hostname in the corporate DNS system and let it point to the server where LicenseWatch is installed. Create a new website for LicenseWatch. Configure the website like this:

- Host header name: LicenseWatch
- Home directory: C:\Program Files\LicenseWatchPlatinum\Web\LWAdmin
- Directory Security: Integrated Security only
- Execute permissions: Scripts only

Under this new website, create a virtual directory and configure it like this:

- Local path: C:\Program Files\LicenseWatchPlatinum\Web\LwclientRequestHandler
- Directory security: Anonymous access only
- Execute permissions: Scripts only

The URL to the LicenseWatch user interface will now be <http://licensewatch>. You must change the command for launching the LicenseWatch client to:

```
\\ licensewatch\LWClient\LWPreloader.exe licensewatch/LWClientRequestHandler
```

If the LicenseWatch client doesn't start on Vista clients

The system setting LWClient_LocalPath must point to a folder to which the current user has access rights.

If the value of this system setting is @PROGFILES\LicenseWatch then launching the LicenseWatch client on a number of Vista clients is likely to fail, because Vista users does not have rights ton access the Program Files folder by default.

Change the system setting LWClient_LocalPath to a folder that the current user can access, i.e. @MYDOCUMENTS\LicenseWatch.