



# **Aimetis Symphony™ Installation Guide**

**6.14**

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# 1

# Welcome to Aimetis Symphony™

AimetisSymphony™ is an award-winning intelligent video surveillance software that offers a single, innovative, open IP video platform for video management, video analytics, system integration, and alarm management. Aimetis Symphony™ installs on standard IT hardware, supports both analog and IP cameras from hundreds of camera manufacturers, provides a feature-rich, easy-to-use interface, and incorporates IT friendly features to make administration simple.

## Overview and Prerequisites

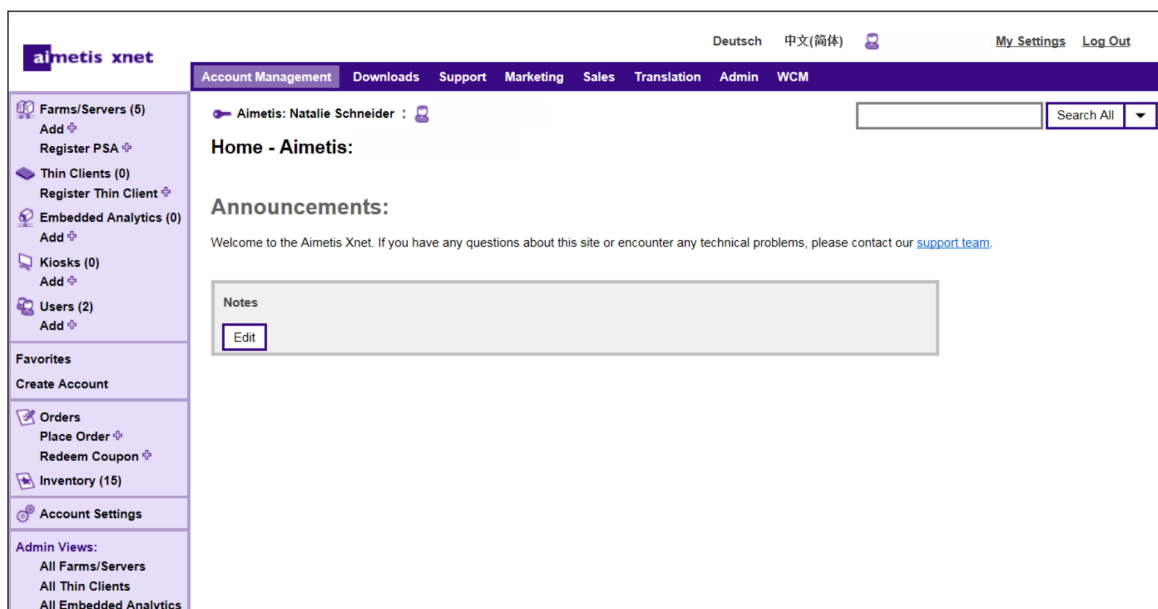
- [Aimetis Xnet Portal](#)
- [Symphony Overview](#)
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- [Client Prerequisites Installed Automatically](#)
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- [Symphony Installation and Data Folders](#)

# Aimetis Xnet Portal

Xnet is the Aimetis Online Portal: [www.aimetis.com/Xnet](http://www.aimetis.com/Xnet)

Xnet enables you to:

- Order Licenses
- Manage Accounts
- Access Technical Support and Downloads
- Access Sales and Marketing Tools
- Access Aimetis Software Translation



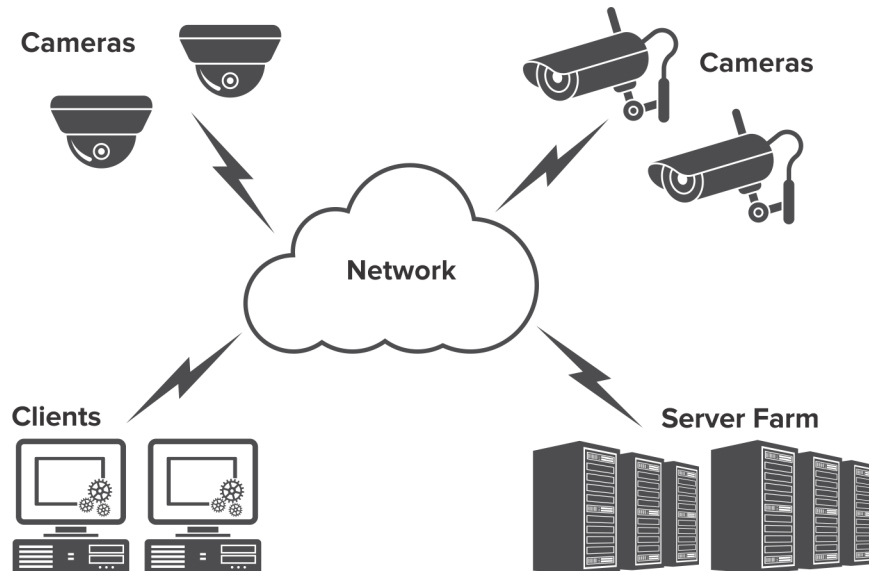
## Xnet Portal Resources

Access to tools depends on your account type. For example, Distributor, Certified Partner, Authorized Partner, and End-User.

- [Xnet Training Manual Reseller](#)
- [Recorded Webinar- Xnet Training - Distributors](#)
- [Recorded Webinar - Xnet Training - Channel Partners](#)
- [Xnet Training Manual - Distributors](#)
- [Aimetis Symphony Architectural and Engineering Specifications](#)
- [Hardware Benchmarks Guidelines for 10, 20, 40 and 200 Camera Systems](#)

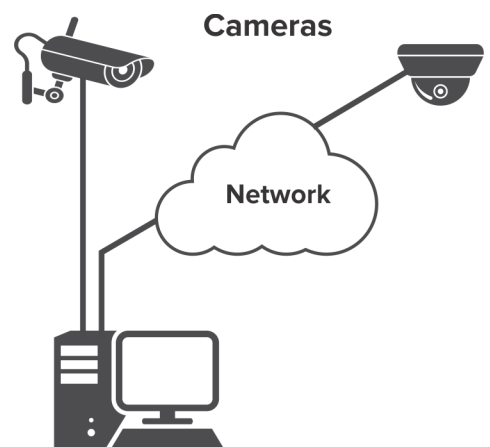
# Symphony Overview

An installation of Aimetis Symphony™ has two components, server software and client software. The server computer functions as the intelligence management system that computes the most complicated and intricate tasks. At larger sites, the server computer may actually be multiple computers linked together to form a Server Farm. You can set up clients on many computers or workstations. A typical site would have many client computers connecting to a dedicated server computer.



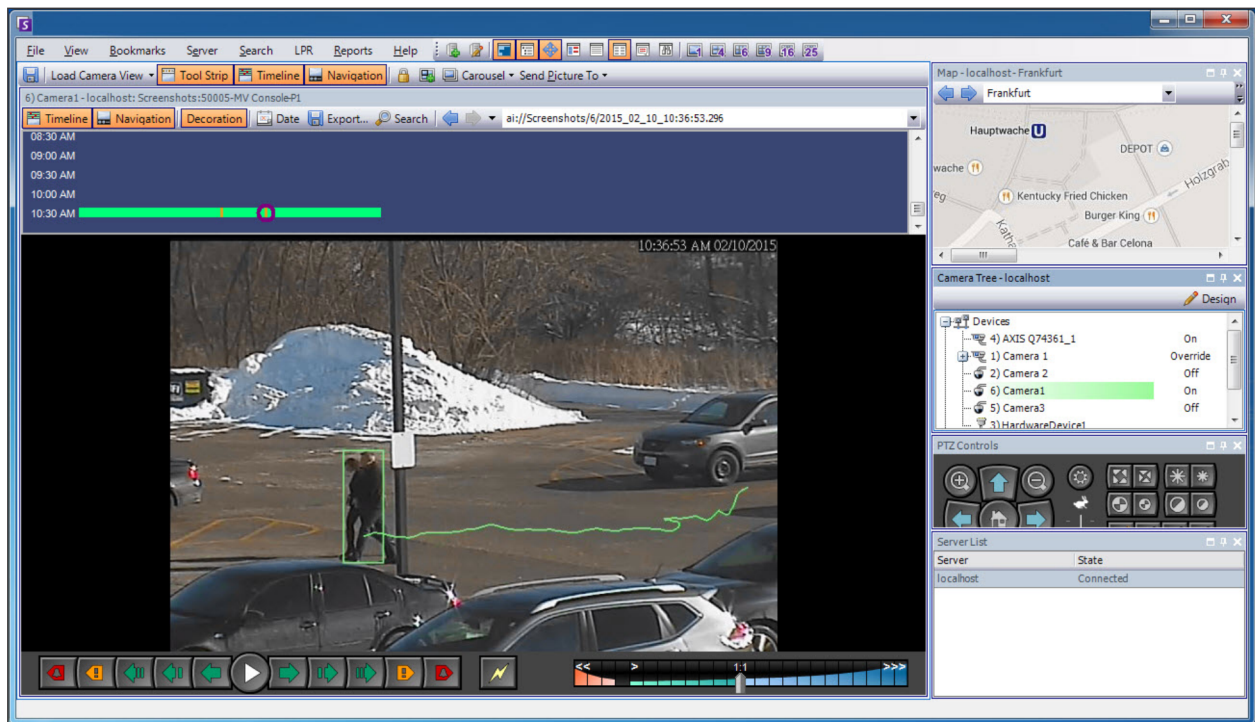
## Considerations for Small Deployments

For small deployments, the server and client computer can be one computer; however, it is not recommended. Doing so would impact the capability to use multi-views because the server may not have enough CPU or lack a decent video card. Also, regular users should not have access to the server machine because someone might shut off the machine, change the software or configuration on the machine, or even inadvertently crash it. Using the machine for other tasks may take up a lot of CPU/RAM/network/disk bandwidth and prevent the Symphony Server components from working efficiently.



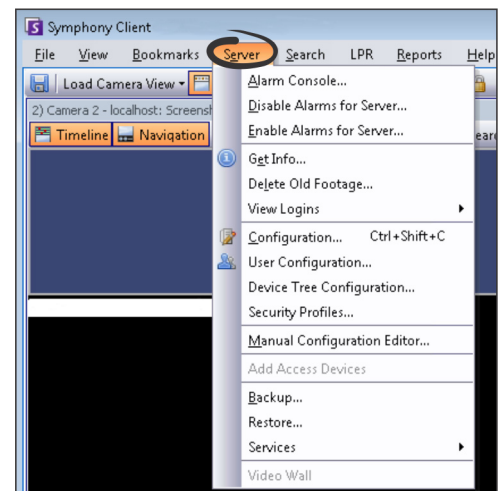
## Client Software Interface

The client software provides the user interface for all tasks including monitoring, searching, reporting, and configuration. The interface can be arranged over several monitors, and you can even use a Video Wall. A collection of monitors could be on a single wall in a room or in different physical locations. For details, see the *Symphony Online Help*.



## Server Software Interface

Typically, the server computer is separate from client computers; however, this is not the case for Aimetis software. To access the server computer, click the **Server** menu option in the client interface. The interface for both server and client are integrated so that you can connect (configure server tasks) from any client computer in a site. Personnel will often be at client workstations and must be able to connect to the server (to set up features, for example) from their workstations. The server software handles all video recording and analytics. It is the intelligence management system that computes the most complicated and intricate tasks.





## Symphony Server Licensing

If you are upgrading an existing installation, ensure that your licenses are eligible for the software version you are installing. For details, see [Upgrading](#). If not, contact your Aimetis distributor for an upgrade. Aimetis Symphony is licensed on a per camera basis. Each physical computer can have multiple Symphony software licenses. The license types are: Standard, Professional and Enterprise. No server or client license fees apply.

Licenses can be mixed per physical server, allowing Standard, Professional, and Enterprise to be used per single server. However, there is no advantage of having Standard and Professional licenses mixed on the same server since advanced VMS features will be available only if all licenses are Professional or higher.

License Type	Description
Symphony Server Standard License	Contains all core video management features. For details, see <a href="#">Technical Specifications</a> .
Symphony Server Professional License	Contains all core features of the Standard License plus advanced functionality. This license type is used in large deployments. For details, see <a href="#">Technical Specifications</a> .
Symphony Server Enterprise License	Building on the functionality found in Professional, video analytics can be added on a per camera basis, which augments the accuracy of alarm monitoring and includes business intelligence reporting, such as people counting. For details, see <a href="#">Technical Specifications</a> .

## Prerequisites

For a detailed overview, see the [hardware calculator](#).

### Server

- Any Intel CPU or any AMD CPU that supports SSE2. For example, Opteron.
- 500 Megabytes of free disk space.
- At least 1 Gigabyte of RAM.

### Client

- 200 Megabytes of free disk space.
- 2 GHz or faster processor is recommended.
- At least 1 Gigabyte of RAM.

## Operating Systems, Database and Browsers

### Server Operating Systems - Windows®

- S = supported
- G = recommended for a deployment that has more than 20 cameras
- N = not supported

Symphony Product Version	Windows® XP SP3 <sup>a</sup>	Windows® Server 2003	Windows® Vista <sup>a</sup>	Windows® Server 2008 R2 <sup>bc</sup>	Windows® 7	Windows® Server 2012	Windows® Server 2012R2 <sup>c</sup>	Windows® 8	Windows® 8.1
6.11	S	S	S	S,G	S	S	N	S	N
6.12	S	S	S	S,G	S	S	N	S	N
6.13	S	S	S	S	S	S	S,G	S	S
6.14	S	S	S	S	S	S	S,G	S	S

a. See [Windows® Vista and XP Microsoft End of Support Solution Center](#).

b. Windows® 2008 R2 does not install sound components by default. You must install the Desktop Experience Windows® component.

c. Server Core for Windows® is not supported.

### Client Operating Systems - Windows®

- S = supported
- G = recommended for a deployment that has more than 20 cameras
- N = not supported

Symphony Product Version	Windows® XP SP3 <sup>a</sup>	Windows® Server 2003	Windows® Vista <sup>a</sup>	Windows® Server 2008 R2 <sup>bc</sup>	Windows® 7	Windows® Server 2012	Windows® Server 2012R2 <sup>c</sup>	Windows® 8	Windows® 8.1
6.11	S	S	S	S	S,G	S	N	S	N
6.12	S	S	S	S	S,G	S	N	S	N
6.13	S	S	S	S	S,G	S	S	S	S
6.14	S	S	S	S	S,G	S	S	S	S

a. See [Windows® Vista and XP Microsoft End of Support Solution Center](#).

b. Windows® 2008 R2 does not install sound components by default. You must install the Desktop Experience Windows® component.

c. Server Core for Windows® is not supported.

## Database (SQL Server)

Ensure that the SQL Server database is on a local network (100 Mbps or greater) connected to the servers in the farm.

- S = supported
- N = not supported

Symphony Product Version	SQL Server	SQL Server 2005	SQL Server 2008	SQL Server 2012
6.11		S	S	N
6.12		S	S	N
6.13		S	S	N
6.14		S	S	S

## Browsers

S = supported

Symphony Product Version	IE8 <sup>a</sup>	IE11 <sup>b</sup>	Firefox 3.x	Safari 5	Chrome 5
6.11	S	S	*	*	*
6.12	S	S	*	*	*
6.13	S	S	*	*	*
6.14	S	S	*	*	*

a. Limited support for 64-bit version of IE.

b. For details on using Internet Explorer® 11, see [Using Symphony Client with Internet Explorer® 11](#).

\* Limited support (reports, alarms, timeline, JPGs). No live or historical video.

## Virtual Platforms

- S = supported

Symphony Product Version	Microsoft Virtual PC	VMware Server
6.11	S	S
6.12	S	S
6.13	S	S
6.14	S	S

## Client Prerequisites Installed Automatically

The following prerequisites are required by Symphony and (if necessary) will be installed automatically.

Item	Version	commandline install
XML 6.0 SP1 (x86)	6.10.1129.0	msxml6_x86.msi /qn
XML 6.0 SP1 (x64)	6.10.1129.0	msxml6_x64.msi /qn
Visual C++ 2008 Redistributable Package (x86)	9.0	(components installed by merge modules in installer)
Microsoft .Net 3.5 SP1	3.5 SP1	dotnetfx35 /q /norestart
Visual C++ 8.0 Redistributable (exe install)	8.0 (Service Pack 1 with ATL Security Update, 8.0.50727.4053)	Vcredist_x86_ATLUpdate.exe /q
Microsoft Data Access Components (MDAC) 2.8	2.80.1022.3	Setup.exe
Aimetis Core	6.14.0.0	Msiexec /i Aimetis CoreInstall.msi /q
Microsoft WSE 3.0 Runtime	3.0	msiexec /i "Microsoft WSE 3.0 Runtime.msi" /q
Microsoft VC++ 10.0 CRT (x86)	10.0.40219.1	(components installed by merge modules in installer)
Symphony DevicePack	1.0.26.0	msiexec /i DevicePackLiteClient.msi /q SYMPHONY_PATH="<install directory>"

## Server Prerequisites Installed Automatically

The following prerequisites are required by Symphony and (if necessary) will be installed automatically.

Item	Version	commandline install
XML 6.0 SP1 (x86)	6.10.1129.0	msxml6_x86.msi /qn
XML 6.0 SP1 (x64)	6.10.1129.0	msxml6_x64.msi /qn
Visual C++ 2008 Redistributable Package (x86)	9.0	(components installed by merge modules in installer)
Microsoft .Net 3.5 SP1	3.5 SP1	dotnetfx35 /q /norestart
Visual C++ 8.0 Redistributable (exe install)	8.0 (Service Pack 1 with ATL Security Update, 8.0.50727.4053)	Vcredist_x86_ATLUpdate.exe /q
Microsoft Data Access Components (MDAC) 2.8	2.80.1022.3	Setup.exe
Aimetis Core	6.14.0.0	Msiexec/i AimetisCoreInstall.msi /q
Aimetis SNMP	6.14.0.0	SNMPInstallLauncher.exe "INSTALLDIR=[INSTALLDIR]" (Required files, SNMPInstallLauncher.exe, SNMPSetup.exe, SNMPSetup64.exe)
Microsoft SQL Server Express 2008 R2 SP1	10.50.2500.0	SQLEXPR_x86_ENU /Q /HIDECONSOLE /ACTION=Install /INSTANCENAME=AIMETIS /FEATURES=SQLENGINE /SECURITYMODE=SQL /SAPWD=[SQL_SA_PASSWORD] / IACCEPTSQLSERVERLICENSETERMS /SQLSVCACCOUNT="NT AUTHORITY\SYSTEM" / SQLSYSADMINACCOUNTS="Builtin\Administrators"
Windows® Installer 4.5	4.5	[program] /quiet /norestart
OPC Core Components 2.00 Redistributable	2.00.2.20	N/A
Microsoft WSE 3.0 Runtime	3.0	msiexec /i "Microsoft WSE 3.0 Runtime.msi" /q
Microsoft VC++ 10.0 CRT (x86)	10.0.40219.1	(components installed by merge modules in installer)
Symphony DevicePack	1.0.26.0	msiexec /i DevicePackLiteServer.msi /q SYMPHONY_PATH="<symphony install directory>"

# Symphony Installation and Data Folders

## Symphony Server

Symphony Server stores three kinds of data to your hard disk:

- Binary application files
- Video data
- Configuration information stored in a SQL Server Database

Symphony is installed by default in `C:\Program Files\Aimetis\Symphony\` or on 64-bit OS in `C:\Program Files (x86)\Aimetis\Symphony`. You can change the default installation path during installation of Symphony. Once the installation is complete Symphony needs to be configured through the Setup Wizard, which includes configuring the log and data paths. **NOTE:** The server log files are useful for debugging and diagnosing problems. The default log path is `%appdata%\aimetis\ai_logs\now`.

## Key Folders



It is highly recommended that the <DataRoot> folders are not on the same physical Hard Disk as Windows® and <AppRoot>. This is to limit the amount of disk read and writes to the OS disk to prevent catastrophic failure.

<AppRoot> denotes installation path and <DataRoot> denotes datapath. In addition to the folders listed, Symphony Server adds the following registry keys: `HKLM\Software\Aimetis`. Some configuration data for the server is stored here, such as the database connection string.

Path	Description
<AppRoot>\_bin	Binaries for all Aimetis Symphony executables and DLLs.
<AppRoot>\_docs	Small .txt files storing alarm instructions and Aimetis.com's IP address.
<AppRoot>\_tools	Tools and utilities that Aimetis Support Specialists use to diagnose system problems.
<AppRoot>\_Scripts	Scripts for configuring Symphony. For example, a database schema creation script for manually creating the Symphony database.
<AppRoot>\WebRoot	Web files and binaries.
<DataRoot>\_footagearchive	Video data recorded from all cameras.
<DataRoot>\_images	A cache of JPEG images generated from the footage.
<DataRoot>\_searches	Stored searches. These files will not be automatically cleaned and searches must be manually deleted by user.
<DataRoot>\_signals	Timeline data (, yellow, red).
<DataRoot>\_signals2	XML metadata for searches and reports.
<DataRoot>\Reports	Location for generated reports. Depending on write-permissions, a generated report will be stored in the <code>\Data\Reports</code> folder on the master server machine. The folder is generated only after a report has been run and saved.
\windows\temp\config_backup\	Location for automatic backups of server configuration.

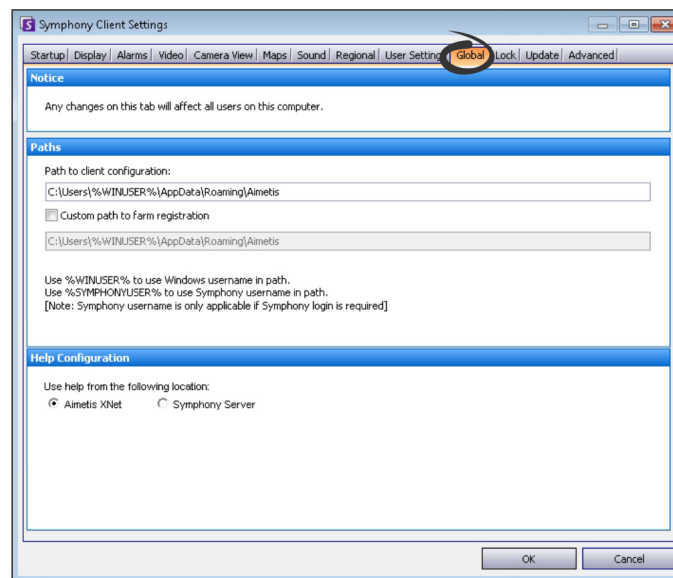
## Symphony Client

Symphony Client is installed by default in `C:\Program Files\Aimetis\Symphony Client\`. These files define the farms that have been registered. The default is whatever the client configuration path is set to, but you can override this. The paths outlined in the table can be configured via the Aimetis Symphony Client Settings dialog box.

1. From the **View** menu, select **Settings** to open the Symphony Client Settings window.
2. Select the **Global** tab.
3. Two (optional) variables can be used in the path names:
  - **%WINUSER%** represents the Windows® username of the current user. This is used in the default path so Symphony can store the configuration in the current user's application data folder.
  - **%SYMPHONY USER%** represents the Symphony username. This is valid only if credentials are required for login to Symphony.

If you prefer to keep these settings global, do not use either of these variables when specifying the paths. In addition to the folders listed in the table, Aimetis Symphony Client adds the following registry keys:

HKLM\Software\Aimetis\AiraExplorer



## Key Folders

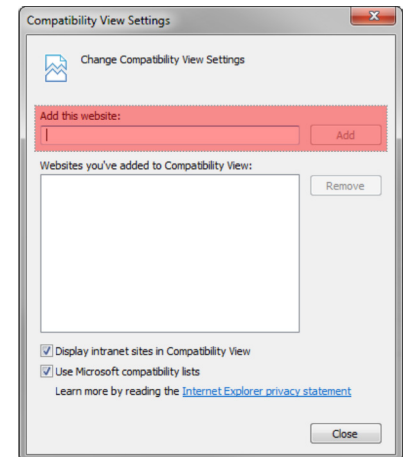
These paths may be slightly different depending on the operating system version.

Folder	Description
<code>C:\Documents and Settings\%WINUSER%\Application Data\Aimetis\</code>	All client configuration, such as window layouts, general configuration, logs.
<code>C:\Documents and Settings\All Users\Application Data\Aimetis\</code>	This folder contains RegisteredFarms.xml and FarmList.xml.

# Using Symphony Client with Internet Explorer® 11

Symphony is compatible with Internet Explorer® 8; however, if you have a newer version you can still view live and recorded video.

1. Launch Internet Explorer® 11.
2. Click **Tools > Compatibility View Settings**.
3. In the **Add this website** field, enter the server's URL that you want to add to the list.
4. Click **Add**.
5. Repeat steps 3 and 4 for each server that the operator has access to.
6. Click **Close**.
7. When accessing the server for the first time from a new desktop, a pop up window appears requesting that Aimetis Active X is installed. Click **Yes** to complete the installation.





# Additional Resources

- [Symphony Release Notes](#)
- [Symphony Administration Guide](#)
- [Symphony Analytics Guide](#)
- [Symphony Client User Guide](#)
- [Knowledge Base Articles](#)
- [Case Studies](#)
- [White Papers](#)
- [Application Video Samples](#)
- [Recorded Webinars](#)
- [Product Tour](#)
- [Supported Video Devices List](#)
- [Licensing](#)
- [Frequently Asked Questions](#)

# 2

# Installation Instructions

Your configuration depends on the size of your camera deployment, your geographic considerations, and the product integration with other systems. You need to consider network and hardware specifications, standalone versus multi-server configurations, as well as the key factors outlined here.

## Have a Valid Aimetis Xnet Account

Before installing the Symphony Server, you must have a valid Aimetis Xnet account. For details, see [Aimetis Xnet Portal](#). During installation of the software you will be prompted for your Xnet login credentials, so that Symphony can download and install the appropriate license automatically.

## Assess your Hardware Requirements

Prior to installing Symphony Server, you must assess hardware requirements to meet the needs of your organization's deployment plan. An organization with a single location and 10 cameras will have different requirements than an organization with multiple locations and over 1000 cameras. For help calculating hardware requirements, go to the [hardware calculator](#).

## Understand the Concept of Multi-Server Deployments (Server Farms)

A **server farm** is a collection of computer servers used to accomplish server needs beyond the capability of one machine. Server farms often have backup (redundant) servers, which can take over the function of primary servers in the event of a primary server failure. Aimetis Symphony takes advantage of server farms by distributing the workload of camera processing across several servers. Symphony also supports server farm redundancy by moving camera processing from a 'down' server to a 'redundant' server. A down server is detected within 30 seconds, but can be configured for any time threshold. Windows® operating system updates or other maintenance that cause a reboot may be reason to increase this threshold to several minutes. Failover will transfer all the camera processes from running on the down server to running on a redundant server. It will transfer only cameras that are **Movable** according to the camera configuration.

## Working with PT090 Auto-Tracking

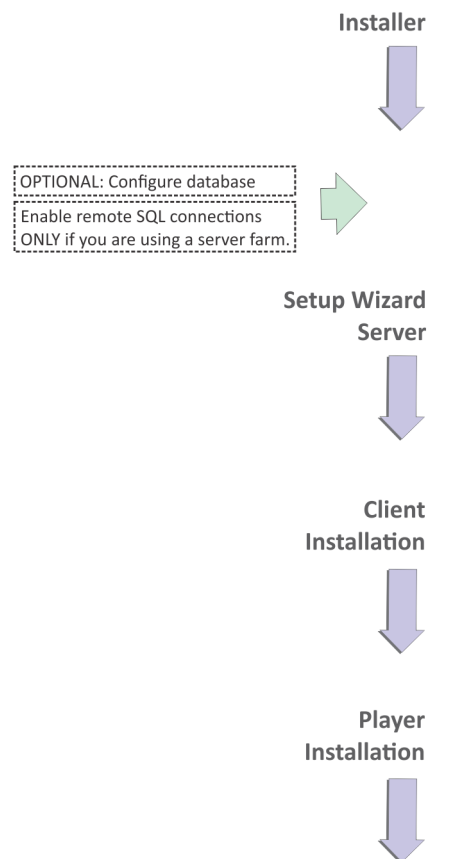
See [Before Upgrading](#) for details.

# Installing Symphony Server v6.14

The following instructions are for a first time installation. The Symphony programs installed during Server and Client installations includes: Aimetis SNMP Agent, Aimetis Core, Aimetis Symphony Device Pack, and Aimetis Symphony Server. If you are upgrading, see [Upgrading](#).

**NOTE:** At any point during the installation click **Cancel** to cancel the installation. Any changes made to your system will be dismissed.

1. Run the installer. **NOTE:** You do not need to manually uninstall previous versions or manually move any cameras. Any required components missing on your machine are listed in the InstallShield Wizard dialog box.
2. Depending on your license expiration date, you may see a message asking you to renew your license.
3. To install missing components, click **Install**.
4. After reviewing the license and warranty information in the License Agreement window, click **I accept the terms of the license agreement**.
5. Click **Next**. The SQL Server window is displayed.
6. By default the **Install SQL Server Express 2008 R2** check box is selected. This database will be installed with the named Instance Aimetis. If a supported SQL version is already installed on your machine, this installation process will not replace it.
7. If you want the SQL Server installed (recommended):
  - a. Enter a password for the database connection. It will be used by the administrator (system administrator user). The password must contain at least 8 characters and be a combination of 3 of the 4 following types of characters:
    - Upper case letters (Example: ABC)
    - Lower case letters (Example: abc)
    - Digits (Example: 123)
    - Symbols (Example: #\_! but not @)
  - b. Enter the same password in both fields and click **Next**. If the password does not meet the requirements or if the passwords do not match an error message is generated. If this is the case, re-enter and click **Next**.



Before merging farms, ensure that the versions of databases match. For example, merge a SQL 2008 farm to a SQL 2008 farm.

8. If you do not want to have SQL Server installed clear the **Install SQL Server Express 2008 R2** check box. If your existing SQL Server is not located on the local machine or if you have multi-server farms, you must enable TCP/IP connections on the remote machine's database, and open up the firewall to allow connectivity between the Symphony Server and the database (default SQL Server port is 1433). See [Enable Remote SQL Connections](#).
9. Click **Next**. The Remote Support Tool window appears.
10. Click **Next**. The Ready to Install the Program window appears.
11. *(Optional)* To change the installation location of Symphony Server, click **Back** and then the **Change** button. In the Change Installation Folder window, enter the folder path in the **Folder name** field and click **OK**. The new destination is displayed next to the folder icon. You can use the folder navigation in the **Look in** portion of the window to navigate to the desired location.
12. Click **Next**. The Ready to Install the Program window appears.
13. Review the data in the **Current Settings** area. If this information is correct click **Install**.
14. Click **Finish**.
15. Go to [Configuring the Server and Farm](#).

## (Alternate) Installing Aimetis Symphony Server from the Command Line

Various options can be configured by launching the installer from the command line.

- [Customizations](#)
- [Disallowing Automatic Database Schema Modifications](#)
- [Combining Command Line Options](#)



In the command line, do not include a space between the `/v` and the quotation `"` character. The installation will fail if you include a space.

### Customizations

Algorithms can be configured to be available (visible) or hidden in the Aimetis SymphonyClient user interface by providing a default state on the command line. For example, to hide the VE130 algorithm use a command line such as:

```
setup.exe /v"CUSTOMIZATIONS=Intel_VE130=OFF"
```

The general format is:

```
setup.exe /v"CUSTOMIZATIONS=AlgorithmName=ON|OFF;AlgorithmName=ON|OFF..."
```

## Disallowing Automatic Database Schema Modifications

By using the `ALLOWDBSETUP` command line option, the Setup Wizard can be restricted from attempting to automatically make database schema modifications. This is a useful feature if the database user does not have creation/alter rights for the database. When `ALLOWDBSETUP` is set to `false`, the Setup Wizard will skip the schema modification portion of setup. An SQL script is provided with the product to allow a database administrator to do the necessary modifications. This script is located in the `_Scripts` folder.

Valid values for `ALLOWDBSETUP` are as follows:

Task	Allowable Values
To restrict schema modifications:	0, false, False (or any other casing of false)
To enable allowing schema modifications (this is the default value when the parameter is not specified):	1, true, True (or any other casing of true)

### Example 1: Using a Command Line

To restrict schema modifications use a command line, such as `setup.exe /v"ALLOWDBSETUP=0"`

## Combining Command Line Options

All of the command line options can be combined. Use a single `/v"[settings]"` string with all options specified inside the quotes.

### Example 2: Command-line Options

To install to non-default locations with algorithm customizations and restricting database schema modifications the command line would be as follows:

```
setup.exe /v"INSTALLDIR="D:\MyInstallFolder\\" CUSTOMIZATIONS=Intel_VE130=OFF ALLOWDBSETUP=false"
```

## Configuring the Server and Farm

The Setup Wizard opens automatically at the end of the installation. To manually run the Setup Wizard, select **Aimetis > Setup Wizard** from the Start menu.

You must consider these important tasks before running the Setup Wizard:

- [Manual Database Configuration](#)
- [Disable Database Schema Modifications](#)
- [Enable Remote SQL Connections](#) (Only if using a server farm at this point in the installation process)

### Manual Database Configuration

In some cases, the database configuration needs to be completed outside of the Setup Wizard. For example, if the database user for Symphony does not have Admin rights to the database, it may be necessary to have a database administrator configure the database before running Setup Wizard.

An SQL script is provided with the installed product. It is located in the **\_Scripts** folder inside the install directory. The default database name specified in the script is Symphony. If a different database name is desired, or the script is being used to update an existing database, each instance of Symphony should be replaced with the appropriate database name before running the script.

### Disable Database Schema Modifications

**Important! Only disable if upgrading and only for the first server.**

There are times when it is beneficial to disable allowing schema modifications from the Setup Wizard. For instance, if the database user for Symphony does not have Admin rights for the database, and attempts schema modifications when the Setup Wizard is running, the user will receive an error. In this situation, the administrator must configure the database beforehand and then configure the Setup Wizard so that it does not display an error while running. For details, see [Manual Database Configuration](#).



The following conditions must be met if you want to disable allowing database schema modifications during a fresh installation:

- If you have used the scripts (from the **\_Scripts** folder inside the install directory) to manually configure the database, then you must disable allowing database schema modifications for all servers.
- If you have **not** manually configured the database, then you must disable allowing database schema modifications for all servers, except the first server.

1. Open the SetupWizard.exe.config file, located in the **\_bin** folder.
2. In the appSettings section of the file, you will find a key setting for AllowAutomaticDatabaseConfiguration. Change the value setting to "0" so as to disable schema modifications:

```
<add key ="AllowAutomaticDatabaseConfiguration" value ="0"/>
```

**NOTE:** Step 2 accomplishes the same result as using the install command line setting outlined in [Disallowing Automatic Database Schema Modifications](#).

## Enable Remote SQL Connections



### SQL Security Requirements

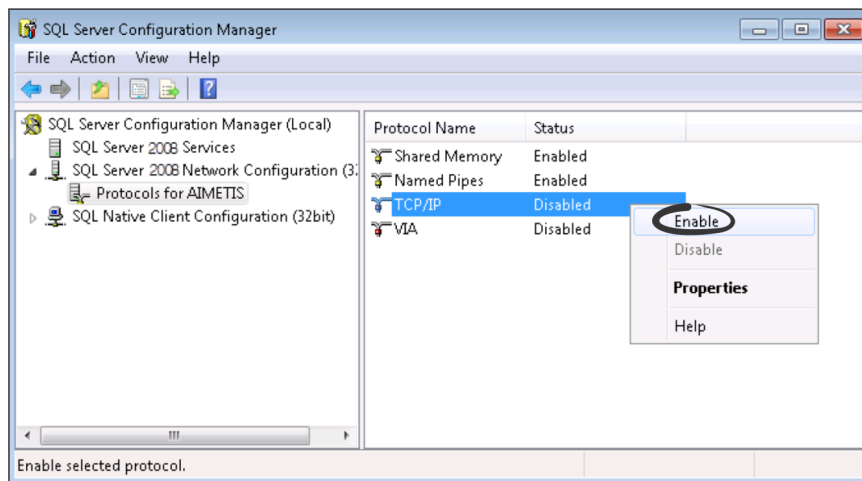
During creation of the database, the user must have Admin rights to the database, as well as rights to create the database. Database schema modification can be done manually, outside of the product. For details, see [Manual Database Configuration](#).

For execution of the product, the database user must have the following set of minimum security permissions:

- SELECT, INSERT, UPDATE, DELETE for all generated tables.
- SELECT, INSERT, UPDATE, DELETE for all generated views.
- EXECUTE for all generated stored procedures.

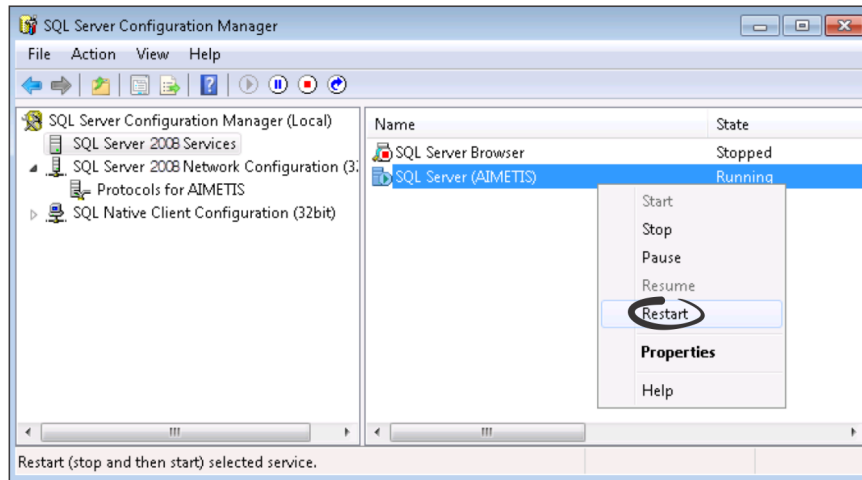
You must enable TCP/IP connections for your existing SQL Server if it is not located on the local machine.

1. Open the SQL Server Configuration Manager. This can usually be found in the Start Menu, under the SQL Server entry.
2. Expand the **SQL Server Network Configuration** node. Click on **Protocols for [InstanceName]**. If you are using the database that was installed by the Aimetis Symphony Server installer, then the **InstanceName** will be Aimetis.
3. Right-click on the **Named Pipes** protocol and select **Enable** from the menu.
4. A warning message is displayed. Click **OK**.
5. Right-click on the **TCP/IP** protocol and select **Enable** from the menu.



6. A warning message is displayed. Click **OK**. The protocols should now be configured.

- Go to the **SQL Server Services** section. Right-click on the **SQL Server** entry for the appropriate InstanceName. Select **Restart** from the menu to restart the service.



- Right-click on the **SQL Server Browser** entry. Select **Properties** from the menu to open the Properties window.
- Click the **Service** tab. From the **Start Mode** drop-down list, select **Automatic** and click **Apply**.
- In the **Log On** tab, click the **Start** button to start the SQL Browser service.
- Click **OK** to close the Properties dialog box. The services should now both be in the **Running** state. The SQL Server instance should now accept remote connections.

## Setup a Server Farm

You can create a server farm in two ways:

- At installation. See [Setup a Server Farm](#).
- By merging existing farms into a single farm. For details, see the *Symphony Online Help*.

When setting up a farm...	Procedure
Process flow	Fully complete the Setup Wizard on a single server before attempting it on the next. Do not run the Setup Wizard on multiple servers at the same time.
Database	Connect all servers in the farm to the same database.
Xnet name and credentials	Enter the same Xnet farm name and credentials on each server in the farm.
Xnet license	Ensure that the Xnet license contains the MAC address of each server in the farm. If you are running the Setup Wizard on a machine that has a valid Internet connection (online install), then your MAC address will automatically be added to your license during the setup process.

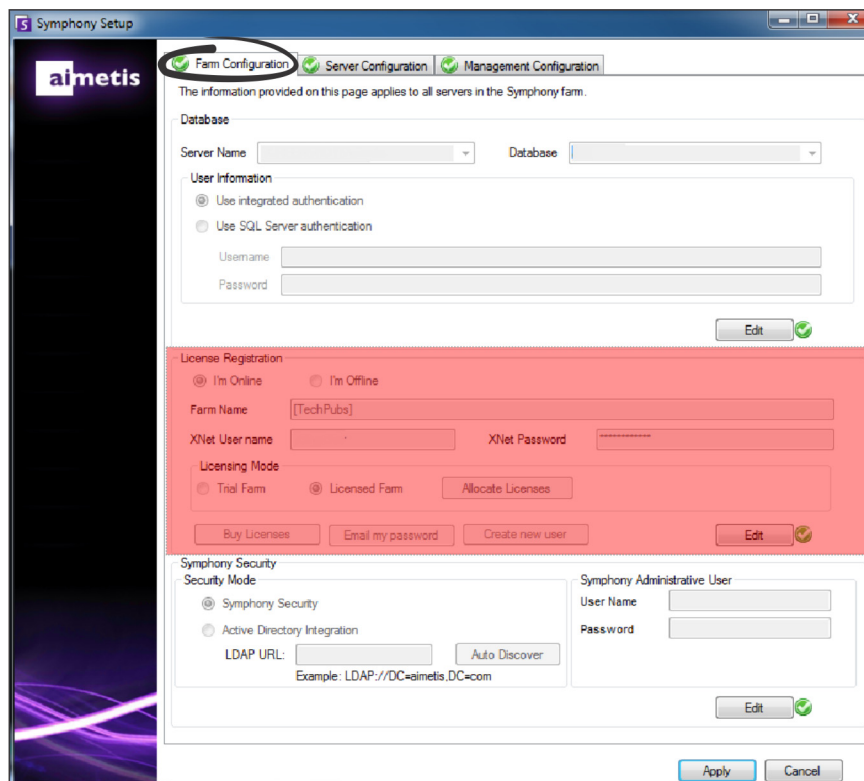


- When the Setup Wizard launches, click on the **Farm Configuration** tab. **NOTE:** The Setup Wizard opens automatically at the end of the installation. To manually run the Setup Wizard, select **Aimetis > Setup Wizard** from the Start menu.
- Click the **Edit** button to activate the fields in the **Database** group box.
- Enter the database connection information for the SQL Server instance.
  - If the server uses Windows® Authentication, select **Use integrated authentication**.
  - If the server uses SQL server authentication, select **Use SQL Server authentication** and enter the credentials of an administrative user for the SQL Server instance.
  - If you installed SQL Server through the Aimetis SymphonyServer installation, select **Use SQL Server authentication**, enter `sa` for the username, and the password you entered during installation.
  - If the database you chose to connect to does not exist, then it will be created for you.
- Click the **Verify** button to confirm that the connection information entered is correct. If verification fails and you are trying to connect to a database on a remote machine, see [Enable Remote SQL Connections](#). **NOTES: 1)** The **Database** name cannot include a hyphen in the name. **2)** The **Edit** and **Verify** buttons must display a green check mark before you can apply changes.

- In the **License Registration** group box enter your farm name in the designated field. If the farm name you enter does not exist and the server has not previously been registered with Xnet, the farm will be created for you in Xnet.

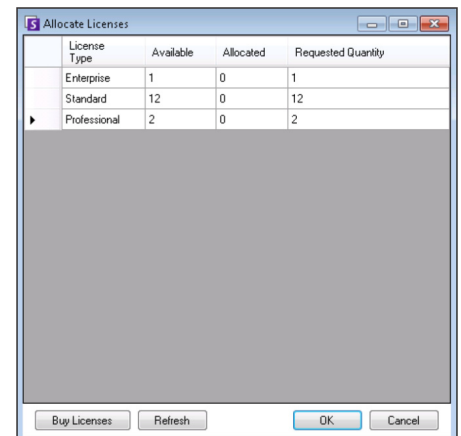


If you are connected to the internet, the **I'm Online** option will be automatically selected for you. If the **I'm Offline** option is selected, see [Troubleshooting](#).



6. If you choose to have a **Licensed Farm** instead of a **Trial Farm**, you must allocate at least one license to the farm.

- a. Click the **Allocate Licenses** button in the Licensing Mode group area to open the Allocate Licenses window.
- b. In the grid you will see any licenses that you have available in your account. If you do not have any licenses available or you would like to purchase more licenses, click **Buy Licenses**.
- c. Click the **Refresh** button to ensure the window has been updated with the latest licensing information regarding your account from Xnet.
- d. Enter **OK** to save the requested information and exit the window. Changes to your account will not be made until you click the main **Apply** button in the Symphony Setup window.



7. Enter your **Xnet User name** and **Xnet Password**. If you do not currently have an account registered with Aimetis or would like to add another account to use with your server/farm registration, click the **Create a new user** button.
8. Click **Verify**.
9. Chose the security mode for Symphony. If you select **Symphony Security** then the Aimetis proprietary login security mechanism will be used. If you select **Active Directory Integration**, users will be authenticated against the Active Directory server specified.

10. You must enter a URL in the **LDAP URL** field. For example, `LDAP://DC=Aimetis, DC=com`. Alternatively, click the **Auto Discover** button to automatically have the Setup Wizard attempt to determine your LDAP URL. **NOTE:** When entering the LDAP URL, ensure that the current machine is a member of the specified domain.
11. Enter the user name for a Symphony **Administrative User**. Do not enter the domain in the **User Name** field. For example, if you have a user account “UserX” on domain “DomainY”, you would set the **User Name** field to “UserX” and not to “DomainY\UserX”.
  - a. If the user does not exist in the system, the user will be created and added to the Administrator user group, which has unlimited access to the system.
  - b. If the user does exist and the credentials are an exact match the user will be removed from any user groups and added to the Administrator user group. Any explicit security permissions that were assigned will be removed. The user will have unlimited access to the system.
  - c. If the user exists in the system, but the password does not match:
    - If the **Security Mode** is **Active Directory** then the verification step will fail because Active Directory will not authenticate the credentials.
    - If the **Security Mode** is **Symphony Security**, the verification step will fail.
12. Enter a password for a Symphony **Administrative User**. If the security mode is set to **Active Directory**, the password will not be stored. **NOTE:** You cannot fix credentials for a Symphony user if the password is lost. You must create a new account (user).
13. Click **Verify**.

The screenshot shows the 'Symphony Setup' wizard window. The 'Farm Configuration' tab is selected. The 'Symphony Security' section is highlighted in red and contains the following fields:

- Security Mode:**  Symphony Security,  Active Directory Integration
- LDAP URL:** [Empty field], . Example: `LDAP://DC=aimetis,DC=com`
- Symphony Administrative User:** ,

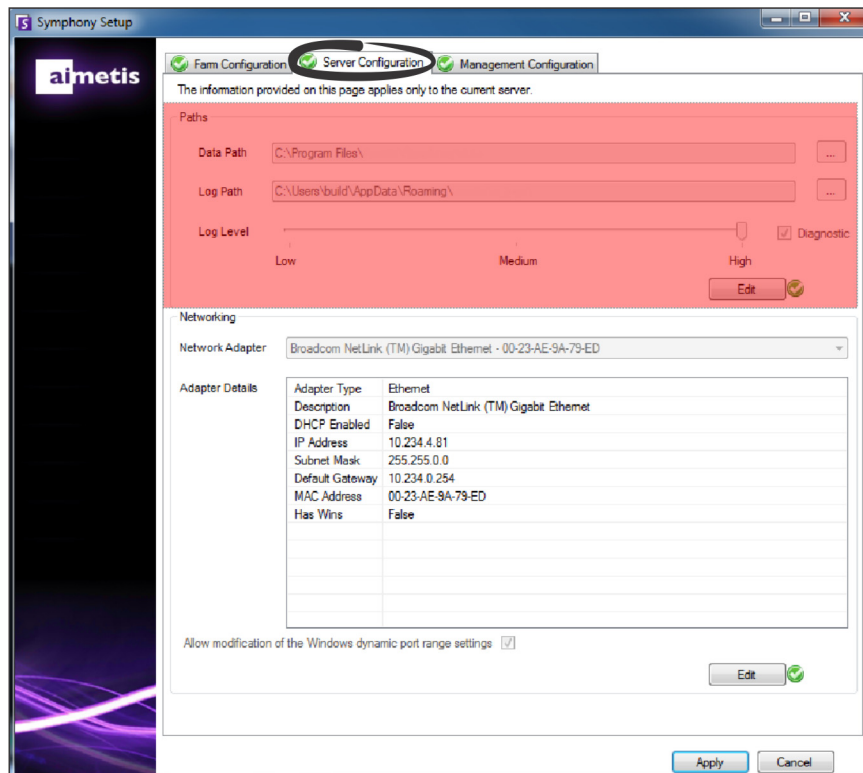
At the bottom of the window, there are  and  buttons.

## Setup a Server

1. When the Setup Wizard launches, click on the **Server Configuration** tab. **NOTE:** The Setup Wizard opens automatically at the end of the installation. To manually run the Setup Wizard, select **Aimetis > Setup Wizard** from the Start menu.
2. Enter the path where you would like data to be stored in the **Data Path** field. This will be the default path for camera footage storage. Further refinement of camera footage storage paths can be made through the Server Configuration window in Symphony Client.
3. Enter the path where you would like log files to be stored in the **Log Path** field. This path needs to be accessible for the Local System service account, as well as the logged in user. You can opt to use Windows® path variables, such as **%APPDATA%** in this field.
4. Select the logging level for the server logs. If you select **Low**, the server logs will contain less detail, but system performance will be better. Increasing the log level provides more detailed information if a problem is encountered, but can impact system performance. If unsure, leave the default selection.



A high logging level can impact system performance.



5. Select the network adapter that will be associated with the license.
  - If you are doing an offline install, then you must log into Xnet and add the MAC addresses manually to the license.

- If you are doing an online install, then the selected MAC address will be added automatically to your license, and the MAC addresses of any other network adapters in the machine will be removed from the license.
  - If you need to change the network adapter associated with the license at a later time, you can re-run the Setup Wizard and modify your selection.
6. Specify whether to allow the Setup Wizard to modify the Windows® dynamic port allocation range settings. Select the **Allow modification of the Windows dynamic port range settings** check box if using Windows® Vista and newer operating systems.

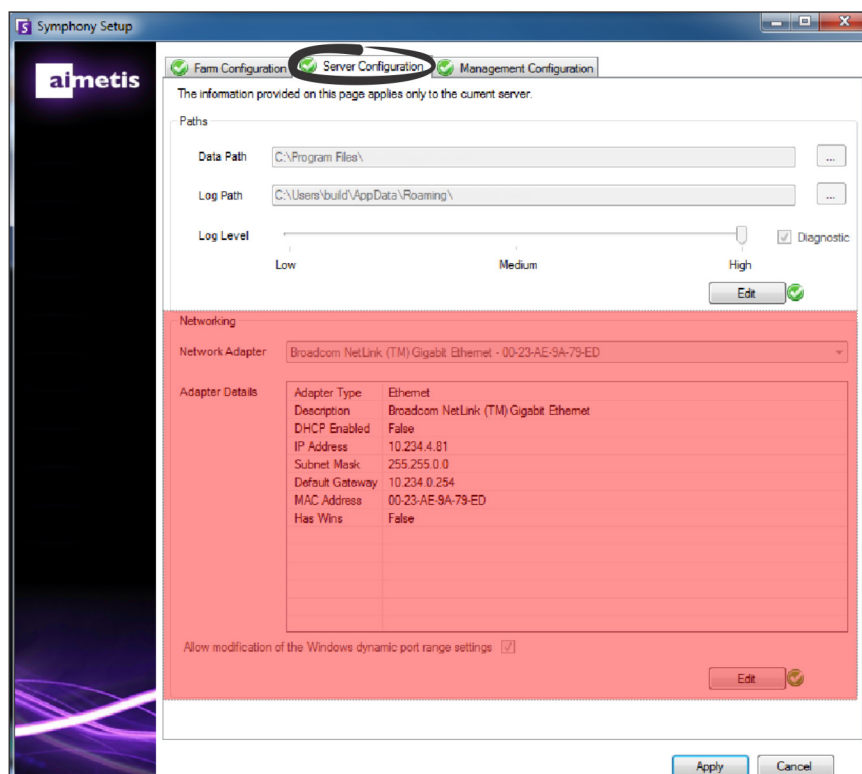


The allocation range that Windows® uses overlaps with the ports Symphony uses. Because Windows® may have already allocated those ports to other applications, and Symphony does not use dynamic port allocation, port conflicts may occur. You may need to restart your computer after setup.

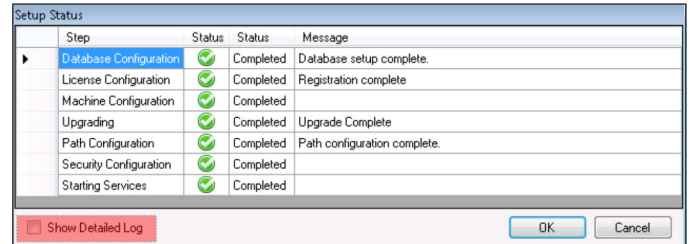
**Do not select this check box if your operating system predates Vista or Windows® Server 2008.** For example, Windows® XP or Windows® Server 2003. There should not be any adverse affects to Symphony in this case.



If you do not allow modification of this setting, and you use Vista, Windows® Server 2008, or a newer operating system, you may see port conflicts during operation. This can cause video footage to not be recorded. For more information about the dynamic port range and the need for modifications, see [Microsoft Support](#).



7. Once all sections of the configuration form are completed and verified, click **Apply**.
8. The Setup Status window opens. The status column displays updates as your configuration is applied. **NOTE:** The **Edit** and **Verify** buttons must display a green check mark before you can apply changes.
9. To see additional details of the changes that are being applied, select the **Show Detailed Log** check box.



Step	Status	Status	Message
Database Configuration	✔	Completed	Database setup complete.
License Configuration	✔	Completed	Registration complete
Machine Configuration	✔	Completed	
Upgrading	✔	Completed	Upgrade Complete
Path Configuration	✔	Completed	Path configuration complete.
Security Configuration	✔	Completed	
Starting Services	✔	Completed	

Show Detailed Log

10. When all changes are applied and no errors were encountered, the **OK** button will be enabled. Basic setup of the server is now complete. Further configuration, such as adding cameras, can be done in the Server Configuration window in Symphony Client.

The Aimetis Symphony Client will be launched automatically if the Setup Wizard was run from the installer. If it is a fresh install, a Farm Registration will be added to Aimetis Symphony Client for the local server.

**NOTE:** If any errors were encountered click **Cancel** to go back to the data entry form to make any necessary modifications. Once the modifications are complete click **Apply**.

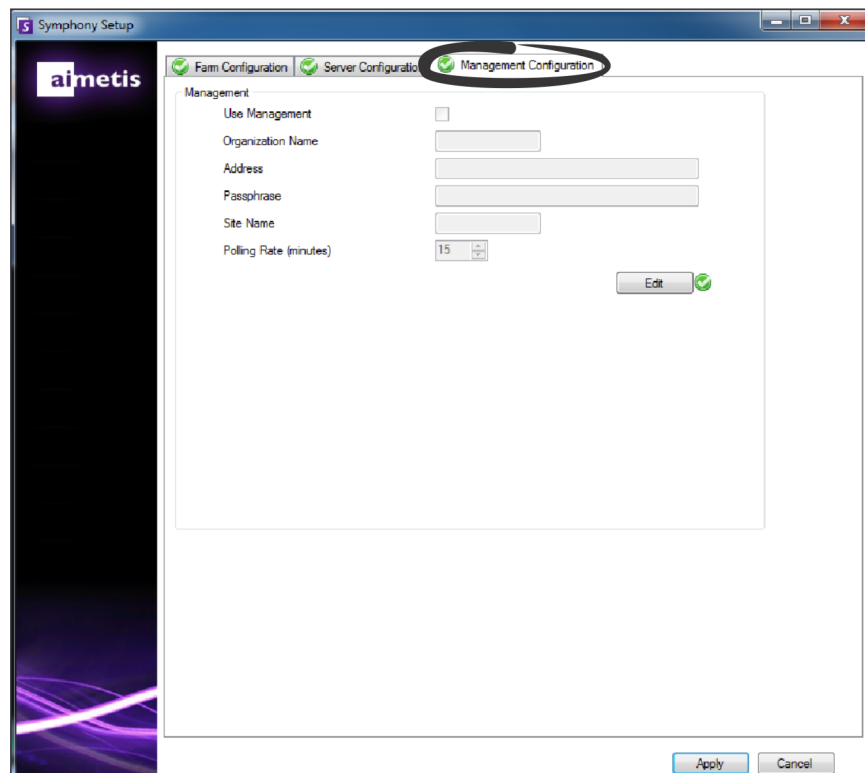
## Connect a Symphony Site to a Centrally Managed Enterprise

Administrators can now join a Symphony site to a centrally-managed enterprise. Enterprises are managed using the Aimetis Enterprise Manager (AEM). The AEM is an SSL-secure, web-based application that enables system administrators to centrally manage Aimetis Symphony Server settings and backups, as well as monitor server health and performance, across large, geographically-distributed video deployments. Once a site joins an enterprise, the site queries that enterprise for updates and applies them locally as needed.

When you add a server to the farm (**Farm Configuration** tab) and fill out the information in the **Management Configuration** tab, you are updating/changing the site name for all the servers in the farm. The name is not specific to the server you are currently installing, but rather for all the servers using the same database. Use a name that makes the management system easily identifiable.

The **Site Name** that you create in this Setup Wizard can be changed (if necessary) in the Enterprise Management Configurator. (Currently, you cannot create a site in Enterprise Management.) When the site joins the organization, its site name is added to the organizational site hierarchy in Enterprise Management Configurator. For details, see the *Enterprise Management online help*.

1. When the Setup Wizard launches, click on the **Management Configuration** tab. **NOTE:** The Setup Wizard opens automatically at the end of the installation. To manually run the Setup Wizard, select **Aimetis > Setup Wizard** from the Start menu.
2. Click **Edit** to activate the fields in the **Management** group box.
3. Select the **Use Management** check box. **NOTE:** To leave an enterprise, clear the **Use Management** check box.
4. Enter the **Organization Name**. Do not enter spaces in this field. Use underscore where a space is required. For example, Miami\_Airport\_Corporation.
5. In the **Address field** enter `https://aem.aimetis.com`.



6. Enter the **Passphrase**. **NOTE:** The passphrase specified in Symphony must match the passphrase stored on the AEM.
7. Enter the Symphony **Site Name**.
8. Set the **Polling Rate**, which determines how often the local Symphony site pings the enterprise to check for updates. The default polling rate is 15 minutes.
9. Once all sections of the configuration form are completed and verified, click **Apply**. The Setup Status window opens, which displays the updates as your configuration is applied. **NOTE:** The **Edit** and **Verify** buttons must display a green check mark before you can apply changes.



To see additional details of the changes that are being applied, select the **Show Detailed Log** check box.

10. When all changes are applied and no errors are encountered the **OK** button is enabled. Basic setup of the server is now complete. Further configuration, such as adding cameras, can be done in the Server Configuration window in Symphony Client. The Symphony Client will be launched automatically if the Setup Wizard was run from the installer. If it is a fresh install, a Farm Registration will be added to the Symphony Client for the local server.

**NOTE:** If any errors were encountered click **Cancel** to go back to the data entry form to make any necessary modifications. Once the modifications are complete click **Apply**.



## Installing Aimetis Symphony Client



It is not recommended that Aimetis Symphony Client be used to constantly stream live video on the Server PC itself. Aimetis Symphony Client may consume significant CPU or other resources on the PC while displaying live video. This CPU utilization would therefore be unavailable for the server software to perform its functions. It is recommended that you install the client software on other PCs on the network for configuration and live video streaming.

Aimetis Symphony comes standard with client software, called Aimetis Symphony Client. Aimetis Symphony Client is installed by default when Symphony Server is installed. Symphony Client is used to configure all settings within Symphony Server.

**NOTE:** At any point during the installation click **Cancel** to cancel the installation. Any changes made to your system will be dismissed.

1. Run the installer. **NOTE:** You do not need to manually uninstall previous versions or manually move any cameras.
2. Any required components missing on your machine are listed in the InstallShield Wizard dialog box. To install missing components, click **Install**.
3. After reviewing the license and warranty information in the License Agreement window, click **I accept the terms of the license agreement**.
4. Click **Next**.
5. *(Optional)* If you want to change the installation location of Aimetis Symphony Client, click the **Change** button. In the Change Installation Folder window, enter the folder path in the **Folder name** field and click **OK**. The new destination is displayed next to the folder icon. You can use the folder navigation in the **Look in** portion of the window to navigate to the desired location.
6. Click **Next**. The Ready to Install the Program window appears.
7. Review the data in the **Current Settings** area. If this information is correct, click **Install** to proceed with the installation.
8. To complete the installation, click **Finish**. The **Launch the program** check box is selected by default. This allows Aimetis Symphony Client to open automatically when the installation is complete.

## Installing Symphony Player

Aimetis Symphony Player is installed automatically whenever Aimetis Symphony Client is installed. Aimetis Symphony Player is required to play back *.aira* files. If required, you can download a [separate installation package](#) for Symphony Player.

**NOTE:** At any point during the installation click **Cancel** to cancel the installation. Any changes made to your system will be dismissed..



To install Aimetis Symphony Player separately:

1. Close any Aimetis applications that are open.
  2. Download the Aimetis Symphony Player installation file.
  3. Follow the on screen instructions.
1. Run the installer. **NOTE:** You do not need to manually uninstall previous versions or manually move any cameras.
  2. Any required components missing on your machine are listed in the InstallShield Wizard dialog box. To install missing components, click **Install**.
  3. After reviewing the license and warranty information in the License Agreement window, click **I accept the terms of the license agreement**.
  4. Click **Next**.
  5. *(Optional)* If you want to change the installation location of Aimetis Symphony Player, click the **Change** button. In the Change Installation Folder window, enter the folder path in the **Folder name** field and click **OK**. The new destination is displayed next to the folder icon. You can use the folder navigation in the **Look in** portion of the window to navigate to the desired location.
  6. Click **Next**. The Ready to Install the Program window appears.
  7. Review the data in the **Current Settings** area. If this information is correct, click **Install** to proceed with the installation.
  8. To complete the installation, click **Finish**. The **Launch the program** check box is selected by default. This allows Symphony Player to open automatically when the installation is complete.

# Uninstalling

These instructions contain menu names used in the Windows® 7 operating system.

1. From **Programs and Features** in your Control Panel:
  - a. For Symphony Server, select **Aimetis Symphony Server** and choose **Uninstall**.
  - b. For Symphony Client, select **Aimetis Symphony Client** and choose **Uninstall**.
  - c. For Symphony Player, select **Aimetis Symphony Player** and choose **Uninstall**.
2. Click **Next**. The Remove the Program window opens.
3. Click **Remove**.



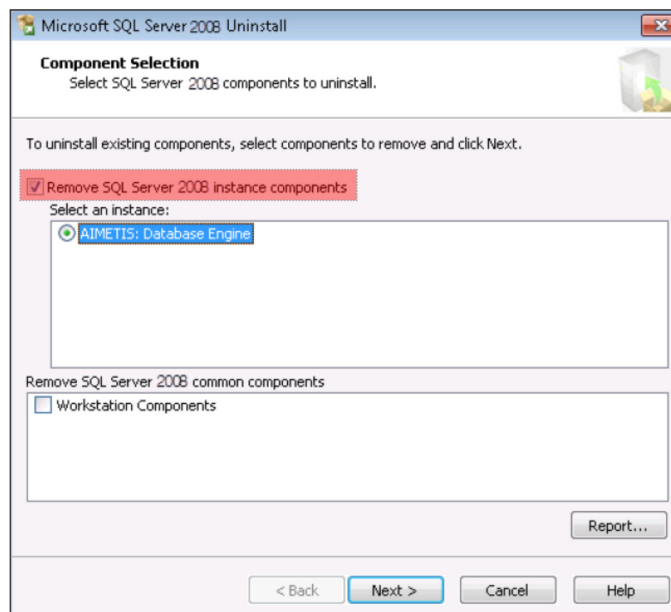
- If files on your system are in use, select the **Automatically close and attempt to restart applications** option and click **OK**.
- If Windows® fails to close the applications, you may see the following warning: “The setup was unable to automatically close all requested applications. Please ensure that the applications holding files in use are closed before continuing with the installation.” Click **OK**.

4. Click **Finish** to complete the uninstall process.
5. From **Programs and Features** in your Control Panel:
  - a. For Symphony Server, first select the **Aimetis SNMP Agent**, and chose **Uninstall**. Next, select **Aimetis Core** item and chose **Uninstall**. If present, select **Aimetis Auto-Update Components** and choose **Uninstall**.
  - b. For Symphony Client, select the **Aimetis Core** item and chose **Uninstall**.
  - c. For Symphony Player, select the **Aimetis Core** item and chose **Uninstall**.

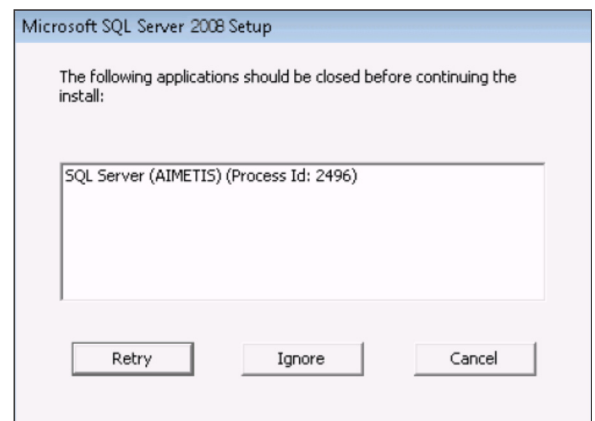
## Uninstalling SQL Server Instance

**Important! If you are uninstalling SQL Server on a machine with the intent to reinstall, you must remove the <name\_of\_database>.mdf and <name\_of\_datebase>.ldf files before running the install.**

1. From **Programs and Features** in your Control Panel, select the **Microsoft SQL Server Express 2008 R2** item. The **Component Selection** window opens.
2. Select the **Remove SQL Server Express 2008 R2 instance components** check box.
3. Select the **Aimetis: Database Engine** item from the list and click **Next**.
4. In the **Confirmation** window, click **Finish**.



5. If the Microsoft SQL Server 2008 Setup warning dialog box appears, you must stop the SQL Server instance through Services before clicking the **Retry** button.
  - a. From the Control Panel, select **Administrative Tools**, and then **Services**.
  - b. In the **Services** list, right-click on the **SQL Server (Aimetis)** item in the Services list. Click **Stop** from the menu to end the service.
  - c. Click the **Retry** button in the warning dialog box to continue the uninstall process.



# 3

# Upgrading

## Before Upgrading

### If you are using the PT090 Analytic Engine

**Important!** If you find that you cannot upgrade due to the guidelines on PT090 auto-tracking, send support information about your camera setup (encoder/model, camera/model). For a list of supported cameras, see [Aimetis Symphony - Supported Video Devices](#).

If you are using PT090 and you upgrade to Symphony 6.12 or higher, the PT090 analytic engine will **not** be visible as an option in the analytic engines list. Symphony will continue to run the PT090 analytic engine correctly, but it can no longer be applied to new cameras and existing configuration cannot be edited. We strongly recommend that you enable the PT091 analytic engine on your cameras. PT090 can be disabled by simply enabling PT091 and auto-tracking rules will **not** need to be reconfigured.



If you previously did not use default settings when configuring the PT090 analytic engine, then you will need to reconfigure them when enabling PT091.

If your **pre-6.10** Symphony installation depends on **PT090** auto-tracking working with the following camera types:

Camera	Task
For a relative positioning PTZ camera that is not the Bosch Auto-dome.	<b>Do not</b> upgrade to 6.10 and later releases.
For an analog PTZ camera through an encoder.	<b>Do not</b> upgrade to 6.11 and later <b>unless</b> you are certain that the encoder gives PTZ locations properly via an absolute positioning protocol (for example, PelcoD, not PelcoP). Test the auto-tracking performance before upgrading.
For an absolute positioning camera that is not in the <a href="#">supported list</a> .	Use the <b>PTZ Calibration</b> feature (Analytics Guide) from the context-menu in Symphony Client (right-click) to calibrate the camera and then test the auto-tracking performance <b>before</b> upgrading.

# Upgrading from a Previous Version



Before upgrading, perform a backup of your existing installation. The Upgrade installer verifies installation types: Symphony Server, Symphony Client, and Symphony Player. If a wrong installation is detected, you will be prompted with a message about the type of product and installation currently running. The upgrade will stop after you click **OK**.



When upgrading a Server Farm with multiple servers you must do the following:

- Upgrade all servers to the same version.
- Upgrade any redundant servers first, followed by other servers.
- Do not make any configuration changes using a previous version of the software once you have started the process of upgrading a server farm.

## Upgrade Paths



If upgrading from version 5.4, 6.0, or 6.1 to 6.14, see [How to Upgrade from Version 5.4, 6.0 or 6.1 to 6.14](#).

Current Version	Upgrade Process
6.2 through 6.5	<ol style="list-style-type: none"> <li>1. Install version 6.6.</li> <li>2. Install 6.14.</li> </ol>
6.6 through to 6.13	Install 6.14.

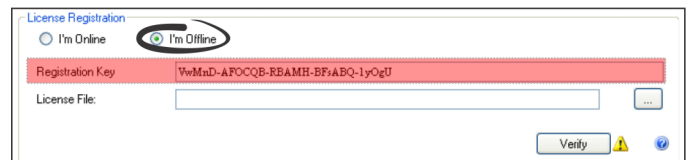
# Upgrade Symphony Server to the Latest Version

1. Run the latest installer to upgrade. **NOTE:** You do not need to manually uninstall previous versions or manually move any cameras.
2. Any required components missing on your machine are listed in the InstallShield Wizard dialog box. To install missing components, click **Install**.
3. The installer checks for any previous versions of Aimetis software installed on the machine. If any previous versions exist, **UninstallPreviousVersions** is displayed under the **Requirement** column in the wizard dialog box.
4. To install missing components and to uninstall a previous version, click **Install**.
5. After reviewing the license and warranty information in the License Agreement window, click **I accept the terms of the license agreement**.
6. Click **Next**. Symphony will be installed to the location specified. This will be the location of your previous install. You cannot change this location.
7. Click **Install**. Your system is now upgraded.

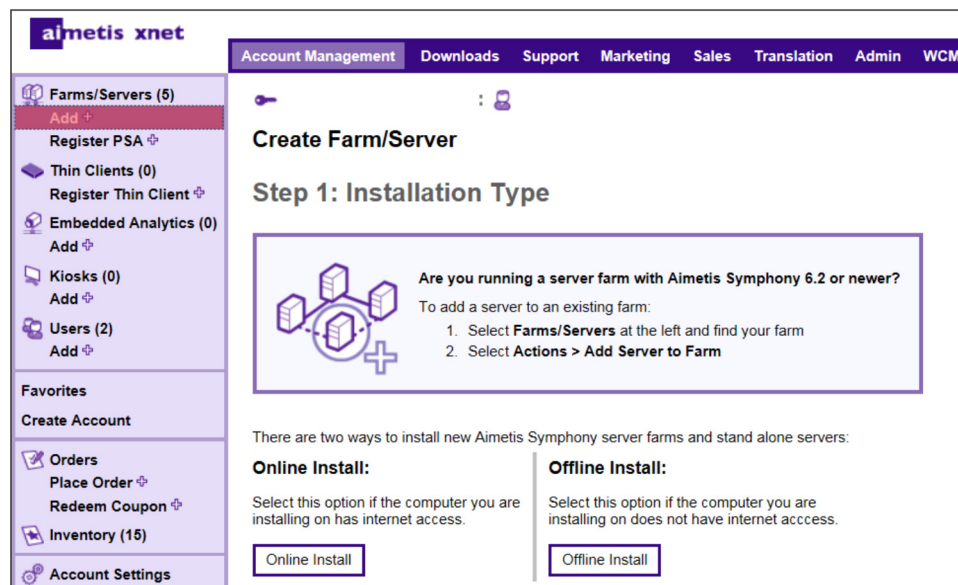
# Troubleshooting

## Not Connected to the Internet?

If you are not connected to the Internet, the **I'm Offline** option in the License Registration section of the Symphony Setup window is automatically selected.



1. Using the registration key in the **Registration Key** field, download a license file from the [Aimetis Xnet](#) on a computer connected to the Internet.
2. Log into [Aimetis Xnet](#). The Xnet opens with the **Account Management** tab active. For details, see [Aimetis Xnet Portal](#).
3. In the sidebar, click **Add+** under **Farms/Servers**.



4. Follow the on screen instructions.
5. After the Farm/Server is created, copy the downloaded license file to the server machine.
6. Click the **browse** button next to the **License File** field to select the license file you copied to your server machine. The license file location appears in the **License File** field.
7. Click **Verify**.



# SQL Server Express Does Not Install Properly on Windows® XP



If you installed SQL Express by itself with all the defaults, change WIN-K6T44FG29EK\aimetis to WIN-K6T44FG29EK\SQLExpress.

1. Install SQL Express by itself. **NOTE:** If it still fails, it is not related to Symphony.
2. Connect to the database in the Symphony Setup Wizard. Ensure that the default instance name is *SQLExpress* and not *Aimetis*. In the following example, the **Server Name** field displays WIN-K6T44FG29EK\aimetis:

