



ZOOM[®] Software Suite Version 7.1

Installation Guide

94ZM-ZMJ1A-712



vibrosystem.com
+1 450 646-2157

Sales:
sales@vibrosystem.com

Technical support:
techsupp@vibrosystem.com

Contents

- 1. Introduction3
- 2. Minimum System Requirements3
- 3. Overview4
 - 3.1 ZOOM® Controller.....4
 - 3.2 Workstation4
- 4. Before Performing an Update.....5
- 5. Installation6
 - 5.1 Installation on a ZOOM® Controller6
 - 5.2 Installation on a Workstation13
- 6. Equipment Update15
 - 6.1 Updating a ZPU-5000™ unit.....15
 - 6.2 Updating a SFA-100™, PDA-100™, or PDA-200™ unit.....16
- Appendix A: Backup Procedure for Microsoft SQL Server17
- Appendix B: List of Available Optional Modules.....20

1. Introduction

Congratulations on acquiring the ZOOM Software Suite. This guide provides information about installing and updating your ZOOM System.

Note: Translations of this manual are available on the installation disc.

2. Minimum System Requirements

Computer Requirements for ZOOM® Controller:

Recommended configurations		
OS	Supported Databases	Recommended Hardware
Windows Server 2003	<p>Recommended:</p> <ul style="list-style-type: none"> • Microsoft SQL Server 2008 Standard, 10 CAL <p>Also supported:</p> <ul style="list-style-type: none"> • Sybase 8 	<ul style="list-style-type: none"> • Server type computer • Processor: 2 GHz or faster multi-core • 4 GB of RAM • DVD burner • Dual Ethernet network card for LAN/WAN settings • SVGA at 1280 x 1024, 32-bit color • 4 GB of free disk space on the installation drive • 250 GB or more of free disk space for databases
Windows Server 2008 R2	<p>Recommended:</p> <ul style="list-style-type: none"> • Microsoft SQL Server 2008 Standard, 10 CAL • Microsoft SQL Server 2012 Standard, 10 CAL <p>Also supported:</p> <ul style="list-style-type: none"> • Sybase 8 	<ul style="list-style-type: none"> • Server type computer • Processor: 2 GHz (64-bit processor) or faster multi-core • 4 GB of RAM • DVD burner • Dual Ethernet network card for LAN/WAN settings • SVGA at 1280 x 1024, 32-bit color • 4 GB of free disk space on the installation drive • 250 GB or more of free disk space for databases
Windows Server 2012	<p>Recommended:</p> <ul style="list-style-type: none"> • Microsoft SQL Server 2008 Standard, 10 CAL • Microsoft SQL Server 2012 Standard, 10 CAL <p>Also supported:</p> <ul style="list-style-type: none"> • Sybase 8 	<ul style="list-style-type: none"> • Server type computer • Processor: 3.1 GHz (64-bit processor) or faster multi-core • 8 GB of RAM or more • DVD burner • Dual Ethernet network card for LAN/WAN settings • SVGA at 1280 x 1024, 32-bit color • 4 GB of free disk space on the installation drive • 250 GB or more of free disk space for databases

- Not recommended: Windows XP Pro SP3, and Windows 7
- Not supported: Windows Vista and Windows 8 (ZOOM Base is not compliant)

Computer Requirements for ZOOM® Workstation:

Recommended Hardware

- Processor: 1GHz or faster multi-core
- 2 GB of RAM or more
- Ethernet network card for LAN/WAN settings
- CD or DVD drive
- SVGA at 1280 x 1024, 32-bit color
- 2 GB of free disk space on the installation drive

Operating System requirements

- Windows XP Pro SP3, Windows 7, Windows 8
- Also available with limitations: Windows Vista

3. Overview

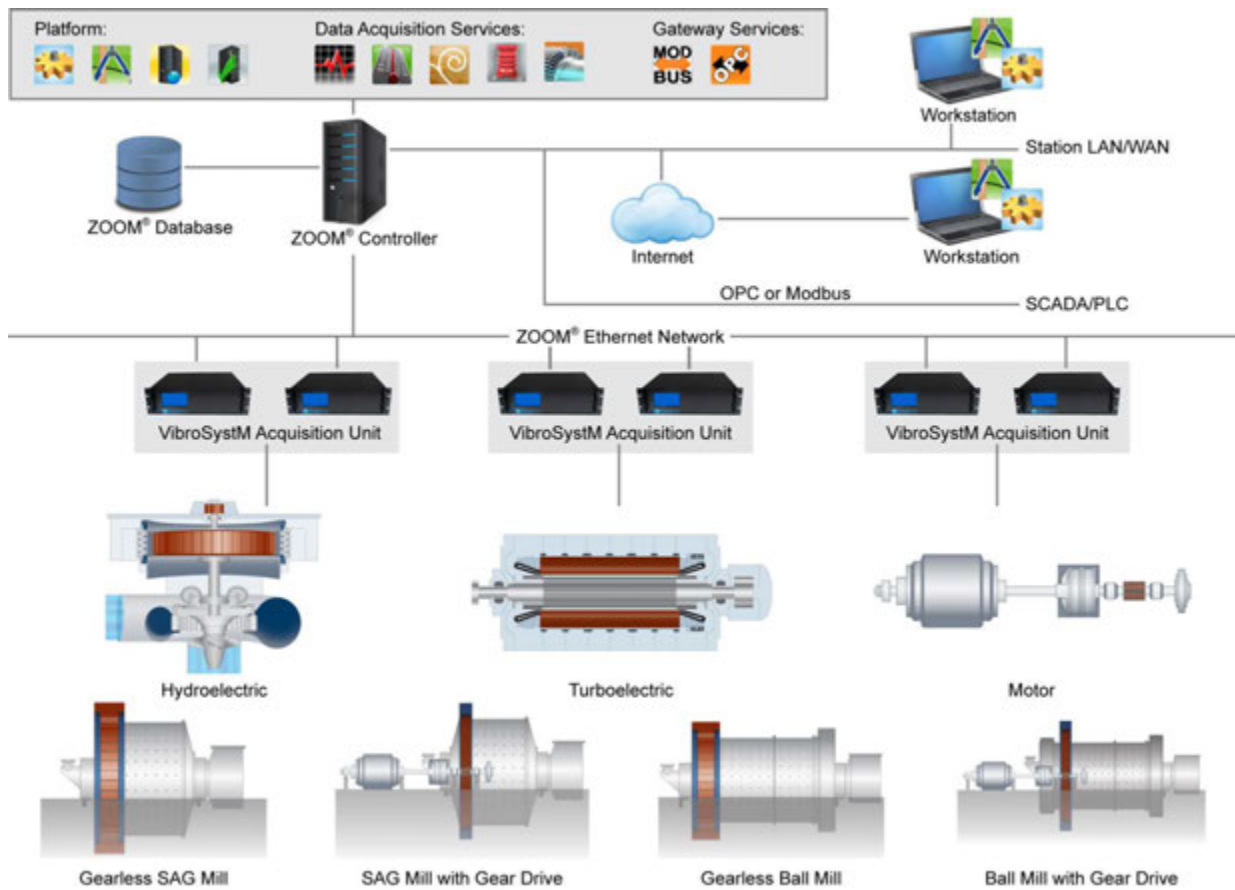


Figure 1: System overview

Two distinct installation procedures are available: on a ZOOM Controller, or on a workstation.

3.1 ZOOM® Controller

The ZOOM Controller is the computer on which ZOOM Server, the application in charge of data and communication management, is installed. Apart from ZOOM Server, other applications are also usually installed on the ZOOM Controller, such as ZOOM Configuration (to describe the equipment, sensors, and setting up measurements) and ZOOM Application (to take manual measurements, acknowledge alarms, display results, monitor equipment status, and various other functionalities). Finally, all data acquisition services and communication gateway services between the ZOOM system and other networks are also installed on the ZOOM Controller.

3.2 Workstation

A workstation is a computer that connects to ZOOM Server via an Ethernet network. Using ZOOM Application, the workstation can take manual measurements, acknowledge alarms, display results, monitor equipment status, and various other functionalities. A workstation can also run ZOOM Configuration for setting up equipment, measurements, alarm thresholds and so on.

4. Before Performing an Update

Make sure the following steps are properly completed:

1. If updating a ZOOM Controller, stop the ZOOM Server service. If updating a workstation, skip directly to Step 4. To stop the ZOOM Server service, access the ZOOM Server GUI and from the **File** menu, select **Stop service**;

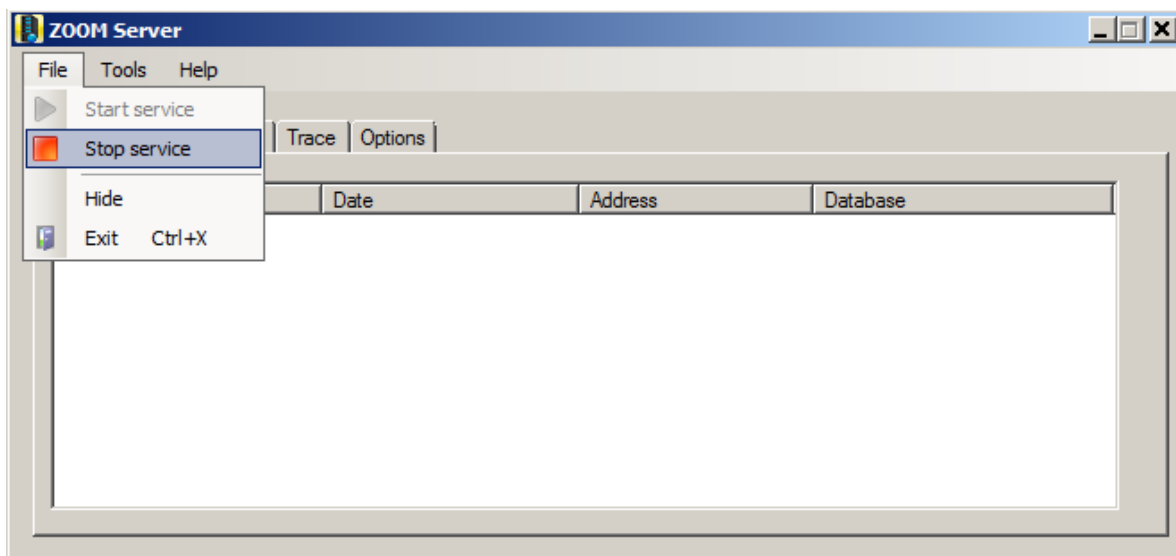


Figure 2: Stopping ZOOM Server

2. Close all ZOOM Software applications;
3. Make a backup of your database. In the case of Sybase databases, simply make a copy of the file. For Microsoft SQL Server databases, refer to your database administrator or Appendix A. As for Oracle databases, refer to your Oracle administrator for assistance;
4. Uninstall any previous version of ZOOM.

Windows XP in default XP view / Server 2003

- a) From the **Start** menu, select **Control Panel**.
- b) Click the **Add or Remove Programs** icon.
- c) For each ZOOM program you need to remove, select the program name, and click **Remove**.

Windows 7 / Vista / Server 2008

- a) From the **Start** menu, select **Control Panel**.
- b) In **Classic View**, double-click **Programs and Features**.
In **Control Panel Home**, under **Programs**, click **Uninstall a program**.
- c) For each ZOOM program you need to remove, select the program name and click **Uninstall**.
Alternatively, right-click on the program and select **Uninstall**.

Windows 8

- a) Press the Windows key to open the **Start** screen. Right-click on the background. Select **All apps**. Then, select **Control Panel**.
- b) In **Classic View**, double-click on **Programs and Features**.
In **Control Panel Home**, under **Programs**, click **Uninstall a program**.
- c) For each ZOOM program you need to remove, select the program name, and click **Uninstall**.
Alternatively, right-click on the program and select **Uninstall**.

Windows Server 2012

- d) Press the Windows key to open the **Start** screen. Then, select **Control Panel**.

- e) In **Classic View**, double-click on **Programs and Features**.
In **Control Panel Home**, under **Programs**, click **Uninstall a program**.
 - f) For each ZOOM program you need to remove, select the program name, and click **Uninstall**.
Alternatively, right-click on the program and select **Uninstall**.
5. If your previous version was 6.2 or 6.4, uninstall Crystal Report for .NET Framework 2.0 (x86).

5. Installation

5.1 Installation on a ZOOM® Controller

Complete the following steps:

1. If the operating system is Windows Server 2012, make sure .NET Framework 3.5 is enabled. For any other version, go to step 2. To verify or enable .NET Framework, in the **Control Panel**, select **Programs and Features**. Select **Turn Windows features on or off**.

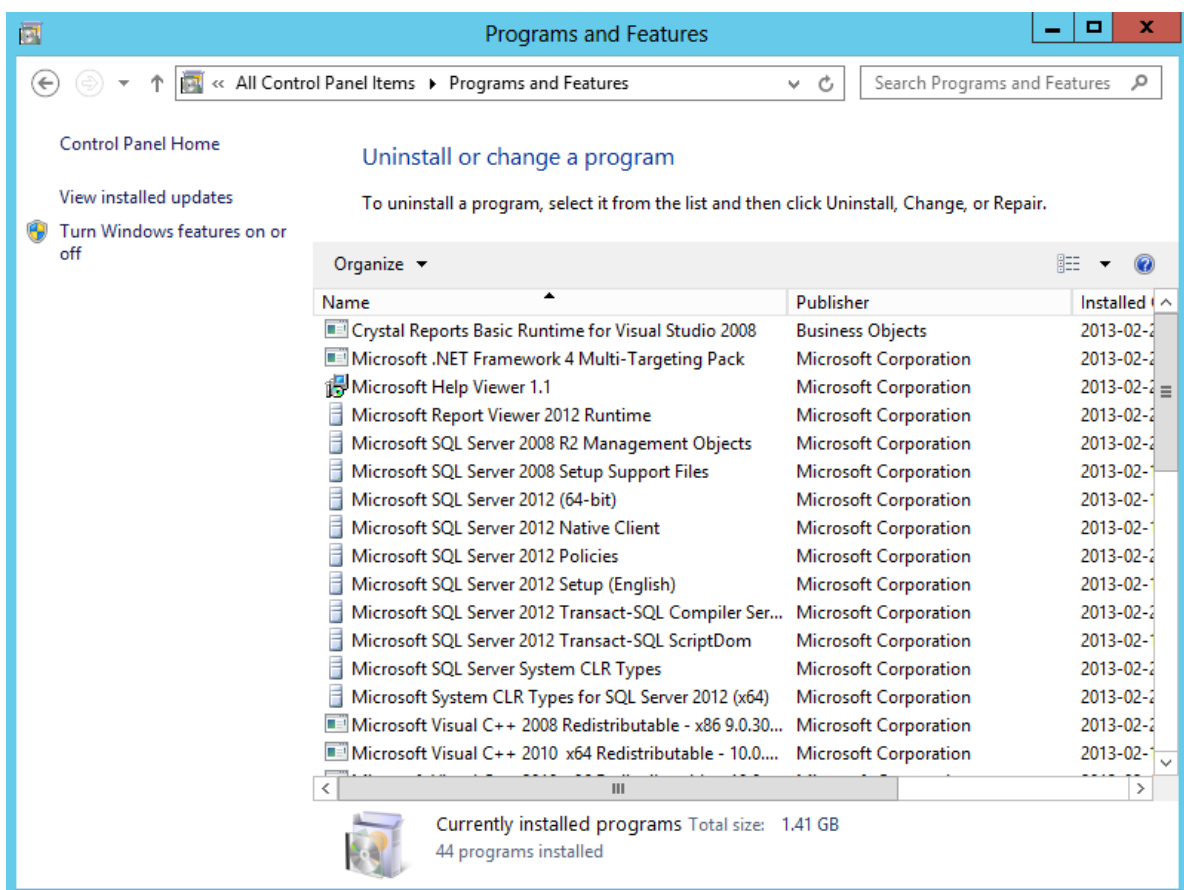


Figure 3: Turn Windows features on or off

In the **Server Manager**, select the **Local Server** section. In the **Roles and features** section, verify if .NET Framework 3.5 is installed. If .NET Framework 3.5 is installed, go to step 2. Otherwise, click on the **Tasks** drop-down list and select **Add Roles and Features**.

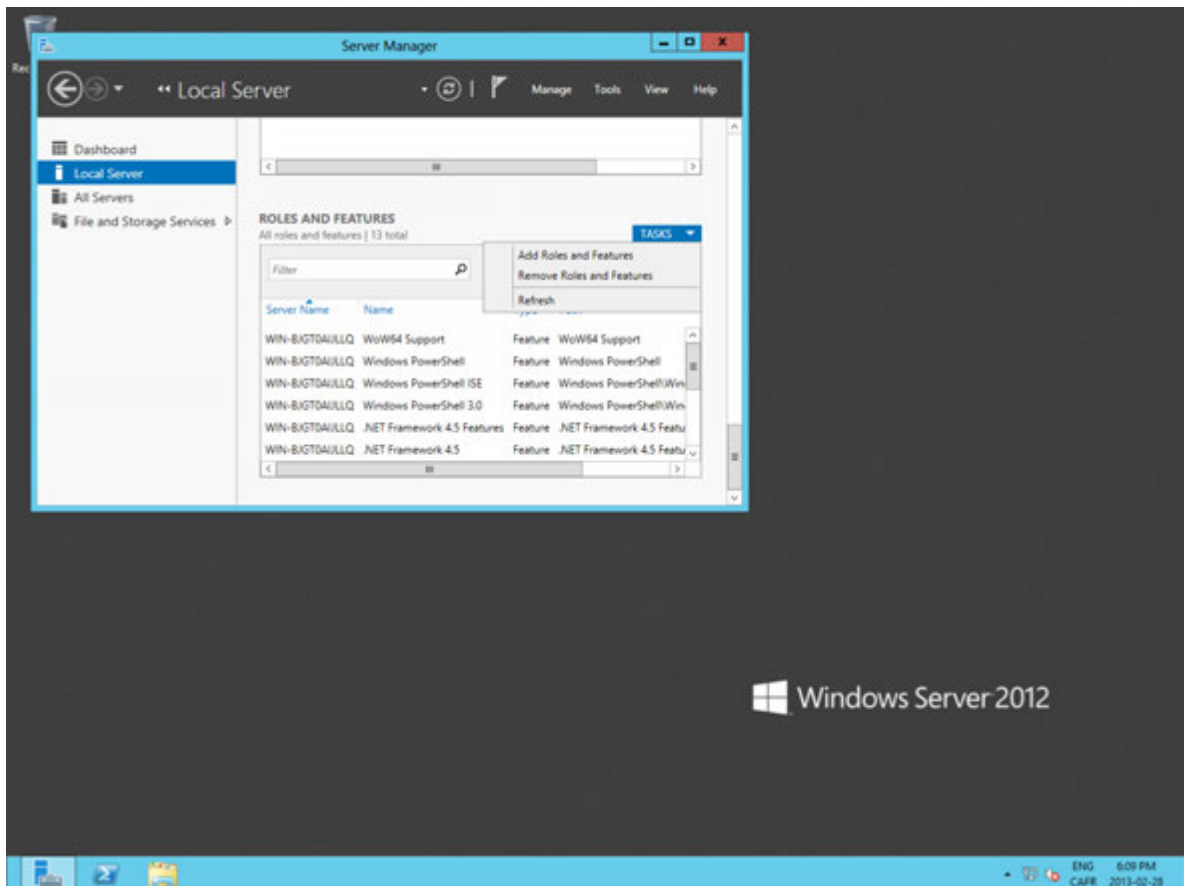


Figure 4: Add Roles and Features on Windows Server 2012

Then, in the **Add Roles and Features Wizard** window, at the **Installation Type** step, select the **Role-based or feature-based installation** option and click **Next**. In the **Server Selection** step, choose **Select a server from the server pool** and click **Next**. At the **Features** step, select **.NET Framework 3.5 (includes .NET 2.0 and 3.0)** and click **Next**.

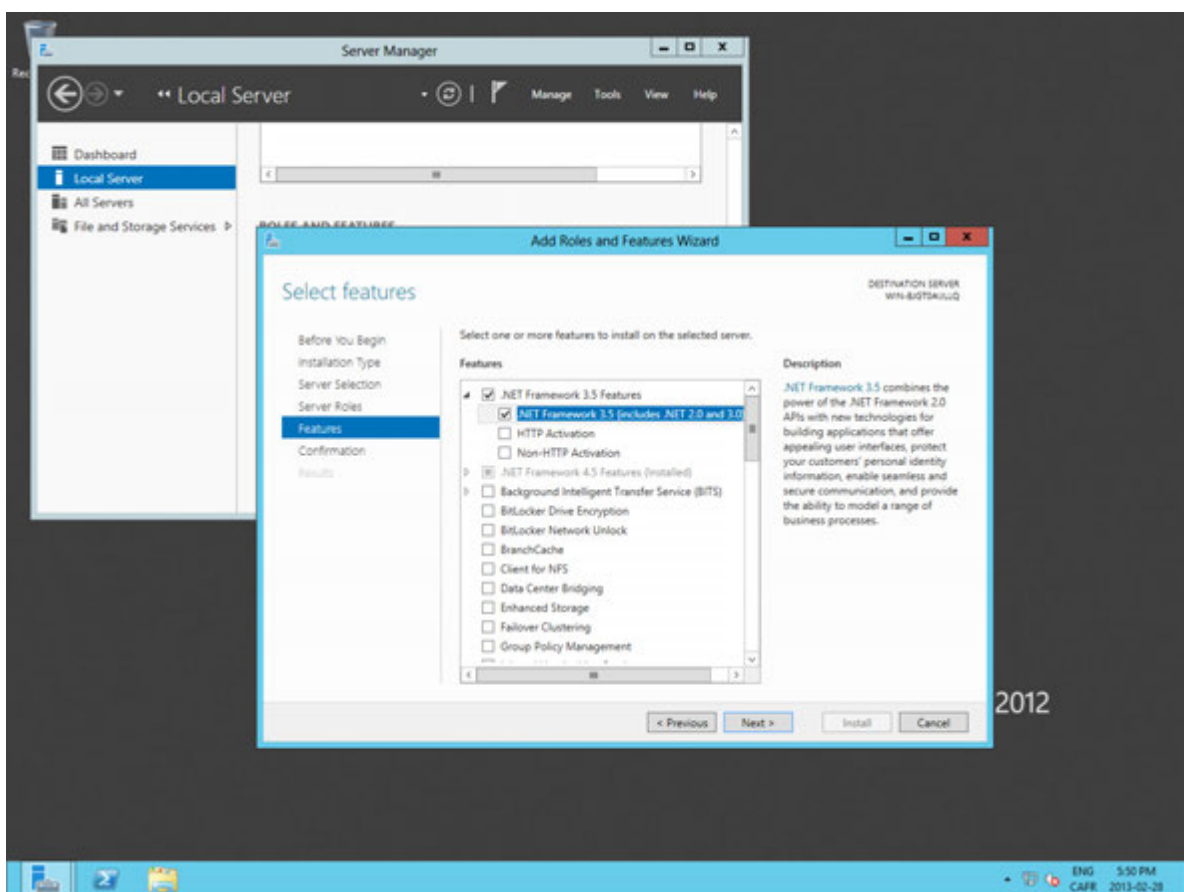


Figure 5: .NET Framework 3.5 (includes .NET 2.0 and 3.0) selection

In **Confirmation**, click the **Specify an alternate source path** link.

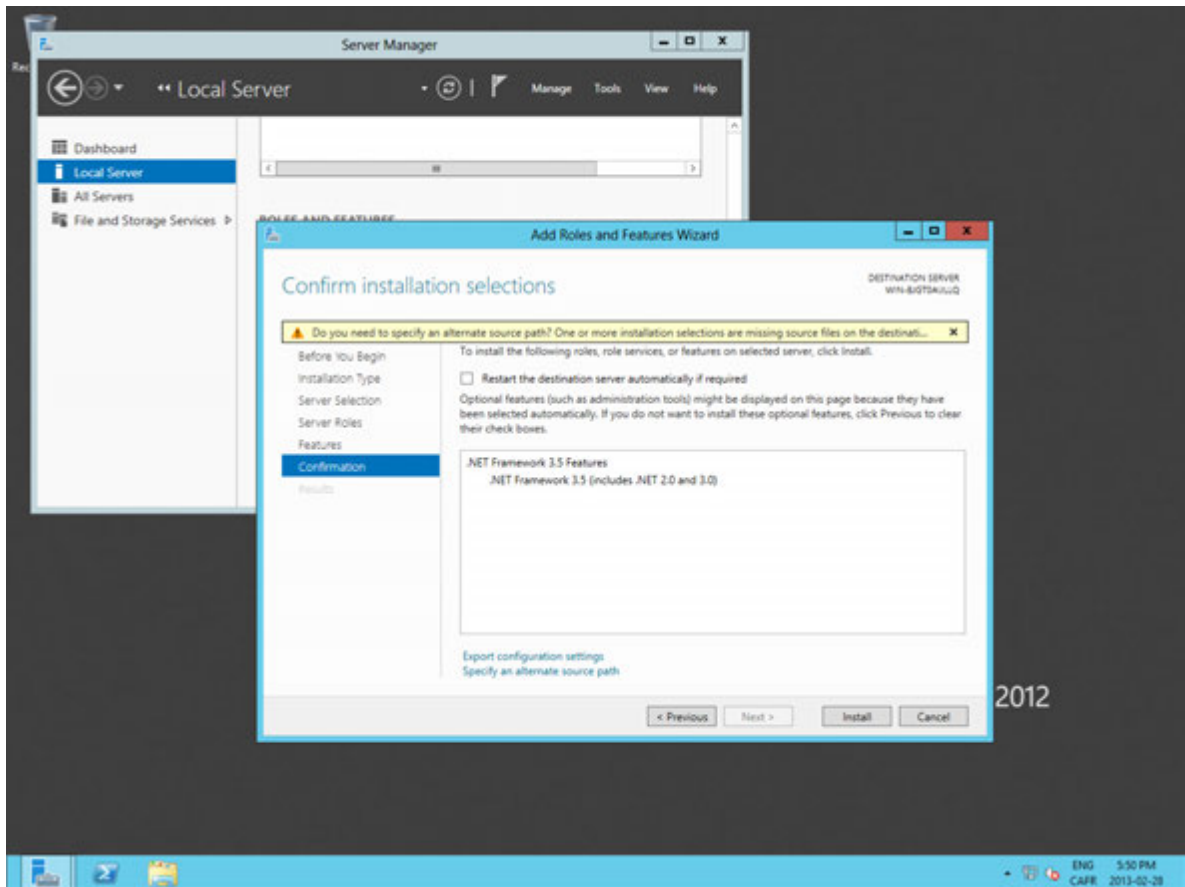


Figure 6: Specify an alternate source path

In the **Path** field, type the folder path: `\Sources\SxS` on the Server 2012 installation disc and click **OK**.

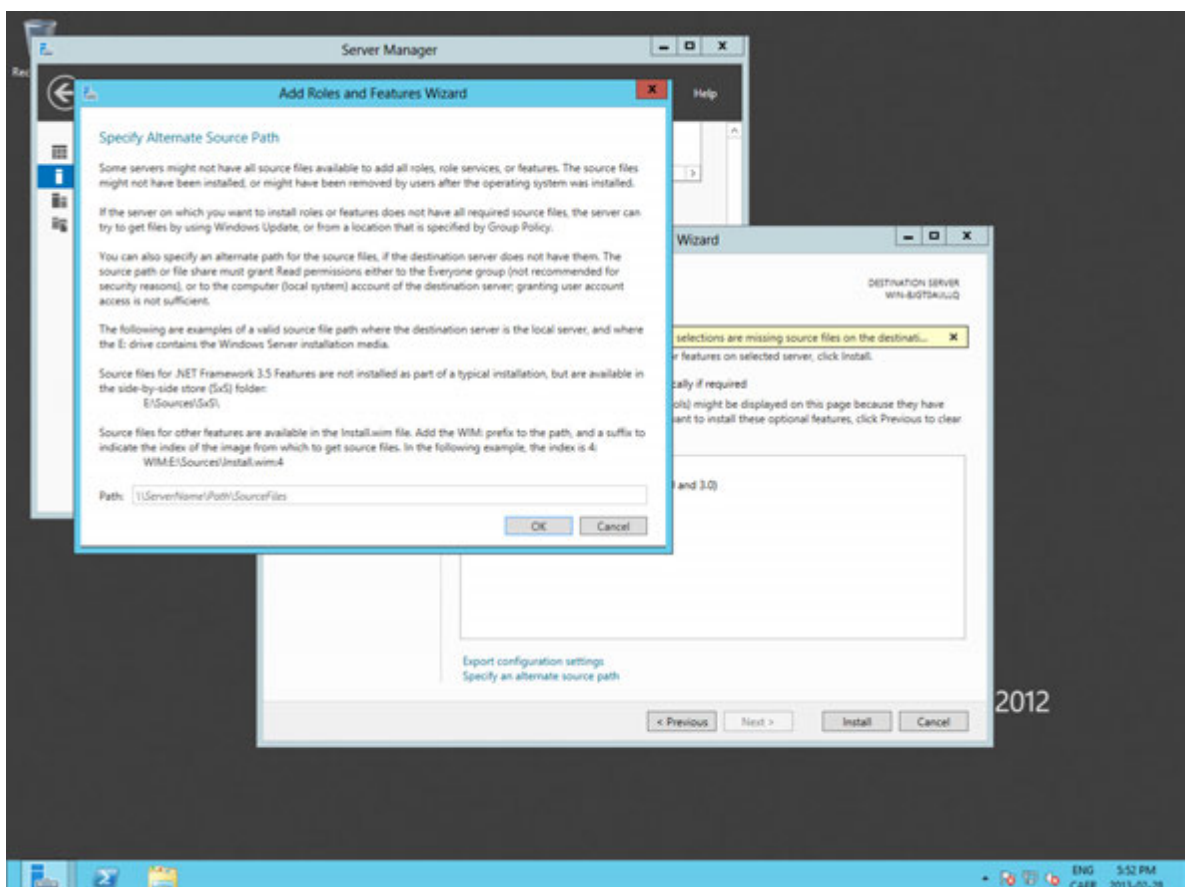


Figure 7: Specify an alternate source path

Click **Install** to complete the feature installation process.

2. If this is the first time ZOOM is installed, the database engine must also be installed. Microsoft SQL Server is now recommended with ZOOM. Refer to your database administrator or network technician for assistance. A procedure can be provided on request.
3. Install ZOOM Platform. You will need your licence number, which can be found on the back of the CD packaging, or has been transmitted by email. The ZOOM_Platform_Setup.exe installation program will guide you through the installation steps. On the ZOOM Controller, the component selection step is crucial. The following image shows the components selected by default.

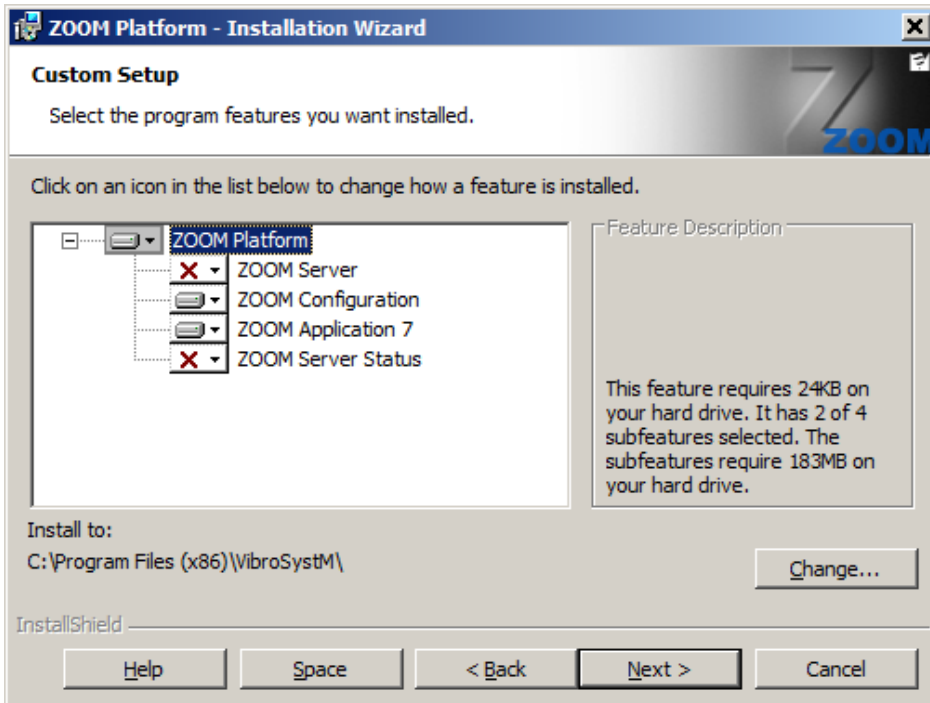


Figure 8: Initial default features selection

On a ZOOM Controller, the ZOOM Server component must absolutely be included by clicking on the list and selecting “This feature will be installed on your local drive”.

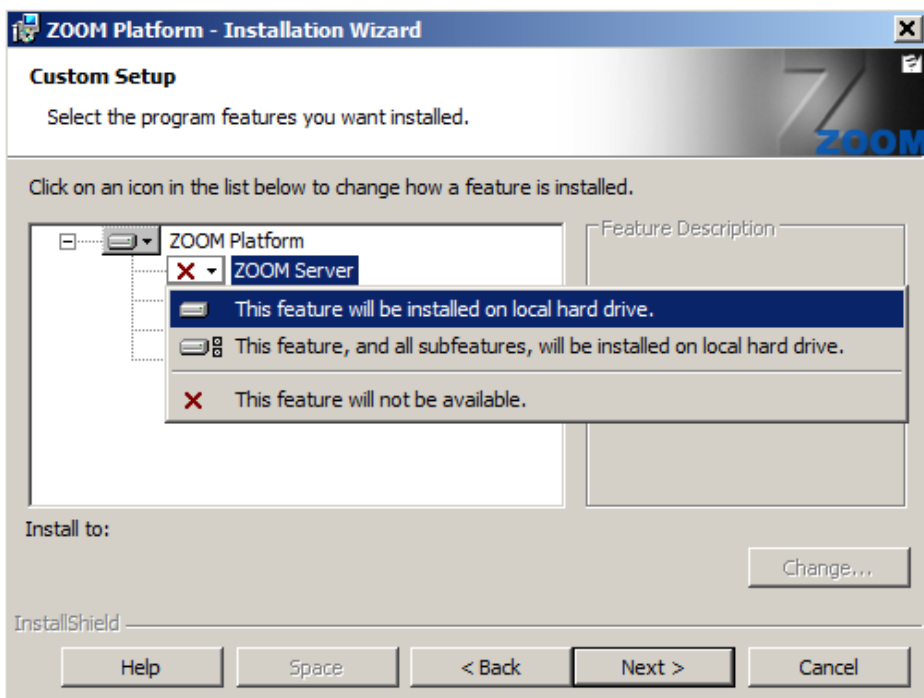


Figure 9: Adding ZOOM Server

In the same components selection screen, the ZOOM Server Status component may also be selected to allow monitoring of the ZOOM Controller status.

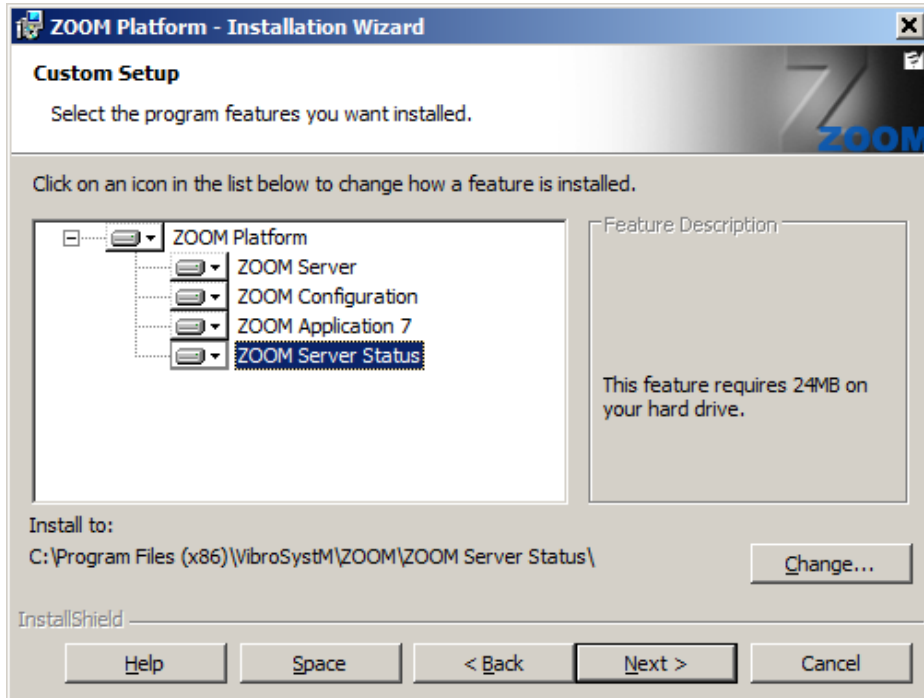


Figure 10: Suggested installation on a ZOOM Controller

4. Install ZOOM Configuration Settings. This will install the latest available settings for ZOOM configurations. ZOOM_Configuration_Settings.exe, provided with ZOOM Platform on a separate CD, will guide you through this installation.
5. The installation must be repeated for each optional module. The same licence number as ZOOM Platform is used for all additional modules. As with the ZOOM Platform, an installation program will guide you through the installation of each module (see Appendix B). On the ZOOM Controller, at the component selection step, it is important to install both the service and the plug-in features.

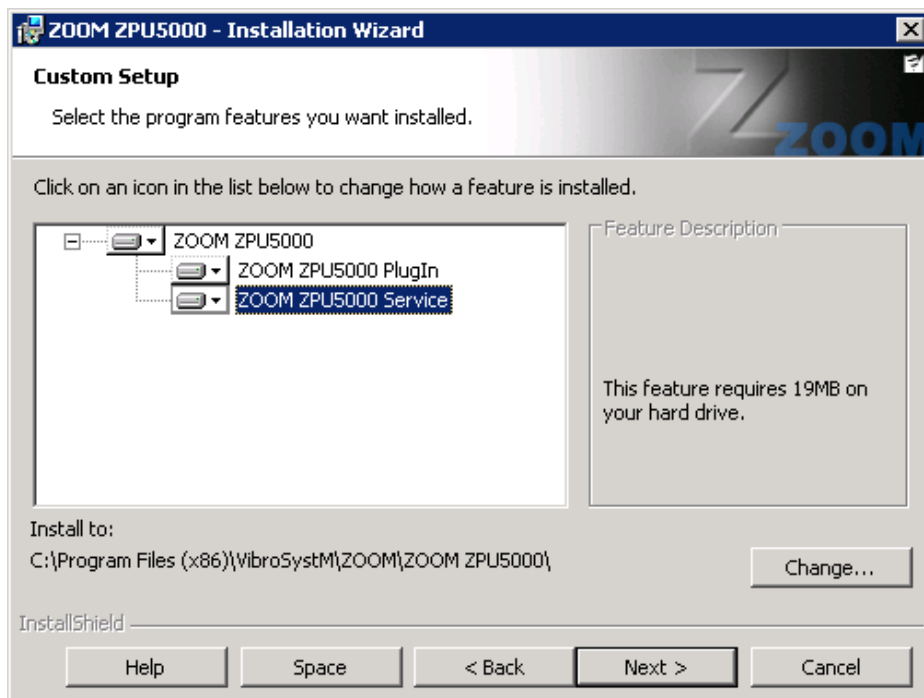


Figure 11: Required selection for each module installed on a ZOOM Controller

6. If your Windows Firewall is **On**, port exceptions will need to be added for each installed ZOOM product in order to enable communication through the firewall. If your operating system is Windows Server 2003, only inbound ports will need to be added. If the operating system is Windows Server 2008 or Windows Server 2012 and the outbound connections parameter is set to **Block**, outbound ports may also need to be added.

Software	Inbound TCP Ports	Inbound UDP Ports	Outbound UDP Ports
ZOOM Server	62000	62001	62001
ZOOM ZPU5000	62011	62010	62010
ZOOM ThermaWatch Stator	62009	62008	62008
ZOOM Look	62003	62002	62002
ZOOM PDA100	62007	62006	62006
ZOOM PDA200	62017	62016	62016
ZOOM SFA100	62005	62004	62004
ZOOM OPC	135		
ZOOM Modbus	62013	62012	62012

If you need additional details on how to add port exceptions, please refer to the **Getting Started - Setting up Windows Firewall** section, available in **ZOOM Help** (from the **ZOOM Help** submenu, a part of the **VibroSystM ZOOM** menu).

7. If the Windows Firewall is **On** and your operating system is Windows Server 2003, the following Program Exceptions will also need to be added. Each software product listed below can be found in your installation folder.

Software	Windows Server 2003 Exceptions	Windows Server 2008 and 2012 Exceptions
ZOOM Server	ZOOMServer.exe	
ZOOM Server Status	ZOOMServerStatusService.exe	
ZOOM ZPU5000	ZOOMZPU5000Service.exe	
ZOOM ThermaWatch Stator	ZOOMThermaWatchStatorService.exe	
ZOOM Look	ZOOMLookService.exe	
ZOOM PDA100	ZOOMPDA100Service.exe	
ZOOM PDA200	ZOOMPDA200Service.exe	
ZOOM SFA100	ZOOMSFA100Service.exe	
ZOOM OPC	ZOOMOPCService.exe DANSrvAE.exe C:\WINDOWS\system32\OpcEnum.exe	DANSrvAE.exe C:\WINDOWS\SysWOW64\OpcEnum.exe
ZOOM Modbus	ZOOMModbusService.exe	

If you need additional details on how to add program exceptions, please refer to the **Getting Started - Setting up Windows Firewall** section, available in **ZOOM Help**.

8. For ZOOM OPC, set up Windows security. Refer to the **Getting Started - Setting up Windows Security** section, available in **ZOOM Help** (from the **ZOOM Help** submenu, a part of the **VibroSystM ZOOM** menu).
9. If ZOOM Base is installed, access **System Properties** from the **Control Panel**. Select the **Advanced** tab. Click on the **Settings** button in the **Performance** section. Select the **Data Execution Prevention** tab and select **Turn on DEP for essential Windows programs and services only**. Restart your computer.
10. If this is your first installation, you are now ready to create your database with ZOOM Server.
11. If this is a major update (from Version 6.x to 7.x), you will have to use ZOOM Server to add your existing database(s) to ZOOM Server.
12. If this is a minor Version 7 update, you will have to use ZOOM Server to update your existing database(s). Select each database and click **Information**.

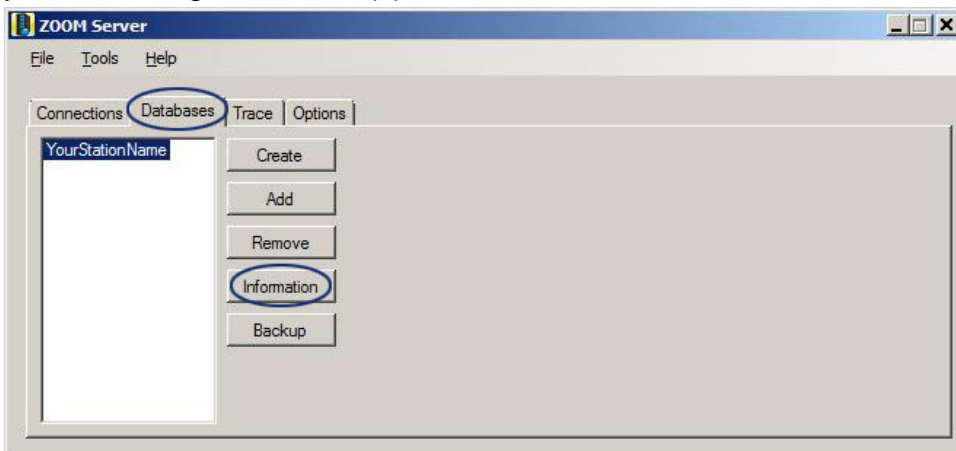


Figure 12: Select a database and update the data version with ZOOM Server

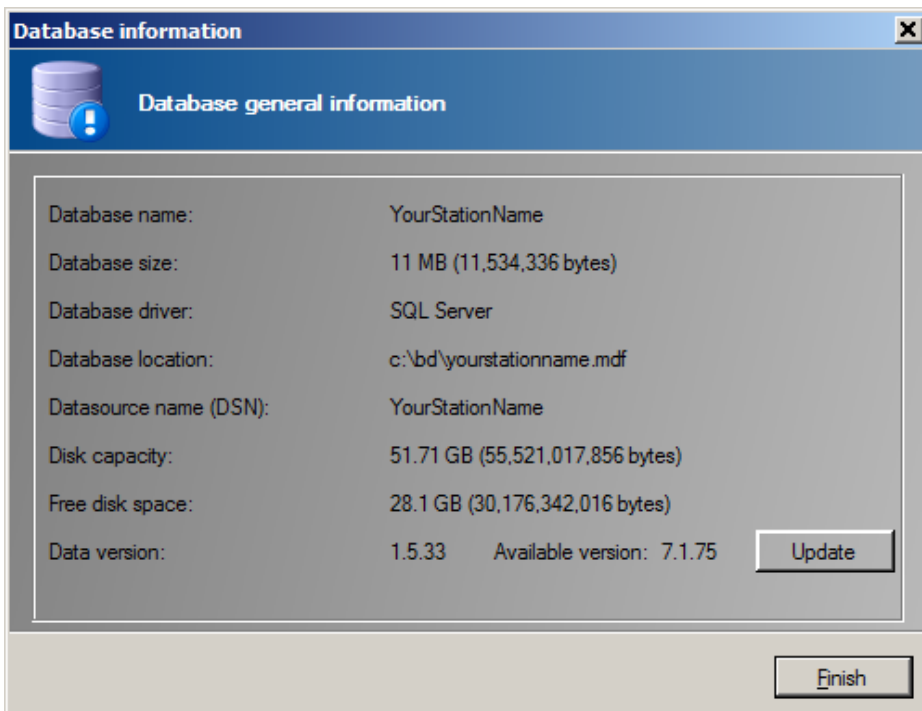


Figure 13: Update the database version

Click **Update**. Once the operation is complete, **Data Version** will display the same information as **Available Version**. To exit the window, click **Finish**.

13. After installing a program update, use ZOOM Configuration to update the configuration. You only need to open the configuration and resave it. The update will be automatically completed.

5.2 Installation on a Workstation

Perform the following steps:

1. If the operating system is Windows 8, make sure .NET Framework 3.5 is enabled. For any other operating system, go to step 2. To verify or enable .NET Framework on Windows 8, press the Windows key to open the **Start** screen. Right-click on the background, select **All apps** and then **Control Panel**. In the **Control Panel**, select **Programs and Features**. Select **Turn Windows features on or off**. In the **Windows Features** window, select **.NET Framework 3.5 (includes .NET 2.0 and 3.0)** and click **OK**. Note that a valid Internet connection must be available to download this feature.
2. Install ZOOM Platform. You will need your licence number, printed on the back of the CD case your installation discs came in, or sent by email.

The ZOOM_Platform_Setup.exe installation program will guide you through the installation steps. On the component installation step, it is important to select only ZOOM Application for installation, and also ZOOM Configuration if needed.

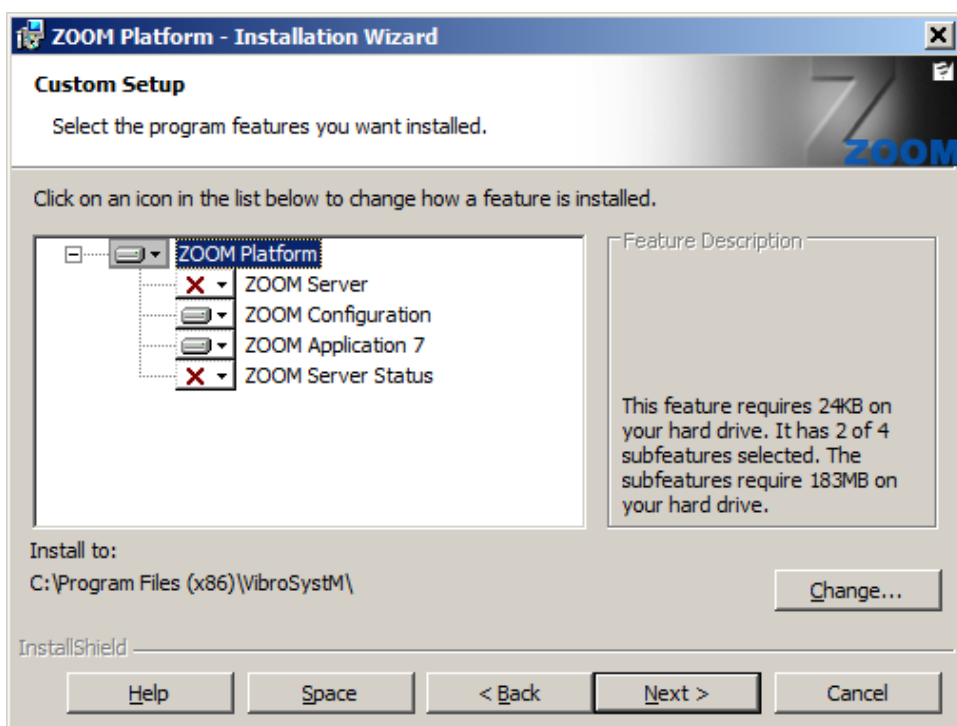


Figure 14: Suggested installation on a workstation

3. Install ZOOM Configuration Settings. This will install the latest available settings for ZOOM configurations. ZOOM_Configuration_Settings.exe, provided with ZOOM Platform on a separate CD, will guide you through this installation.
4. Installation must be repeated for each optional module. The same licence number as ZOOM Platform is used for all additional modules. As with the ZOOM Platform, an installation program will guide you through the installation of each module (see Appendix B). On the workstations, at the component selection step, it is important to install only the plug-in feature.

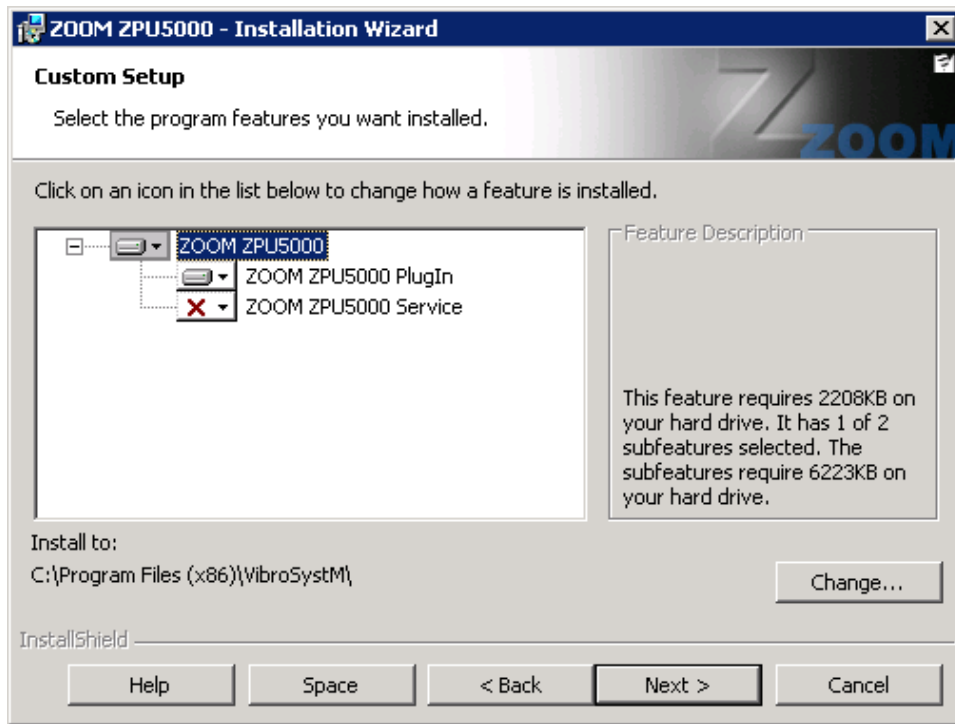


Figure 15: Required installation of optional modules on a workstation

6. Equipment Update

When updating your system, after updating the ZOOM Controller, you must update your equipment firmware.



Warning!

If you need to update several different equipment components, do not copy all files at once on the same USB flash drive. You must proceed with one product update at a time. Copy the CE5 folder for one product on your USB flash drive and install it. Then, erase the CE5 folder from your USB flash drive before repeating the operation for the next product.

6.1 Updating a ZPU-5000™ Unit

1. Press the **Menu** button on the ZPU-5000, select the **Information** menu and then select the **System** sub-menu. A list of installed firmwares (plugins) will be displayed. Note down this list.
2. Copy the CE5 folder from your ZOOM ZPU5000 installation disc to a USB flash drive.



Warning!

You must copy the whole CE5 folder, not only its contents. Copy the entire folder to the root level of the USB flash drive.

3. Open the \CE5\Update folder on the USB flash drive and only keep the ZPUManager subfolder. Delete all other folders.
4. Insert the USB flash drive in the ZPU-5000's dedicated USB port. The System OK LED will flash yellow while the update is in progress.
5. When the message **System needs to restart, remove USB key** appears, you must remove the USB flash drive. The system will automatically reboot to complete the update process.
6. Delete the CE5 folder from the USB flash drive.
7. Copy the CE5 folder again from your ZOOM ZPU5000 installation disc to the USB flash drive.
8. If the list of installed firmware you previously noted down included additional products other than the ZPU5000, you will need to copy the corresponding CE5 folder from your installation disc to your USB flash drive.
9. Insert the USB flash drive into the dedicated USB port on your equipment. The System OK LED will flash yellow while the update is in progress.
10. When the message **System needs to restart, remove USB key** appears, you must remove the USB flash drive. The system will automatically reboot to complete the update process. This operation may take several minutes, in some instances, over an hour. Messages displayed on the VFD screen allow you to follow the progression of the update.

6.2 Updating a SFA-100™, PDA-100™, or PDA-200™ Unit

1. Copy the CE5 folder from your ZOOM SFA100, ZOOM PDA100 or ZOOM PDA200 installation disc to a USB flash drive.



Warning!

You must copy the whole CE5 folder, not only its contents. Copy the entire folder to the root level of the USB flash drive.

2. Open the \CE5\Update folder on the USB flash drive and only keep the ZPUManager subfolder. Delete all other folders.
3. Insert the USB flash drive into the dedicated USB port on your SFA-100, PDA-100 or PDA-200 unit. The **System OK** LED will flash yellow while the update is in progress.
4. When the LED has stopped flashing, remove the USB flash drive. The system will automatically reboot.
5. Delete the CE5 folder from the USB flash drive.
6. Copy again the CE5 folder from your ZOOM SFA100 or ZOOM PDA100 or PDA200 installation disc to the USB flash drive.
7. In the case of a SFA-100 or PDA-100 unit, if you have purchased the ZOOM Look package, copy the CE5 folder from your ZOOM Look installation disc to the USB flash drive
8. Insert the USB flash drive into the dedicated USB port on your SFA-100, PDA-100 or PDA-200 unit. The **System OK** LED will flash yellow while the update is in progress.
9. When the LED has stopped flashing, remove the USB flash drive. The system will automatically reboot to complete the update process. This operation may take several minutes. The update process is not completed until the **System OK** LED has stopped flashing yellow.

Appendix A: Backup Procedure for Microsoft SQL Server

1. Open SQL Server Management Studio.
2. When the application starts, you will need to get connected
Server Type: Database Engine
Server name: (local)
Authentication: Windows Authentication
3. You should see your databases (created with ZOOM Server) by opening the **Databases** node (see image below).

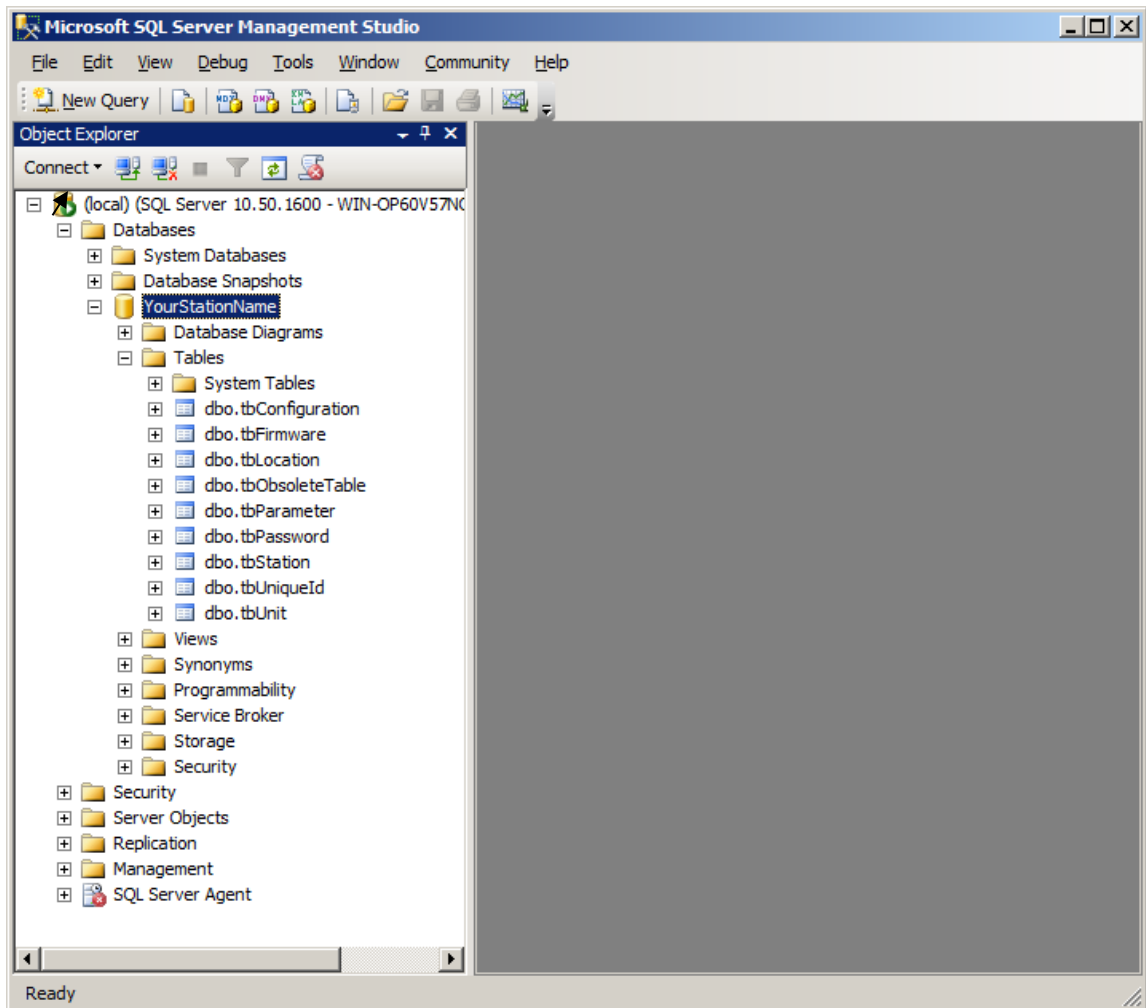


Figure 16: Microsoft Management Studio

- To back up a database, select the one you want in the left section and right-click on it. Then, choose the **Tasks\Back Up...** item (see image below).

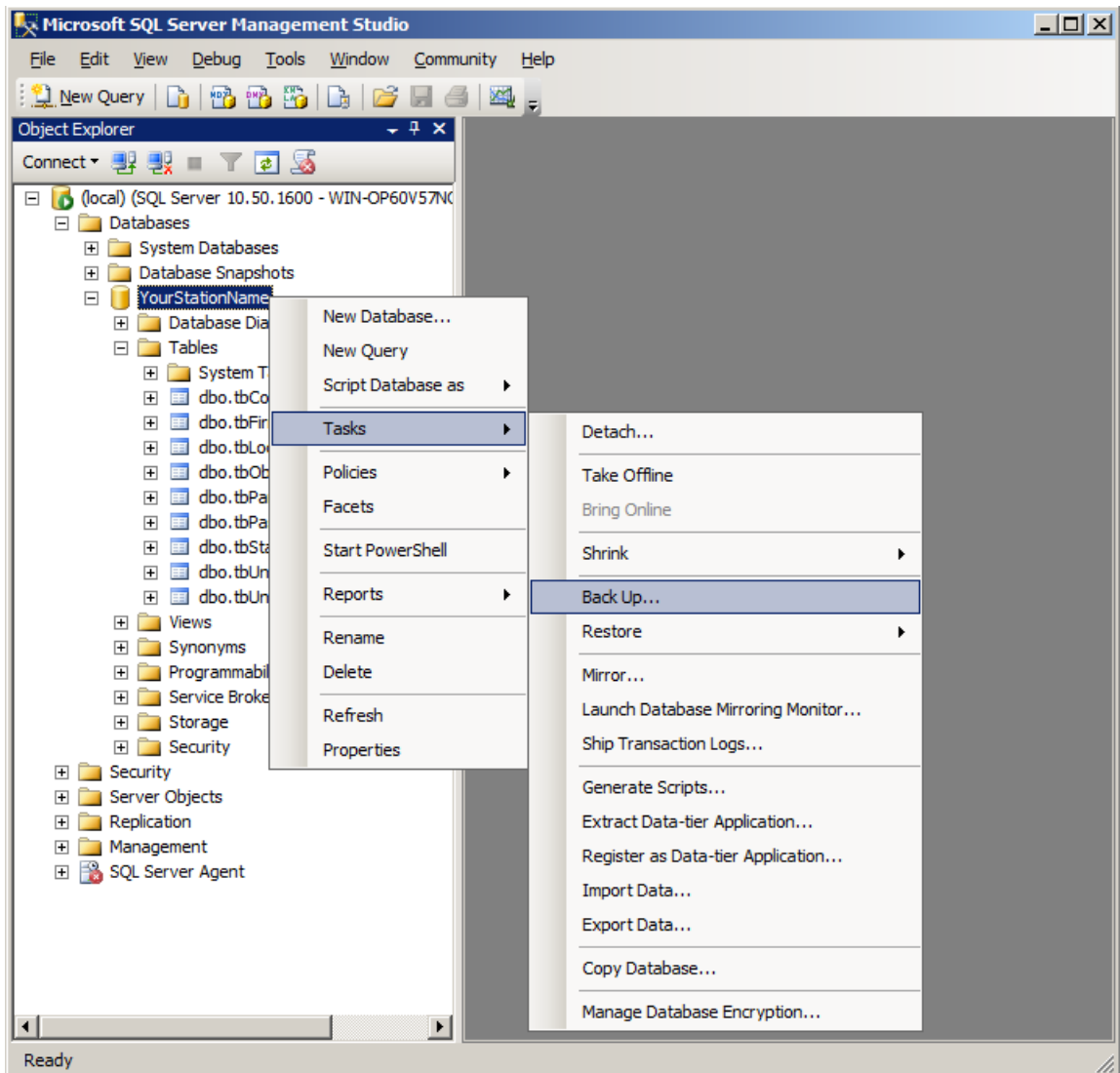


Figure 17: Create a back up

- In the **Back Up Database** window (see image below), look at the destination path to know where the back-up file will be copied. When ready, simply click **OK**. When the operation has completed, look for the back-up file in the destination folder.

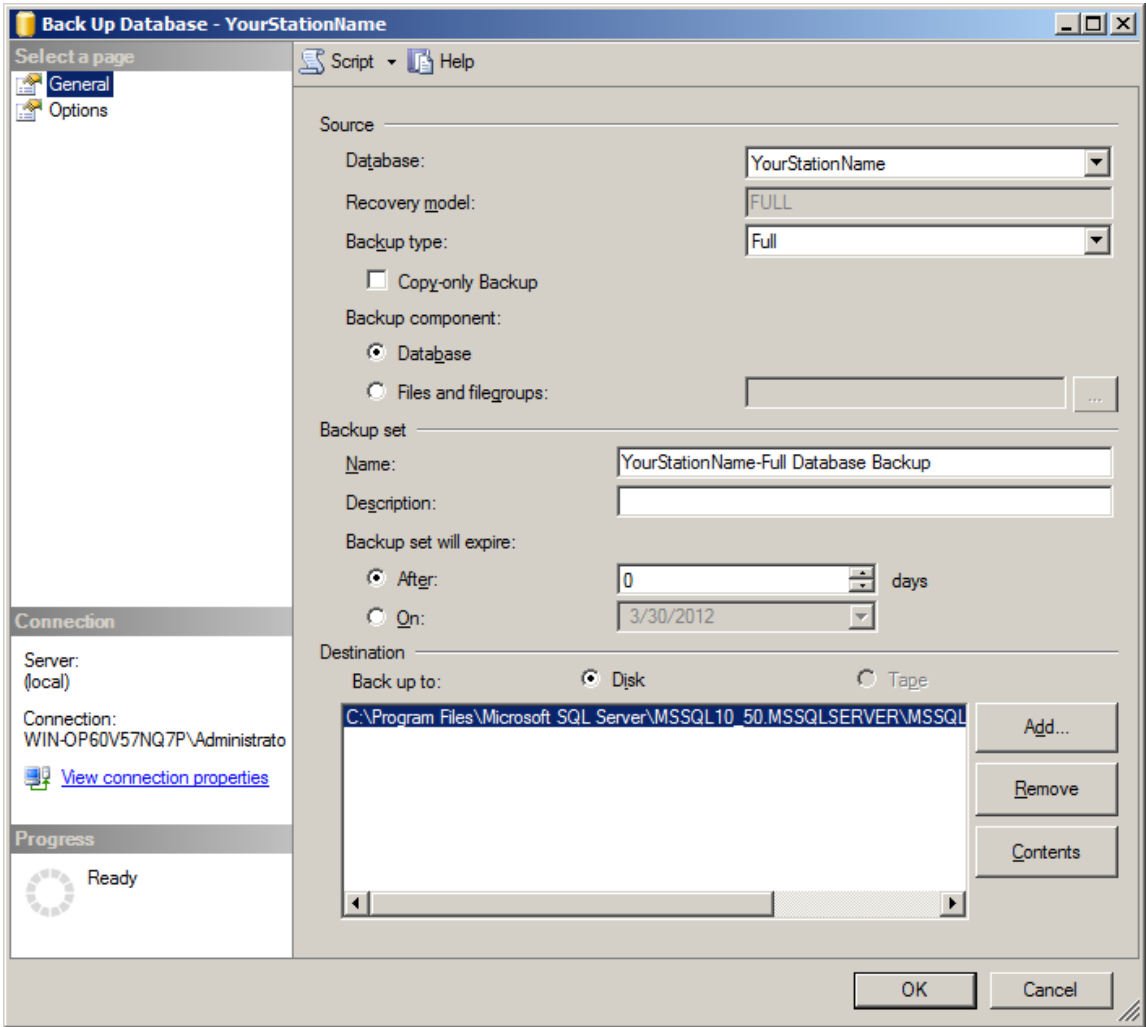


Figure 18: Back up database

Appendix B: List of Available Optional Modules

Acquisition package	Setup file	Description	Acquisition unit
ZOOM ZPU5000	ZOOM_ZPU5000_Setup.exe	A software package used for fast data acquisition allowing protection, advanced data analysis and diagnostic.	ZPU-5000
ZOOM ThermaWatch Stator	ZOOM_TWS_Setup.exe	For trending and alarming stator temperature.	HAVSM and TWS sensors
ZOOM Look	ZOOM_Look_Setup.exe	To monitor trends and alarms for slow evolving parameters.	PCU-100, STATE-100, STATE-200, and STATE-300
ZOOM PDA200	ZOOM_PDA200_Setup.exe	Adds partial discharge analysis and display functionalities to ZOOM Platform.	PDA-200
ZOOM SFA100	ZOOM_SFA100_Setup.exe	Adds Stray flux analysis and display functionalities to ZOOM Platform for turboelectric generators.	SFA-100

Gateway package	Setup file	Description	Protocol
ZOOM Modbus	ZOOM_Modbus_Setup.exe	A bi-directional communication gateway that collects data from the plant's control system while making ZOOM trending data available to it.	Modbus RTU or TCP
ZOOM OPC	ZOOM_OPC_Setup.exe	A Bi-directional communication gateway that collects data and alarm messages from the plant's control system while making ZOOM Trending data, ZOOM Alarm and events available to it.	OPC DA 2.05 a and OPC AE 1.10 over Ethernet

Also available, for compatibility with our legacy products:

Acquisition package	Setup file	Description	Acquisition unit
ZOOM PDA100	ZOOM_PDA100_Setup.exe	Adds partial discharge analysis and display functionalities to ZOOM Platform.	PDA-100
ZOOM Base	ZOOM_Base_Setup.exe and Labview VISA 3.3.1\Setup.exe	A software package used for fast data acquisition allowing protection, advanced data analysis and diagnostic.	MUL, ZPU 2, 8 or 16 channels...