RELEASE NOTES

VibroSight® software
version 2.9.6

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REVISION RECORD SHEET

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PREFACE

About these release notes

This document provides important information about the VibroSight ® software from Meggitt Sensing Systems. It is applicable to all installations using the versions of VibroSight software described by this document, namely:

VibroSight software version 2.9.6 (CD part number 609-004-000-016).

This document contains information about changes to the software since the previously released version (VibroSight 2.9.5), such as new features and improvements, solved problems and bug fixes, and hardware and software compatibility.

For more general information on the actual software, or the entire condition monitoring system (CMS), refer to the following Meggitt Sensing Systems (MSS) documentation:

VibroSight software data sheet (MSS document ref. 660-020-005-210A)

Getting started with VibroSight installation guide (MSS document ref. 660-010-006-214A)

VibroSight help

VibroSight application notes and technical notes.

Users who are familiar with previous versions of VibroSight may also find it useful to refer to the respective release notes included in their installation.

Structure of the release notes

This document presents information in the following order: general items first, then in terms of the software modules that constitute VibroSight, such as Configurator, Server, Vision and so on.

You should read those sections that are most relevant to you and then keep the document for future reference.

Version identifiers

A complete VibroSight software product version number has four components x.x.x build x (or x.x.x.x) that provide the following information:

- Major release identifier: **x**.x.x build x (or **x**.x.x.x)

- Minor release identifier: x.**x**.x build x (or x.**x**.x.x)

- Update identifier: x.x.**x** build x (or x.x.**x**.x)

- Build identifier: x.x.x build **x** (or x.x.x.**x**).

The version identifiers for installed software appear in the Help About box (obtained using **Help > About …** in any VibroSight software module).

Terminology

To distinguish between the different Meggitt Sensing System products that can be used with the VibroSight software, the following terminology is used in this document:

- VM600 card – to refer to the VibroSight-software compatible cards that are installed in a VM600 rack. The currently available VM600 card pairs that are designed for operation with the VibroSight software are the XMC16 / XIO16T, XMV16 / XIO16T and XMVS16 / XIO16T.

    Where VM600 card is used in this document, it refers to XMC16 / XIO16T, XMV16 / XIO16T and XMVS16 / XIO16T cards, unless otherwise stated.

- VibroSmart DMS module or VibroSmart DMS device – to refer to VibroSight-software compatible modules or devices that are used in a distributed monitoring system. The currently available VibroSmart DMS modules and devices that are designed for operation with the VibroSight software are the VSI010, VSN010 and VSV300.

    Where VibroSmart DMS module is used in this document, it refers to VSI010 and VSV300 modules, unless otherwise stated.

    Where VibroSmart DMS device is used in this document, it refers to the VSN010 device, unless otherwise stated.

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1. Licensing

In general, the licence key required to enable purchased product options remains unchanged for updates between patch level releases (for example, from version 2.9.5 to version 2.9.6).

However, a new licence key is required for upgrades between major and minor version releases (for example, from version 2.8.x to version 2.9.6).

To obtain a new VibroSight licence key file or for further information on licence keys, contact Meggitt Sensing Systems customer support. See section 7.

2. New features

General

2.1. New zeroconf networking protocol implementation for discovery

Previous versions of VibroSight used a combination of networking protocols for device discovery, that is, Apple ® Bonjour (itself an implementation of zeroconf) was used for the networking related to VibroSight hardware discovery and VibroSight Server to hardware communications, while the universal plug and play (UPnP) networking protocols were used for the networking related to VibroSight software module discovery and inter-module communications.

However, as these networking protocols were not working reliably – especially on computers running Windows XP – the Apple Bonjour and UPnP networking protocols have been replaced by a proprietary implementation of the zero configuration networking (zeroconf) protocols. This new implementation of the zeroconf protocols is now used for all required networking operations in order to ensure more reliable device discovery and communications.

> **NOTE:** Starting with VibroSight 2.9.6, Apple Bonjour for Windows is no longer a prerequisite for VibroSight.

In addition, the VibroSight Server selection dialog boxes have been improved to allow the IP address and port information for a VibroSight Server available (running) on the network to be typed into the dialog box in order to select a particular VibroSight Server, even if it is not listed. See section 2.2.

2.2. Connecting to a VibroSight Server using a manually specified IP address

Due to certain network configurations or limitations of the underlying zero configuration networking (zeroconf) protocols, the VibroSight Server selection dialog boxes used to select a particular VibroSight Server do not always list all of the server instances available (running) on the network.

Consequently, the IP address and port information for a VibroSight Server available (running) on the network is now available from the VibroSight Server itself or VibroSight System Manager:

- In a VibroSight Server, the IP address and port of a VibroSight Server is now displayed on the main VibroSight Server window under **Connection Info**.

- In VibroSight System Manager, the IP address and port of a VibroSight Server available (running) on the network is now displayed under **Connection Info** in the Information pane that is available when a VibroSight Server is selected for a host computer listed in the VibroSight Hosts view.

This IP address and port information can be typed into the improved VibroSight Server selection dialog boxes to manually specify a particular VibroSight Server to connect to and work with (even if it is not listed).

NOTE:	In order to connect to a VibroSight Server using a manually specified IP address when Windows Firewall is enabled on the computer, VibroSight Server should be selected in the list of allowed programs (the exceptions list) in Windows Firewall and/or the TCP port used by the VibroSight Server should be added to the exceptions list. In addition, incoming Internet Control Message Protocol (ICMP) echo requests must also be enabled.

2.3. Availability of VibroSight database script files to start VibroSight databases

VibroSight database script files (a collection of Windows batch files) are now distributed with VibroSight in order to enable the quick analysis of VibroSight databases.

The VibroSight database scripts are used to start a VibroSight Server for a database without having to manually create a database source name (DSN) for the database. Different VibroSight database scripts (*.bat) are available depending on the Windows operating system (32-bit or 64-bit), intended use of the VibroSight Server (Offline or Online) and the amount of RAM installed on the computer.

When the VibroSight database scripts are used, a system database source name (DSN) of either Offline01 or Online01 (depending on the particular script file used) is automatically created for a database, so no manual DSN generation is required. Then a VibroSight Server will automatically start and open the database with the parameters defined in the batch file. The fixed DSNs (Offline01 or Online01) allow generic VibroSight Vision projects that use these DSNs to start working with the databases immediately.

VibroSight System Manager

2.4. Refreshing Devices and VibroSight Hosts views

In the System Explorer tree structure, VibroSight-compatible devices are displayed in the Devices view, while VibroSight host computers and VibroSight Servers are displayed in the VibroSight Hosts view (for devices and hosts on the same network as the computer running System Manager). These views are automatically updated whenever there is a networking event, such as a device being added to or removed from the network. However, due to limitations of the underlying zero configuration networking (zeroconf) protocols, the views can take some minutes to be updated.

A new Refresh button has been added to the toolbar at the top of the Devices and the VibroSight Hosts views in order to allow the items displayed to be manually updated at any time. Similarly, both views (lists) can be updated at the same time using a new Refresh command on the View menu (**View > Refresh**) or by pressing the F5 key. (Note: It still takes some time for the items displayed to be updated.)

2.5. Summarising the contents of a VibroSight database

The contents of a VibroSight database can now be summarised in one of two ways:

- Using the database extract summary tool in VibroSight System Manager.

- Using the equivalent command-line tool.

NOTE:	The information included in the summary file generated by the database extract summary tool is exactly the same as the information included in the summary file generated by the database copy wizard (for the same database and time range).

VibroSight Vision

2.6. Improved plot property defaults

Some default plot properties have been changed in order to improve usability:

- For all plots that have a y-axis, the default y-axis range scaling has been changed to Auto Scale (it was Full Display Range).

- For Waterfall / Cascade plots, the default y-axis range scaling has been changed to Auto Scale (it was Full Display Range).

- For Waterfall / Cascade plots, the default depth (that is, the live data conservation option) has been changed to 60 minutes or 60 items, whichever comes first (it was 1 minute or 50 items, whichever comes first).

3. Solved problems and bug fixes

VibroSight System Manager

3.1. Actions window not displaying all of the tools that should be available

The Actions window was not displaying all of the group boxes (tools) such as VibroSight Server, OPC Server and Modbus Server, all of the time (an intermittent problem).

This problem was related to the general device discovery problems that have been corrected. See section 2.1.

3.2. IP Settings in Configuration tools appear intermittently

The Configuration group box (tools) in the Actions window did not always display the IP Settings tool. This bug has been corrected.

3.3. Failure to publish a VibroSight OPC Server

System Manager fails to publish an OPC Server and displays an OPC Server Publishing Failed error message on computers where the 64-bit version of the Microsoft Visual C++ Redistributable Package is installed. This is because the VibroSight OPC server is a 32-bit application and therefore requires that the 32-bit version of the package (vcredist_x86.exe) is installed.

To avoid confusion, the 64-bit version of the Microsoft Visual C++ Redistributable Package has been removed from the Prerequisites folder of the VibroSight CD. In addition, before attempting to publish an OPC Server, VibroSight System Manager now performs a check to ensure that the 32-bit version of the package is installed, displays a message to the user if it is not and records this information in the System Manager log file.

3.4. Host Service Stop command

Stopping the VibroSight Host Service (using the Stop command in the Host Service group box) before System Manager had finished updating the VibroSight Hosts tree structure of the System Explorer window resulted in a message telling the user that the stop command was not completed ("The service did not respond in a timely fashion. Please consult the Windows Event Log or try again."), even though the VibroSight Host Service had in fact stopped, while the Start/Stop command in the Host Service group box remained available as a Stop command.

NOTE:	The Host Service Stop/Start command is a toggle command, that is, only the Stop command is visible when the VibroSight Host Service is running and only the Start command is visible when the VibroSight Host Service is stopped.

VibroSight Configurator

3.5. Improved consistency check for VibroSmart VSI010 module Profibus slots that are configured as Profisafe

The consistency check tool has been improved in order to ensure that a VSI010 module's fieldbus port configured as a Profibus port using Profisafe slots (that is, with the **ProfiSafe** parameter enabled) is fully compatible with the PROFIsafe specification from PROFINET International (PI).

3.6. Unable to save a configuration as a server/database

It a configuration was opened from a server/database (**File > Open > Server/Database**), it was not possible to save the configuration as a server/database (**File > Save As > Server/Database**). This bug has been corrected.

3.7. Unable to exit Configurator if the connection to the Server is lost

It a configuration was opened from a server/database (**File > Open > Server/Database**) and the connection to the Server was lost, a Server Connection dialog box appeared with the message "Please wait unto the connection recovers" and prevented Configurator from being exited as normal. Consequently, either the VibroSight Server had to be restarted and the connection with Configurator re-established before Configurator could be exited or the Configurator process had to be ended using a tool such as Windows Task Manager. This bug has been corrected.

3.8. Incorrect calculation of full display range values for dynamic processing block extracted data

The full display range values (**Full Display Range: Maximum Value** and **Minimum Value**) calculated for the extracted data (measurements) for dynamic processing blocks were wrong for the spectra outputs and for the measurements based on the spectra outputs. The full display range values are now correctly calculated based on the Physical Quantity, Input Range and Sensitivity configured for the dynamic input channel, so this bug has been corrected.

3.9. Incorrect calculation of maximum full display value for a dynamic processing block's spectrum output

The maximum full display values (**Max Full Display**) calculated for the default Spectrum output (Spectra And Waveforms parameters) for dynamic processing blocks were wrong by a multiple of power of ten. This bug has been corrected.

3.10. Maximum full display values for a dynamic processing block's spectrum output cannot be changed

When **Integration** was changed to none and **Use Full Display Custom Values** was selected (Spectra And Waveforms parameters) for dynamic processing blocks, the maximum full display (**Max**

Full Display) text boxes and drop-down list boxes remained unavailable (greyed out) and could not be changed from their existing values. This bug has been corrected.

3.11. Unable to connect to a local server/database

Opening a server/database (**File > Open > Server/Database**) from a local VibroSight Server, that is a Server running on the same computer as the Configurator, was occasionally not possible. For example, due to a VibroSight Software - InvalidOperationException (unhandled error) when a server was selected from the list of available servers in the VibroSight Server selection dialog box, or the list of available servers in the VibroSight Server selection dialog box remaining empty.

This problem was related to the general device discovery problems that have been corrected. See section 2.1.

![VibroSight Server icon] VibroSight Server

3.12. Device discovery problems

A VibroSight Server could stop responding ("crash") after experiencing problems on the network (for example, due to a loss of communications between the server and VM600 cards), providing an XmsServerGUI message such as "XmsServerGUI has encountered a problem and needs to close".

This problem was related to the general device discovery problems that have been corrected. See section 2.1.

![VibroSight Vision icon] VibroSight Vision

3.13. General issues with projects

Previously, VibroSight Vision projects were automatically saved on a periodic basis, in the background, to help ensure that the changes to a project were not lost if Vision stopped responding ("crashed") for any reason.

This behaviour has been changed so that projects are no longer automatically saved and it is the responsibility of the user to save any changes to their Vision projects. In general, it is recommended that **File > Save All** is used, even if no documents have been changed, in order to ensure that the arrangement of the windows (window layout) is also saved.

3.14. Mimic value indicators not being displayed correctly because of alarm limits

When alarm limits were configured for extracted data (measurements), some corresponding value indicators in Mimics were not always displayed correctly, as the alarm limits for the measurement were

being used in addition to the full display range in order to calculate the display range for the value indicator.

This behaviour has been changed so the display range for a value indicator is based only on the full display range configured for the extracted data, so this bug has been corrected.

If the measured value is greater than the maximum display range of the value indicator, the colour of the upper section of the value indicator will reflect the severity level corresponding to the measured value (even if this severity level is not displayed on the value indicator because it is outside the full display range).

If the measured value is less then than the minimum display range of the value indicator, the colour of the upper section of the value indicator will be white to highlight this fact.

3.15. Mimic value indicators not being displayed correctly after the maximum display range exceeded

If the measured value displayed by a value indicator in a Mimic was greater than the value indicator's maximum display range, then the colour of the upper section of the value indicator could remain the colour of the severity level corresponding to this measured value, even after the measured value returned to a value within the display range. That is, the colour of the upper section of the value indicator could stop reflecting the currently measured value. This bug has been corrected.

4. Known issues

4.1. VibroSight Server and Host Service restart required after changes to network adapter

If the configuration of a network adapter is changed (for example, enabled or disabled, connected or disconnected) on a computer running VibroSight, then the VibroSight Servers and Host Services running on the computer must be restarted in order for the network adapter to be recognized by the VibroSight discovery mechanism.

5. Compatibility

NOTE:	Refer also to the latest version of the 📄 *Getting started with VibroSight* installation guide or the 📄 *VibroSight software* data sheet for further information on VibroSight's prerequisites and compatibility.

5.1. VibroSight software

VibroSight 2.9.6 is a minor version release in the 2.x.x series and replaces VibroSight 2.9.5.

Compatibility with existing databases is achieved using the database 🔧 **Update** tool (from VibroSight System Manager's 🗄 **Database** tools) which supports the continued used of configurations and data from previous versions. See section 6.1.1.

5.1.1. Microsoft Windows operating systems

VibroSight 2.9.6 is compatible with 32-bit versions and 64-bit versions of Microsoft ® Windows ® operating systems.

NOTE:	Since VibroSight 2.9.0, VibroSight can run on 64-bit versions of Windows in order to help eliminate memory and performance issues that can occur due to the limitations of the 32-bit memory space.
	However, VibroSight 2.9.6 is 32-bit software that runs on x64 Windows in the same manner as it does on 32-bit windows, that is, VibroSight is "x64-compatible" software (not "native x64" software).

See the appendix of this document for detailed information on VibroSight software and Windows operating system compatibility.

5.1.2. Microsoft .NET Framework

For most Windows operating systems, VibroSight 2.9.6 requires that the Microsoft .NET Framework 4.5 is installed on the computer.

NOTE:	Microsoft .NET Framework 4.5 is required since VibroSight 2.9.4. Microsoft .NET Framework 4 (Standalone Installer) is required for VibroSight 2.9.2 and 2.9.3. Microsoft .NET Framework 3.5 SP1 is required for VibroSight 2.9.1 or earlier.

See the appendix of this document for detailed information on VibroSight software's Microsoft .NET Framework requirements.

5.1.3. Apple Bonjour

Starting with VibroSight 2.9.6, Apple ® Bonjour is no longer required, as a proprietary implementation of the zero configuration networking (zeroconf) protocols is now used for all required networking operations: VibroSight hardware (VM600 cards and VibroSmart DMS modules and devices) and software module discovery, VibroSight Server to hardware communications and inter-module communications.

NOTE:	Starting with VibroSight 2.9.6, Apple Bonjour for Windows is not required and may be uninstalled (if it is not required by other software installed on the computer running VibroSight). Apple Bonjour for Windows version 3.0 should be used with VibroSight 2.8.x to VibroSight 2.9.5. Apple Bonjour for Windows version 1.0.106 should be used with VibroSight 2.7.x or earlier. The 64-bit version of Bonjour must be installed on 64-bit Windows operating systems.

5.1.4. Sybase SQL Anywhere 11 software

VibroSight uses the Sybase ® SQL Anywhere 11 database software in its standard configuration. VibroSight 2.9.6 remains compatible with the previously deployed version of SQL Anywhere, namely SQL Anywhere version 11.0.1.2044.

NOTE:	VibroSight requires the 32-bit version of SQL Anywhere 11 on both 32-bit and 64-bit Windows operating systems. It is strongly recommended that only the 32-bit version of SQL Anywhere 11 is installed on the computer running VibroSight.

NOTE:	Updating SQL Anywhere to version 11.0.1.2867 is **mandatory** in order to avoid potential memory issues (fixed by Sybase). A software update (patch) included on the Sybase CD must be run in order to update Sybase SQL Anywhere from version 11.0.1 to version 11.0.1.2867: *SA11_Full_Win32+x64.1101_2867_EBF.exe*. See section 6.2.

(If Sybase SQL Anywhere 11 is not updated to version 11.0.1.2867, VibroSight 2.9.6 will still run but a warning message will be displayed by the VibroSight Server.)

5.1.5. Microsoft Visual C++ Redistributable Package

If a VibroSight OPC Server is to be used, VibroSight 2.9.6 requires that the Microsoft Visual C++ Redistributable Package is installed on the computer, in order to install and register the Visual C++ libraries used by VibroSight OPC servers.

NOTE:	The Microsoft Visual C++ Redistributable Package is required since VibroSight 2.9.4, if OPC servers are being used.
	The 32-bit version of the package ("vcredist_x86.exe") must be installed on both 32-bit and 64-bit Windows operating systems, as the VibroSight OPC server is a 32-bit application.

5.1.6. OPC Foundation OPC Core Components Redistributable

If a VibroSight OPC Client or OPC Server is to be used, VibroSight 2.9.6 requires that the OPC Core Components Redistributable from the OPC Foundation is installed. The redistributable must be installed on OPC client computers in order to allow connections to remote OPC servers and it must be installed on OPC server computers in order to allow OPC clients to browse for running OPC servers.

NOTE:	The OPC Core Components Redistributable is required since VibroSight 2.9.4, if OPC clients or OPC servers are being used.
	The 32-bit version of the package ("OPC Core Components Redistributable (x86)") must be installed on 32-bit Windows operating systems and the 64-bit version of the package ("OPC Core Components Redistributable (x64)") must be installed on 64-bit Windows operating systems.

5.2. VibroSight hardware

5.2.1. VM600 card firmware

There are no new firmware (embedded software) updates for the VM600 cards corresponding to VibroSight 2.9.6.

The latest firmware for the CPUR card remains:

- Applications: applications-640-012-001-003.tgz
- Base System: base-system-640-011-001-003.tgz.

The latest firmware for the XMC16, XMV16 and XMVS16 cards remains:

- Applications: applications-640-010-001-006.tgz
- Base System: base-system-640-003-001-007.tgz.

Therefore, for current versions of the XMC16, XMV16 and XMVS16 cards, no firmware upgrades are required.

5.2.2. VibroSmart DMS device firmware

There are new firmware (embedded software) updates for the VibroSmart DMS modules and devices corresponding to VibroSight 2.9.6.

The latest firmware for the VSI010 module is:

- 642-002-001-002.xmsifw.

The latest firmware for the VSN010 device is:

- 642-004-001-002.redboxfw.

The latest firmware for the VSV300 module is:

- 642-001-001-003.xtranfw.

Therefore, for earlier versions of the VibroSmart DMS modules and devices, a firmware upgrade is required (see section 6.3.2).

6. Upgrade procedure

This section describes the procedure for upgrading a VibroSight system from a previous version. Perform the steps in the given sequence in order to complete a system upgrade.

NOTE:	It is strongly recommended to verify the version of firmware running in the related hardware (VM600 cards and VibroSmart DMS modules and devices) before starting a VibroSight system upgrade, in order to establish if any firmware updates are also required. See section 6.3.3.

6.1. Upgrading the VibroSight software

NOTE:	Starting with VibroSight 2.9.6, VibroSight Server instance names are limited to 18 characters (previously, it was 27). So VibroSight installations with VibroSight Server instance names of more than 18 characters will experience problems with VibroSight 2.9.6 until the existing VibroSight Server instance names (and any references to them) are manually edited to be 18 characters or less.

1. If it is not necessary for the VibroSight-based system to remain operational during the upgrade procedure, back up any important (required) VibroSight databases in the following way:

- Exit all VibroSight software modules (clients and servers) – no VibroSight software modules, such as Vision, Configurator or Server, should be running.

- Copy the three files (`*.db, *.config` and `*.log`) from the directory where your database files are located to another location, for example, to a specific backup directory.

NOTE:	The default data (data path) directory is `C:\VibroSight Data`

Or if it is necessary for the VibroSight-based system to remain operational for as long as possible during the upgrade procedure, back up any important (required) VibroSight databases in the following way:

- Exit all VibroSight software modules (clients) – no VibroSight software modules, such as Vision or Configurator, should be running.

- Start VibroSight System Manager and use the database ⊞ **Backup** tool from VibroSight System Manager's 📦 **Database** tools, and follow the instructions presented by the Database Backup Wizard.

NOTE:	It is necessary to be logged in to System Manager as 'Admin' in order to have the user rights to access the database tools:
	Select your 🖥 VibroSight Host (computer) in the System Explorer tree structure and click 🔒 **Login** (from VibroSight System Manager's 🔒 **Access Rights** tools).

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NOTE:	Refer also to the *Backing up a database* topic in the ⬛ *VibroSight help.*

2. Make backup copies of any important (required) VibroSight Vision projects in the following way:

- Create an archive file (for example, `*.zip`) containing all of the files (`*.xml` and `*.xmsproj`) in the directory where your project files are located.

NOTE:	The default project directory is:
	`C:\Documents and settings\username\My Documents`
	`\VibroSight\Projects`

3. Ensure that no VibroSight software modules are running.

4. Remove the currently installed version of the VibroSight software (for example, ⬛ VibroSight Standard Edition) using Windows Add or Remove Programs, in one of the following ways:

- Click **Start > Settings > Control Panel** and then double-click **Add or Remove Programs**.

- Or click **Start**, click **Control Panel** and then double-click **Add or Remove Programs**.

5. Install the latest version of the VibroSight software by inserting the VibroSight CD into the CD/DVD drive of the computer and follow the instructions presented by the VibroSight installation wizard.

NOTE:	Refer to the ⬛ *Getting started with VibroSight* installation guide for detailed information on installing the VibroSight software – including prerequisites and compatibility.
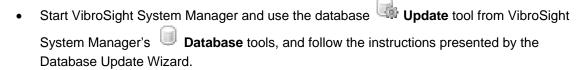
6. Restart VibroSight Server and ensure that the required communications are enabled. For example, enable card and module device drivers according to the hardware in the system:

- For example, click **Data > Acquisition > XMC16/XMV16 Card Driver** or **Data > Acquisition > VibroSmart Module Driver**.

7. Restart VibroSight Vision and ensure that live data is being received from the hardware and displayed in Vision.

8. The VibroSight system is now up and running.

6.1.1. Updating the internal structure of a VibroSight database

When VibroSight Server is started, it checks the status of the database and will automatically inform the user if any internal structures of the database need to be updated before proceeding.

1. Update a VibroSight database in the following way:

- Start VibroSight System Manager and use the database 🗄️ **Update** tool from VibroSight System Manager's 🗄️ **Database** tools, and follow the instructions presented by the Database Update Wizard.

NOTE:	It is necessary to be logged in to System Manager as 'Admin' in order to have the user rights to access the database tools: Select your 🖥️ VibroSight Host (computer) in the System Explorer tree structure and click 🔒 **Login** (from VibroSight System Manager's 🔒 **Access Rights** tools).
NOTE:	Refer also to the *Updating a database* topic in the 📘 *VibroSight help*.

6.2. Upgrading the Sybase SQL Anywhere 11 software

VibroSight software is compatible (and extensively tested) with Sybase SQL Anywhere versions 11.0.0 and 11.0.1.

However, with the release of SQL Anywhere version 11.0.1.2867, Sybase has fixed some previously known memory issues. Therefore, it is **mandatory** to upgrade all VibroSight systems to this version of SQL Anywhere 11.

Determine the version of the SQL Anywhere 11 database engine installed on a computer in the following way:

1. From the Start menu, click **Start > All Programs > SQL Anywhere 11 > Sybase Central**.

   The Sybase Central window appears. Sybase Central is a GUI-based management tool for Sybase products.

2. Click **Help > About Sybase Central**.

   The About Sybase Central windows appears, displaying the version information for SQL Anywhere 11 (and any other installed Sybase products).

NOTE:	Refer also to the *Determining the version of SQL Anywhere 11 installed on a computer* topic in the 📘 *VibroSight help*.

If SQL Anywhere 11 version 11.0.0 is installed on the computer, it is necessary to first remove version 11.0.0, then install version 11.0.1 from the Sybase CD.

If SQL Anywhere 11 version 11.0.1 is installed on the computer, simply update to version 11.0.1.2867 by running the software update (patch) included on the Sybase CD.

When SQL Anywhere 11 software version 11.0.0 is installed on the computer:

NOTE:	Do not use the SQL Anywhere 11.0.1 setup to upgrade directly to software version 11.0.1 from software version 11.0.0. Instead, it is necessary to upgrade the Sybase database software as follows:
	1. Remove SQL Anywhere 11.0.0, using the Windows Add or Remove Programs tool.
	2. Install SQL Anywhere 11.0.1, using the Sybase SQL Anywhere 11.0.1 CD.
	Refer also to the ⬛ *Getting started with VibroSight* installation guide for information on installing the Sybase software.

1. Exit all VibroSight software modules (clients and servers) – no VibroSight software modules, such as Vision, Configurator or Server, should be running – as this also stops the SQL Anywhere 11 database engine.

   The ⚡ lightning icon that appears in the notification area (at the far right of the task bar) to indicate that a Sybase database engine is running should no longer be shown.

2. Remove the currently installed version of Sybase SQL Anywhere 11 using Windows Add or Remove Programs, in one of the following ways:

   - Click **Start > Settings > Control Panel**, then double-click **Add or Remove Programs**

   - Or click **Start**, click **Control Panel** and then double-click **Add or Remove Programs**.

   And remove ⚡ SQL Anywhere 11.

3. Restart the computer.

4. Install Sybase SQL Anywhere VibroSight 11.0.1.2044 by inserting the Sybase CD into the CD/DVD drive of the computer and following the instructions presented by the SQL Anywhere 11 installation wizard.

5. Restart the computer.

   Without this final computer restart, VibroSight Server may not be able to start the SQL Anywhere 11 database engine.

When SQL Anywhere 11 software version 11.0.1 is installed on the computer:

1. Update to Sybase SQL Anywhere VibroSight 11.0.1.2867 by inserting the Sybase CD into the CD/DVD drive of the computer, running the *SA11_Full_Win32+x64.1101_2867_EBF.exe* software update (patch) and following the instructions presented by the SQL Anywhere 11 installation wizard.

2. Restart the computer.

6.3. Updating the VibroSight hardware

Appropriate files and tools are included in the installation package to allow VM600 cards (CPUR, XMC16, XMV16 and XMVS16) and VibroSmart DMS devices (VSI010, VSN010 and VSV300) to be updated to the latest standard, in order to take advantage of improvements to the VibroSight software.

6.3.1. VM600 card firmware

The latest VM600 card firmware files are copied to a directory on your computer as part of the VibroSight installation process.

NOTE:	For example, the default firmware directory for VM600 cards is:
	`C:\Program Files\Meggitt\VibroSight 2\Firmware\VM600`

The firmware files for a VM600 card can be found in the appropriate subfolder and identified by their .tgz file name extension. For example, the `XMV16` subfolder contains the applications and base system firmware for use by XMV16 cards. Any additional firmware updates received from Meggitt Sensing Systems should also be stored in these directories.

Table 1 shows the compatibility between VibroSight software and VM600 card hardware (that is, XMC16, XMV16 and XMVS16 card pair firmware).

NOTE:	It is strongly recommended to use the most recent version of the VM600 card firmware that is compatible with the version of VibroSight software being used.

Table 1: VibroSight software and VM600 card firmware compatibility

VibroSight client-server software (VibroSight version CD part number)	VM600 card firmware						
	Applications-640-004-001-003.tgz Base-system-640-003-001-001.tgz	Applications-640-010-001-001.tgz Base-system-640-003-001-002.tgz	Applications-640-010-001-002.tgz Base-system-640-003-001-003.tgz	Applications-640-010-001-003.tgz Base-system-640-003-001-004.tgz	Applications-640-010-001-004.tgz Base-system-640-003-001-005.tgz	Applications-640-010-001-005.tgz Base-system-640-003-001-006.tgz	Applications-640-010-001-006.tgz Base-system-640-003-001-007.tgz
1.0.0 609-004-000-001	✓						
2.0.0 609-004-000-003		✓					
2.0.5 609-004-000-004		✓					
2.0.6 609-004-000-005		✓					
2.5.0 609-004-000-006		✓					
2.7.5 609-004-000-008			✓				
2.8.0 609-004-000-007			✓				
2.9.0 609-004-000-010				✓			
2.9.1 609-004-000-011					✓	✓	✓
2.9.2 609-004-000-012							✓
2.9.3 609-004-000-013							✓
2.9.4 609-004-000-014							✓
2.9.5 609-004-000-015							✓
2.9.6 609-004-000-016							✓

6.3.2. VibroSmart DMS device firmware

The latest VibroSmart DMS device firmware files are copied to a directory on your computer as part of the VibroSight installation process.

NOTE:	The default firmware directory for VibroSmart DMS devices is:
	`C:\Program Files\Meggitt\VibroSight 2\Firmware\VibroSmart`

The firmware files for a VibroSmart DMS device can be found in the appropriate subfolder and identified by their .*fw file name extension. For example, the `VSV-300` subfolder contains the firmware for use by VSV300 modules. Any additional firmware updates received from Meggitt Sensing Systems should also be stored in these directories.

Table 2 shows the compatibility between VibroSight software and VibroSmart DMS device hardware (that is, VSI010, VSN010 and VSV300 device firmware).

NOTE:	It is strongly recommended to use the most recent version of the VibroSmart DMS device firmware that is compatible with the version of VibroSight software being used.

Table 2: VibroSight software and VibroSmart DMS device firmware compatibility

VibroSight client-server software (VibroSight version CD part number)	VibroSmart DMS device firmware			
	VSI010	**VSN010**	**VSV300**	**VSV310**
2.8.0 609-004-000-007	642-002-001-001.xmsifw	642-004-001-001.redboxfw	642-001-001-001.xtranfw	Not available yet
2.9.1 609-004-000-011	642-002-001-001.xmsifw	642-004-001-001.redboxfw	642-001-001-002.xtranfw	Not available yet
2.9.2 609-004-000-012	642-002-001-001.xmsifw	642-004-001-001.redboxfw	642-001-001-002.xtranfw	Not available yet
2.9.3 609-004-000-013	642-002-001-001.xmsifw	642-004-001-001.redboxfw	642-001-001-002.xtranfw	Not available yet
2.9.4 609-004-000-014	642-002-001-001.xmsifw	642-004-001-001.redboxfw	642-001-001-002.xtranfw	Not available yet
2.9.5 609-004-000-015	642-002-001-001.xmsifw	642-004-001-001.redboxfw	642-001-001-002.xtranfw	Not available yet
2.9.6 609-004-000-016	642-002-001-002.xmsifw See note 1	642-004-001-002.redboxfw	642-001-001-003.xtranfw	Not available yet

Notes for Table 2

1. VSI010 firmware version 642-002-001-002.xmsifw is only compatible with VibroSight 2.9.6.

6.3.3. Updating the firmware using VibroSight System Manager

When performing VibroSight software upgrades, it is strongly recommended to systematically upgrade the firmware of VM600 cards and VibroSmart DMS devices to the latest compatible version.

Failure to perform a necessary VibroSight card firmware update may lead to incoherent system behaviour and affect the proper functioning of data acquisition in a system. It is only in systems where the firmware running on the VM600 cards and VibroSmart DMS devices already corresponds to the latest available version that no firmware update is required. Therefore, it is strongly recommended to verify the version of firmware running on the hardware before starting a VibroSight system upgrade, in order to establish if a firmware update is also required.

NOTE:	Changing the firmware of the VibroSight hardware is a special administrative task that can – if performed unintentionally – affect the proper functioning of data acquisition in a system.
	It is therefore strongly recommended to change the firmware of the VibroSight hardware only when it is necessary. For example, when the devices must be updated to be compatible with a VibroSight software upgrade.

Update the firmware on a VibroSight device using the 🖫 **Change Firmware** tool (from VibroSight System Manager's **Maintenance** tools):

1. Ensure that the computer running the VibroSight software is on the same network as the hardware (VM600 card or VibroSmart DMS module or device) to be updated.

2. Start VibroSight System Manager and navigate to the Devices tree structure in the System Explorer window.

   The Devices tree lists all of the VibroSight compatible hardware that VibroSight can see on the network. If there are no VM600 cards or VibroSmart DMS devices in the tree structure or some cards are missing, verify your network connections.

3. Select the card or device that requires its firmware to be changed.

   The Actions tool window updates to show the available tools.

4. Click 🖫 **Change Firmware** in the Maintenance tools group of the Actions window.

   The Change Firmware dialog box appears.

5. Click the **Add** button and select the new firmware files for the card or new firmware file for the device.

NOTE:	The Change Firmware dialog box automatically opens the firmware folder corresponding to the VM600 card or VibroSmart DMS device selected.
	`.tgz` files are for VM600 cards and `.*fw` files are for VibroSmart DMS devices.

6. Click the **Finish** button to start the firmware upgrade process.

For VM600 cards and VibroSmart DMS devices, the firmware upgrade process can take up to 5 minutes, during which:

- The IP address beside the device's serial number in the Devices tree structure can disappear.

- The LEDs on the front panel of the device can change to reflect the status of the upgrade.

7. Repeat steps 3 to 6 for each device that requires a firmware update.

NOTE: Although the firmware for each VibroSight device must be changed individually using the 🖫 **Change Firmware** tool, as each device updates its firmware independently of the VibroSight software (once the process has started), firmware updates can be performed on several devices in parallel.

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8. After the firmware upgrade, verify that the VibroSight system is acquiring data from the cards.

NOTE: Refer also to the *Changing the firmware* topics in the 📑 *VibroSight* help.

The 🖫 **Change Firmware** tool can be used to load a VibroSight device with any version of firmware. It is therefore possible to change a device's firmware to any previously available version, as well as the latest update.

This feature can be useful in certain situations, for example, swapping spare VibroSight hardware between different VM600 racks or VibroSmart DMSs, where systems are operating with different versions of VibroSight.

6.4. Final check

After upgrading the VibroSight software, it is recommended to open the configuration and run a consistency check in order to ensure that the configuration has not been inadvertently modified by any changes to the VibroSight software, internal database structure and firmware for the hardware (VM600 cards and VibroSmart DMS modules).

7. Customer support

7.1. Contacting us

Meggitt Sensing Systems worldwide customer support network offers a range of support including Technical support and Sales and repairs support. For customer support, please contact your local Meggitt Sensing Systems representative. Alternatively, contact our main office:

<div align="center">

Customer support
Meggitt SA
Route de Moncor 4
PO Box 1616
CH-1701 Fribourg
Switzerland

Telephone: +41 (0) 26 407 11 11
Email: energysupport@ch.meggitt.com
Web: www.meggittsensingsystems.com

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7.2. Technical support

Meggitt Sensing Systems technical support team provide both pre-sales and post-sales technical support, including:

- General advice
- Technical advice
- Troubleshooting
- Site visits.

7.3. Sales and repairs support

Meggitt Sensing Systems sales team provide both pre-sales and post-sales support, including advice on:

- New products
- Spare parts
- Repairs.

Appendix

VibroSight software and Windows operating system compatibility

	Windows XP and Windows Server 2003 R2	Windows Vista and Windows Server 2008	Windows 7 and Windows Server 2008 R2	Windows 8 and Windows Server 2012
VibroSight software compatible?	Yes, but not recommended for new installations as Microsoft support for Windows XP SP3 ends on 08 April 2014	Yes, but not recommended. Windows Server 2008 R8 should be used instead of Windows Server 2008	Yes – recommended for new installations	To be announced

Microsoft .NET Framework versions pre-installed on Windows operating systems

	Windows XP and Windows Server 2003 R2	Windows Vista and Windows Server 2008	Windows 7 and Windows Server 2008 R2	Windows 8 and Windows Server 2012
Microsoft .NET Framework pre-installed on Windows operating system	None on XP. .NET Framework 2.0 on Server 2003 R2	.NET Framework 3.0	.NET Framework 3.0 SP1	.NET Framework 4.5

VibroSight software's Microsoft .NET Framework requirements

VibroSight software version	Windows XP and Windows Server 2003 R2	Windows Vista and Windows Server 2008	Windows 7 and Windows Server 2008 R2	Windows 8 and Windows Server 2012
VibroSight 2.9.1 or earlier	.NET Framework 3.5 SP1	.NET Framework 3.5 SP1	.NET Framework 3.5 SP1	.NET Framework 3.5 SP1
VibroSight 2.9.2 and 2.9.3	.NET Framework 4	.NET Framework 4	.NET Framework 4	.NET Framework 4
VibroSight 2.9.4 or later	.NET Framework 4 [1]	.NET Framework 4.5	.NET Framework 4.5	.NET Framework 4.5