PC-DMIS 2021.1

- Release Notes -

Table of Contents

Table of Contents

Release Notes

PC-DMIS 2021.1 is a significant development release of the software. For detailed information and video tutorials about this release, visit hexagonmi.com/products/software.

Featured Items

Summary Mode Transformation

You can now see Summary mode with a new look and better experience. Also, you can now show and hide features with a single-click. You no longer need to access the Feature Shortcut menu in the Graphic Display window.

See "In Summary".

Embrace the Curve

Paste with Pattern now allows you to copy and paste items at specified intervals along a CAD curve. There is also an improved workflow and a reduction of unnecessary commands for an existing functionality.

See "Embrace the Curve".

Scan and Go in Inspect

You can now use a barcode or QR code to read in a measurement routine. This provides a faster way for you to recall and launch the correct measurement routine as soon as it's scanned.

See "Scan and Go".

SFx Asset

You can now connect your assets to your smart phone with the new mobile app version of SFx Asset Management. This allows you to receive and manage notifications while on the go.

See "SFx Asset".

GD&T Selection From File

The **GD&T Selection Mode (from file)** now identifies plus and minus tolerances.

- You can select the tolerances in the same way as any other GD&T item.

- Except for linear dimensions, the process to define the needed features is the same as any other element. The exception is a linear dimension.

- A pause button is available on the widget to pause the creation process. You can use this button when you cannot create needed features with quick features.

- If a print is ballooned, the balloons are also recognized.

See PCD-196526.

Measurement Strategy Editor (MSE)

The Measurement Strategy Editor now supports smart parameters. These are the current supported parameters:

- Circle - Number of hits

- Cylinder - Hits per level

- Circle Adaptive Scan - Scan Speed, Point density, and Acceleration

- Cylinder Concentric Circle Scan - Scan Speed, Point density, and Acceleration

You can now define custom parameters based on the diameter. A grid allows you to define the value for the parameter based on its size. You can enable or disable smart parameters. If you want, you can apply them to Quick Features.

See PCD-201271.

New Enhancements

CAD

- The CAD tessellation algorithm has been improved. You can now see up to a 40 percent reduction in the CAD size for large CAD files. See PCD-140675.

- You can now show feature labels on the CAD model based on a visible range specified by a rotation angle. See PCD-162940.

- You can now adjust the level of transparency for the feature labels. See PCD-172856.

- You can now use the Virtual Machine and animation only in Offline mode. See PCD-195204.

- You can now use the GD&T from File option to read the default tolerances and print the units from the title block. You can use this information while you process elements from the print. See PCD-198436.

- The Demo mode option has been removed. See PCD-198437.

- You can now see the HP-S-X1C/H Stylus Clamping (1x D2) probe component in the **Probe Utilities** dialog box. See PCD-202385.

- You can now see Creo 7, NX 1926 series, Catia V6 R2020, and Inventor 2021 for the Direct CAD translator. See PCD-185594, PCD-200074, PCD-202402.

HTML5 Help

- You can now easily give feedback to the Documentation Team on each topic from a comment icon in the header. Additional feedback options are available in the form of **Yes** and **No** buttons at the bottom of each topic. You no longer need to expand the footer's drop-down link to submit feedback. See PCD-188659.

- There is now an improved introductory page for the PC-DMIS Help. It provides a better user experience with a prominent search bar,

embedded What's New content, video links, and so forth. You can help us improve the introductory page with the Take Survey button on that page. See PCD-200562.

Machine Interface

- PC-DMIS now supports the CSI Box (Tech80) in the Manual CMM Interface. See PCD-183315.

Pointclouds

- For sensors that support intensity values, you can now set the Pointcloud display to grey scale. See PCD-170544.

- You can now project all the points of the pointcloud onto the tessellated CAD model. To do this, select the **Direct projection** check box in the Surface Colormap **Pointcloud Operator** dialog box. Without **Direct projection**, PC-DMIS searches for the closest point at each triangle vertex within a default angle. See PCD-195476.

Portable

- You can now access the probe calibration date and time via automation. To do this, use the ASSIGN variable and PROBEDATA ("Date") and ("Time") commands. PC-DMIS now stores the value of date and time in the **Edit Probe Data** dialog box for portable arms. See PCD-154363.

- You can now use the **Area Scan** and **Line Scan** dialog boxes and click on the CAD model to define the area or line to scan for the ATS600 tracker. You can also take hits with the tracker to define the area or line from the respective dialog boxes. See PCD-169487.

- You can now insert the Line Scan from the menu (**Insert | Scan | Line Scan**), or click the **Line Scan** button from the **Tracker Measure** toolbar. With the line scan, you can use the Surface probe to scan and store linear or crossline data in a pointcloud (COP) based on the settings defined in the Overview Camera. See PCD-189786.

- You can now see the latest Faro portable arm driver version 6.6.0.2. See PCD-199173.

- PC-DMIS now colors the trigger zone for the Point Auto Trigger and Point Manual Trigger to show when the probe is inside the zone (green) or outside the zone (yellow). See PCD-200200.

- You can now create offline Area and Line scans for the ATS600 tracker. See PCD-201150.

- You can now separate the Romer RDS portable arm contact probe components so that you can hide the probe body in the Graphic Display window. If you use a previous versions of PC-DMIS, you need to first delete the Romer RDS contact probe files to see the individual components. After you delete the probe files, they are automatically re-created the next time you connect to the portable arm. See PCD-203220.

Protect

- PC-DMIS now only allows you to open certified measurement routines in Protected mode.

  - To edit a certified measurement routine, a Protect-User group member must click the **Edit Certified Routine** button on the **File Operations** toolbar.

  - To recertify a measurement routine with changes, a Protect-Programmer group member must click the **Recertify** button on the **File Operations** toolbar.

  This means the operator can execute the certified measurement routine even when the changes are in-progress for the next certified version.

  See PCD-197873.

- A Protect-Programmer group member can now compare the differences between the certified measurement routine and the revised measurement routine visually with colored text in the **Revision** dialog box. See PCD-197875.

- The software now tracks changes to GEOMETRIC TOLERANCE commands and displays them in the protect log file. See PCD-197878.

Summary Mode

- If you are in Summary mode, you can now use a toggle button next to the MODE command to switch between DCC and Manual modes. See PCD-197650.

- You can now search for commands in the **Add Command** dialog box. See PCD-201366.

List of Fixes

Application Errors

- PCD-171147 - You no longer get an application error when you execute a `MOVE TO` or `POINT TO` command in a measurement routine with a tracker.

- PCD-183005 - You no longer get an application error when you assign a property in custom reports.

- PCD-186086 - You no longer get an application error when you import a Solidworks DCI file.

- PCD-194418 - You no longer get an application error during the focus part of the optical calibration process after you reset the tips in the **Probe Utilities** dialog box.

- PCD-195565 - You no longer get an application error when you switch the `STATS` command from On to Off and then you click the left button on your mouse.

- PCD-199246 - You no longer get an application error when you open the **Area Scan** dialog box and click the toggle button to turn the Overview Camera on or off.

- PCD-200090 - You no longer get an application error when you save 3D PDF reports.

- PCD-201056 - You no longer get an application error when you add tips to a CMS probe in the **Probe Utilities** dialog box.

- PCD-201065 - You no longer get an application error for a set of constructed scan features on a surface profile when you migrate from XactMeasure to a geometric tolerance.

- PCD-203637 - You no longer get an application error when you modify an animated machine in Command mode.

- PCD-204426 - You no longer get an application error when you set the value greater than zero in the **Any order execute tolerance** box of the **Setup Options** dialog box and then perform a scan with a portable arm.

- PCD-205151 - You no longer get an application error when you copy and paste in PC-DMIS.

- PCD-205626 - You no longer get an application error when you import a PMI CAD model that contains multiple GD&T callouts with multiplier wrapped within parentheses.

- PCD-205678 - You no longer get an application error when you edit a pointcloud cross section, create a radius gage, and click **Apply** in the **Pointcloud Operator** dialog box.

- PCD-208339 - You no longer get an application error when you execute a basic script.

CAD

- PCD-134548 - You can now see that Void Detection works correctly when you set **Depth** as 1 in the **Auto Feature** dialog box.

- PCD-171072 - You can now import and export DMIS files for `2D Angle` and `Distance` commands.

- PCD-173277 - PC-DMIS no longer hangs when you execute a `GOTO` command inside a nested loop.

- PCD-175712 - You can now create Auto circle hits at the correct depth.

- PCD-184700 - PC-DMIS now displays the cylinder correctly in the Graphic Display window after you import a DMIS file and create a cylinder feature.

- PCD-184886 - You can now see that Quick Path works well with star probes.

- PCD-187458 - PC-DMIS now displays the text correctly under the **Path Definition** tab in the **Auto Plane** dialog box.

- PCD-189143 - You can now see that Auto Insert Moves works well with the `Move Clearance Plane` command.

- PCD-192457 - PC-DMIS no longer causes problems when you select **File | Direct CAD Interface | CATIA 5** and import the file.

- PCD-194188 - You can now create quick scan and quick feature points when you select **File | Direct CAD Interface |Creo**.

- PCD-197533 - You can now import CREO files from the **Import** dialog box when you click **Import from CAD file** from the **CAD Setup** toolbar.

- PCD-198039 - You can now see better tessellation for spherical surfaces.

- PCD-202714 - You can now see the correct unit conversion to define the CMM limits for the Legs Collision in inches.

- PCD-203116 - You can now see the correct definition of the probe styli 1x25mm M3 and 1x10mm M2 in the **Probe Utilities** dialog box.

- PCD-203895 - You can now deselect a probe angle in the **Add Angles** dialog box.

- PCD-204063 - PC-DMIS now only creates one circle on the selected plane side of a counterbore. PC-DMIS no longer creates circles on both sides of the counterbore.

CMM

- PCD-178469 - PC-DMIS now supports all Tool.C() functionalities to the PC-DMIS I++ server.

- PCD-198173 - You can now perform multiple arm calibrations on the qualification sphere in a measurement routine with an active alignment when there is an axis rotation.

- PCD-204168 - The Arm2 CMM limits are now drawn in the Graphic Display window.

Excel Form Report

- PCD-195302 - You can now see that the Excel Form Report works correctly when you report the half-angle dimensions of a cone.

HxGN SFx | Asset Management

- PCD-187972 - PC-DMIS no longer fails to send BusyCreate events when you edit the measurement routine.

ESF (VWMP)

- PCD-190868 - PC-DMIS now updates the dimension of the ESF features when you change the current alignment.

- PCD-194500 - PC-DMIS now computes the correct actual value in a measurement routine when you create ESF (VWMP) features for cylinder or cone from an external application.

GD&T

- PCD-201661 - There is now a dark theme support for the import window when you use **GD&T Selection Mode (from File)**.

- PCD-201919 - When you import a PMI CATIA model that is in inch units into PC-DMIS, the software no longer converts the model to metric units. This used to create problems when you used GD&T Selection.

- PCD-202166 - You can now see improved GD&T from file recognition when you use high DPI monitors.

- PCD-202167 - There are now better messages when GD&T from file recognition fails.

- PCD-202236 - You can now see a warning message when you clear the **Advanced Modifiers** check box in the **Geometric Tolerance** dialog box.

- PCD-204161 - PC-DMIS now doesn't allow to delete the commands in Summary mode when you press F9 and edit any command.

- PCD-204185 - You can now see the same deviation direction for the geometric tolerance cylindricity textual analysis as the legacy cylindricity textual analysis.

- PCD-205520 - You can now see the same ID in the **Geometric Tolerance** dialog box as defined in the **ID Setup** tab of the **Setup Options** dialog box.

- PCD-205908 - You can now update `DIMINFO` and `POINTINFO` expressions when you remove the segment from the tolerance command.

Home Page

- PCD-176579 - Only administrators can change the **Web Access** settings for the Home Page with this release.

Laser

- PCD-195009 - PC-DMIS now displays a clear message when you exceed the maximum number of control points in a scan.

- PCD-201151 - You can now only execute a ring scan when you create it in an online measurement routine. This means you no longer can execute a ring scan when you create it in an offline measurement routine.

- PCD-204469 - You can now create a 30-degree HP-O sensor.

- PCD-204573 - PC-DMIS no longer fails to execute a constructed midpoint feature from two ESF features.

Pointcloud

- PCD-67283 - PC-DMIS now sets the non-integrated graphics card as the default card for laser or pointcloud users.

- PCD-175305 - You can now create a Thickness colormap command from the Edit window. To do this, in Command mode type `COPT` to display the `COPTHKCOLORMAP` command, and then press the Tab key.

- PCD-197683 - You can now edit Laser scan profiles inserted in the measurement routine from the Edit window when you press F9.

- PCD-200680 - You can now retain a hidden state of a scan feature's display line on CAD in the Graphic Display window even after you execute a measurement routine or edit a scan feature. This means you no longer need to save, close, and then reopen a measurement routine after you select **Off** from the **Display** area in the **Edit Feature Appearance** (**Edit | Graphic Display Window | Feature Appearance**) dialog box.

- PCD-203519 - You can now see the reduced triangle size in the Mesh `SELECT` command.

- PCD-206400 - You can now insert the correct laser scanning profile from the **Laser Data Collection Settings** dialog box.

Portable

- PCD-199028 - You can now see that the **Distance to Target** and **With Auto Zoom** options works well for the **Probe Readouts** window when you select the **Auto scale manual feature during execution** check box in the **Setup Options** dialog box.

- PCD-201633 - You can now save a measurement routine that contains an `OPTIONPROBE` command.

Reporting

- PCD-185278 - You can now see the correct display of the angle between the two laser planes for the Angle dimension.

- PCD-199626 - You can now insert a `SNAPSHOT` command above the `POINT COLORMAP` command in the Edit window.

- PCD-201456 - You can now see the **3D PDF** option in the **Output Type** list from the **Report Output** dialog box. This means you no longer need to

configure this in the **Output Configuration** (**File | Printing | Report Window Print Setup**) dialog box.

- PCD-202524 - The Snapshot command now hides the pointcloud in the image when the pointcloud is hidden in the CAD in the Graphic Display window.

- PCD-204753 - You can now see that PC-DMIS forms have an improved size when you view them from Inspect or other automation interfaces.

- PCD-207963 - When you copy and paste parameters for auto features, you no longer need to paste the parameters twice. It now pastes the parameters the first time.

Vision

- PCD-152812 - PC-DMIS no longer makes a line feature after the second link when you are trying to create a 2D profile feature in the Live Image view.

- PCD-168844 - The CAD View now works well on various features when you switch **Point Density** to **None**.

- PCD-190550 - You can now see the correct tip size of the TIP2BY57MM_LEITZ component in the Probe.dat file.

- PCD-193296 - PC-DMIS now displays the correct arc position at the correct measuring position when you measure a portion of a circle.

- PCD-194053 - You can now define the 40.00-BT40(Shank) probe from the **Probe Utilities** dialog box so that you no longer get an error message.

- PCD-194461 - PC-DMIS no longer hangs when you execute multi-capture vision features with automatic and non-automatic targets.

- PCD-200993 and PCD-201666 - PC-DMIS now uses the correct avoidance move after you perform a 4-axis scan inside linear open and linear closed scans.

Information about this Release

We at Hexagon Manufacturing Intelligence are proud to bring you PC-DMIS 2021.1. PC-DMIS brings together aspects of the software for the development of a complete manufacturing process control solution. With PC-DMIS, dimensional measurement data can flow through your organisation, as it is collected from coordinate measuring machines (CMMs), portable measuring arms, and laser trackers.

The testing of this version has been significant. We'd like to take a moment to discuss this process and also make you aware of the various components of testing.

Testing consists of two parts. These can be described as functional testing and integration testing.

- The vast majority of testing effort goes on in the functional area. This is the testing that determines that specific functions that are core to the software, regardless of what type of machine is used, are working correctly.

- The integration testing is essentially a testing of the interface with a particular type of machine.

In the ideal scenario, Hexagon Manufacturing Intelligence would have access to at least one of every piece of hardware running the software that is operating in the field. However, in practical terms, this is impossible. This integration test plan is then performed on as many types of machines as we have available.

Should you experience problems with your system after you install PC-DMIS 2021.1, it could possibly be an integration problem. If it is a problem of this nature, it will probably be evident immediately upon first use of the possibly untested configuration. To report any integration problems, see "Contact Hexagon Manufacturing Intelligence". Should such a problem materialize on a

commercial release, you will be given the highest priority for correcting these problems.

For existing users of the software who currently have earlier versions of the software installed, it is advised that you install PC-DMIS 2021.1 into a new directory. This lets you continue to use your current version if you have problems with the new version.

Recommended System Requirements

Operating System

PC-DMIS 2021.1 operates under 64-bit Windows 10, Windows 8.1, Windows 8, and Windows 7. No other operating systems are supported.

> For HP-L systems and systems that use RS-SQUARED sensors that run PC-DMIS in DCC mode, you need to use a 64-bit Windows 10 Pro Computer with up to 4 Cores.

You can find a list of supported operating systems for most versions of PC-DMIS here:

https://support.hexagonmi.com/s/article/Windows-OS-Compatibility-Listing-for-PC-DMIS

👁 When you use third-party drivers, be sure to contact your local Hexagon Manufacturing Intelligence representative to ensure operating system compatibility.

Running PC-DMIS inside a Virtual Machine (VM) is supported only if the VM supports OpenGL 3 or higher.

ⓘ The Matrox Framegrabber PC-DMIS Vision hardware component does not support a 64-bit operating system.

Microsoft .NET Framework

Microsoft .NET Framework 4.6.1 for Windows. If you do not have Microsoft .NET Framework 4.6.1, the PC-DMIS installer will install it for you.

RAM

- 4 GB of RAM or higher

  The size of the CAD data file and the tessellation multiplier value used affect the amount of memory needed. These both affect the amount of tessellated facets needed to display the model. The smaller the tessellation multiplier value used, the more memory needed for the facets. For large CAD models, this could cause an "Out Of Memory" error. If this occurs, the current PC-DMIS session will be left in an unstable state and should be terminated.

  The default tessellation multiplier value is 1.0. Setting a tessellation multiplier of 0.1 will result in a 10 to 20 percent increase in the memory required over the default value of 1.0. Decreasing the

tessellation multiplier further to 0.01 will result in an additional 50 to 65 percent increase of memory required.

- 1 GB of video RAM

- 64 GB of RAM Dual-Channel @1063 MHz DDR4-2666 MHz ECC RDIMM memory (for HP-L systems and systems using RS-SQUARED sensors)

CPU

- 2 GHZ or higher quad core processor

- Intel Xeon W-2223 Processor (3.6GHz, 3.9GHz) for HP-L systems

- Intel Xeon Processor E3-1505M (3.00 GHz) for systems using RS-SQUARED sensors

- Intel Core i7 9th Generation or higher (for example, i7-9xxxHx) 6 Cores hyper-threading enabled (for HP-L systems and systems using RS-SQUARED sensors)

Graphics

Any popular graphics card that meets or exceeds the following suggested minimums:

- GPU Memory 2 GB DDR3*

- 6 GB Memory Bandwidth 29.0 GB/s (for HP-L systems)

- CUDA Cores 384

- Open GL 3.0

- NVIDIA Quadro P5000 (4 GB) (for HP-L systems and systems using RS-SQUARED sensors)

- AC or AX type Wi-Fi card for systems using RS-SQUARED sensors

* For an RS4 laser sensor or later model, you need to have a GPU with at least 4 GB DDR3.

The graphics driver must support OpenGL 3.0 or higher. A warning message appears on PC-DMIS startup if the driver does not support OpenGL 3.0 or if your graphics driver is more than three years old.

Hard Drive

- 2 GB of free hard drive space plus allocated virtual memory of eight times the largest CAD file used

- SSD drive, HDD 10K, or two disks in RAID 0 mode (high-performance hard disk drive)

- 128 SSD, 128 SSD RAID, 1 TB HDD

Display

Screen resolution of 1920 x 1080 or higher

Connectivity

- One Serial port

- Three Ethernet ports. This may be required for specific installations in consideration of local needs, including but not limited to CMM systems where one port is required for controller communications and another for intranet/Internet communications.

- Two USB ports

- A properly-configured LMS license or a HASP key (a physical USB portlock)

- LAN port with Intel Chipset (for example, I219) (for HP-L systems)

> A HASP key does not act as general-purpose data storage; therefore, you cannot use a HASP key to store (download) arbitrary data from a computer. Similarly, you cannot use a HASP key to put (upload) arbitrary data on a computer. Also, only Hexagon Manufacturing Intelligence applications can read or write to a HASP key; other applications do not have this capability. As a result, you cannot use a HASP key to load and unload data to and from a computer.

Firmware Distributed Controller (FDC) Connection

PC-DMIS establish connection with FDC through the following parameters:

- Controller address - 100.0.0.1

- PC-DMIS computer address - 100.0.0.2

- Subnet mask - 255.255.255.0

- Port - 1234

Pcdlrn.exe and PC-DMIS process listens on port 1294.

Some other ports used are 138 and 1900. The port 1900 was listed as a UDP port.

LMS Licensing

The License verification server and ClmAdmin utility for node locked licenses:

https://licensing.wilcoxassoc.com/flexnet/services

The Floating License servers with Flexnet LmAdmin64.exe uses port 27000-27009 on the server. The LocalHost server on port 8090 and older versions defaults to port 8080. You can define these ports when you install license server or through the server interface. These are only Offline licenses when you are not connected to a machine.

Hexagon Universal Updater

WebSocket URL - ws://webupdater.hexagonmi.com

Server - http://webupdater.hexagonmi.com/v2/db.live

Username - Null

Password - Null

Port - 80

File - updates_v4.20190702090658181.db

If you select to install Offline Help when you update the software, it opens the second remote address on port 443. This port verifies the license.

CrashSender1403.exe

This executable is of PC-DMIS Crash Report Utility tool. You can turn off this option because of Windows Event management.

C:\Program Files\Hexagon\PC-DMIS 2019 R1 64-bit\Launcher\HexagonLauncher.exe

LauncherPC-DMIS.config/nocrashdump

A few Hexagon products need to establish remote connections such as Pulse, Notification Center/Message Lights and Smart Factory.

Anti-Virus Software

Hexagon Manufacturing Intelligence used the Sophos anti-virus tool to test PC-DMIS 2021.1. You will need to confirm the performance of any other anti-virus tool.

http://sophos.com/products/enterprise/endpoint/security-and-control/

Solutions for CMMs Using RS-232 Communications

If you are installing PC-DMIS 2021.1 on a new or existing computer, but you have an older CMM model that uses RS-232 communications, then you will need to install one of these solutions on your computer:

- An external RS-232 serial-to-USB adapter cable plus the serial-to-USB adapter cable driver

Recommended System Requirements

- An internal serial adapter card with serial ports

Installing the Software

To install the software, follow these steps:

Step 1: Check System and Hardware Requirements

Before you attempt to install a new version, ensure that you meet the system and hardware requirements discussed in "[Recommended System Requirements](#)". You must also have a USB portlock or valid LMS license for the installation to work. Your IT specialist can help you with this information.

- To get your computer's properties, highlight the **This PC** icon, right-click on it, and select **Properties**.

- To check the display properties for the graphics card, go to **Start** and type **Control Panel**, and then select **Display and Settings**.

Step 2: Log on as an Administrator

To install and run your new version for the first time, you must be logged on as a user with administrator privileges.

Step 3: Back Up Existing Settings

Back up your settings from your previous version. By default, PC-DMIS 2021.1 attempts to migrate existing settings from previous installs on the same computer, even from very old versions of the software where settings were stored in the pcdlrn.ini file.

- If your current version uses the pcdlrn.ini file for its settings, back up your pcdlrn.ini file. This file is in the Windows system directory. Save a copy of the file in a safe place.

- If your current version uses the PC-DMIS Settings Editor, back up your PC-DMIS Settings Editor data. To do this, follow these steps:

    1. Start the Settings Editor.

    2. Click the **Backup** button (or **Export**) to open the **Backup** dialog box.
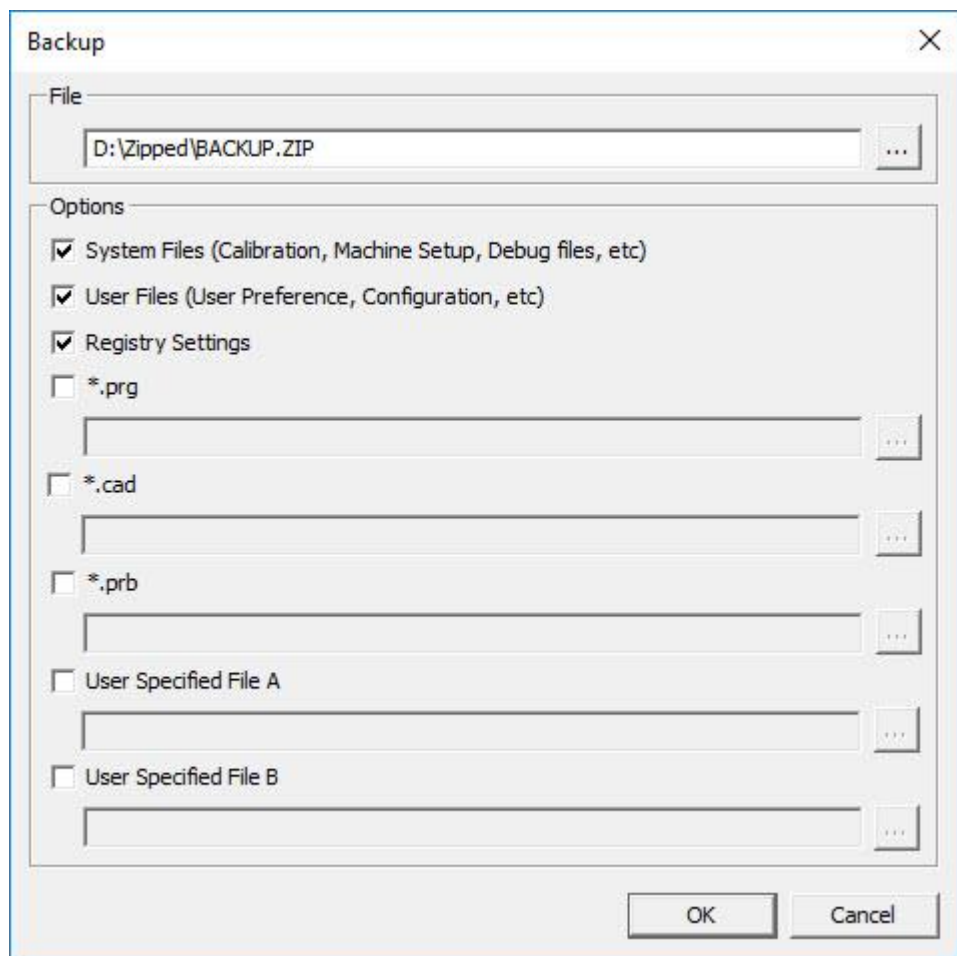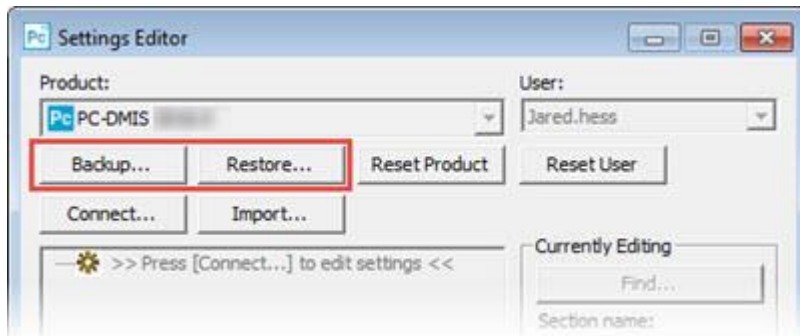

Backup dialog box

    3. In the **File** box, define a safe location to save the backed-up files, and give the file a .zip extension.

    4. Under the **Options** area, select the first three check boxes, and click **OK**.

If you replace your computer or transfer settings that reside on another computer, you can use the Settings Editor's **Backup** and **Restore** buttons:

Backup and Restore buttons

For more information on the backup and restore functionality, refer to the Settings Editor documentation.

Backing Up Machine Files for an Xcel CMM or a Sharpe Controller

If you are using a Brown and Sharpe Xcel CMM or a CMM that uses a Sharpe controller, and you are going to install PC-DMIS 2021.1 on a new computer, save copies of the following CMM machine files from your previous version to a safe place:

- comp.dat

  Starting with PC-DMIS 2013 MR1, the comp.dat file moved to:

    C:\ProgramData\WAI\PC-DMIS*version*

- downl.oad

The files are located in the installation (root) directory for all software versions prior to 2013 MR1, regardless of the operating system.

The location of the installation (root) directory is:

    C:\Program Files\WAI\PC-DMIS *version*

For versions of PC-DMIS up to and including 3.7 MR3, the location of the installation (root) directory is:

C:\PCDMISW

Backing Up Machine Files for a CMM with a DEA Controller

If you are using a DEA or other CMM with a DEA machine controller, and you are going to install PC-DMIS 2021.1 on a new computer, save copies of the following CMM machine files from your previous version to a safe place (the files vary according to the type of CMM):

- cosdat1.bin

- compens.dat

  Starting with PC-DMIS 2013 MR1, the compens.dat file moved to:

    C:\ProgramData\WAI\PC-DMIS*version*

- Fzyfile.txt

- Rcxfile.txt

- Rmxfile.txt

- Any file with your machine's serial number in its name

The files are located in the installation (root) directory for all software versions prior to PC-DMIS 2013 MR1, regardless of the operating system.

The location of the installation (root) directory is:

    C:\Program Files\WAI\PC-DMIS *version*

For software versions up to and including 3.7 MR3, the location of the installation (root) directory is:

    C:\PCDMISW

Step 4: Install the Software

The following steps run you through a typical installation. Your installation screens may differ if you are running a different version of PC-DMIS 2021.1 or if

you are installing a custom build with additional options. In addition, your license may be configured with different options.

1. Locate the installation file on your installation media; or, if you downloaded it, open the directory that contains the downloaded file. The name of the installation file is:

    Pcdmis2021.1_release_##.#.###.#_x64.exe

    The # symbols represent the version and build numbers.

2. Right-click on this executable file and click **Run as administrator** to open the installation program.

3. If a security warning appears, click **Run**.

4. From the initial license screen, read the license agreement, and select the **I agree with the License terms and conditions** check box.

5. In the box at the bottom, you can define the installation folder. By default, the file installs to:

    C:\Program Files\Hexagon\PC-DMIS 2021.1 64-bit

    To change the folder, either click the browse button () and choose a folder, or in the box, type a new path.

6. Once you accept the license agreement and choose the installation folder, click **Next** to open the licensing screen.

7. From the licensing screen, choose your license type:

    *   **LMS (Software) License** - If you have a software license (called an Entitlement ID), select this option. Complete the boxes beneath this option.

    *   **LMS License Server** - If you have a license server to connect to, select this option and then type the server address.

- **HASP** - If you have a portlock (a physical USB device with the licensed options), ensure that it is connected to your computer, and then select this option.

For help on how to set up an LMS license, see "[LMS License Setup](#)".

8. Click **Next**.

9. Choose to install additional software components. If you chose a custom installation path, the additional software still installs to your default measurement routine directory (usually C:\Program Files\Hexagon\).

- **PDF Converter 5.0** - This third-party tool converts PC-DMIS 2021.1 reports to PDF outputs.

  If you are a Portable user and you have the appropriate license, you can select a Portable interface as your default. For details, see "[Switchable Portable Interface](#)" in the PC-DMIS Portable documentation.

- **Offline English Help** - This option installs the English HTML5 Help into an installation folder that you define in step 14. When you access the Help, PC-DMIS tries to use the Internet-based Help, but if it cannot detect an Internet connection, it then attempts to access this offline fallback Help. If you mark the **Use Offline Help** option from the **Help** menu, then it also accesses this offline fallback Help even if you are connected to the Internet. This option appears if you have not installed the offline Help yet. Once you install the offline Help, and you later install an update to PC-DMIS, any updates to the Help occur automatically without presenting a prompt.

  If you need a non-English offline Help, see "[Installing Non-English Offline Help Files from Language Packs](#)".

- **Join the Hexagon Customer Experience Improvement Program** - To help improve the product and send usage data to Hexagon Manufacturing Intelligence, select this check box. To opt out of

sending usage data, clear the check box. For more information about this program, visit the Hexagon Customer Experience Improvement Program website.

10. Click **Install** to start the installation. A progress bar shows the overall progress.

11. When the installation finishes, a screen shows any warnings or errors. It also contains these options:

    - **Launch PC-DMIS 2021.1 64-bit** - To launch PC-DMIS 2021.1 now, select this check box. If this is your first time installing this version on this computer, you should do this to initialize registry entries. For more information, see "Administrator Privileges Explained".

    - **Show Release Notes** - To display a Readme.pdf file that shows what is new or has changed in this release once you click **Close**, select this check box.

12. Click **Close** to close the installation program.

13. If you have marked the **Offline English Help** check box in step 9, the Help installer program opens to install the offline Help.

14. In the box at the bottom, you can define the installation folder. By default, the file installs to:

    C:\Program Files\Hexagon\PC-DMIS 2019 R2 64-bit English Help

    To change the folder, either click the browse button (▪) and choose a folder, or in the box, type a new path.

15. Click **Install** to start the installation. A progress bar shows the overall progress.

16. When the installation finishes, a screen shows any warnings or errors. Click **Close** to close the installation program.
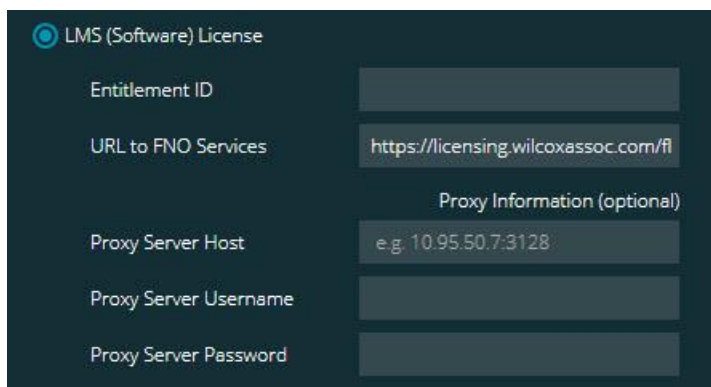
LMS License Setup

This topic provides information if you need to:

- Set up your LMS (software) license

- Connect to an LMS license server

- Update your LMS license

- Provide licensing information to the installer from the command line

LMS (Software) License

If you chose **LMS (Software) License** on the <u>licensing screen,</u> and the installation cannot find a valid license on your system, you need to complete these options:

LMS (Software) License option

1. Complete the options:

   - **Entitlement ID** - If you have an Entitlement ID, type or paste the ID you were issued in the box. If you have supplied this value in a previous installation, the installer pulls in that value from the registry.

   - **URL to FNO Services** - This points to the URL that verifies your license. Ensure that it has this URL:

     https://licensing.wilcoxassoc.com/flexnet/services

   - Proxy information - If your computer is on a network where you need a proxy server to reach the Internet, contact your IT specialist to get this information. Enter the server host, user name, and password.

2. If you do not have an Entitlement ID and you need to activate your license offline, use the CLM Admin application. From the CLM Admin application, choose **Activate new licenses**, and follow the on-screen instructions.

> For information on how to use the CLM Admin application, consult the Hexagon Client License Manager (CLM) Software documentation. You can find this in the subfolder for your language (such as the **en** directory for English).

3. Click **Next**. The installation software connects to the Internet and activates your license. It then installs the FLEXnet Licensing Service required to use LMS licenses.

LMS License Server

LMS License Server option

If you use a license server, select this item, and then type your license server name in the **License Server(s)** box. The format of this line of text is *port number@server name*, where *port number* is the TCP port number for the license server, and *server name* is the name of the server.

The default TCP port number is 27000. If you don't identify a specific port, the license server uses the default. For example, these mean the same thing:

@server1

27000@server1

> ◉   If you use this option, place the "@" symbol in front of the server address. If the "@" symbol is left off, the installation process attempts to look locally for the license. This may result in an error.

You can also specify multiple license servers. You can separate them with semicolons. For example, suppose that you have three license servers called licenseserver1, licenseserver2, and licenseserver3, and all of them use the default TCP port. You can specify all of them in a single line of text, like this:

@licenseserver1;@licenseserver2;@licenseserver3

Updating Your LMS License

Once you finish with the license setup and install PC-DMIS 2021.1, it checks for license updates when it starts and after every eight hours of running. If a license update is available, this notification appears:

PC-DMIS

Updates are available for your PC-DMIS license. Applying them now will require PC-DMIS to restart. Would you like to apply the updates now?

To apply the update, click **Yes**. If you click **No**, PC-DMIS 2021.1 displays the message every eight hours of running or the next time it runs.

- If an option or a feature is added, you are given the choice to apply the changes. A pop-up message displays in the system tray if you apply the changes.

- If an option or feature is removed, a message that requests you to restart PC-DMIS 2021.1 appears. A pop-up message also appears in the system tray to inform you of this.

- If an option or feature is obsolete, it is automatically removed.

> ℹ️ After you apply an update, restart PC-DMIS to ensure that it functions properly.

Providing LMS Licensing Information to the Installer from the Command Line

You can send LMS licensing information to the installer through command line parameters. For more information, see "Providing LMS Licensing Information to the Installer from the Command Line" in Appendix A.

Administrator Privileges Explained

Software versions earlier than version 2012 require that you run the software as an administrator because some system settings (such as the last probe used, wrist angles, and other items) were shared among all users on that computer. This required that these settings were placed in the LOCAL_MACHINE section of the Windows registry instead of in the CURRENT_USER section (for user-specific settings). Making changes to settings in the LOCAL_MACHINE section requires administrator privileges.

In PC-DMIS version 2012 and later, the settings mechanism used by PC-DMIS changed to only require administrator access the very first time it runs at the end of the installation. From that point forward, standard user access is sufficient.

The PC-DMIS installer has a flag that is built into the setup executable file (Pcdmis2021.1_release_##.#.###.#_x64.exe) that requires the setup process to run with administrator privileges. If the current user has lesser privileges, the setup program displays a prompt to provide a user name and password of an account with administrator privileges.

Once the installation finishes, the first time you run PC-DMIS 2021.1, you must launch it with administrator privileges. If you mark the **Launch PC-DMIS 2021.1 64-bit** check box when the installation finishes, PC-DMIS 2021.1 does this automatically by passing the original privilege level of the installer onto PC-DMIS.

Note, however, that if you do not mark this check box, you will need to explicitly right-click on the shortcut and select **Run as administrator** as described in [step 6](#).

For more information on the file system and registry rights that PC-DMIS 2021.1 requires, see "[Required User Access Rights](#)" in Appendix B.

Step 5: Copy Files after Installation

If these files are available, copy them from your old PC-DMIS installation directory to the directory where you installed the newer version:

- Sysparam.dat

- Downl.oad

- Fzyfile.txt

- Rcxfile.txt

- Rmxfile.txt

Starting with PC-DMIS 2010 MR2, PC-DMIS automatically copies common system files to the program data files directory when you install a newer version of PC-DMIS.

The comp.dat, compgrid.at, comp.enc, and compens.dat volcomp files used with volcomp methods 13 (ASI) and 14 (BNS) must be in the program data files directory. When you install a newer version of PC-DMIS, these files automatically copy to the program data files directory for the new version. For the default path location of this directory, see "Understanding File Locations" in the PC-DMIS Core documentation.

For additional information on volumetric compensation files and setup, see the Machine Interface Installation Manual (MIIM).

Copying Machine Files for an Xcel CMM or a Sharpe Controller

If you are using a Brown and Sharpe Xcel CMM or a CMM that uses a Sharpe controller, and you installed PC-DMIS 2021.1 on a new computer, copy the backed-up CMM machine files to the following location on the new computer:

C:\Program Files\Hexagon\PC-DMIS *version*

For more information about these files, see "Backing Up Machine Files for an Xcel CMM or a Sharpe Controller".

## Copying Machine Files for a DEA CMM with a DEA Controller

If you are using a DEA CMM with a DEA machine controller, and you installed PC-DMIS 2021.1 on a new computer, copy the backed-up CMM machine files to the following location on the new computer:

C:\Program Files\Hexagon\PC-DMIS *version*

For more information about these files, see "Backing Up Machine Files for a DEA CMM with a DEA Controller".

Step 6: Launch the Software for the First Time

1. When you run PC-DMIS 2021.1 for the first time, go to **Start** and type **PC-DMIS 2021.1 64-bit**.

2. From the list of shortcuts in the **Start** menu, right-click on either the **Online** or **Offline** icon, and then select the **Run as administrator** option (required only if the **Launch PC-DMIS** check box wasn't checked at the end of the installation).
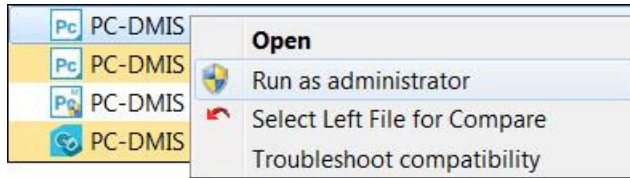
Run as administrator option

The **Run as administrator** option allows the program to write the needed machine-specific settings.

3. You can import settings from a previous version.

   If your previous version used the pcdlrn.ini file, PC-DMIS 2021.1 asks if the settings in your PCDLRN.INI file should be used as your registry settings. Click **Yes** at the prompt. Otherwise, PC-DMIS 2021.1 loads in the factory defaults.

   If your previous version used the Settings Editor, follow these steps to use your previous software settings:

   a. Close PC-DMIS 2021.1.

   b. Launch the PC-DMIS Settings Editor from the **Start** menu.

   c. Once it opens, click **Import**, and open the PCDRegFile.dat file you backed up in the "Step 3: Back Up Existing Settings" section of this document. PC-DMIS 2021.1 imports your settings.

   d. Close the PC-DMIS Settings Editor.

Subsequent Startups

For subsequent startups, click the usual **Offline** or **Online** shortcut to launch PC-DMIS 2021.1 normally :

PC-DMIS 2021.1 shortcuts

Once PC-DMIS 2021.1 starts, the **Software License** screen displays the current license agreement. Read the agreement carefully and then at the bottom, click **I agree with the License terms and conditions** to proceed:
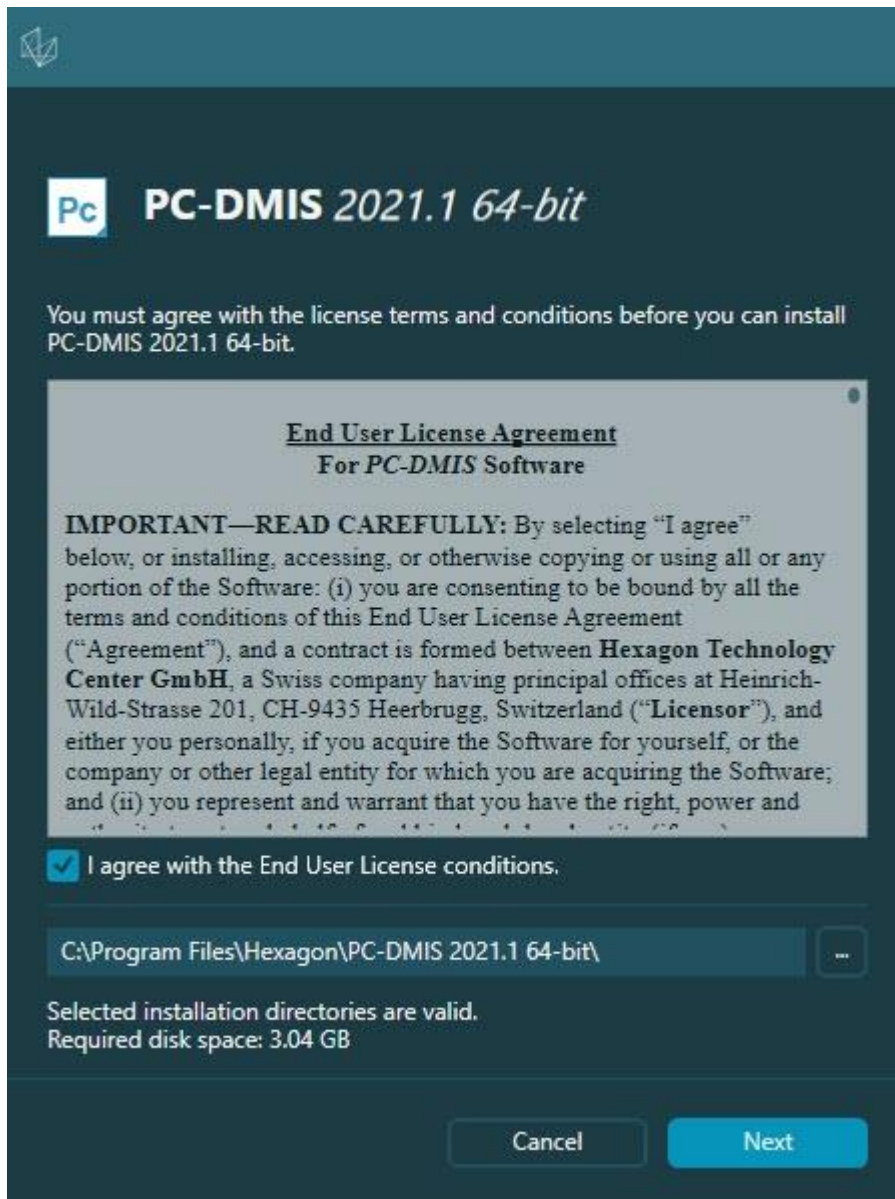
Software License screen

Once PC-DMIS 2021.1 runs, an icon displays in your system tray. If your portlock or LMS license is programmed correctly, the icon displays a green check mark as shown below:
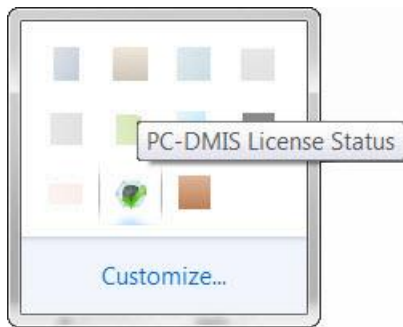
Message for valid PC-DMIS license

If your portlock is not connected or is not programmed correctly, or if you are using an LMS license and your software has not been properly licensed, the icon appears with a red exclamation point overlay. A pop-up message says that the license is disconnected:

Message for disconnected PC-DMIS license

If the license is disconnected, PC-DMIS 2021.1 functions normally, but after 5 minutes, it automatically closes. Be sure to save your data immediately before this occurs.

Note About CMMs Using RS-232 Communications

By default, PC-DMIS 2021.1 communicates through the COM1 communications port. You need to change this port number to the number that Windows automatically created if a serial-to-USB adapter cable or serial adapter card was installed for communicating with an older RS-232 CMM.

To change the COM port number, follow these steps:

1. In Windows Device Manager, note the number that Windows assigned to the communications port on your computer. For help, refer to Windows Help.

2. Open PC-DMIS in Online mode, and then open or create a measurement routine.

3. Select **Edit | Preferences | Machine Interface Setup**.

4. In the **Comm port** box, enter the port number from Windows Device Manager.

Command Line Installation

You can install PC-DMIS from the command line instead of double-clicking on the PC-DMIS installation executable. In addition, you can turn various command line arguments on or off to speed up the installation process.

This topic lists the supported command line arguments.

Command line arguments are case sensitive.

User Interface Parameters

-q, **-quiet**, **-s**, **-silent** - Installs without any user interaction

-passive - Does a progress-bar-only install

Installation Commands

-uninstall - Removes the application from the computer

-repair - Repairs (or installs if not installed) the application

-package, **-update** - Install (default)

-layout - Creates a local/admin image

HEIP - This parameter sets the Opt-in option for the Hexagon Customer Experience Improvement Program. This provides analytics for PC-DMIS to help us improve the application. By default, this option is on (***HEIP=1***). Set this parameter to 0 (zero) to turn this option off.

USELMSLICENSING - When this parameter is turned on (***USELMSLICENSING=1***), PC-DMIS checks for an LMS license. Set this parameter to 0 (zero) to turn this option off.

INSTALLPDFCONVERTER - When this parameter is turned on (***INSTALLPDFCONVERTER=1***), the PC-DMIS installation installs the PDF Converter. By default, this option is turned on. Set this parameter to 0 (zero) to turn this option off.

INSTALLOFFLINEHELP - When this parameter is turned on (***INSTALLOFFLINEHELP=1***), the PC-DMIS installation installs the offline English help system. By default, this option is turned on. Set this parameter to 0 (zero) to turn this option off.

Restart Handling

-norestart - Suppresses any restarts

-promptrestart - Prompts if a restart is required (default)

Logging

-l, **-log** - Creates an installation log to a specific file (default TempFolder)

-logtoconsole - Logs installation information to the console, if started from the console

Help

-? - Shows the **Supported command line arguments** information screen

Additional Parameters

INSTALLDIR - Specifies the installation folder for the PC-DMIS application. The default location is "C:\Program Files\Hexagon\PC-DMIS <version>", where <version> is the PC-DMIS install version.

SQLCONNECTIONSTRING - Defines the connection string if required by the application

LICENSESTRING - Defines the license string if required by the application

LMSENTITLEMENTID=<EID> - This parameter specifies the LMS Entitlement ID (EID) for your LMS license. Replace "<EID>" with your actual Entitlement ID. For example: *LMSENTITLEMENTID=99999-12345-67890-12345-67890*

LMSURLTOFNOSERVICES=<FNO server address> - This parameter defines the URL address to the LMS FNO server. Replace "<FNO server address>" with the actual URL to the LMS server. For example: *LMSURLTOFNOSERVICES=https://licensing.wilcoxassoc.com/flexnet/services*

LMSPROXYHOST=<\{proxyhostname}> - This parameter defines the name of the proxy host server. Replace <\{ProxyHostName}> with the name of the proxy host server. For example: *LMSPROXYHOST={\fnoserver}*

LMSPROXYUSERNAME=<\{proxyhostusername}> - This parameter defines the user name of the proxy server. Replace <\{proxyhostusername}> with the user name of the proxy server. For example: *LMSPROXYUSERNAME={\jrjones}*

LMSPROXYPASSWORD=<\{proxyhostpassword}> - This parameter defines the password for the proxy server. Replace <\{proxyhostpassword}> with the password for the proxy server. For example: *LMSPROXYPASSWORD={\AS4BGxpZyu}*

LMSLICENSESERVERS (@\{ipaddress}) – This parameter defines a comma-separated list of the LMS license servers.

LICENSETYPE - This parameter specifies the license type. The options are HASP, LMSEntitlement, or LMSServer. For example: *LICENSETYPE=LMSEntitlement*.

The correct usage for the additional parameters is:

PARAMETER=*value*

Unattended Installation Example

To perform a fully-unattended installation into a directory named **C:\PCDMISW**, use the following command line argument:

```
Pcdmis<installer information>.exe -q
INSTALLDIR="C:\PCDMISW"
```

Where *<installer information>* is the PC-DMIS version and build numbers of the .exe file that you are installing.

Network Connections

This section describes network access details for some Hexagon products.

Firmware Distributed Controller (FDC) Connection

PC-DMIS uses these parameters to establish its connection with FDC:

- Controller address - 100.0.0.1

- PC-DMIS computer address - 100.0.0.2

- Subnet mask - 255.255.255.0

- Port - 1234

LMS Licensing

You can find the license verification server and the ClmAdmin utility for node-locked licenses here:

https://licensing.wilcoxassoc.com/flexnet/services

The Floating License server with Flexnet LmAdmin64 uses ports 27000-27009 on the server. lmgrd and lmadmin listen on TCP port 27000 by default. Communication must be allowed from the client computer to the network license server on this port (or another port if the network license administrator has changed the default). Communication is transitioned from lmgrd / lmadmin to the vendor daemon after the initial connection is made. By default, this is done on a random TCP port. Unless your firewall has built-in support to recognize the randomly chosen port, you need to manually specify a port for the vendor daemon.

The LocalHost server on port 8090 and older versions defaults to port 8080. You can define these ports when you install license server or through the server interface. These are only Offline licenses when you are not connected to a machine.

Offline Help

If you select to install Offline Help when you update the software, it opens the second remote address on port 443. This port verifies the license.

Hexagon Universal Updater

Servers - http://webupdater.hexagonmi.com/v2 (catalogs and configuartions) and http://webupdater.hexagonmi.com/Management (SignalR)

Port - 80 and 8089 (SignalR)

CrashSender1403.exe

This executable is for the PC-DMIS Crash Report Utility tool. If you run this executable with the /nocrashdump switch, the Event Viewer screen takes over the crash report functionality.

C:\Program Files\Hexagon\PC-DMIS 2019 R1 64-bit\Launcher\HexagonLauncher.exe

LauncherPC-DMIS.config /nocrashdump

Other Products

A few Hexagon products need to establish remote connections which enables them to send emails and text alerts. These products include Pulse, Notification Center/Message Lights, and SMART Factory.

Updating the Software

The Hexagon Universal Updater application automatically checks for software updates if your computer is connected to the Internet. This application is installed with PC-DMIS and Inspect. If the updater detects that an update is available, the updater uses the Windows notification area to the right of your clock on your taskbar to inform you of the update. You can then click on a notification to open the updater to download and install that update.

If the updater is running, a small icon for the updater appears in your taskbar's Notifications area (). You can click this icon to open the updater.

If the updater is not running, you can manually run the updater to check for updates. You can also use the updater to launch software or install new software applications. To run the updater, from the **Start** menu, type **Universal Updater**, and select the shortcut for the updater.

If you need additional help with the updater, you can access the help content available from within the updater itself.

 During the download and installation processes, your firewall must allow the http://webupdater.hexagonmi.com Internet address. In addition, you must have Administrator privileges to install the software update.

For information on the installation process, follow the installation steps described in the topics above. Once the installation process finishes, you can use the latest version.

When you update PC-DMIS from the Universal Updater, the software opens the **Associated Products** dialog box. The software displays a list of the required and recommended products.

> **Required**

HxGN SFx | Connector - This software connects your assets to your SFx account. It also monitors your assets and sends data to your SFx account.

Recommended

Inspect - This software provides a simplified operator interface for operators to execute measurement routines from supported products and then generate reports.

Notification Center - This software sends notifications from a client application (such as PC-DMIS) to a measurement device (such as a CMM) during certain events (such as when the machine has an error).

For information on evaluation versions and changing HASP to LMS, see "Updating the Software" in the PC-DMIS Core documentation.

Repairing or Removing an Installation

You can also repair or remove an installation once you install it. To do this, double-click the Pcdmis2021.1_release_##.#.###.#_x64.exe file as if you were beginning the installation process. The setup displays a screen with these options:
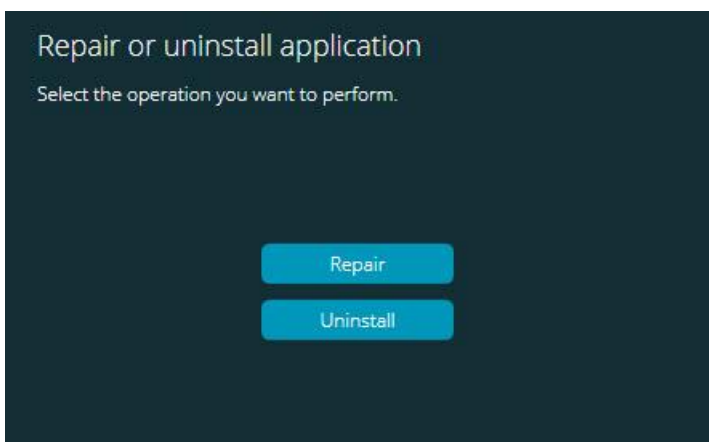
"Repair or uninstall application" dialog box

- **Repair** - This option reinstalls all of the product files as they were originally installed. This option may help resolve issues where an installation didn't properly install all of the files.

- **Uninstall** - This option removes the application from where you installed it. You can also use the **Apps and features** screen or the **Programs and Features** control panel item in Control Panel to uninstall the application.

Running the Software in Another Language

The initial installation setup file for PC-DMIS 2021.1 contains the user-interface files for all of the supported languages. When you install PC-DMIS 2021.1, it installs the language files based on your operating system's language.

To run PC-DMIS 2021.1 in a language other than the operating system's language, select **File | Language**, and then click the desired language. PC-DMIS shows a message that says the application will be shut down and restarted. Click **Yes** to continue. PC-DMIS 2021.1 immediately closes and then reopens in the selected language.

To get the help content available in a non-English language, see "Installing Non-English Offline Help Files from Language Packs".

Installing Non-English Offline Help Files from Language Packs

This topic only applies to users who don't have Internet access.

- With Internet access, the online Help for PC-DMIS 2021.1 is already available from a public web server in all supported languages. The Help opens in your browser whenever you access it.

- Without Internet access, PC-DMIS 2021.1 uses the Help where you installed the offline Help for your version.

With the main installation file, you can install the offline Help in English. However, non-English offline Help files are not included in the main installation file. This means if you intent to use a non-English language, and you don't have Internet access, in order to see any Help content, you *must* also install a language pack for that language.

A language pack contains all of the offline Help content for that language.

To install a language pack, follow these steps:

1. Locate the desired language pack (and .exe file) on your installation media or download it from the Internet here:

   ftp://ftp.wilcoxassoc.com/PC-DMIS-Versions/Release/2021_R1/Release/x64/Lang/

2. Run the .exe file and follow the setup instructions. You do not need to have administrator access to do this step.

This procedure installs the Help content into the folder where you installed the offline Help for your version.

You can then switch to that language in the software and access the Help content as expected.

Troubleshooting

This topic provides information for you to troubleshoot installation, startup, and software update problems.

Startup is Slow

Problem: You use a computer with at least the recommended system requirements as detailed in the "Recommended System Requirements" topic, and it takes longer than 30 seconds to launch the software.

Description: This happens if you try to run PC-DMIS 2021.1 on a Windows 7 computer, but you didn't mark **Run as administrator** on the installation wizard. This results in a problem loading the HASP driver. Note that this problem only occurs when you install with a HASP license type, as discussed in "Step 4: Install the Software".

Solution: Uninstall PC-DMIS 2021.1 and then reinstall it. To reinstall it, right-click on the installation file and choose **Run as administrator**.

Setting Up the Network to Send Crash Reports

Problem: PC-DMIS 2021.1 cannot automatically send crash reports to Hexagon Manufacturing Intelligence even when your software configuration does not use the **/nocrashdump** switch. (This switch disables crash reports in PC-DMIS 2021.1.)

Description: A firewall on your computer may be blocking the Hexagon Universal Updater application from connecting to the server. If PC-DMIS 2021.1 crashes, it uses a PHP script over HTTP to send the crash report. If this fails, it then tries to send the report to crashreport@wilcoxassoc.com. It tries using the standard SMTP email protocol. If that fails, it tries to send the email through MAPI.

Solution: The crash report system needs to be able to use port 80 to get out to the server, **http://www.wilcoxassoc.com**/.

Installing on top of an Existing Version Results in Unexpected Behavior

Problem: You installed on top of an existing version of the software, and now the software does not behave normally. Potential symptoms include:

- After you start up the software, you get a "Procedure Entry Point" error.

- When you select **Help | About**, it does not show the new build number.

- Reported bug fixes do not seem to be fixed, and PCDLRN.EXE does not have a newer date and time than the original release.

Description: Something did not install properly on top of the existing version.

Solution: Use **Apps & Features** or Control Panel to completely uninstall the existing version and then reinstall the version you're trying to install.

Running the Legacy DPUPDATE.EXE Does Not Work

Problem: The legacy DPUPDATE.EXE does not run.

Description: If you run PC-DMIS 2021.1 without administrator privileges, DPUPDATE.EXE does not work.

Solution: Run PC-DMIS 2021.1 with administrator privileges.

Contact Hexagon Manufacturing Intelligence

If you are participating in the *technical preview* of PC-DMIS 2021.1, please post your feedback in the appropriate technical preview forum located at www.pcdmisforum.com/forum.php. Please <u>do not</u> contact Hexagon Technical Support for technical previews.

If you are using the *commercially-released version* of PC-DMIS 2021.1 and would like further information or technical support, please contact hexagonmi.com/contact-us or visit hexagonmi.com/products/software. You can also reach Hexagon Technical Support at support.hexagonmi.com or by calling (1) (800) 343-7933.

Appendix A

Providing LMS Licensing Information to the Installer from the Command Line

You can send LMS licensing information to the installer by using the command line:

- If the installer is running in silent mode (**-q**) or basic silent mode (**-passive**), and the correct information is provided, everything runs without user interaction. The command switch **-q** displays the progress bar and handles installer errors. The **-passive** switch hides the user interface.

- If the installer is not running in silent mode, the information provided is used to populate the LMS activation form and skip the license screen.

- You can provide the **-?** to review additional command line arguments.

Descriptions of the parameters follow, along with examples.

Descriptions

USELMSLICENSING=1 - This flag is useful only if the system already has an LMS license that the user is using. It allows silent mode to work without having to prompt the user for a license choice. If the installer is not running in silent mode, it still allows the install process to skip the license type selection dialog (thus saving some time).

LMSENTITLEMENTID=*entitlement id* - This parameter and value are useful on a new system where no LMS license was previously installed. It indicates that you want LMS licensing and provides an Entitlement ID to try and activate. When this value is specified, there is no need to specify **USELMSLICENSING**.

LMSLICENSESERVERS="*server1,server2...*" - This parameter is used on systems that communicate with a license server. It also allows the license type selection dialog box to be skipped and the installation to be done silently.

LMSPROXYHOST="*proxyhostaddress*" - This optional parameter gives the address of a proxy host. In silent mode, it is used directly in activation. In non-silent mode, it populates the activation form with this value.

LMSPROXYUSERNAME="*user name*" - This parameter is another optional parameter for the proxy user name. It behaves in the same manner as **LMSPROXYHOST**.

LMSPROXYPASSWORD="*unencrypted password*" - This parameter is another optional parameter for the proxy password. It behaves in the same manner as **LMSPROXYHOST**.

LMSURLTOFNOSERVICES=*URL to FNO server* - This parameter is mostly for internal development. The default URL is to the production server. The new value can be used to override the default value and point to the development server.

Examples

On a brand-new system with a node-locked Entitlement ID, the following line installs PC-DMIS 2021.1 in silent mode:

-q LMSENTITLEMENTID=99999-88888-77777-66666-55555

On a system that already has a license, the following line installs PC-DMIS 2021.1 in silent mode:

-passive USELMSLICENSING=1

On a brand-new system using license servers, the following line installs PC-DMIS 2021.1 in silent mode:

-passive LMSLICENSESERVERS="123.12.134.42"

On a brand-new system with no license, the following line skips the license type selection dialog box and populates the activation form:

Appendix A

```
LMSENTITLEMENTID=99999-88888-77777-66666-55555
LMSPROXYHOST="123.123.123.123" LMSPROXYUSERNAME="bob"
LMSPROXYPASSWORD="marley"
```

Appendix B

Required User Access Rights

PC-DMIS 2021.1 requires read, write, and create access to the locations defined below in the file system and registry.

File System

Windows 10, Windows 8, Windows 7, and Windows Vista:

- C:\ProgramData\Hexagon\PC-DMIS\2021.1

- C:\Users\Public\Documents\Hexagon\PC-DMIS\2021.1

- C:\Users\UserName\AppData\Local\Hexagon\PC-DMIS\2021.1

- Any user-specified folder locations for storing measurement routines, probes, subroutines, and so on

Registry

All of these versions have their own registry settings, which are stored in a version-specific registry key. The items shown below are for version 2021.1.

- HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Hexagon\PC-DMIS\2021.1 Key and all sub keys

- HKEY_CURRENT_USER\Software\Hexagon\PC-DMIS\2021.1 and all sub keys

- HKEY_USERS\.DEFAULT\Software\Hexagon\PC-DMIS\2021.1 and all sub keys

Notes

The first time you run a new version, PC-DMIS automatically copies the settings from the most recent version of PC-DMIS that is installed. For this to work, PC-DMIS needs to run with administrator privileges the first time you run it. During

the installation, if you select the **Launch PC-DMIS** check box in the setup wizard, it runs PC-DMIS as an administrator and completes this first step.

This initial migration automatically sets read, write, and create permissions on the registry for the relevant keys.

If you are using fixturing or laser sensors, the following registry keys are stored back one level:

- HKEY_LOCAL_MACHINE\SOFTWARE\Hexagon\FxtServer

- HKEY_LOCAL_MACHINE\SOFTWARE\Hexagon\PC-DMIS\NCSENSORSETTINGS

It may be easier to just apply create/read/write privileges to the HKEY_LOCAL_MACHINE\SOFTWARE\Hexagon\ key and all sub keys to cover these also.

Appendix C

First-Time Installation with Flexible Fixturing

To be compliant with the permission rules for PC-DMIS products, files associated with fixturing are now located in this folder:

> C:\Program Files\Hexagon\PC-DMIS 2021.1 64-bit\Models\QuickFix

This allows access to the files without needing administrator privileges on the computer running PC-DMIS. To accomplish this, the following steps are required when you install PC-DMIS for the first time:

1. The first time you install PC-DMIS and FxtServerInterface, run the FxtServerInterface installation program for the first time with administrator privileges (as is required for the PC-DMIS installation).

2. When you run FxtServerInterface, a message states that the system will migrate all of your data files to the "FIVEUNIQUE" Documents folder described above.

   - If you choose **Yes**, the files are moved, and the original folder is deleted.

   - If you choose **No**, the files are copied, but the original folder is kept.

   Once this is done, the files are moved (or copied), and you are able to run FxtServerInterface.exe without administrator privileges.