PC-DMIS 2021.2

- Release Notes -

Table of Contents

Table of Contents

Release Notes

PC-DMIS 2021.2 is a significant development release of the software. For detailed information and video tutorials about this release, visit hexagonmi.com/products/software.

What's New

Auto Laser Scan Creation

You can now create Laser (stripe) scans which rely on selected CAD surfaces to automatically create the stationary CMM path.

See "UniScan".

Constructed Extreme Point

PC-DMIS now allows you to create a maximum or minimum point from an existing feature. The point can be along an axis direction or a 2D or 3D polar radial value.

See "Constructed Extreme Point".

A Perfect 10

PC-DMIS now supports a laser stripe scanner which offers significant throughput improvements over existing models.

See "HP-L-10-10".

Inspect Probe Management

Inspect now has a calibrate button for each probe used in a routine. With these buttons, you now only need to calibrate the tips that the probe uses in that routine.

- Inspect now tracks the probes and tips that the measurement uses and displays them in the **Details** pane. This allows you to more easily know which probes are required before you begin execution.

- You can define the maximum acceptable limit for your probe calibration's standard deviation. If your probe tip's deviation exceeds the limit in this setting, Inspect highlights the calibration date in red and PC-DMIS shows "Invalid Calibration". Execution can only commence when there's a valid calibration.

- Probe calibration can now be scheduled with the new **Scheduler** add-on.

See "Inspect Probe Management".

Inspect Swift-Check

Swift-Check, Hexagon's CMM self-validation system, is now fully integrated into Inspect for users of PC-DMIS and QUINDOS. Swift-Check operations can now be scheduled with the new **Scheduler** add-on.

See "Swift-Check".

Other Improvements

Auto Features

- PC-DMIS now displays a more informative message when the **Find Hole** option in the **Auto Feature** dialog box fails to find a hole during the execution of a part. See PCD-119735.

- You can now type different values for the **Distance Before** and **Distance After** options on the **Contact Auto Move Properties** tab of the **Probe Toolbox** area in the **Auto Features** dialog box. You can do this when you use avoidance moves to program contact Auto features. This simplifies programming and reduces the need of additional moves in-between features. See PCD-120003.

- You can now use the **Auto Wrist** dialog box for Contact and Laser probes. See PCD-139361.

- PC-DMIS can now import an .ebm file that contains all the characteristics of the part to measure in the measurement routine. PC-DMIS creates all the contact Auto features and the related dimensions. See PCD-211702.

- You can now see smooth data when you extract a high point from a pointcloud (internal for direct Laser measurement or external). See PCD-211785.

Automation

- PC-DMIS now provides Menu Support when writing SUIT test cases. See PCD-211098.

Blade Scan RT

- PC-DMIS now provides the Blade Scan RT command to scan blade sections in four axis. This command helps to simplify the measurement of blade sections. PC-DMIS automatically calculates the scanning path in four axis based on the nominal points. PC-DMIS scans all sections of the blade in one command. The Blade Scan report command then creates the .RPT file to process the scan data. To analyze the report, use PC-DMIS Blade. This command is available on CMMs that are equipped with a rotary table and a B5 controller. See PCD-203740.

Dual Arm

- You can now see the multiple arm calibration matrix in the **Multiple Arm Setup** dialog box. See PCD-107660.

ESF

- You can now see the seven decimal digits for coordinates, tolerances, and vectors of the ESF (VWMP) features. See PCD-190859.

- You can now select an assembly ID or type a new one when you program or edit an ESF (VWMP) feature from the **Extended Sheet Metal Features** dialog box. See PCD-110341.

Geometric Tolerance Dimensions

- You can now see that Geometric Tolerance commands perform better with large data sets. See PCD-199754.

- You can now see improvements when you migrate from XactMeasure to Geometric Tolerance commands:

  - PC-DMIS now includes all migration errors in the migration report. This includes errors from the Edit window, Report, and commands that are converted to the legacy profile. PC-DMIS now ensures if there is no migration report, there are no migration errors in a measurement routine.

  - PC-DMIS now supports the use of Auto Corner Point, Constructed Circles, Constructed Points, and Patterns of Slots as datums.

    - Constructed Points - Corner, Intersection, Origin, and Pierce 3D

    - Constructed Circles - Projection, Cone, Cylinder, Sphere, Tangent 2 lines, 3 lines and 3 circles, Intersection, and Cast

  See PCD-213871.

HxGN SFx

- PC-DMIS now supports Geometric Tolerance dimensions to send dimension icons to HxGN SFx. See PCD-202288.

- PC-DMIS now supports the ability to transfer your trace information from the file header and trace field commands to HxGN SFx. See PCD-204704.

- PC-DMIS now updates Edge Client data streams to add session trace fields. See PCD-212187.

Laser

- You can now see the significant reduction in time needed to map a Laser probe. See PCD-67002.

- You can now select multiple surfaces when you program a Laser Auto Plane for extraction from an external pointcloud. See PCD-80602.

- You can now create an Auto High Point feature, that can be directly measured with the use of a Laser scanner or extracted from pointcloud data. See PCD-101091.

- You can now see the calibration results for the Laser Wrist probe mapping. See PCD-110341.

- You can now see an improved and consistent user interface in the **Measure Laser Probe** dialog boxes for the Laser calibration. See PCD-161708.

- PC-DMIS now automatically performs a dark reference when you change a tool to an HP-OW sensor. See PCD-209468.

Probe

- You can now see the HP-S-X1C/H Stylus Clamping (1x D2) in the probe.dat file. See PCD-202385.

Q-DAS Configurator

- PC-DMIS now output the Q-DAS results into a version-independent folder:

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

  See PCD-204062.

Settings Editor

- PC-DMIS now stops the execution of a measurement routine when PC-DMIS tries to load the probe and detects any errors. This saves time when you are near the end of a long measurement routine and you receive a probe or tip error. To do this, you need to set the `AvoidExecutionWithIllegalTip` registry key to True in PC-DMIS Settings Editor. See PCD-206052.

- PC-DMIS now added the `ForceCurrentlyLoadedProbeToBeBlank` registry entry to see the last used probe when you open PC-DMIS and the registry entry is set to False. See PCD-216265.

Summary Mode

- Summary Mode now supports dark and light theme. See PCD-173797.

- You can now press F9 in the file header area of the measurement routine to open the **File Header** dialog box. You can then use the dialog box to edit the part name, serial number, revision number, and statistics count.

  The dialog box also provides this information:

    - Informs you if the measurement routine is certified or not.

    - Displays the role of a person who opened the measurement routine to inform you if the Protect license is used or not.

  See PCD-197656.

- Peek window now supports Dark and Light themes. See PCD-197659.

Vision

- You can now see that the IDS Ueye camera configuration file is located in this folder:

  C:\ProgramData\Hexagon\PC-DMIS\<version>, where <version> is the version of PC-DMIS you have installed

  See PCD-145801.

What's Fixed

Application Errors

You no longer get an application error in these instances:

- When you install HASP on the Windows 10 Operating System. See PCD-205504.

- When you switch between different portable interfaces. See PCD-210195.

- When you turn the tracker off and on during the bundle alignment operation. See PCD-210213.

- When you create and edit BA or BH ESF (VWMP) features regardless of whether you set the CAD tessellation multiplier value in your measurement routine. See PCD-210448.

- When you create an illumination quickset or local set in a measurement routine which doesn't exist in PC-DMIS. See PCD-210652.

- When you initiate a drag in Summary mode in certain instances. See PCD-211061.

- When you use a Laser tracker and the target cannot be found on the second attempt after you click the **Move To** button in the **Auto Features** dialog box. See PCD-211076.

- When the Vision box displays error messages. See PCD-211421.

- When you select and deselect an AnalysisWindow object in custom reports. See PCD-215133.

- When you execute `COP/OPER, EMPTY` commands that don't have a COP reference. See PCD-215378.

Auto Features

- PC-DMIS now scans directly measured Auto Laser planes completely when you mark the **CAD offset** check box in the **Probe Toolbox** tab of the **Auto Feature** dialog box. See PCD-145714.

- You can now see the legacy Slot size and width tolerance values when you export to a .bas file (**File | Export | BASIC**). See PCD-209995.

- PC-DMIS now projects the ellipse onto the theoretical plane when you perform a contact Auto Ellipse measurement with zero sample hits relative to a feature. See PCD-210306.

- PC-DMIS now no longer resets the number of rows in the **Probe Toolbox** area under the **Contact Path Properties** tab of the **Auto Plane** dialog box. This was an issue when, you select 1 in the **Rows** box as a Radial pattern and use **Default PC-DMIS Measurement Strategy** in the **Auto Plane** dialog box. See PCD-210462.

- PC-DMIS now no longer resets the **Starting/Ending Face** option to the **Use Tip Vector** option automatically in the **ClearanceCube Definition** dialog box. This was an issue when, after you reset the **Starting/Ending Face** option in the **ClearanceCube Definition** dialog box, you open the **Auto Features** dialog box and, without making any changes, you click **Cancel**. See PCD-212190.

- PC-DMIS now correctly updates the 2D distortion data for dual fixed optics after execution of a measurement routine. See PCD-213546.

- PC-DMIS no longer displays a message about the incorrect height and width set in the **Auto Features** dialog box when you create a laser auto plane with a CAD offset. See PCD-214180.

CAD

- PC-DMIS now displays the graphical analysis when you create a distance dimension and mark the **Graphical** check box in the **Analysis** area of the **Distance** dialog box. See PCD-19389.

- PC-DMIS no longer changes move speed when you re-import previously exported DMIS measurement routines. See PCD-185345.

- PC-DMIS no longer misses surfaces on a CAD model when you use the NX DCI. See PCD-207438.

- PC-DMIS now displays improved icons under the **Layout** area in the **View Setup** (**Edit | Graphic Display Window | View Setup**) dialog box on high resolution monitors. See PCD-207476.

- PC-DMIS now converts PMI data into appropriate units when you import Invertor files. See PCD-208656.

- PC-DMIS can now export the correct theoretical values when you export an internal constructed cylinder to an IGES or STEP file. See PCD-208682.

- Added the **Arrow density** toggle in the Location (Legacy Dimension) dialog boxes to allow better control of graphical analysis. See PCD-208821.

- PC-DMIS now shows feature vectors when you select a CAD element from the **Auto Vector Point** dialog box and then mark the **Display arrows** check box in the **CAD Select** dialog box. See PCD-210371.

- PC-DMIS now displays a more clear message in a message box when you use the ClearanceCube with mini routines. See PCD-211277.

- PC-DMIS now allows you to display cylinder style arrow heads on CAD in the Analysis View and Graphic Display window instead of the line style plots. See PCD-216627.

- PC-DMIS no longer displays the dimension of a feature if you skip that feature during execution of a measurement routine. Also, PC-DMIS now displays the affected dimensions in red in the Edit window to indicate that there is a problem. See PCD-211860.

- PC-DMIS now displays the **Layers to Import** dialog box in the foreground when you import a NX CAD DCI model. See PCD-213125.

- PC-DMIS now imports DXF files without any errors when you select **File | Import | DXF**. See PCD-213187.

- PC-DMIS now correctly tessellates so that all surfaces are visible when you import a SolidWorks DCT model. See PCD-213548.

CMM

- You can now click the **Reset Limits** button in the **Setup Options** dialog box to read the CMM Limits from the controller (Leitz/FDC). PC-DMIS no longer resets all the values to zero which would make it impossible to perform collision checks during tactile calibration. See PCD-208113.

Dual Arm

- PC-DMIS now shows the probe results file correctly after a successful probe calibration when you use collision check. See PCD-205025.

- PC-DMIS now shows the runtime drawing of Laser stripes for Auto features that are directly measured on Arm 2 of a dual arm machine. See PCD-208357.

- PC-DMIS now works correctly when you execute a dual arm measurement routine with multiple `AUTOCALIBRATE` commands and breakpoints. See PCD-216584.

Constructed Features

- PC-DMIS no longer projects 3D lines to the reference plane when you select the **Move Feature to Reference Plane** check box in the **Setup Options** dialog box. See PCD-197356.

- PC-DMIS now displays the theoretical values for constructed features correctly when you regenerate a scan. See PCD-209261.

Edit Window

- You can now edit the tolerance of the caliper gage in the Edit window in Command mode. See PCD-203277.

- You can now perform command selections correctly when you create groups and copy/paste commands in Summary mode. See PCD-206160.

- PC-DMIS now selects the correct commands correctly when you switch between the Command mode and Summary mode. See PCD-210493.

- PC-DMIS now displays the pop-up information in the same font as the Edit window font instead of the application font on high resolution monitors. This pop-up information appears when you position your mouse pointer over any command. See PCD-212251.

- PC-DMIS no longer expands groups in the Summary mode when you reposition a group command. See PCD-215411.

- The **Edit Window Layout** dialog box (**Edit | Preferences | Edit Window Layout**) is now not available for the Summary mode. See PCD-216696.

ESF (VWMP)

- You can now jump to a feature from the **Execution** dialog box for the ESF (VWMP) features. See PCD-94899.

- PC-DMIS now updates the ESF (VWMP) feature ID to the next index in the **Extended Sheet Metal Features** dialog box when you click **Create**. See PCD-184585.

- You can now save and delete the current tolerances in a T-Rule when you program and edit ESF (VWMP) features. The **Save** and **Delete** buttons are now available when you right-click on the T-Rule control in the **Extended Sheet Metal Features** dialog box. See PCD-214227.

GD&T Dimensions

- PC-DMIS now lists the **Geometric Tolerances** instead of the **Feature Control Frames** in the **Labels for** area under the **ID Setup** tab of the **Setup Options** dialog box. See PCD-210730.

- You are now able to override the default GD&T standard from within the **Geometric Tolerance** dialog box when you use MBD or PMI in GD&T Selection mode. See PCD-211393.

- PC-DMIS no longer displays measured values for Geometric Tolerance commands in red for values that are beyond seven decimal places. PC-DMIS now allows for extremely small errors so they are not tagged as out of tolerance in the Edit window. See PCD-211570.

- PC-DMIS now increments IDs for Geometric Tolerance commands correctly when you apply Paste with Pattern. See PCD-211953.

- PC-DMIS now displays an out of tolerance counter in the footer of the Edit window for each Geometric Tolerance command error displayed in the report. See PCD-211965.

- PC-DMIS no longer changes the existing symmetry evaluations when you change the calculation type by selecting a different feature from the **Considered Features** list on the **Geometric Tolerances** tab of the **Setup Options** dialog box. See PCD-212154.

- You can now select Constructed features from the OCR widget when you construct features before you open the widget. See PCD-212684.

- PC-DMIS now updates Geometric Tolerance commands when you cut and paste features in the Edit window. See PCD-213012.

- PC-DMIS now updates the XYZ values and leader lines correctly for the Point Info from the Geometric Tolerance command. See PCD-213102.

Help

- You can now see corrected information regarding Home Page capabilities in the Online Help. See PCD-205628.

- PC-DMIS Help now opens the correct topic when you press F1 on a `MESH/OPER,SELECT` command or in the **Mesh Operator** | **Select** dialog box. See PCD-206233.

- PC-DMIS Help now opens the correct topic when you press F1 on a `MESH/OPER,COLORMAP` command or in the **Mesh Operator** dialog box. See PCD-206235.

- In the Portable Help, in the "Creating Single Point Circle Features" topic, there is now documentation available for "Creating a Single-Point Auto Circle". See PCD-210360.

- Links to our Automation Objects Help now point to the correct help location. See PCD-210715.

- The help now clearly describes the default location of where the PC-DMIS language pack installer installs the PDF versions of the manuals for some languages. The installer installs them into the root of the PC-DMIS Help folder. See PCD-210933.

- The Introductory page of the PC-DMIS web help now handles text wrapping better when you increase the browser's text size. See PCD-211159.

- PC-DMIS now displays the correct topic when you press F1 on the **Curve** tab of the **Pattern Setup** dialog box. See PCD-211394.

- Documentation on Graphical analysis (**Graphical** check box) now more clearly states what PC-DMIS shows for some of the different dimension types. See PCD-211410.

- Information about what folders you can recall alignments from and when to use the **Search Path** dialog box for alignment recall is now more clearly stated. See PCD-211983.

- You can now see the correct help file link for Constructing a Projected Point under the **More** heading from the Constructing a Point Feature topic. See PCD-213736.

- Information about where to modify the probe animation speed is now easier to find in the documentation. See PCD-214594.

- The documentation for "Hard Probe Scanning Minimums Area" topic now includes improved information about what PC-DMIS does if both values in Time Delta and Distance Delta are greater than zero or are set to zero. See PCD-215295.

Home Page

- PC-DMIS now shows no default values in the **Details** pane when you create a **Blank Template** from the **New** tab. See PCD-205624.

Laser

- PC-DMIS now sets the **Profile Name** list to **COP - No Filters** in the **Laser Data Collection Settings** dialog box when you open a PC-DMIS version 2020 R1 or earlier measurement routine. See PCD-204758.

- You no longer get Edge point feature calculation errors when you extract a Laser Edge Point from a small part. See PCD-210594.

- PC-DMIS no longer displays colormap annotation points when you select the **Show Only** option for a `COP/OPER, CROSS SECTION` command. See PCD-211978.

- The `AUTOCALIBRATE` command with HP-L on Dual Arm Horizontal CMM in the Inch mode no longer fails with the "Move Parameter Out of Tolerance" error. See PCD-214339.

- PC-DMIS now reports the calibration results for Arm 2 correctly when you run the AutoCalibrate map update on both the arms. See PCD-215265.

Localization

- PC-DMIS now shows the correct translation for the term "Cast" in the **Construct Point** dialog box. See PCD-163726.

- You can now see improved Polish translation in the dialog boxes and menu options. See PCD-192031.

Pointcloud

- PC-DMIS no longer allows you to create a `COP/OPER, EXPORT` or `COP/OPER, IMPORT` without a file name. See PCD-168839.

- You no longer get a feature selection error when a pointcloud covers the targeted CAD surfaces. See PCD-209026.

- PC-DMIS no longer affects the show hit targets when you set the **Scan animate every NPts collision detection** value in the **Animation** tab of the **Setup Options** dialog box. The **Scan animate every NPts collision detection** value is now only used for collision detection animation. See PCD-214382.

- PC-DMIS no longer displays a "File already exists" message when you export the data in a COP and provide a new file name. See PCD-214829.

- PC-DMIS now deletes temporary graphic elements from the pointcloud after you close the **Pointcloud Point Information** dialog box. See PCD-215516.

Portable

- You can now use a Portable Laser probe with the ROY-Laser-O (Offline Laser) license option. See PCD-209657.

- PC-DMIS now displays the **Portable Scanning Widget** toolbar automatically when you switch from scanning to hard probing and then switch back to the scanning. See PCD-211981.

- PC-DMIS now re-executes hard probe scanned Auto features correctly on a portable system. See PCD-212192.

Q-DAS Configurator

- You can now see the new K-fields in the Q-DAS Data Editor window. See PCD-201838.

- PC-DMIS now supports the output of all Geometric Tolerances when creating the DFQ/DFX+DFD files that are sent to QDAS for statistical analysis. See PCD-212780.

- PC-DMIS now displays the message to update the K-field configuration file if any new K-fields are available for selection. This happens when you open any K-field configuration file from the **Setup K-Field Configuration** dialog box. See PCD-214266.

Reporting

- PC-DMIS no longer allows you to right-click on locked reports and select **Edit Object** to edit them. See PCD-207410.

- PC-DMIS no longer re-populates all the columns of the Excel Form report with the same results from the first run when you use loops. See PCD-210996.

Settings Editor

- PC-DMIS now correctly imports measured circles from DMIS files when you perform a DMIS file import and use the `DMISMeasuredCircleWorkplane` registry entry.

Temperature Compensation

- You can now perform a part temperature compensation in a rotary table coordinate system. See PCD-202106.

Vision

- You no longer get an extra move to a vision feature's focus end location when you execute on a FDC or Leitz controller. See PCD-194261.

- PC-DMIS now displays the correct values in the scan dialog box. This means PC-DMIS no longer displays the warning message about the maximum number of characters unless you type the values longer than 20 characters. See PCD-211988.

Information about this Release

We at Hexagon Manufacturing Intelligence are proud to bring you PC-DMIS 2021.2. 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 2021.2, 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 2021.2 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

> ◉   **Attention Windows 7 users!** PC-DMIS 2021.2 is the final PC-DMIS version to support Windows 7. Please update your computer's operating system to either Windows 8 or Windows 10.

PC-DMIS 2021.2 operates under 64-bit Windows 10, Windows 8.1, Windows 8, and Windows 7. No other operating systems are supported.

> *i*   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 2021.2. 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 2021.2 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

- An internal serial adapter card with serial ports

Anti-Virus Software

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 2021.2 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.
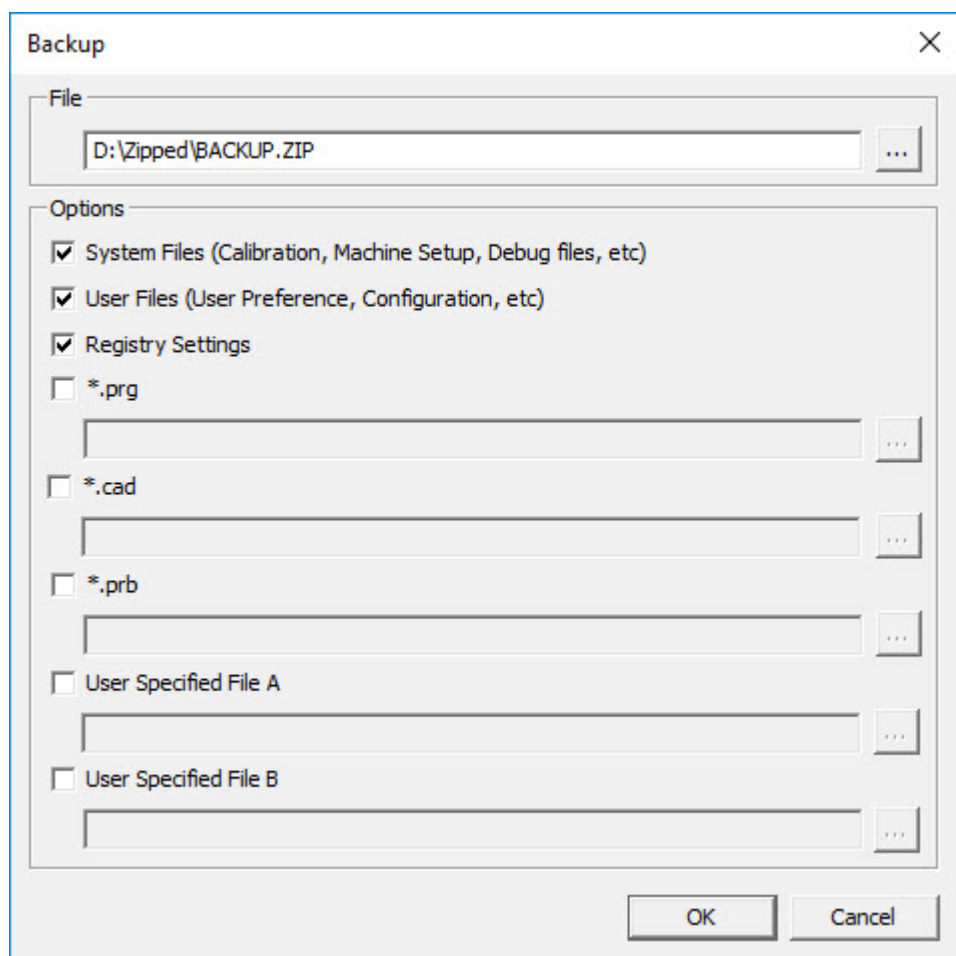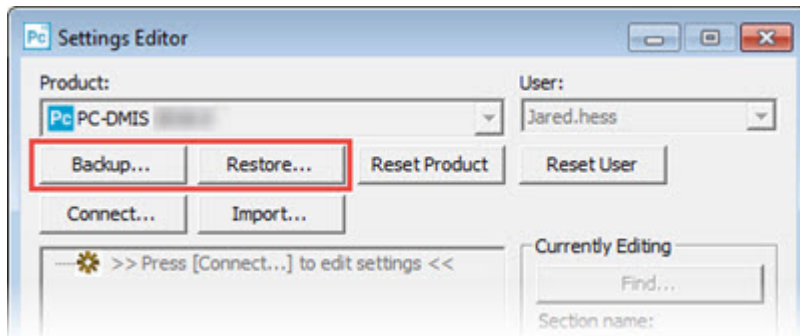

Backup dialog box

  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.

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 2021.2 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:

    Pcdmis2021.2_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 2021.2 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 2021.2 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 2021.2 64-bit** - To launch PC-DMIS 2021.2 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 2021.2 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.
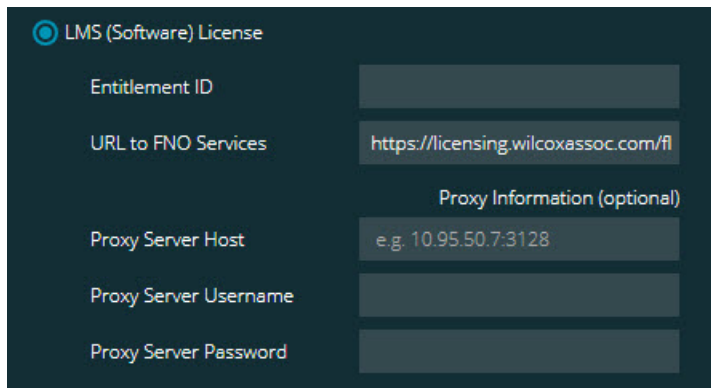
LMS License Setup

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 [licensing screen](#), 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 2021.2, 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 2021.2 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 2021.2 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.

 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 (Pcdmis2021.2_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 2021.2, you must launch it with administrator privileges. If you mark the **Launch PC-DMIS 2021.2 64-bit** check box when the installation finishes, PC-DMIS 2021.2 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 2021.2 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 2021.2 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 2021.2 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 2021.2 for the first time, go to **Start** and type **PC-DMIS 2021.2 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).
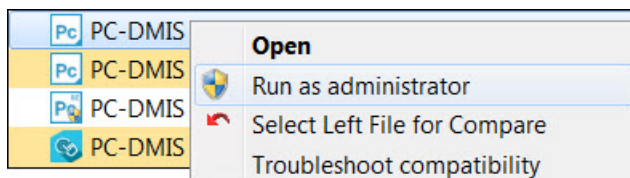
Run as administrator option

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 2021.2 asks if the settings in your PCDLRN.INI file should be used as your registry settings. Click **Yes** at the prompt. Otherwise, PC-DMIS 2021.2 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 2021.2.

   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 2021.2 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 2021.2 normally :


PC-DMIS 2021.2 shortcuts

Once PC-DMIS 2021.2 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:
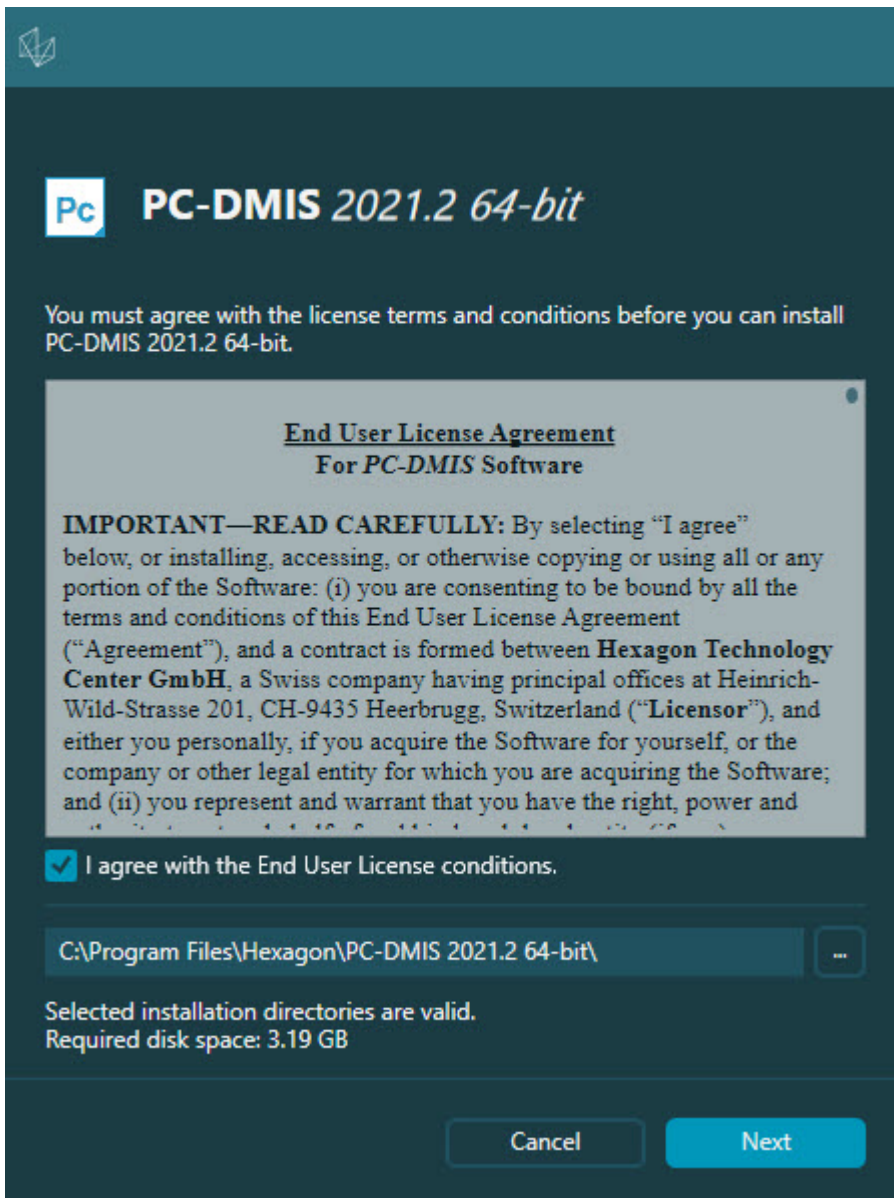
Software License screen

Once PC-DMIS 2021.2 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:
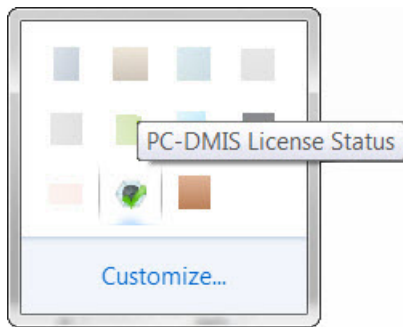
Message for valid PC-DMIS license

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:
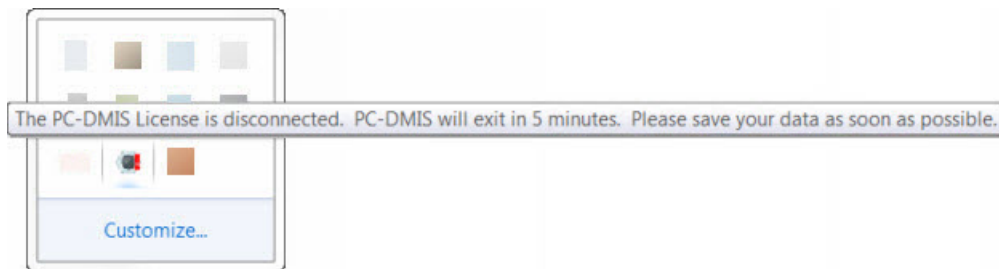
Message for disconnected PC-DMIS license

If the license is disconnected, PC-DMIS 2021.2 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 2021.2 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 Pcdmis2021.2_release_##.#.###.#_x64.exe file as if you were beginning the installation process. The setup displays a screen with these options:
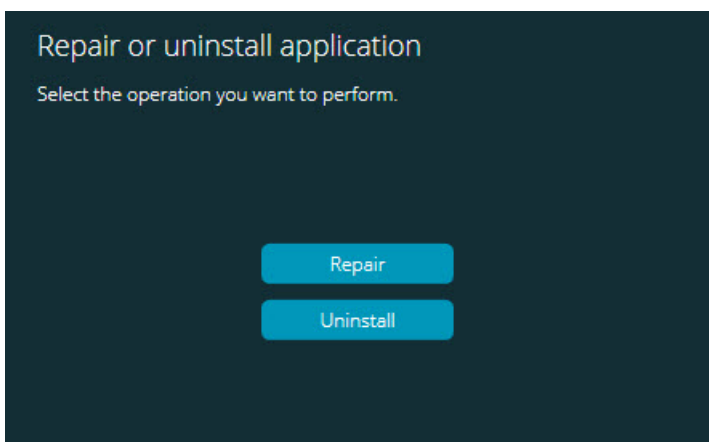
"Repair or uninstall application" dialog box

- **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 2021.2 contains the user-interface files for all of the supported languages. When you install PC-DMIS 2021.2, it installs the language files based on your operating system's language.

To run PC-DMIS 2021.2 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 2021.2 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 2021.2 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 2021.2 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_R2/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 2021.2 on a Windows 7 and Windows 10 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 2021.2 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 2021.2 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 2021.2.)

Description: A firewall on your computer may be blocking the Crash Sender application from connecting to the server. If PC-DMIS 2021.2 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 2021.2 without administrator privileges, DPUPDATE.EXE does not work.

Solution: Run PC-DMIS 2021.2 with administrator privileges.

Contact Hexagon Manufacturing Intelligence

If you are participating in the *technical preview* of PC-DMIS 2021.2, please post your feedback in the appropriate technical preview forum located at www.pcdmisforum.com/forum.php. Please do not contact Hexagon Technical Support for technical previews.

If you are using the *commercially-released version* of PC-DMIS 2021.2 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 2021.2 in silent mode:

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

On a system that already has a license, the following line installs PC-DMIS 2021.2 in silent mode:

-passive USELMSLICENSING=1

On a brand-new system using license servers, the following line installs PC-DMIS 2021.2 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 2021.2 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\2021.2

- C:\Users\Public\Documents\Hexagon\PC-DMIS\2021.2

- C:\Users\UserName\AppData\Local\Hexagon\PC-DMIS\2021.2

- 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 2021.2.

- HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Hexagon\PC-DMIS\2021.2 Key and all sub keys

- HKEY_CURRENT_USER\Software\Hexagon\PC-DMIS\2021.2 and all sub keys

- HKEY_USERS\.DEFAULT\Software\Hexagon\PC-DMIS\2021.2 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 2021.2 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.