PC-DMIS 2025.1

Release Notes

Hexagon Manufacturing Intelligence

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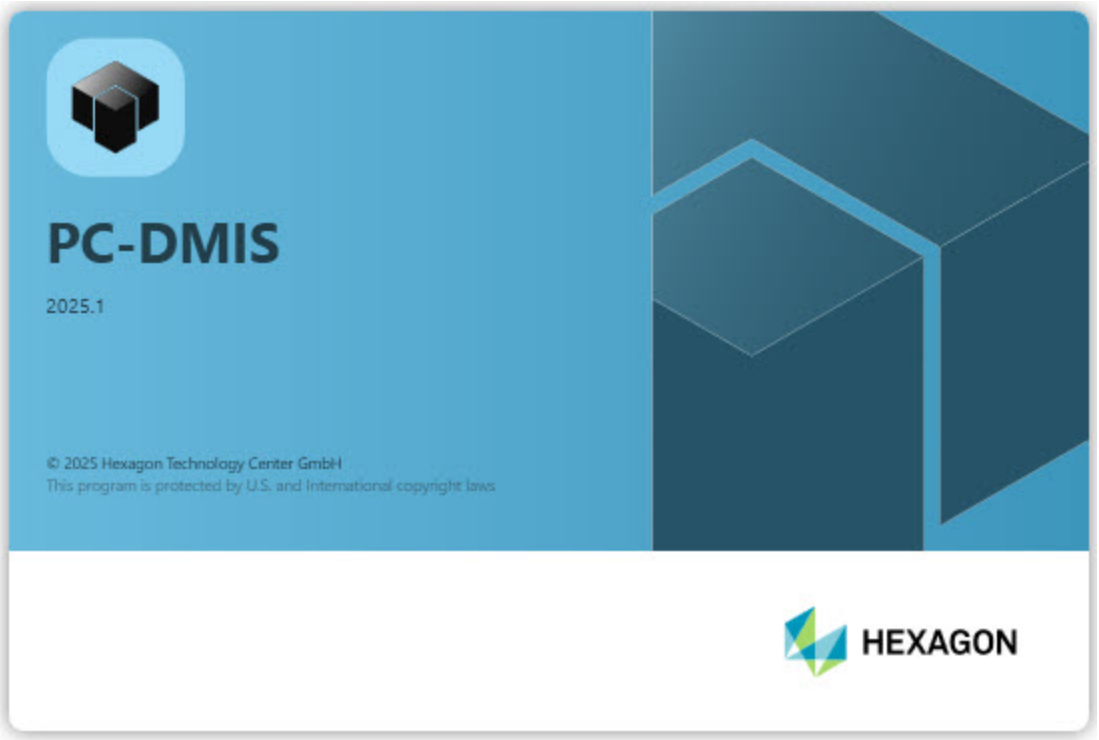

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Application

- You can now see improved execution speed in Summary Mode and when you select the **Use Program Layout for Execution** check box in the **General** tab of the **Setup Options** dialog box. See PCD-271265.

Constructed Extracted Features

- PC-DMIS now hides the internal COP when you edit an individual feature within an ATS800 feature scan. See PCD-274232.

Constructed Features

- PC-DMIS now displays a warning message if the creation of a Line, Point, or Ellipse feature fails. See PCD-271181.
- You now must select an axis when you create Constructed Extreme Point features. See PCD-272171.

GD&T Dimensions

- PC-DMIS now displays graphical tolerance lines for total runout in the correct location in the Graphic Display window. See PCD-268054.

GD&T Selection

- PC-DMIS now correctly handles steep triangle tessellations and correctly creates datum target points. See PCD-271942.

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- You can now paste parameters in the Edit window without causing out-of-boundary exceptions. See PCD-274978.

Paste with Pattern

- PC-DMIS now shows the correct surface vector when you use Paste with Pattern for a Best Fit Line and Best Fit Recompensate Slot. See PCD-270856.

QDAS

- You can now see that in the SFQ file output for Q-DAS statistics, the K2008 field is correctly set to 2 when the position tolerance is cylindrical in shape. See PCD-271510.

Summary Mode

- You can now see the feature scan items in the Edit window in Summary Mode. See PCD-272492.

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- You can now use features scanned by the ATS800 sensor in Geometric Tolerance commands. See PCD-272233.
- You can now use ATS800 feature scan commands only in the ATS800 environment. See PCD-272268.
- PC-DMIS now handles ATS800 scans correctly when there are several feature types to scan in addition to the scan commands. See PCD-274791.

Toolkit

- PC-DMIS now reads alignments correctly and recalls the machine coordinate system properly. See PCD-274883.

Vision

- You can now perform 2D lens verification in optical calibration without failure, even when no .ocf file is present in the probe path. See PCD-274141.

Release Notes - 2025.1 SP1

Application

- PC-DMIS now checks for information to populate dialogs with features more quickly, resulting in improved execution speed. See PCD-264357.
- You can now see that the Scan Plot no longer becomes distorted when you hold down the right mouse button and drag the mouse. See PCD-271117.
- PC-DMIS now assigns the current TIP to scans that you create using automation. See PCD-270810.

Application Errors

- You no longer get an application error when you use very small offset and jump hole values to generate a path for the Adaptive Free Form Plane Scan strategy and TTP Free Form Plane Scan strategy. See PCD-271561.

Auto Features (Scanning)

- You can now use the Smart Parameters option and define the offset values for the TTP Free Form Plane scan strategy using the **Measurement Strategy Editor** dialog box and the measurement strategy widget. See PCD-271617.

Constructed Features

- You can now specify the theoretical values in the Edit window in Command Mode for a Constructed Slot feature. See PCD-271165.

Constructed Extracted Features

- PC-DMIS now correctly evaluates Constructed Extracted Surfaces even when very close opposite surfaces are present. See PCD-269202.

GD&T Dimensions

- You can now see singular datum definitions in the drop-down menu of the Feature Control Frame Editor in the **Feature Control Frame** tab of the **Geometric Tolerance** dialog box. See PCD-260706.
- PC-DMIS no longer displays the Upper and Lower Modifiers in the **Feature Control Frame** tab of the **Geometric Tolerance** dialog box when you select **ISO code** from the **Specification Mode** list. See PCD-267884.

- PC-DMIS now includes an updated GD&T library. Straightness per Unit now only allows the units to rotate within the workplane. See PCD-271108.
- PC-DMIS no longer displays the graphics in the Graphic Display window when you delete ASME or ISO Tolerance commands. See PCD-271602.

Laser (CMM)

- You no longer get sporadic sensor initialization errors during probe changes that involve HP-L-10.10 and HP-L-10.10 LITE sensors. To use the HP-L-10.10 laser scanner system with PC-DMIS 2025.1 SP1, you must upgrade to the latest firmware version 1.0.1 for the HP-LC-1000 laser scanner controller. You can install the required firmware using the ServiceTool application version 1.19.0.133, which is included with the PC-DMIS installation.

  You can download the HP-LC-1000 Firmware Package and the HP-L-10.10 / HP-L-10.10 LITE Firmware Package from:

  https://downloads.ms.hexagonmi.com/Hardware/Sensors/HP-L-10.10/Firmware%20Packages/HP-LC-1000%20Controller%20Firmware%20Packages/1.0.1%20(requires%20ServiceTool_1.19.0.133%20to%20update)

  For installation instructions, see the videos available at the same location. See PCD-270889.

  Note: Firmware version 1.0.1 is not compatible with PC-DMIS versions earlier than 2025.1 SP1. If you need to revert to a previous PC-DMIS version after upgrading, you must also downgrade the laser controller firmware.

Laser (Portable)

- PC-DMIS now checks for the LaserInterface.All license option when you migrate portable environment files that do not include the All Laser Sensors option. If the license is present, PC-DMIS adds the All Laser Sensors option to the migrated file. You no longer need to run PC-DMIS as an administrator, edit the environment, and then select the **All Laser Sensors** check box in the **Hardware Settings** tab of the **Environment Configurator** dialog box. See PCD-268853.
- You can now see improved performance when you perform multiple scan passes with an AS1 Romer arm and a very fine resolution scan profile. See PCD-271376.

Measurement Strategy Editor

- You can now see the grid button for the **Perimeter Offset** and **Perimeter Jump Hole** options in the **Measurement Strategy Editor** dialog box when you use the Auto Feature Plane Scan strategy. You can use this grid button to enable or disable the associated smart parameters. See PCD-264720.

Quick Features

- You can no longer see the Touch Trigger User Defined strategy for Vector Point in the measurement strategy widget. See PCD-271335.

Toolkit

- You can now type values into the input boxes in the Roughness Scan, Constructed Roughness Scan, Scan Plot, and Blade Scan RT dialog boxes. See PCD-267395.

What's New

Support for Maestro CMM

You can now use PC-DMIS with Maestro, Hexagon's next-generation CMM. Maestro is an all-digital CMM system that marks a new era in metrology. It simplifies processes and reduces reliance on specialized skills, making it accessible and efficient for all users.

The new Environment Builder utility in PC-DMIS lets you configure probes and sensors while visualizing the measurement environment with digital twins of inspection equipment, including the CMM, racks, and fixtures. It allows you to simulate probe calibrations to ensure collision-free execution, making it ready for real-world applications.

PC-DMIS, combined with Maestro, delivers exceptional speed, ease of use, and connectivity to a growing range of technologies through Hexagon's Nexus platform.

See Support for Maestro CMM.

2D Scan Plotting Tool

You can now select the **Insert | Report Command | 2D Plot | Scan Plot** menu option to create a 2D plot of your scan.

The 2D Scan Plot tool provides a clearer visual representation of an object's surface, making it easier to identify defects, irregularities, or deviations from the nominal shape. This enhanced graphical tool improves functionality by enabling greater interaction, allowing you to highlight critical areas of interest and focus on specific deviations.

See 2D Scan Plotting Tool.

ATS800 Tracker Support

You can now use PC-DMIS with Hexagon's latest generation of ATS800 tracker models. The Absolute Tracker ATS800 delivers greater measurement accuracy at a distance and enables faster, safer scanning of fine edges, features, and surfaces.

The combination of PC-DMIS and ATS800 reduces large-scale manufacturing inspection time from hours to minutes with the new AI-powered Feature Scan utility. The ATS800's high-quality overview camera seamlessly integrates with PC-DMIS to automatically identify, capture, and measure features, improving efficiency and accuracy.

See ATS800 Tracker Support.

Siemens Teamcenter Integration Improvements

PC-DMIS now supports Teamcenter 13.2 4-Tier architecture and custom objects, enhancing stability and connectivity. You can save probe specifications and versions alongside the

measurement routine.

See Siemens Teamcenter Integration Improvements.

Improved Auto Feature Plane Measurement Strategy

- You can now select the **Inner and Outer** option from the **Boundary** list in the **Path Definition** tab of the **Measurement Strategy** tab in the **Auto Feature** dialog box when you generate a scan path using the Adaptive Free Form Plane Scan strategy and TTP Free Form Plane strategy. This option allows you to generate the desired path with one click.
- You can now select the **Jump Hole Along** and **Jump Hole Around** check boxes in the **Path Definition** tab of the **Measurement Strategy** tab in the **Auto Feature** dialog box. When you select the **Jump Hole Along** check box, PC-DMIS creates a break point in the scan path only when a scan path point falls within a hole on the CAD surface. When you select **Jump Hole Around** check box, PC-DMIS looks for holes in all directions (360 degrees) around the scan path and creates a break point when it detects a hole.
- PC-DMIS now performs smart calculations for the Boundary, Jump Hole, and First Diameter parameters. You can now see a smart calculation indicator beside these options in the **Path Definition** tab of the **Auto Feature** dialog box.

See Improved Auto Feature Plane Measurement Strategy.

Gaussian Filter Tools

PC-DMIS now has improved scan noise reduction with an ISO 16610 Gaussian filter update. This tool requires fewer input parameters and is easier to use. You can apply this filter to any shape, not just circles or straight lines.

See Gaussian Filter Tools.

Other Improvements

Constructed Extracted Features

- You can now select the **Constrained Axis** check box in the **Construct Cylinder** dialog box for an Extracted Cylinder feature to constrain the cylinder feature to the vector of the plane surrounding the cylinder.

Documentation

- The “Performing a Freeform Advanced Scan” topic in the PC-DMIS CMM documentation now has improved information on how to insert data from a file.
- You can now see detailed documentation for the “Performing a Patch Advanced Scan” help in the PC-DMIS CMM documentation.
- The PC-DMIS help now includes documentation on the new Environment Builder functionality for Maestro users.
- The “Setup Options: Geometric Tolerances tab” topic in the PC-DMIS Core documentation now has improved information on the Profile of a Surface.
- The “Child Mode” and “Parent Mode” topics in the PC-DMIS Core documentation now have detailed information on Child Mode, Child Command, Parent Mode, and Parent Command, respectively.

Dual Arm

- You can now see that the ACCELERATION command works correctly on a dual arm machine, taking into account the active arm.
- You can now see that the scan acceleration for the Laser scan you set using the OptProbe command now considers the active arm.

ESF (VWMP)

- You can now see that the ESF dimension leader lines in a report correctly point to the features when you use an alignment command in the measurement routine.
- You can now select the **DimInfo** check box from the **Feature definition** group in the **Extended Sheet Metal Features** dialog box when you create an ESF (VWMP) Flush and Gap feature. When you select this check box, PC-DMIS displays dimension information in the Graphic Display window next to the selected feature and includes it in the CAD report.
- You can now see an enhanced graphical representation of the ESF (VWMP) Flush and Gap features in the Graphic Display window.

Export for QIF File Format

- PC-DMIS now supports the result data output in a QIF format report. It provides multiple options for report creation:
  - You can generate a QIF report with an external reference to the MBD file.
  - You can generate a QIF report with an embedded MBD file, with or without product information.
  - You can choose to include feature measured point data in the report.
  - You can store results from multiple parts in a single file.

GD&T Dimensions

- You can now see that the GD&T library offers enhanced cross-sectioning capabilities. PC-DMIS now automatically extracts linear or circular cross-sections from the feature hits, even if they were not measured in distinct cross-sections.

  Automatic sectioning is available for:

  - ISO Position (when the considered features are RFS)
  - ISO Concentricity (when considered features are RFS)
  - Axis straightness of laser Cylinder and laser Cone features
  - Surface straightness of laser Cylinder and laser Cone (radial) features
  - Circular runout of laser Cylinder and laser Cone (radial) features
  - Circular runout of laser Plane (axial) features
  - Circularity of laser Cylinders and laser Cone features

HP-L-10.10 Sensor (OVC)

- You can now use the vertical slider in the **Overview Camera** dialog box to adjust the brightness value from 0 percent to 100 percent. This functionality allows you to optimize the brightness when the part is not clearly visible.

ISO Enhancements

- The Geometric Tolerance commands now supports more combinations of ISO calculations, enabling it to handle more complex ISO GD&T.

  Support is now available for:

- Common ISO 14405-1 size modifiers: GX, GN, GG, LP, and E
- Associated Tolerance Feature Modifiers: (G), (X), (N), (C), and (T)
- Partial support for Reference Associated Modifiers: G and C

Laser

- PC-DMIS now includes only meaningful information in the results file after a laser wrist mapping process.
- You can now see that PC-DMIS uses the proper parameters for an HP-L-10.10 sensor when you perform Laser wrist mapping.

Measurement Strategies

- PC-DMIS can now measure planes and other features using a loop strategy. This improvement simplifies complex measurement routines by allowing you to measure multiple repeated features more efficiently.

Metrology Reporting

- You can now see user comments from PC-DMIS reports in Metrology Reporting. PC-DMIS exports user comments during data upload to Metrology Reporting.

Scanning (Tactile)

- PC-DMIS sends the same scan path to the controller with every execution. You can now see the scan path in the **Theoretical Path** list area of the **Path Definition** tab in the **Scan** dialog box when you edit the scan path.
- You can now select **FIXED** from the **Nominals** list in the **Execution** tab of the **Scan** dialog box. When you select this option, PC-DMIS keeps nominals the same in every execution of the measurement routine. PC-DMIS determines the measured point for a given nominal value and reports deviations.

Settings Editor

- You can now select the current Windows logged-in username from the **User** list in the **Settings Editor** dialog box. As an administrator, you can now edit user settings for the currently logged-in Windows non-administrator user.

Tool Changer

- You can now use the ASSIGN/RESERVED_TOOLCHANGE_SAFETY_MODE=1 command to activate the Tool Change Safety Mode. When this mode is active, PC-DMIS displays the message: "Toolchange. Drop [probeName] at slot [dropslot]. Pick [probeName]

from slot [pickSlot]." during tool change execution. Click **OK** to continue execution.

- PC-DMIS now ensures that if a probe change occurs when a tactile probe is dropped off and another tactile probe is picked up while a laser probe is in the tool changer, the laser probe's presence is verified through its proximity sensor before continuing with the probe change.

What's Fixed

Application

- You can now see that Eco Mode supports CMMs with a Sheffield controller. See PCD-258835.
- You can now see that numerous application errors based on crash reports have been fixed, and protection for various exceptions (crashes) has been added to improve product stability. See PCD-263582 and PCD-268625.
- You can now see that Eco mode supports PC-DMIS Vision with an FDC controller. See PCD-265537.
- You can now only load measurement routines created in PC-DMIS version 2019 R2 and later, and you can only save measurement routines back to PC-DMIS version 2019 R2. See PCD-261623.
- You can now see that Environment Configurator supports the LK connection type with TCP/IP. See PCD-266012.
- PC-DMIS now updates the file name in the internal header when you perform a Save As operation. See PCD-267639.

Alignments

- You can now see correct results when you copy or serialize a measured circle feature with a referenced plane feature. See PCD-234022.
- PC-DMIS no longer appends the “INTERNAL” text multiple times to an alignment ID in the Edit window in Command Mode when you type the RECALL command. See PCD-262019.
- You can now see that the COP Export Operator command correctly serializes the current alignment. See PCD-268847.

Application Errors

You no longer get application errors:

- When you use the Auto Plane Circle Scan strategy and you select the **Select Center** check box in the **Setup** tab of the **Auto Feature** dialog box, and then you click the **Flip Vector** icon next to the **Angle** boxes. See PCD-249660.
- When you calibrate a probe with collision check enabled. See PCD-261331.
- When EdgeClient or Nexus encounters a command that fails to evaluate. See PCD-263098.

- When you save a measurement routine that includes Blade Section commands. See PCD-265383.
- When you compute very large pointclouds. See PCD-264318.
- When Framegrabber.dll or related components failed to load. See PCD-265484.
- When you add or edit a Roughness command with a CWS probe after you execute an existing Roughness command. See PCD-267396.
- When you use an expression as an input for a looped best fit alignment. See PCD-268258.

Auto Features (Tactile)

- PC-DMIS now displays all cylinders in the Graphic Display window when you execute a loop that contains multiple cylinder features. See PCD-259447.
- PC-DMIS no longer displays the Nexus login dialog box when you click **Test** on the **Auto Feature** dialog box. See PCD-259619.
- You can now see that the hits taken in Manual Mode no longer look for nominal information before the initial alignment when you execute manual Vector or Surface points and select the **Find Nominals during Execution** check box in the **General** tab of the **Setup Options** dialog box. See PCD-249180.

CAD

- You can now import STEP files as PC-DMIS now handles duplicate segments during the tessellation process. See PCD-266795.
- You no longer get the error message “Error loading CATIA 5 DCI DLL 'DCI\Catia5\Catia5r34.DLL'. The specified module could not be found.” when you use DCI to import a CATIA 5 file. See PCD-268438.
- PC-DMIS now correctly reports collisions when you import a DCI CATIA file and the measurement routine is created in inches. See PCD-269179.
- PC-DMIS now correctly associates dimensions and annotations with the corresponding CAD surfaces when you import a CATIA file. See PCD-269399.

Calibration (Laser)

- PC-DMIS no longer displays large errors (up to 3 mm) when you perform a qualification check for an HP-L-10.10 probe and answer “YES” to the “Has the qualification tool been moved, or has the Machine zero point changed?” message. See PCD-238405.
- PC-DMIS now includes only meaningful information in the results file and report after you perform a Laser wrist mapping process. See PCD-258474.

- You can now map a Laser probe on a continuous wrist using either the Probe Utilities dialog box or the Autocalibrate command without interruption. If Math Errors occur while creating a new map, the mapping process continues instead of stopping with an error message. If the map validation process does detect missing nodes after mapping concludes (for example, when nodes are missing due to math errors), you can now use the Resume function to complete the map for just those missing nodes. See PCD-266778.

Constructed Extracted Features

- You no longer see the Constrained Axis option in the Edit window command block for Constructed Extracted features that do not support it. This option now only appears for Constructed Extracted Cylinders or Laser Auto Cylinders. See PCD-266657.

Constructed Features

- You can now use the Jump to function from constructed set commands that contain search ID types as input. PCD-261584.
- PC-DMIS no longer selects **2D** in the **Construct Slot** dialog box when you edit a Constructed BF or BFRE 3D slot. See PCD-266255.
- PC-DMIS now populates the Feature list area of the **Construct Cylinder** dialog box more quickly. See PCD-270031.

Custom Probe Builder

- PC-DMIS now correctly handles all the connection points in the custom probe builder utility. See PCD-266832.

Edit Window

- PC-DMIS no longer displays looped features used as inputs to constructed features in red in the Edit window in Command Mode. See PCD-264267.

Documentation

- The "Getting the Offline Activation Start File via email" topic in the PC-DMIS CLM documentation has been updated with the correct email address for offline license activation. See PCD-261049.
- The “DMISExportScriptFileName” topic in the PC-DMIS Settings Editor documentation now has the updated default export script file name. See PCD-262069.
- You can now see that when you press F1 in the **Thickness Scan** dialog box, PC-DMIS opens the “Thickness Scan” topic in the PC-DMIS Vision documentation. See PCD-262886.

- The “Calibrating Probe Tips” topic in the PC-DMIS CMM documentation now has information about leg collision coverage for rotary tables. See PCD-262921.
- You can now see that when you press F1 in the UniScan dialog box, PC-DMIS opens the “Performing a UniScan” topic in the PC-DMIS CMM documentation. See PCD-264299.
- You can now see the correct search results when you search for entries in the PC-DMIS Settings Editor help on the Nexus Documentation Center site. See PCD-266438.
- You can now see that all drop-down content links work in the PC-DMIS help on the Nexus Documentation Center (NDC) site. See PCD-267766.

Dual Arm

- PC-DMIS now displays the “MOVE/SYNC not supported when MOVE/EXCLUSIVE_ZONE is ON” message when your measurement routine contains a MOVE/SYNC command with the Exclusion Zone active. This means you can no longer use the MOVE/SYNC command within a Move Exclusive zone. See PCD-259252.
- PC-DMIS now disables the **Continue** button in the **Execution** dialog box to prevent probe collision when you get a weak error during a probe change. See PCD-263188.

ESF (VWMP)

- PC-DMIS now jumps to the correct command when you select the **Edit | Find and Replace | Jump To** menu option or right-click the Edit window in Command Mode and select **Jump To**. See PCD-261455.
- You can now create ESF (VWMP) features when PC-DMIS displays the current path of the probe in the Graphic Display window (**View | Path Lines**). See PCD-263123.
- PC-DMIS now computes the correct sign for the measured value of ESF (VWMP) Flush features (NA) when the top surfaces on the two sides of the feature show different vectors. See PCD-263249.
- PC-DMIS now displays a more informative error message when you test an ESF (VWMP) Optical feature without selecting a pointcloud ID from the **Pointcloud** list in the **Optical parameter**s area of the **Extended Sheet Metal Features** dialog box. See PCD-263816.
- You can now see that the extraction of ESF (VWMP) Flush and Gap features now provide actual results that closely match when comparing the extraction of the same feature from a pointcloud or a mesh. See PCD-263938.
- You can now see that the path lines move to the newly selected ESF (VWMP) feature and refresh when kept enabled while programming multiple features. See PCD-264265.
- PC-DMIS now updates the nominal values when you change the strategy (A, B, C) while programming ESF (VWMP) Flush and Gap features using MA and NA strategies. See PCD-

265184.

- PC-DMIS no longer allows you to open the **Mesh/CAD Alignment** dialog box while the **ESF** dialog box is open. See PCD-266570.
- PC-DMIS now correctly displays the T deviation in the Probe Readouts window for all ESF feature types, including those measured with Arm2. See PCD-269257.

GD&T Dimensions

- You no longer see a “Geometric Tolerance Calculation Failed” error message for Position commands when you reference 1D widths whose location error in a single direction exceeds half of the total tolerance. See PCD-258712.
- You can now see the correct colored graphical analysis deviation arrows in the report when the tolerance zone for a Geometric Tolerance Circularity command is LSQ. See PCD-258971.
- You can now see that PC-DMIS uses an existing datum with the desired name if it is already defined in the measurement routine instead of creating a new one when you import a CAD PMI model. See PCD-265253.
- PC-DMIS now shows only the lower value of a Size dimension in a report when you use a single modifier (GX, GN, or GG), as the upper value is identical. See PCD-265674.
- You can no longer update Geometric Tolerance commands using Ctrl+A and Ctrl+C keyboard shortcuts. See PCD-267864.
- PC-DMIS now removes all features from the Geometric Tolerance command when you remove the common datum from the **Feature Control Frame** tab of the **Geometric Tolerance** dialog box. See PCD-269154.

Laser

- You can now see the 3DR SDK version number in the **Hardware/Software** area of the **Laser Sensor** tab in the **Setup Options** dialog box. See PCD-264626.

Laser (Portable)

- You can now correctly execute a Laser Surface Point command without an alignment. See PCD-163160.

Legacy Dimensions

- PC-DMIS now shows the correct number sequence for the selected features in the Feature list area when you are creating distance dimensions. See PCD-262068.

Metrology Reporting

- PC-DMIS now saves the GLB CAD file to a temporary location and deletes it after uploading to Metrology Reporting. See PCD-267782.
- PC-DMIS now tags Legacy dimensions as LEGACY_ASME or LEGACY_ISO instead of LEGACY. This helps you to identify the applied standards. See PCD-262295.

Paste with Pattern

- PC-DMIS now updates the Cut Vector when you use Paste with Pattern for an Auto Vector Point that uses the Self Centering Point strategy. See PCD-256718.

Moves

- You can now see that the MOVESET command works correctly. See PCD-268725.
- PC-DMIS now saves the X, Y, and Z values that you define in the Position area of the Clear Point tab in the Parameter Settings dialog box as system level settings. See PCD-267831.

Mesh

- PC-DMIS now updates the mesh Colormap after you replace the CAD model. See PCD-267998.

Portable

- PC-DMIS no longer changes the Temperature Compensation method from manual to automatic when you execute a measurement routine. See PCD-262326.

Reporting

- PC-DMIS now correctly displays the mesh colormap in the CAD Only report view. See PCD-259501.
- PC-DMIS now correctly retains the font color that you define in the **Font** dialog box after you select **Font** from the **Cell** tab of the **Grid Properties** dialog box. See PCD-262767.
- PC-DMIS now saves the edited CAD view orientation in a custom report. See PCD-267234.
- PC-DMIS now correctly stores the colormap active status in a viewset even when the colormap has no annotations. See PCD-268431.
- PC-DMIS no longer changes the geometric polar angle and measured axes deviations in a PDF report when the cursor is placed after the workplane command. See PCD-268781.

Scanning (Laser)

- You can now input longer strings in the **Pointcloud reference feature** box in the **Scan** dialog box when you program Laser scans. See PCD-246073.

Summary Mode

- You can no longer enter zero or non-numeric values in the **Statistics Count** box in the **File Header** dialog box. PC-DMIS now shows the error message “Value must be a number greater than zero” and disables the **Save** button when you enter a zero or non-numeric value. See PCD-267728.
- You can no longer enter zero or non-numeric values in the STATS COUNT field in the Edit window in Command Mode. PC-DMIS now shows the error message “Invalid number entered – must be greater than zero.” when you enter a zero or non-numeric value. See PCD-267729.

Uniscan

- You can now see more optimized path generation when you create a Uniscan using the sheet metal profile. See PCD-268505.

Vision

- PC-DMIS now has improved startup reliability after resolving issues related to the WAI_Framegrabber.cfg file. See PCD-259609.
- PC-DMIS now correctly retains the Up-Delay parameter during the focus calibration process instead of resetting it to zero. See PCD-266076.

Information about this Release

We at Hexagon Manufacturing Intelligence are proud to bring you PC-DMIS 2025.1. 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 organization, 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 2025.1, 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 2025.1 into a new directory. This lets you continue to use your current version if you have problems with the new version.

Important Information about the Geometric Tolerance Command

The release of PC-DMIS 2020 R2 introduced the Geometric Tolerance command which completely replaces XactMeasure (Feature Control Frames). The Geometric Tolerance command offers numerous improvements over XactMeasure and provides these benefits:

- Support for the latest revisions of GD&T standards. The standards governing dimensional analysis have or will soon be updated to define datums in a precise and consistent way and to provide a new, single value definition for profile (ASME Y14.5 – 2009, ASME Y14.5 – 2018, ASME Y14.5.1 - 2019, ISO 1101: 2017, ISO 5459: 2011).
- Robust and intelligent validity checking of feature control frames and measurement strategies of associated features.

With the replacement of the XactMeasure command with the new Geometric Tolerance command, when you open measurement routines in this latest version, PC-DMIS now does an automatic review and migration.

The reason for this automatic review is that in some cases there may be invalid GD&T or measurement strategies in the original routine.

With this latest version, PC-DMIS now automatically checks for and only allows the creation of correct GD&T commands. In previous versions, this was less stringently enforced. Now, in this latest version, when you open a measurement routine, PC-DMIS performs the validity checks, and then one of these cases occurs:

- All the XactMeasure GD&T commands in the original measurement routine are valid or these routines contain no XactMeasure commands (Legacy dimensions remain unaffected). In this case, PC-DMIS doesn't generate any migration report which indicates that the migration is successful and needs no further action.
- The original measurement routine contains invalid XactMeasure GD&T commands or measurement strategies. In this case, PC-DMIS generates a detailed migration report to notify you of any changes that PC-DMIS made and any other items that require further attention.

	**Important**
	In all cases, to maintain compatibility with your previous versions, PC-DMIS retains the original unchanged measurement routine and sets it aside in this folder: C:\Users\Public\Documents\Hexagon\PC-DMIS\<version>\MigrationBackup, where <version> is the PC-DMIS version. Whenever PC-DMIS performs a migration, the probe hits, and probe paths of those measurement routines remain untouched.

We recommend that you can perform the migration process as a separate offline activity before you update your production machines. To help you with this, Hexagon has created a utility that sorts measurement routines based on the presence of a migration report.

- Routines that generate a migration report require review by a programmer.
- Routines without a migration report do not require a review, and you may release them to production.

To help with this offline migration, if needed, Hexagon can provide free access to an offline subscription to PC-DMIS for a limited time period.

For more details, please contact your local Hexagon representative.

Recommended System Requirements

Operating System

PC-DMIS 2025.1 operates under 64-bit Windows 11 and Windows 10. No other operating systems are supported.

	Important
	Starting with RDS version 6.3, the Windows 11 operating system is supported.

	Note
	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 or Windows 11 Pro Computer with at least 4 Cores.

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

Which versions of Windows will my PC-DMIS software run on?

	Important
	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.

Microsoft .NET Framework

Microsoft .NET Framework 4.8 for Windows. If you do not have Microsoft .NET Framework 4.8, 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.

	Important
	To ensure optimal performance, update your graphics drivers to the latest version available from your hardware manufacturer. Outdated drivers can cause the application to crash.

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

	Note
	If you use a high resolution monitor under low-light conditions, some PC-DMSI UI elements may be difficult to see. If so, you can try these options: • From the PC-DMIS Home screen, select the theme (**Light** or **Dark**) that provides the best UI visibility. For details on how to change the PC-DMIS theme, see "Changing the Theme" in the online Help. • Increase the ambient lighting.

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)

	Note
	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 establishes a 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\2025.1 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.

Browsers

- Microsoft Edge, Mozilla Firefox, Google Chrome

	Note
	We recommend that you keep your browser up to date by installing its latest version.

Anti-Virus Software

Hexagon Manufacturing Intelligence used the Sophos anti-virus tool to test PC-DMIS 2025.1. 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 2025.1 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
- An internal serial adapter card with serial ports

HP-L-10.10 Laser Scanner System

If you need to use the HP-L-10.10 laser scanner system, your laser scanner controller firmware version must be updated to version 0.10.6. Please contact your local Hexagon representative to perform the firmware upgrade.

	Note
	To use the HP-L-10.10 sensor, your computer must meet these specifications: • Maximum number of Operations Per Second (MOPS) - Floating Point Math must be greater than or equal to 59 • Number of physical cores (P-cores) must be greater than or equal to 8 You can find these values in your computer's processor specifications.

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**.

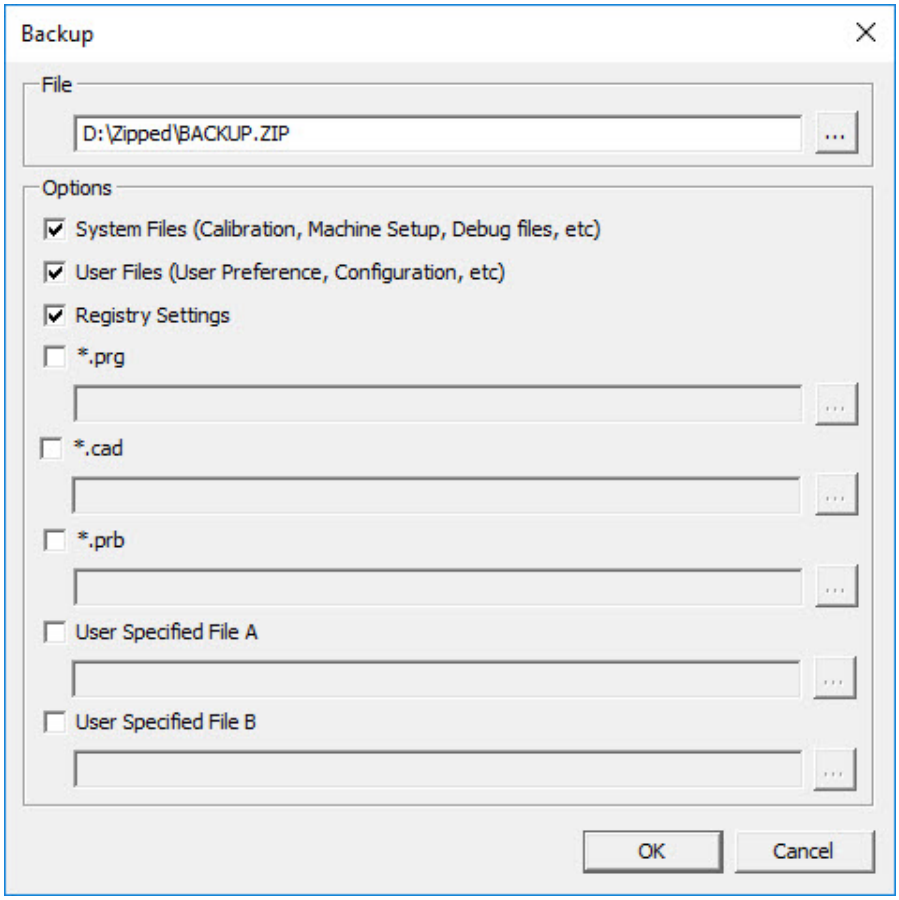
Step 2: Log on as an Administrator

To install 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 2025.1 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.

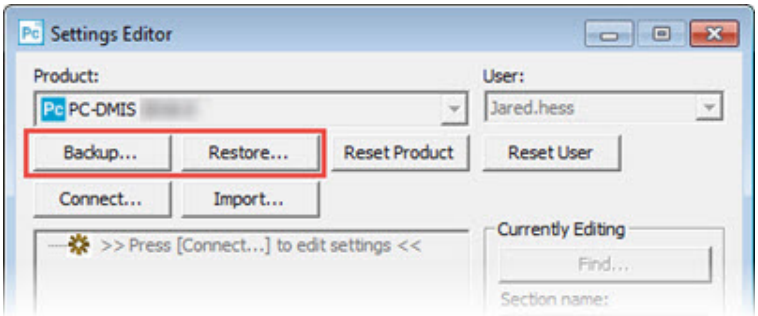
- If your current version uses the pcdlrn.ini file for its settings, back up your pcdlrn.ini file. This file is in the Windows system directory. Save a copy of the file in a safe place.
- If your current version uses the PC-DMIS Settings Editor, back up your PC-DMIS Settings Editor data. To do this, 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 2025.1 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 2025.1 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 2025.1 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:

   Pcdmis2025.1_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 End User License 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 2025.1 64-bit

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

6. If you want to install the Universal Updater application, select the **Install Universal Updater** check box.

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

8. 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".

9. Click **Next**.
10. You can choose to install additional software components. If you selected a custom 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 2025.1 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".
    - **Select default portable interface** - From the list, select the Portable interface that you want defined when PC-DMIS starts up. You can choose from any of these supported Portable devices:

      RomerRDS Arm

      Romer Arm (WinRDS)

      AT40x Leica Tracker

      AT500 LeicaLMF Tracker

      AT9x0 LeicaLMF Tracker

AT901 Leica Tracker

ATS600 Leica Tracker

TDRA6000 LeicaTPS Tracker

Aicon - Offline

MoveInspect

Faro Arm

- **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.

11. Click **Install** to start the installation. A progress bar shows the overall progress.
12. When the installation finishes, a screen shows any warnings or errors. It also contains these options:
    - **Launch PC-DMIS 2025.1 64-bit** check box - Select this check box to start PC-DMIS after installation. This step is optional because administrator privileges are no longer required, even for the first launch.
    - **Show Release Notes** check box - Select this check box to display a Readme.pdf file that shows what is new or has changed in this release once you click **Close**.
13. Click **Close** to close the installation program.

	Note
	If you selected the **Offline English Help** check box in step 10, the English help installer starts up as soon as the PC-DMIS application installation is complete.

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 2025.1 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.

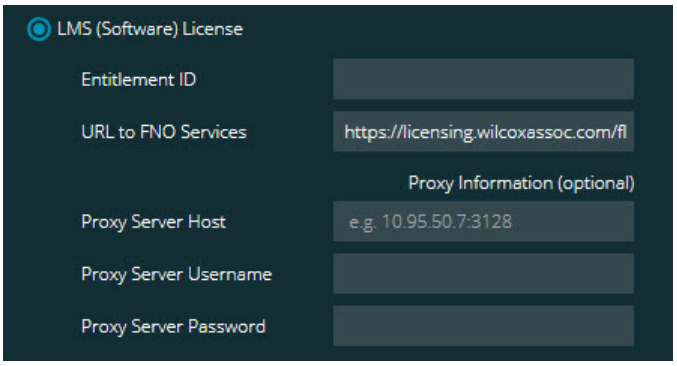
LMS License Setup

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:
    - **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.

	Note
	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

	Important
	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 2025.1, 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 2025.1 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 2025.1 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.

	Note
	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

Starting with PC-DMIS 2023.1, you no longer need administrator privileges to run the software—even the first time after installation. You can launch it as a standard user.

However, if PC-DMIS fails to start another application that requires administrator permissions, try running it as an administrator.

	Note
	You still need administrator privileges to install PC-DMIS. If your account doesn't have the required permissions, you'll be prompted to enter administrator credentials.

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-DMIS2025.1 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 2025.1 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. Select **Start** and then type **PC-DMIS 2025.1 64-bit**.
2. From the list of shortcuts in the **Start** menu, select either the **Online** or **Offline** icon to launch the software.
3. You can import settings from a previous version.

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

   a. Close PC-DMIS 2025.1.

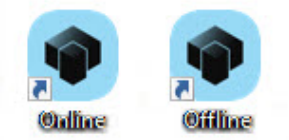
   b. Launch the PC-DMIS Settings Editor from the **Start** menu.

   c. Once it opens, click **Import**, and open the PCDRegFile.dat file you backed up in the Step 3: Back Up Existing Settings. PC-DMIS 2025.1 imports your settings.

   d. Close the PC-DMIS Settings Editor.

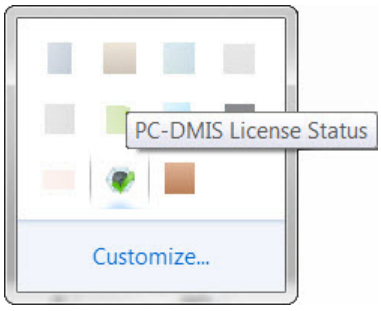
Subsequent Startups

For subsequent startups, click the usual **Offline** or **Online** shortcut to launch PC-DMIS 2025.1 normally :



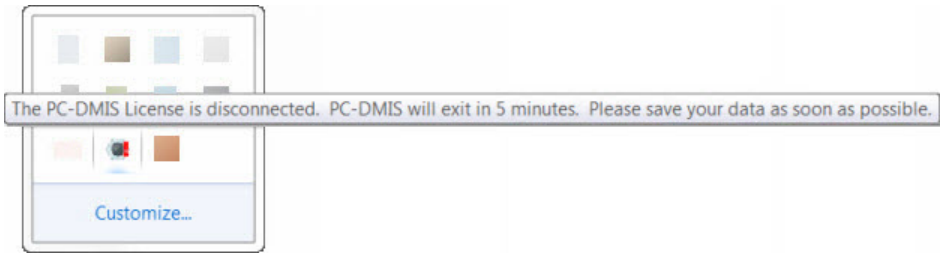
PC-DMIS 2025.1 shortcuts

Once PC-DMIS 2025.1 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 2025.1 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 2025.1 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.

	Note
	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-S=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

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 2025.1 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.

	Important
	During the download and installation processes, your firewall must allow the http://www.wilcoxassoc.com/WebUpdater 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

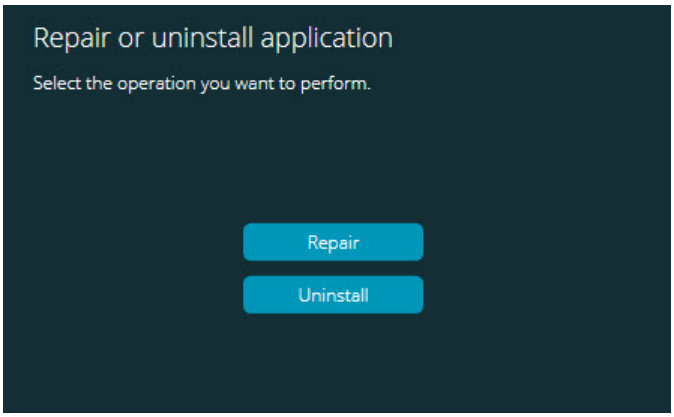
Inspect - This software provides a simplified operator interface for operators to execute measurement routines from supported products and then generate reports.

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 Pcd-mis2025.1_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 2025.1 contains the user-interface files for all of the supported languages. When you install PC-DMIS 2025.1, it installs the language files based on your operating system's language.

To run PC-DMIS 2025.1 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 2025.1 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 2025.1 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 2025.1 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:

   https://downloads.ms.hexagonmi.com/PC-DMIS-Versions/Release/2025.1/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.

Starting PC-DMIS with an Online License in Offline Mode

To start PC-DMIS with an Online license in Offline mode when you are not connected to a machine:

1. From the Windows **Start** menu, locate the PC-DMIS 2025.1 Online shortcut and click on it.
2. Once PC-DMIS opens, it displays an error message that says the machine is not connected. It then shows this message and asks you if you want to switch to offline mode.

PC-DMIS MESSAGE:
Do you want to switch to offline mode?

To start PC-DMIS in Offline mode, Click **Yes**.

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, but you didn't mark the **Launch PC-DMIS 2025.1 64-bit** check box 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 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 2025.1 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 2025.1.)

Description: A firewall on your computer may be blocking the Hexagon Universal Updater application from connecting to the server. If PC-DMIS 2025.1 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 2025.1 without administrator privileges, DPUPDATE.EXE does not work.

Solution: Run PC-DMIS 2025.1 with administrator privileges.

Contact Hexagon Manufacturing Intelligence

If you are participating in the *technical preview* of PC-DMIS 2025.1, please post your feedback in the appropriate technical preview forum located at https://nex-us.hexagon.com/community/public/pc-dmis/. Please do not contact Hexagon Technical Support for technical previews.

If you are using the *commercially-released version* of PC-DMIS 2025.1 and would like further information or technical support, please contact https://hexagon.com/company/contact-us or visit https://hexagon.com/products/product-groups. You can also reach Hexagon Technical Support at https://hexagon.com/support-success/manufacturing-intelligence/metrology-support 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 2025.1 in silent mode:

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

On a system that already has a license, the following line installs PC-DMIS 2025.1 in silent mode:

-passive USELMSLICENSING=1

On a brand-new system using license servers, the following line installs PC-DMIS 2025.1 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:

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

Appendix B

Required User Access Rights

File System

- C:\ProgramData\Hexagon\PC-DMIS\2025.1
- C:\Users\Public\Documents\Hexagon\PC-DMIS\2025.1
- C:\Users\UserName\AppData\Local\Hexagon\PC-DMIS\2025.1
- Any user-specified folder locations for storing measurement routines, probes, subroutines, and so on

Notes

When you run a new version of PC-DMIS for the first time, it automatically copies settings from the most recently installed version. Starting with PC-DMIS 2023.1, you no longer need administrator privileges to complete this process.

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 2025.1 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.
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.