



**HEXAGON**  
MANUFACTURING INTELLIGENCE

# PC-DMIS Blade 6.0

## - Release Notes -





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# Release Notes

## What's New

### Automatic Labeling

We added automatic labeling of the min and max deviations associated with a bestfit. To do this, select the **Label Min/Max Deviations** check box in the **Profile Plot** tab of the **Preferences** dialog box. See BRK-743.

### Bestfit Algorithm for Airfoil Sections

We now use the bestfit algorithm for airfoil sections prior to performing a thickness calculation with the Stack Arc method. See BRK-602.

### CCPOS Calculation with Method ANGLE and MID\_CHORD

We added the CCPOS calculation to the Flavor file editor. On propeller blades, there is a drawing distance dimension from a location on the CC side of the airfoil to the stack axis.

For the ANGLE method, a reference angle (CCPOS\_REFANGLE) must be entered in the tolerance file. The angle is the rotation about the stack axis where you will pierce the CC side of the airfoil.

For the MID\_CHORD method, the CC side is pierced at the middle of the chord width, for the airfoil section. No angle input is needed.

See BRK-790 and BRK-866.

### Cupping Calculation

We added the Cupping calculation to the Flavor file editor. This helps to measure the curvature of a blade side or region. The result of the measurement is the cupping radius. See BRK-746.

### Contour

We added the option to calculate the Contour according to ISO 1101. See BRK-600.

## EDGE Thickness

We added the OFFSETFLAT method for Edge Thickness. We also added the optional LE\_FLAT\_SIZE and TE\_FLAT\_SIZE parameters to better control the OFFSETFLAT method and the SQUARE method with wiggly measured curves. See BRK-682.

## German Language

PC-DMIS Blade 6.0 now supports the German language. See BRK-806.

## Middle Tolerance Bestfit

We added the ability in Bestfit to fit to the middle of the tolerance zone instead of the nominal. See BRK-593.

## New Flavor File Options

We added these formatting options to the **Reporting** tab for the Flavor file:

- **Measured from Nominal** - This option ignores the **Output BestFit Points** check box, and outputs the measured points that correspond to the nominal points. The measured points are in the original coordinate system. See BRK-629.
- **Deviations from Nominal** - This option ignores the **Output BestFit Points** check box, and always outputs measured points that are bestfit according to the first bestfit that is defined. The nominal points are exactly the same as the .NOM file, and the measured points line up to those nominal points. See BRK-592.

## New Tolerance File Option

We added the STACK option to the **Root Sect** list on the **Calculations** tab for the Tolerance file. This option enables you to select the Stack origin as the root end of the bow axis. See BRK-609.

## OFFSET Command, for Any Calculation, Per Airfoil Section

We added the OFFSET command to the tolerance file. You could always add an OFFSET, in the flavor file, for a calculation, but it applied to all sections. Now the

OFFSET command, in the tolerance file, will allow individual offsets for a calculation, per airfoil section. This offset is added to both the nominal and the measured value. See BRK-868.

## Mean Camber Lines

We added data sets for mean camber lines. See BRK-423.

## MINCIRCLE Algorithm

We improved the MINCIRCLE algorithm to be more robust and more accurate. See BRK-595.

## Profile Tolerances

- We added the ability to solve complex non-uniform profile tolerances, where the profile tolerance varies by distance from the leading or trailing tip. See BRK-641.
- We added the ability to solve complex non-uniform profile tolerances, where the profile tolerance varies along the chord length. See BRK-590.

## RELEXTREME Calculation

We added the RELEXTREME calculation to the Flavor file editor. This works the same way as the Blade EXTREME calculation but is reported relative to the EXTREME of the Reference Airfoil Section (REFSECT). EXTREME finds the high point of a section along X or Y. It does this with the actual without any fit applied. See BRK-884.

## Responsive HTML Help

PC-DMIS Blade 6.0 introduces a new and modern online Help system that opens in your browser. The Help no longer uses the old compiled HTML Help (.chm) functionality from Microsoft. The benefits of this new Help system are:

- The Help system supports HTML5 and CSS3. This makes it easier for us to maintain and update the look and feel. It also provides the opportunity for more media-rich content in the future.

- The Help system is now available online. This provides a pathway for us to implement analytics and other online improvement to better understand how you use the Help and provide you with better user assistance.

See BRK-792.

## Fixes

- BRK-620 - Fixed an issue where incorrect colors were shown for whiskers when you created the plots.
- BRK-639 - Fixed an issue where PC-DMIS Blade was able to find more than two points instead of two points when you worked with MAXTHK.
- BRK-666 - Fixed an issue where PC-DMIS Blade generates twice the number of pages when you tried to print the report.
- BRK-700 - Fixed an issue where the flavor file editor didn't write the header and note to the file when you opened the .flv file.
- BRK-773 - Fixed an issue where PC-DMIS Blade was not able to calculate Edge Thickness when you had a set of small offset values. You can now use the new MCL to get closer to the edge.



# Information about this Release

We at Hexagon Manufacturing Intelligence are proud to bring you PC-DMIS Blade 6.0.

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.

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 the functional test and the integration test:

- The vast majority of the test effort occurs in the functional area. This test determines that specific functions that are core to the software, regardless of what type of machine is used, work correctly.
- The integration test is a test 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 Blade 6.0, it could 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 to correct 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 Blade 6.0 into a new directory. In this way, you can be assured of continuous use of the existing version should problems arise with this newer version.

# Recommended System Requirements

## Operating System

PC-DMIS Blade 6.0 operates under 64-bit Windows 10.

## PC-DMIS

PC-DMIS Blade 6.0 operates with PC-DMIS version 3.7 and newer.

## Browser

Internet Explorer 9

## Anti-Virus Software

Hexagon Manufacturing Intelligence used the Sophos anti-virus tool to test PC-DMIS Blade 6.0. The user will need to confirm the performance of any other anti-virus tool.

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



# Installing the Software

To install the application, 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 a valid software license for the installation to work. Your IT specialist can help you with this information.

- To get your computer's properties, highlight the **My Computer** icon, right-click on it, and select **Properties**.
- To check the display properties for the graphics card, select **Start | Settings | 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, the software attempts to migrate existing settings from previous installations on the same computer, even from old versions of the software where settings were stored in the brun.ini file.

If your current version uses the brun.ini file for its settings, back up your brun.ini file. This file is found in the PC-DMIS Blade 6.0 directory. Save a copy of the file in a safe place.

## 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 Blade 6.0. In addition, your license may be configured with different options.

If you are using a physical USB portlock, ensure that it is programmed with the Blade option enabled; this is required to run PC-DMIS Blade 6.0. Connect the portlock to your computer.


1. Locate the installation file on your installation media; or, if you downloaded it, open the directory containing the downloaded file. The installation file looks like this:

Blade\_6.0.##.#\_x64.exe

The # symbols represent the specific version and build numbers.

2. Double-click this executable file 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 software installs to:

C:\Program Files\Hexagon\PC-DMIS Blade 6.0 64-bit

To change the folder, either click on 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 **Install** to start the installation. A progress bar shows the overall progress.
7. When the installation finishes, a screen shows any warnings or errors. It also contains these options:
  - **Launch PC-DMIS Blade 6.0 64-bit** - To launch PC-DMIS Blade 6.0 now, select this check box.
  - **Show Release Notes** - To display a .pdf that shows what is new or has changed in this release once you click **Close**, select this check box.
8. Click **Close** to close the installation program.

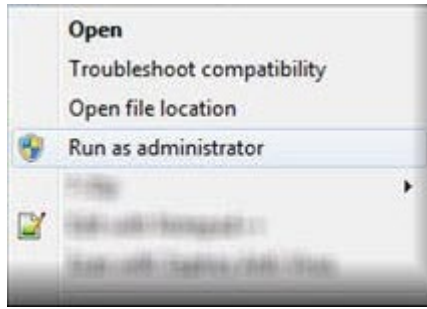
## Administrator Privileges Explained

The PC-DMIS Blade 6.0 installer has a flag built into the setup executable file (setup.exe) that requires the setup process to run with administrator privileges. If the current user has lesser privileges, the setup 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 Blade 6.0, you must launch it with administrator privileges.

## Step 5: Launch the Software for the First Time

1. When you run PC-DMIS Blade 6.0 for the first time, select **Start, All Programs**, and then **PC-DMIS Blade 6.0**.
2. Right-click on the **PC-DMIS Blade** icon, and then select the **Run as administrator** option (required only if the **Launch PC-DMIS BLADE 6.0** check box wasn't checked at the end of the installation).



*Run as administrator option*

## Subsequent Startups

For subsequent startups, double-click the **PC-DMIS Blade** icon to launch PC-DMIS Blade 6.0.



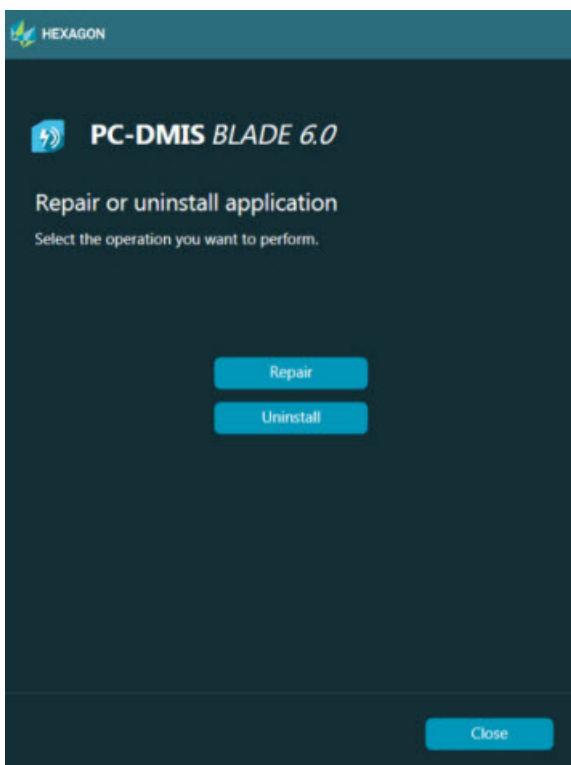
# Updating the Software

To update the software, download the latest update and then double-click the Blade\_6.0.##.#\_x64.exe file as if you were beginning the installation process.



# Repairing or Removing an Installation

You can also repair or remove an installation as needed once you install it. To do this, double-click the Blade\_6.0.##.#\_x64.exe file as if you were beginning the installation process. The setup displays a screen with these options:



*Repair or uninstall installation screen*

- **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.
- **Remove** - This option removes the application from where you installed it. You can also use 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 Blade 6.0 contains the user-interface files for all of the supported languages. When you install PC-DMIS Blade 6.0, it installs the language files based on your operating system's language.

To run PC-DMIS Blade 6.0 in a language other than the operating system's language, select **File | Languages**, and then click the desired language. PC-DMIS Blade 6.0 immediately closes and then reopens in the selected language.



# Troubleshooting

For information about troubleshooting error messages and file, printing, and other issues, refer to the PC-DMIS Blade 6.0 documentation.





# Contact Hexagon Manufacturing Intelligence

If you are participating in the *technical preview* of PC-DMIS Blade 6.0, please post your feedback in the appropriate technical preview forum located at [www.pcdmisforum.com/forum.php](http://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 Blade 6.0 and would like further information or technical support, please contact [hexagonmi.com/contact-us](http://hexagonmi.com/contact-us) or visit [hexagonmi.com/products/software](http://hexagonmi.com/products/software). You can also reach Hexagon Technical Support by calling (1) (800) 343-7933.