New Functionality for OpenDMIS Release 6.9
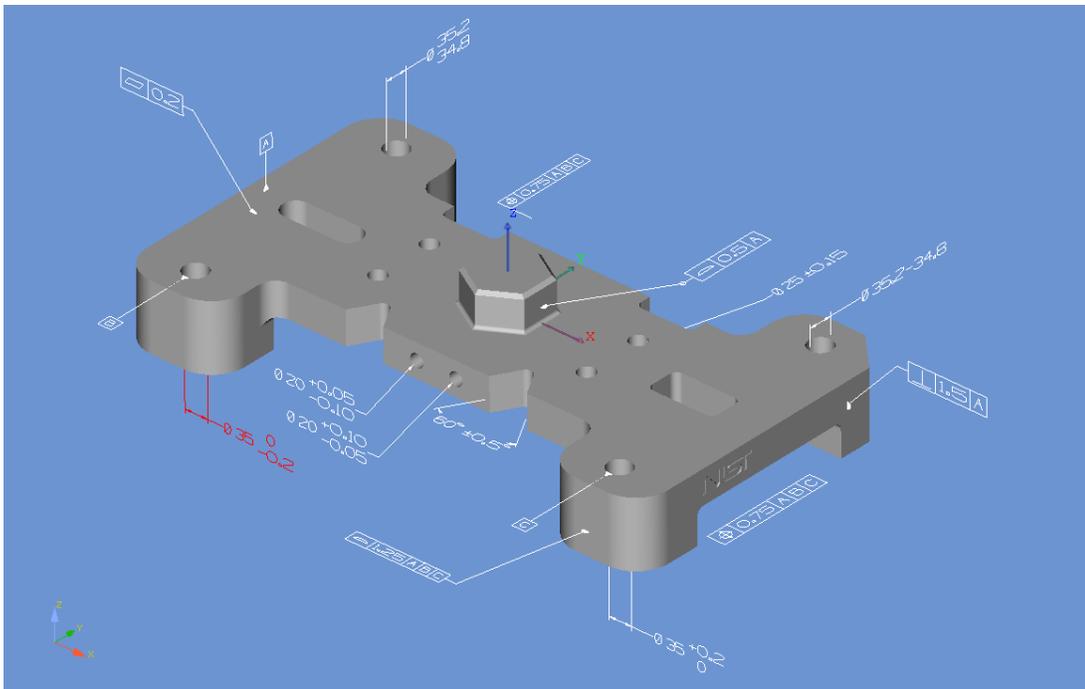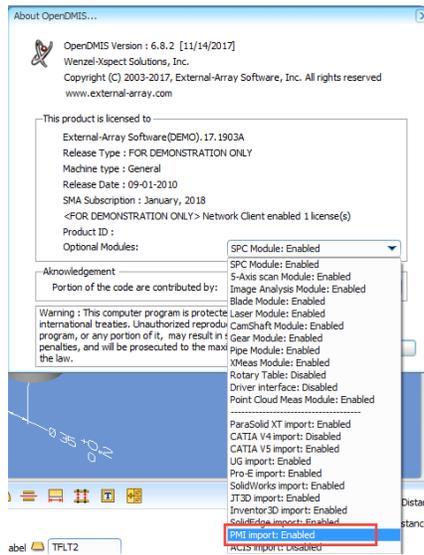
1) OpenDMIS now supports PMI (Product and Manufacturing Information), allowing the reading of tolerance information from the CAD model. This applies to Native CAD models and requires a separate license. Please contact Wenzel America to discuss the upgrade.

2) Native CAD import supports ACIS format. This option is a dongle protected Native importer upgrade. The new version supports the following native files. Please contact Wenzel America support to arrange for native file importing.   This function is licensed and there is a charge for the licenses.

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Acis        : up to 2016 1.0 (SAT & SAB)
CatiaV5     : R10 to R27 = V5-6R2017
Inventor    : 10 to 2018
Parasolid   : up to 30
Pro/Eng-Creo : 2000i to WF5, Creo up to 4.0
SolidEdge   : 10 to ST10
SolidWorks  : 1999 to 2016
UG-NX       : 15 to NX 11
JT(BREP)    : up to 10.0
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3) For systems with multiple screens, the DMIS Editor and Output Windows can now be docked on the other screen.   RMB, Right Mouse Button, will show the Popup Window icon when the tab is selected and either of the windows can be docked.
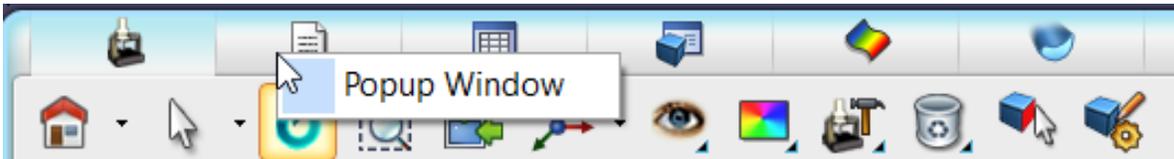
There is a change the structure of DMIS Editor when it is docked on the other screen. The DMIS Editor is detached from the main software. It can run independently in its own thread. Many functions that were disabled during DMIS program run are now enabled. However, for obvious reasons the "To DMIS Program" text transfer from DMIS Editor to DMIS program window is disabled to prevent program corruption.

4) Offline versions can save old versions, and now the menu adds version 6.5. Please note that while the solutions are now backward compatible and can be read into older versions of OpenDMIS, new functionality may not be supported in the older versions.
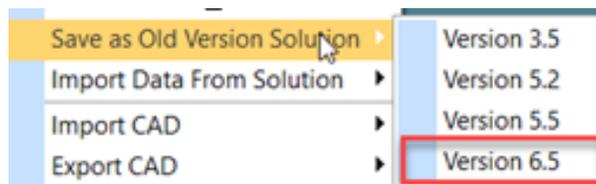
5) Three new Reporting functions.
   a. Groups of points can now be evaluated as if they were a curve in the form error window. <u>This allows for points on a CAD model over several surfaces to be evaluated without the need to build any new geometry.</u>

A pattern can be built from the points and displayed in form error window. Please note:

   a. The pattern must be POINT group with only POINTS in this Pattern.
   b. Point to Point deviation is illustrated with a straight line.
   c. Points sequence is the responsibility of Users.
   d. Upper tolerance and Lower tolerance will use the default PROFP.
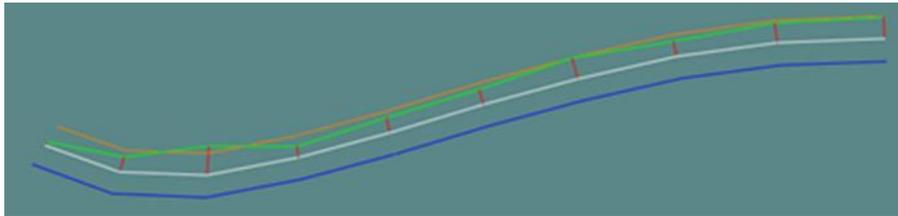
   b.   The Output window now supports decimal control by column in addition to the previously supported DMIS control. Actual, Nominal and Deviation can be individually controlled.
      i. This functionality is programmable; look in the DMIS Template under DMIS commands for the syntax.

   c. The Applications Setup supports a new output calculation method. The new method is called "<u>Deviation calculated using visible decimal digits</u>".

For example, when Yes is set, the following normal output

MYPT1	[DEMO Version]				CRD1/MM/ANGDEC/CART/XYPLAN	
X	468.600	468.632	0.0320	-0.0050	0.0050	0.0270

Will change as shown below

| MYPT1	[DEMO Version]				CRD1/MM/ANGDEC/CART/XYPLAN	
X	468.6	468.6	0.0000	-0.0050	0.0050	----|----

<u>Note that when the output significant digits are truncated using the same measurement data the output changes from Out of tolerance to In tolerance!</u>

When the truncating function is enabled the report shows /VD, indicating that only visible deviation is reported.

6) Quick curve generation on CAD using the Pick Wire option has been added. Three points picked on CAD will define a nominal curve.

> Pick three points on CAD. The first point is the starting point, second point is direction point, and the third point is the ending point. Three points define a plane and the plane sections the CAD to a Curve. The final nominal curve is defined as a segment of the sectioned curve between three picking points.
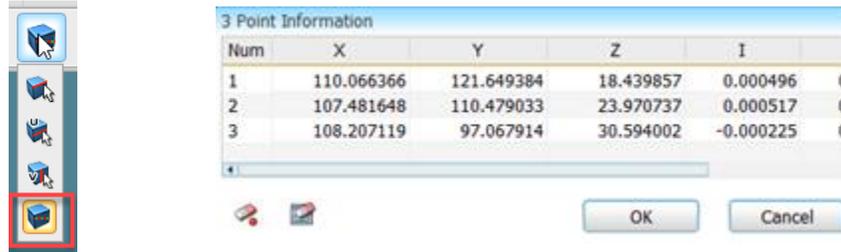
> The data cell is editable. Manually modified XYZ will be used for Curve construction.

7) Run time statistics can be added to a solution without the need to program the function. The run time statistics window implements a new button to Export in ASCII and Excel format.
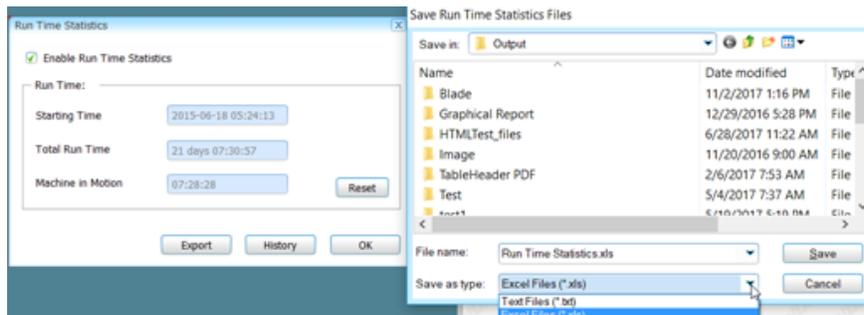
8) When evaluating the distance between three dimensional objects, that is distance between planes and or cylinders, two approaches are offered.
The functionality can be changed in Applications Setup in the Tolerance Setup using the "**Using Characteristic Point For DISTB Zxis Evaluation**".   When set to No, planes must be parallel within 1.5 degrees, otherwise the calculation is not performed. This has resulted in some observations that "The command does not always work". This is by design, because when set to NO the distance is always normal to the first plane. When set to YES the calculation can be forced to an active axis.

9) TOL/POS adds display of DX, DY, DZ to the TOLZON deviation.
   An icon is added to the Deviation window. This icon allows switching to XYZ deviation display.
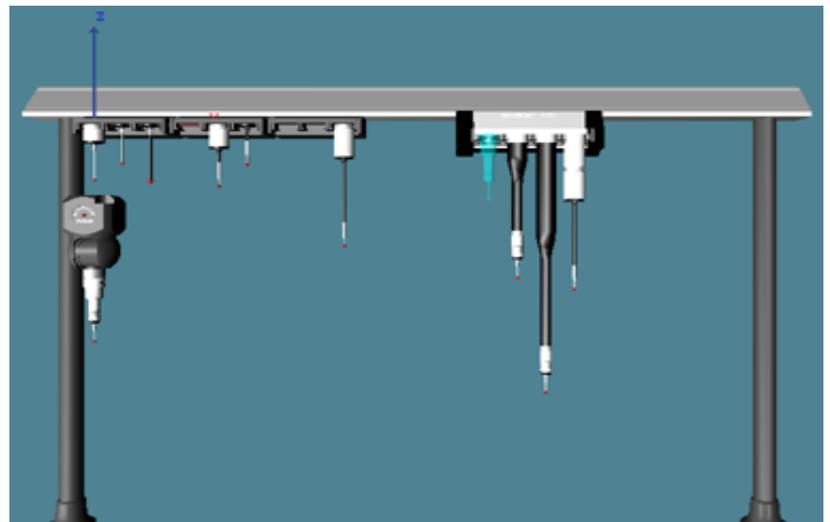   Output can also display XYZ deviation with a new Setup item to control it.

10) A new clearly shown button to kill subroutines, macros, has been added.

11) For our existing and new customers a combination of the ACR3 and FCR racks is offered. Customers may now install many TP20 modules and or SP25 modules. When the ACR3 is added a machine can switch from Touch probe tools to scanning tools. This allows for the seamless addition of scanning to machines that were originally configured for touch probes. Please note that additional hardware is required.

For the programmer

1) For customers outputting to environments that were developed for PCDMIS it is now possible to apply Tol/Profs to points.   The calculation is the same as profile of a point, projection to vector and deviation plus or minus along the vector. This allows outputting to the VW Infomess environment for example among others.

    a.   Point output at reporting was named PROFP in output setup to match the applied tolerance. This can now be changed to T for systems configured for the PCDMIS T tolerance to comply with the Infomess and other automotive reporting applications.

2) Output profile of a surface and line with the output set to ISO now supports Min/Max error. This is selected from the output configuration.

3) DMESW/delay, 3000 will pause the program for 3000 seconds, not 3000 milliseconds as is found in other environments; this remains unchanged. There is a change in the user-interface that enables the DMIS STOP icon to exit Delay whenever the delay is in execution.

4) Beautiful, easy to read programs are now available with just the click of a mouse!   As shown below, the Layout Alignment will put all data into easy to read columns with just a mouse click.