NEW PRODUCT ANNOUNCEMENT

Dear Mitutoyo Distributor,

We are pleased to announce the release of MCOSMOS v4.0, the following outlines the new features and enhancements.

MCOSMOS

1. **Automotive data conversion** – Suppliers of BMW or Daimler can use the function Automotive data conversion to convert measurement tasks from the different CSV formats (BMW or Daimler) easily into a measurement program. This is done in two steps:
    a. Use the function Automotive data conversion to convert the BMW or Daimler CSV files into an ASCII-GEOPAK file (".AGW")
    b. Use the ASCII-GEOPAK converter to create the measurement program
    The generated measurement program then outputs MCOSMOS typical reports which can be pre-defined. In case of BMW data conversion an additional report formatted according to the approved BMW specification is generated.

2. **Scan on conical flank with and without MRT320** – "Scan on conical flank" allows you to easily scan along the surface line of a cone, making it particularly suitable for the measurement of bevel gears. For the measurement of spiral bevel gears the function requires the additional use of a MRT320 rotary table. By simultaneously controlling the rotary table while scanning, the spiral twist of the teeth is tracked in such a way that the probe actually scans along a straight course.

Geopak

1. **Added Temperature & Coordinate Mode buttons** – buttons to change temperature or coordinate mode settings have been added to the "Position of machine" window. *See Figure 1*

FIGURE 1

2. **AS9102 Form3 protocol template support –** this template is for an inspection report used by Aerospace suppliers and fulfills the AS9102 Form3 of the First Article Inspection Report.

3. **Memory recall "Step cylinder"** – step cylinder can now be re-calculated from two measured cylinders. The measurement points of the selected cylinders are used for the calculation and as result, two cylinders with the same axis are produced.
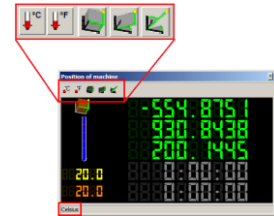

FIGURE 2

CMM System Manager

1. **ProbeBuilder: Use Mitutoyo/KOMEG part numbers –** the probe component names can be toggled between Mitutoyo part numbers and Renishaw part numbers (*See Figure 2*).

2. **Ko-ga-me support** – Mitutoyo MACH Ko-ga-me Agile Measuring System is a compact, 3D CNC machine that can be flexibly mounted according to customer requirements (*See Figure 3*). It can be mounted with either an existing stand or a custom-designed mounting frame, or it can be used in stand-alone applications or integrated into machine tools.
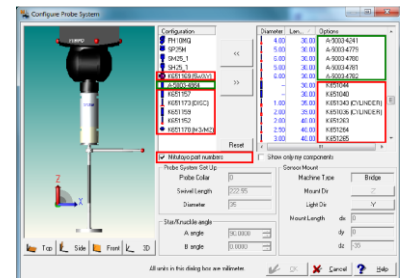

FIGURE 3

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NEW PRODUCT ANNOUNCEMENT

CAT1000

1. **Solid Edge support –** now supported for ST – ST5, V18 – V20 (Generated from Geometry).
2. **Callouts for hole shapes –** primarily used in sheet metal, CAT1000 supports the following hole shape elements:
   - Drop
   - Hexagon
   - Rectangle
   - Slot
   - Square
   - Trapezoid
   - Triangle

   This includes prismatic display of these elements, standard callouts and support in the callout designer. An option to selectively hide prismatic elements has been added to the element tree view.
3. **Best fit for surface constrained by tolerance zones –** an additional option has been added to the best fit for a surface that takes into account multiple tolerance zones into account. This option attempts to shift and rotate all free form surface points into tolerance centered on the upper and lower tolerance limits.

Gearpak Cylindrical

1. Tooltips – tooltips providing users additional information for inputting gear parameters into Gearpak have been added (*See Figure 4*). The tooltip appears when the mouse cursor hovers over a control. To support the user during the input of the data the tooltip can supply:
   - Textual information
   - Graphical information (images)
   - Link to the online Help
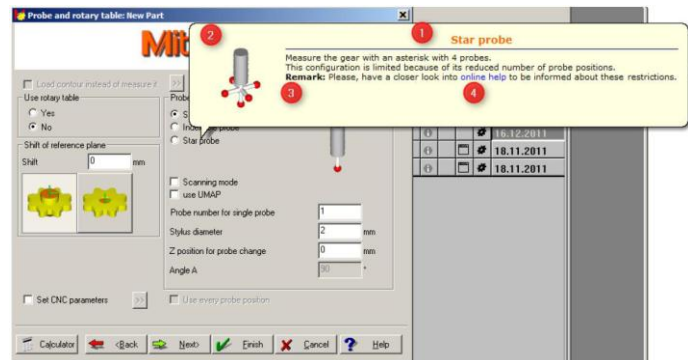   - Link to a website on the internet

FIGURE 4

2. **Load data –** previous versions of Gearpak Cylindrical required direct measurement of the gear with the Gearpak Cylindrical software. Loading measurement data from a previous measurement or from another DME (Dimensional Measuring Equipment), is now supported (*See Figure 5*). Some examples of sources of data that can be loaded:
   - Measurement on another DME (such as QUICK VISION; Quick Scope)
   - Evaluation of a previous measurement stored as contour and should be re-evaluated
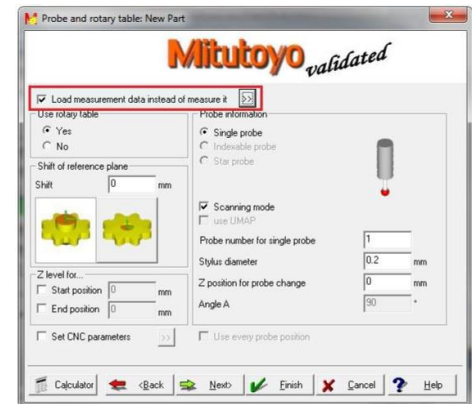   - Gear evaluation used within a part program for special purposes

FIGURE 5

3. **Display actual gear quality (tolerance class)** – The report now shows the actual grade for a deviation (for example total profile error). The grade depends on the selected tolerance system (DIN 3961ff only at this time). In cases of no tolerance system or user defined tolerances, the report will not show any grade for an actual deviation.

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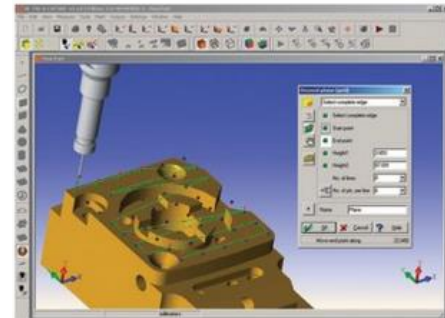
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Optional translators (dongle options):
- IGES: up to V5.3 *
- VDA-FS: V1.0, V2.0
- CATIA V4: V4.1.9 - V4.2.4*
- CATIA V5: R6 – R23 (V5-6 R2013) (incl. PMI data)*
- Pro/E V16 up to Wildfire 5, Creo 1 – 2.0 (both incl. PMI data)*
- NX Direct: V11-18 (Unigraphics), NX1 to NX8.5 (incl. PMI data) *
- Parasolid Direct: V14 – 26.0.151
- SolidWorks Direct: 2003 – 2013*
- Inventor: V6.0 – 2014SolidEdge Direct: V18 - V20, ST-ST5*

 *Geometry

Literature: To be released
We thank you for your continued support and patronage of Mitutoyo products.
Sincerely,

Matthew B. Dye

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