# Metrology 4.0® SMART SOFTWARE Vs. µltra

**TAYLOR HOBSON®**

## Roundness Instrument

| Function | Metrology 4.0 | µltra |
|---|:---:|:---:|
| Coordinate System | ✓ | ✗ |
| Virtual Instrument | ✓ | ✗ |
| Smart Move | ✓ | ✗ |
| Real Time Display | ✓ | ✗ |
| Feedback Loop | ✓ | ✗ |
| CAD Model Integration | ✓ | ✗ |
| Timed Calibration | ✓ | ✗ |
| User Levels / User Level Icon Optimisation | ✓* | ✓ |
| Production Interface (PI) | ✓* | ✓ |
| PI Single Page Results with PI Summary | ✓ | ✗ |
| Magnified Axes Displays | ✓ | ✗ |
| Multi-Screen Flexibility | ✓ | ✗ |
| Auto Target Contacting Routine | ✓ | ✗ |
| Crutch Angle Calibration | ✓ | ✗ |
| Horizontal Contact at 45 degrees | ✓ | ✗ |
| Fast Point Mode | ✓ | ✗ |
| C&L Pre-Defined Positions | ✓ | ✗ |
| Axis Calibration | ✓* | ✓ |
| Specific Application Macros | ✓ | ✗ |
| Shortest Route Control | ✓ | ✗ |
| Calibrate to Scale | ✓* | ✓ |
| Vectored Moves | ✓ | ✗ |
| Axis Movement Error Checking | ✓ | ✗ |
| Software End Stops | ✓* | ✓ |
| Automated Stages Carousel | ✓* | ✓ |
| Vacuum Chuck | ✓* | ✓ |
| Built in Reference Guide / Help | ✓ | ✗ |
| Programmable Park Position | ✓ | ✗ |
| No Database | ✓ | ✗ |

## Measurement

| Function | Metrology 4.0 | µltra |
|---|:---:|:---:|
| 2D X Auto | ✓ | ✗ |
| 2D Z auto | ✓ | ✗ |
| Set Axis | ✓ | ✗ |
| Simplified Measurement | ✓ | ✗ |
| User Input | ✓ | ✗ |
| Crest Analysis High and Low Point | ✓ | ✗ |
| Roundness Multiple and Repeatability | ✓ | ✗ |

*\* Improved process.*

## Analysis

| Function | Metrology 4.0 | µltra |
|---|:---:|:---:|
| One Software Platform, Multiple Disciplines | ✓ | ✗ |
| Desktop Publishing | ✓ | ✗ |
| Multiple Page Report | ✓ | ✗ |
| Multiple Documents | ✓ | ✗ |
| MATLAB Integration | ✓ | ✗ |
| Integral Disk / Wall thickness | ✓* | ✓ |
| ISO Details on Results | ✓ | ✗ |
| Quick Analyses | ✓ | ✗ |
| Multi-Analyses | ✓ | ✗ |
| Auto Creation of Datums | ✓ | ✗ |
| Extract Cylinder Profile | ✓ | ✗ |
| Same Data Types for Different Analyses | ✓ | ✗ |
| Roughness Analysis in Contour | ✓ | ✗ |
| Roughness Averaging | ✓ | ✗ |
| Manage Surface End Effects | ✓ | ✗ |

## Programming

| Function | Metrology 4.0 | µltra |
|---|:---:|:---:|
| Variable Programming From User Input | ✓ | ✗ |
| Variable Programming From External Input | ✓ | ✗ |
| Analysis Variables | ✓ | ✗ |
| Parametric Programming | ✓ | ✗ |
| Guided Sequencing / Video Messages | ✓ | ✗ |
| Easy Identified Program Function Error | ✓ | ✗ |
| Program Error Reporting | ✓ | ✗ |
| Get Axes Positions as Variables | ✓ | ✗ |
| Programming Toolbox | ✓ | ✗ |
| Programming Search Function | ✓ | ✗ |
| Multiple Program Windows | ✓ | ✗ |
| Nested Programs | ✓ | ✗ |
| Programming List of Favourites | ✓ | ✗ |
| Programming cut, copy and paste | ✓* | ✓ |
| Programming Undo | ✓ | ✗ |

## Taylor Hobson Advanced Modules (THAM)

| Function | Metrology 4.0 | µltra |
|---|:---:|:---:|
| THAM – Harmonics / Velocity | ✓ | ✓ |
| THAM – Zonal | ✓ | ✓ |
| THAM – Data Fusion | ✓* | ✓ |
| THAM / Contour THAM – LS Arc Auto | ✓* | ✗ |
| Contour THAM – Blade Tip Diameter | ✓* | ✗ |

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# Metrology 4.0®
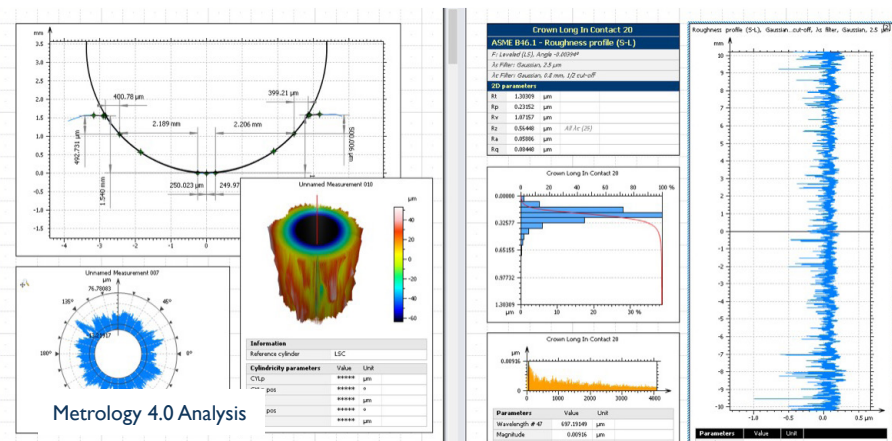## SMART SOFTWARE

**TAYLOR HOBSON®**

# In so many ways, it's a first
# Advanced metrology, made simple


Metrology 4.0 Production Interface
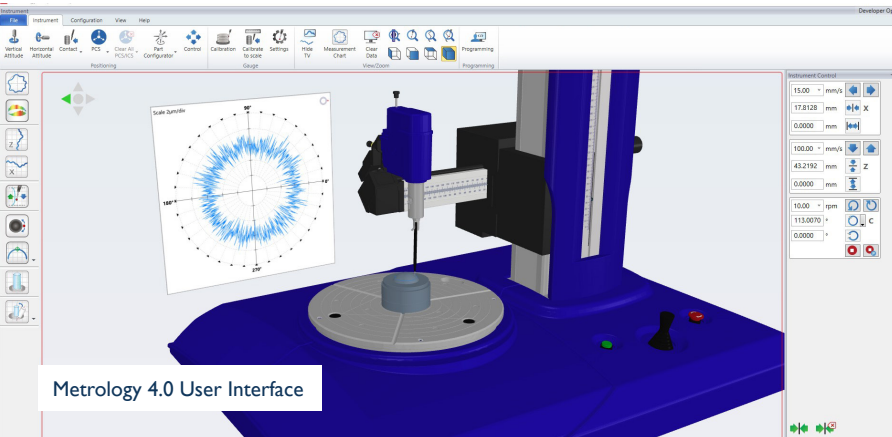

Metrology 4.0 User Interface


Metrology 4.0 Analysis

## Cutting-edge technology.

### The advancement in metrology software design that the market has been waiting for...

Taylor Hobson's new advanced software enables dimensioning in accordance with part drawings and provides an exact reflection of the Part Co-ordinate System (PCS) delivering the final link in the manufacturing loop.

Metrology 4.0 software is easy to use with an intuitive user-interface, virtual display and real time control. The state-of-the-art point and move axis control function (SMART Move) delivers precise positioning and accurate measurement.

### Operator benefits.

**Virtual display** - simulation of the measurement process with 'at-a-glance' status, on-screen indicators, real-time feedback and remote system control.

**SMART Move** - intuitive operation for moving and measuring. Once a part has been set-up, the user can then zoom to a detail that the eye cannot see and program around the virtual part.

**Variable programming** - enables users to automate measurements of a multitude of part sizes without the need for a multitude of programs.

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