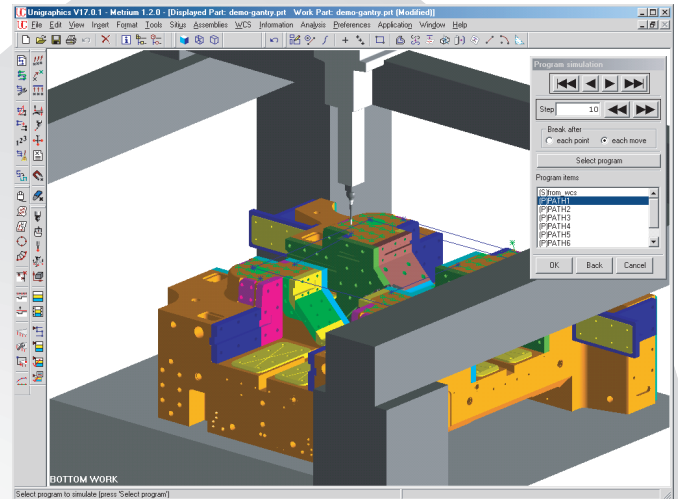


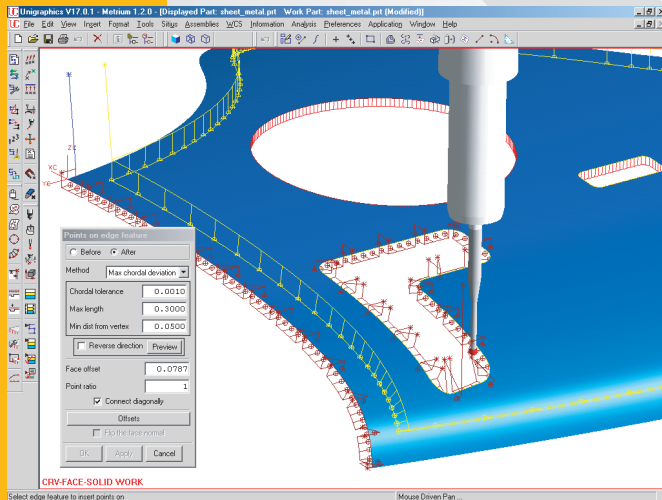
Integrated CAD Metrology

CAD Based Part Programming

- * Reduce and eliminate the need for 2D drawings
- * Unambiguous model representation
- * Eliminate interpretation errors
- * Uniform treatment for all types of geometry
- * Complex models and free-form surfaces
- * Simplify tolerancing and CMM programming



Program Simulation



Sheet Metal Inspection

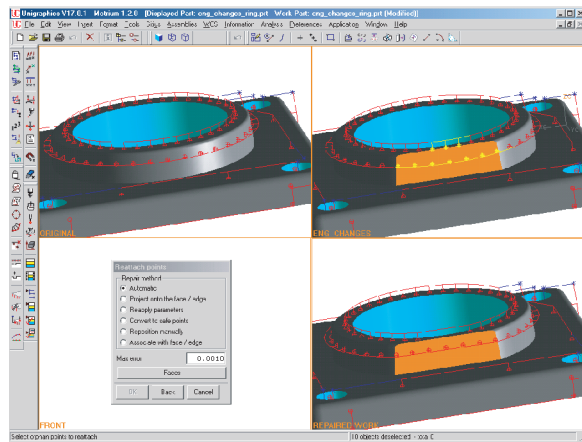
Fully Integrated in UG

- * Eliminate model translation
- * Dramatically reduce time
- * Provide 100% accuracy
- * Use 3D solid information
- * Access assemblies directly
- * Prevent data duplication

Advanced Off-line CMM Programming

Metrium provides the tools to create off-line programs ahead of time. It is best suited for high volume inspection, unattended CMM operation, precise positioning for measuring intricate parts. Some of its most prominent features are:

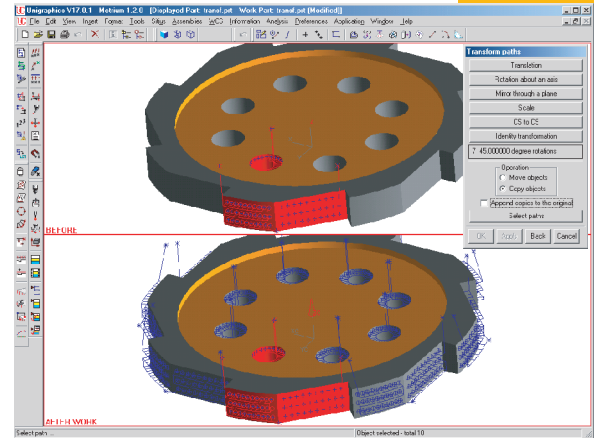
- * Associative inspection directly from the CAD model
- * Powerful methods for point generation
- * Path reuse through copy and transform
- * Solid model utilization
- * Access to multi-level CAD assemblies
- * Automatic update after model change
- * Model substitution
- * Support for index heads and star probes
- * Multiple setups in a program
- * Path and program simulation
- * Collision detection
- * Output in DMIS and native CMM languages
- * Extensive support for CMM specific attributes



Automatic Update on Change

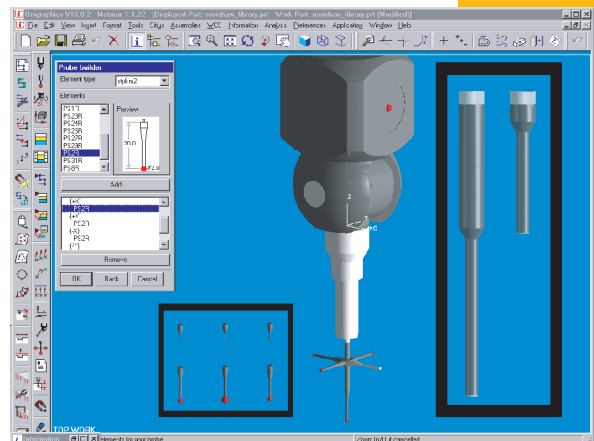
Metrium utilizes the master model concept and the notification mechanism available in Unigraphics to detect and flag model changes. This is achieved at software level, without any intervention needed by the user. This process is applicable to changes that affect measured points, inspection programs, features, tolerances, etc. The user is notified about the change, as the software provides automatic and controlled updates to the programs. This saves time, otherwise wasted in translating the model and applying the changes to the CMM program and what is even more important, eliminates any possibility for error caused by the change.

Model Substitution is another advanced feature in **Metrium**. It solves the problem of updating the CMM program when engineering change occurs outside the master model. Just drop the new part in and update the program with clear identification of the changed areas.



Path Transformation

Using **Path Transformation** speeds up the task of programming repeating features. Existing paths can be moved or copied using a rich set of commands. A single path can also be transformed with one and two-dimensional array of transformations as shown in the image above. The copied paths are automatically re-associated with the underlying geometry preserving the integrity between the program and the CAD model.



Hardware Libraries

The **CMM Libraries** in **Metrium** include detailed representations for the most common head, sensor, extension and stylus components. Complete sensor configurations can be built in seconds. This provides realistic simulation and precise collision detection.



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