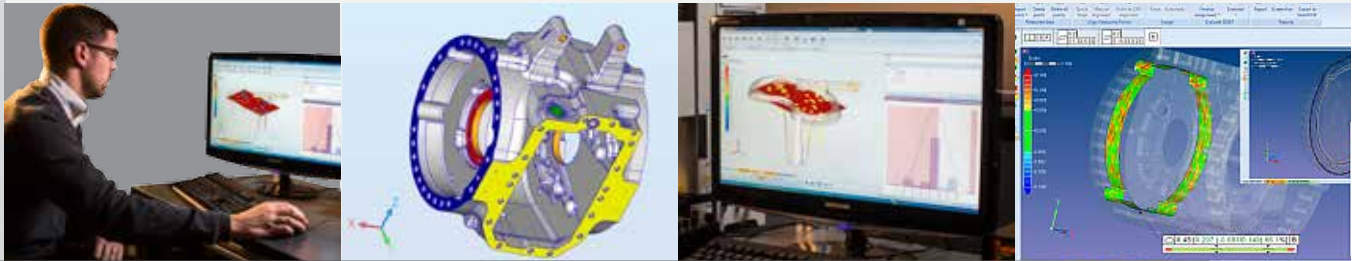Precision
for People

QVI

SmartProfile 3 | Comprehensive GD&T Evaluation Software

For Manufacturing Quality Control

Portal
QVI
Compliant

SmartProfile® 3 by KOTEM - The World's Leading Dimensional Analysis Software

SmartProfile from KOTEM is used by manufacturing professionals all over the world to evaluate measurement data for geometrical dimensioning and tolerancing compliance.

Easy-to-Use GD&T Evaluation

SmartProfile 3 makes it easier than ever to set up projects and evaluate parts.
There are just four steps:

1. Import a CAD model
2. Apply tolerances
3. Import measured points
4. Evaluate and report

SmartProfile automatically fits the measured data to the CAD model and evaluates all dimensions and tolerances simultaneously.
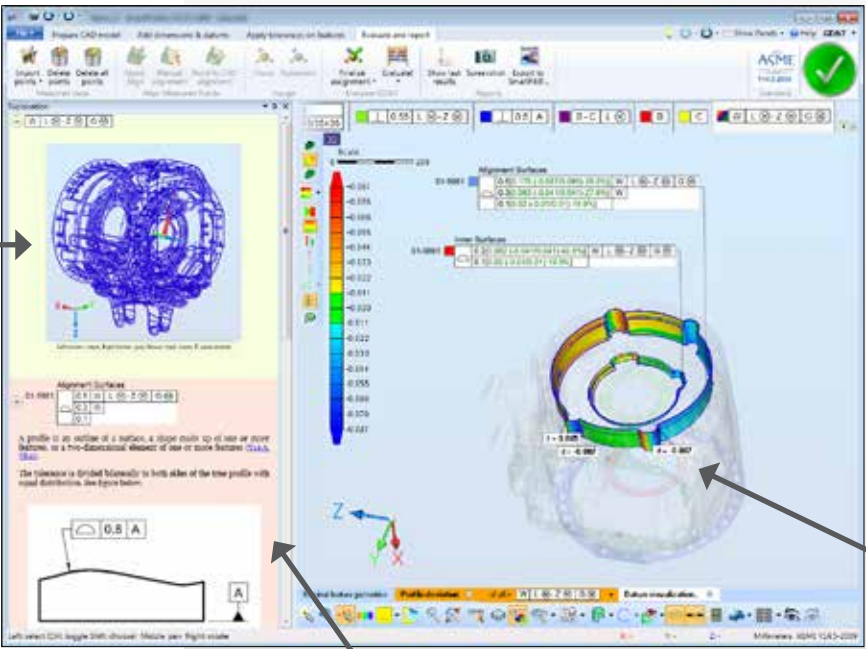
Complete

SmartProfile handles all tolerance types. The software evaluates even the toughest computational challenges including:

- Partially and fully constrained datum reference frames
- Composite and compound profiles
- Material condition modifiers: correctly simulated tolerance zone size and mobility
- Pattern datums and pattern features
- Freeform datums and features
- Simultaneous and separate requirements
- Axis and surface interpretation
- Fitting Models: choose between international GD&T Standards or Traditional Least Squares Fitting

Effective

GD&T Evaluation: determine pass/fail status for each feature and measured part.
Reporting: quickly create graphical, text and statistical reports and templates with just a few clicks.
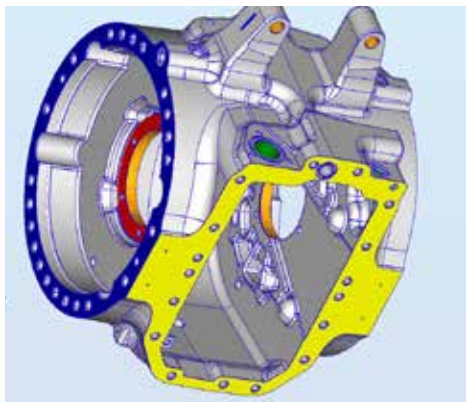

Individually report deviations.

Animated preview showing all degrees of freedom for each datum reference frame.

Context-sensitive Help references the official standards (ASME Y14.5M-1994, ASME Y14.5-2009) and explanatory paragraphs (ISO 1101).
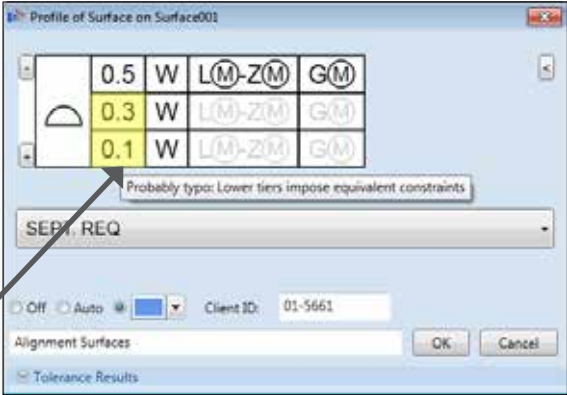
An Unparalleled GD&T Experience

SmartProfile provides detailed visualization for every tolerance type available in the standards. Users receive immediate feedback about the overall project status, and the status of every feature control frame.

SmartProfile can use points collected on virtually any measurement system and automatically align them with the model.

SmartProfile supports most **common CAD formats** (such as IGES, STEP, VDA, and STL) and **native CAD formats** (using an optional module).

Apply unique color identifiers to each entity.

The feature control frame proofreads the tolerances and issues suggestions and warnings if it suspects incorrect entries.

The Flexibility You Need

SmartProfile organizes complicated projects using color to highlight features, assigning them to different layers, and applying unique identifiers. For added convenience, the feature tree has new search and sort functions to manage complex evaluations. SmartProfile has fully flexible reporting capabilities, allowing reports to be tailored to user preferences. Custom graphical report templates can be created with just a few clicks. Text reporting allows results data to pass to other software packages, such as Excel® or SPC software. Integral scripting allows SmartProfile to integrate with factory automation systems. Script Wizards allow basic scripts to be set up quickly, while the integral script editor allows advanced scripting using Python™ or C#.

Visual Reporting

SmartProfile displays evaluation results graphically using colors to show tolerance status at a glance.

SmartProfile 3 Benefits

- Eliminates results variability caused by different evaluation techniques and different metrology software packages

- Eliminates human error caused by incorrect interpretation of the standards

- Model-based interface naturally leads the workflow-from importing data to generating the report

- Intuitive results visualization quickly assesses part functionality and process to improve production

- Separates part measurement from its evaluation and frees up valuable time on measurement systems

QUALITY VISION INTERNATIONAL – Precision for People®

Quality Vision International (QVI®) is the world's largest vision metrology company. Founded in 1945, QVI is the world leader in multisensor measuring systems and software.

Precision for People is more than just our slogan. It's our commitment to delivering our worldwide customers precision metrology systems designed with the people who use them in mind. Precision for People - it's what we stand for.

SmartProfile 3 is the only software fully compliant with all internationally accepted GD&T Standards:
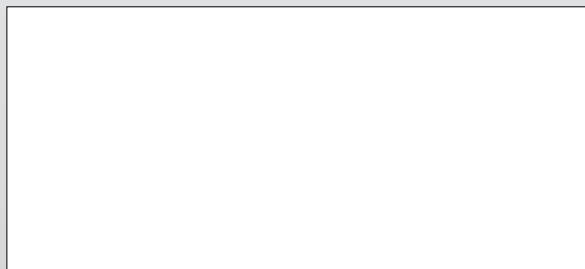
ASME
Y14.5M-1994

ASME Y14.5M-1994

ASME
Y14.5-2009

ASME Y14.5-2009

ISO
1101

ISO 1011

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