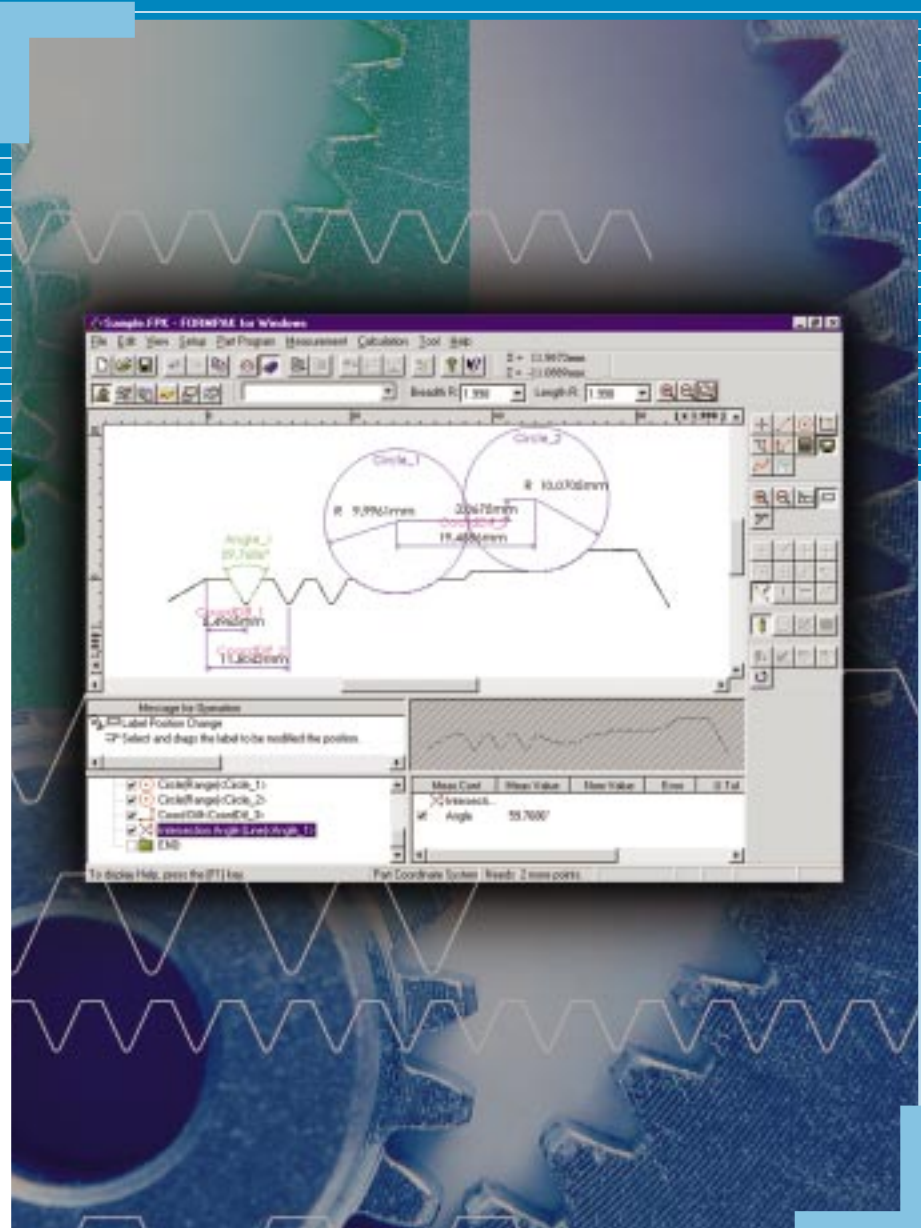


FORMPAK[®]-1000

Bulletin No. 1684



Contour Data Analysis Software for Contracer

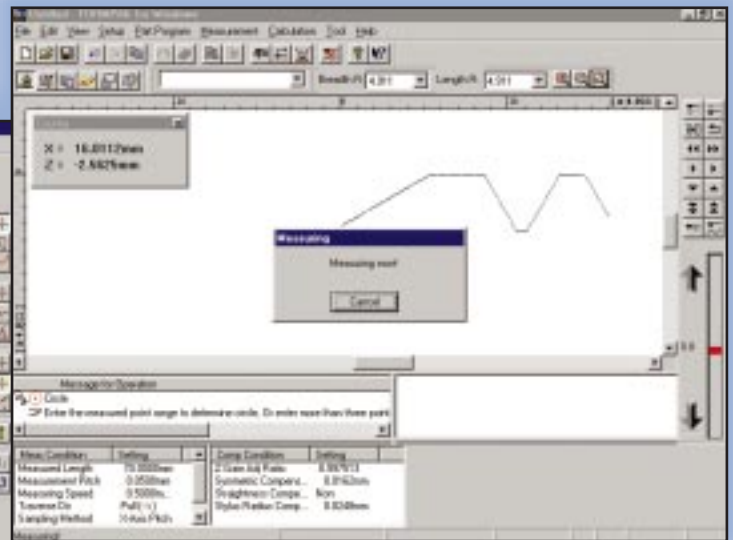
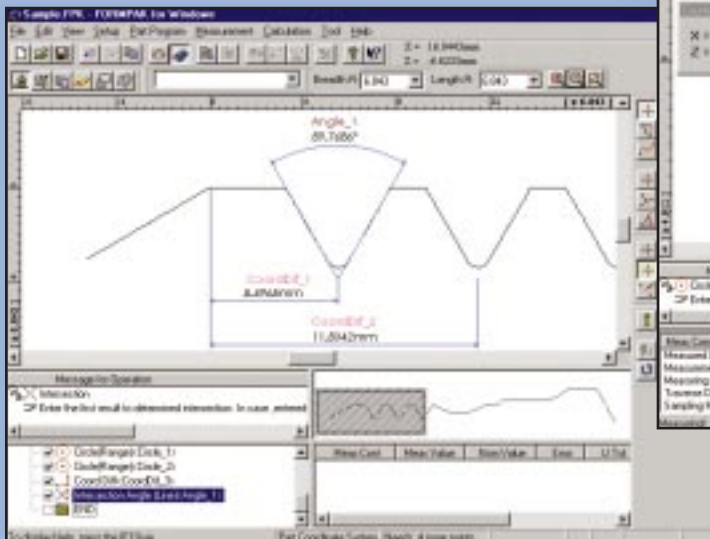
Mitutoyo

FORMPAK[®]-1000

FORMPAK[®]-1000 is a dedicated PC software for Mitutoyo Contracer (contour measuring instruments). It utilizes the Windows[®] OS, and has an enhanced user interface, including mouse operation, a variety of graphic displays, and comprehensive online help. In addition to dimensional measurement capabilities (angles, radii, and distances measurements),

the contour tolerancing function for evaluating “form” and report creation function for outputting measurement results in a specified format are provided as standard, ensuring both ease of operation and powerful analysis capabilities.

Windows is a registered trademark of Microsoft Corporation.

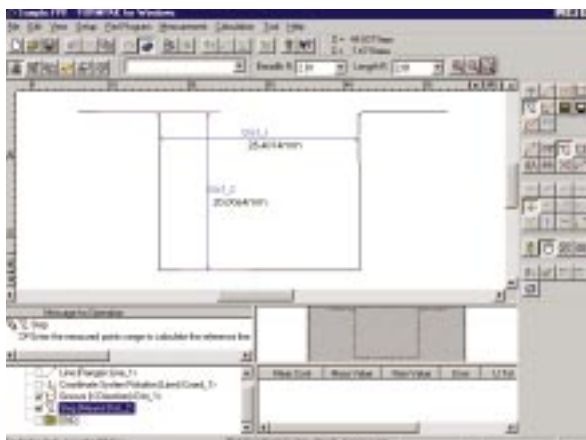


Realtime measurement

Result window

Data combination function

By combining partial data collected separately from a workpiece, the entire data set can then be handled and analyzed as one complete contour. Analysis results are displayed as an image representing the complete workpiece contour.



Result window (Measured data combined)

Multiple data compensation function

- Arc compensation
- Stylus radius compensation
- Symmetry compensation
- Straightness compensation

User customization function

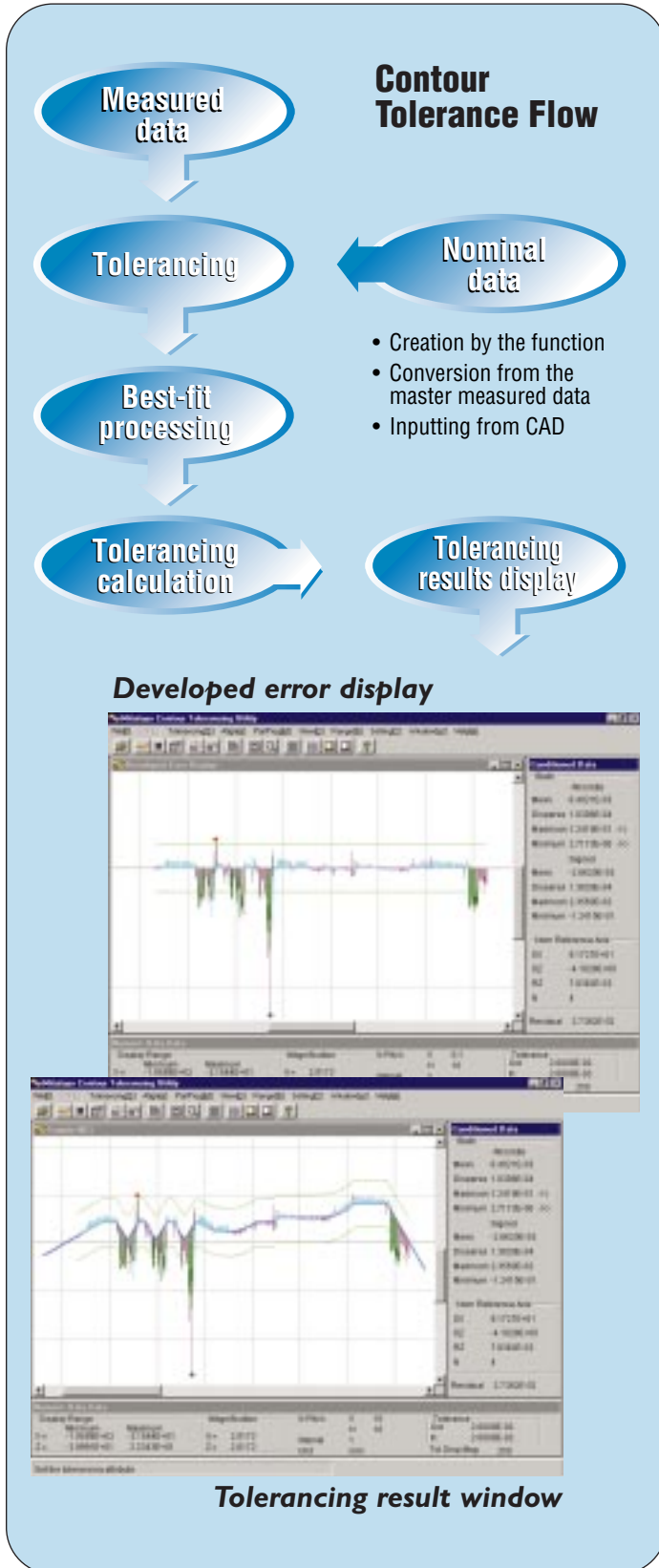
The size and position of operation buttons on a window can be modified as desired. This function allows the counter display, each window, the location of analysis command buttons, or the display color of measured data and auxiliary lines to be modified.

External output function

Calculation results and tolerancing results can be output in a readable format to commercial spreadsheet software. This function increases processing capabilities including statistical calculation, saving, and management of measurement results. It also allows measured point group data to be output in a text format.

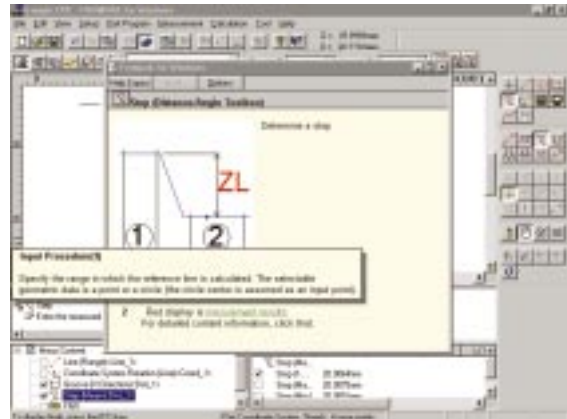
Contour tolerancing function

This function compares measured form data with nominal data, displays the deviation, and then stores it. Form data is different from dimensional measurement of angle, radius, etc. In addition to values obtained from an ideal contour in a CAD drawing, nominal values can also be created by converting the measured data of a master.



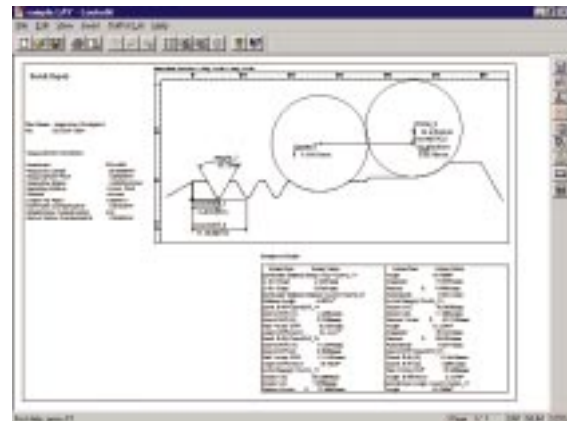
Online help function

Help windows displaying operating procedures, the definition of icons, etc., can be opened as required. This function reduces the time and effort required to find information in the manual.

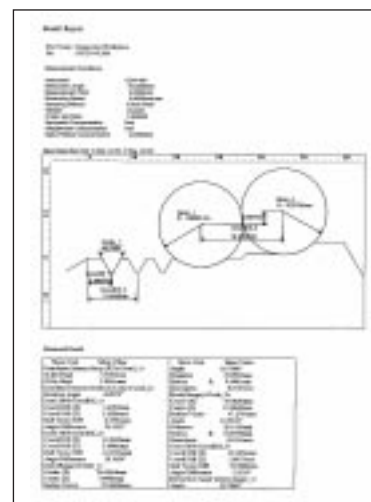


Report creation function

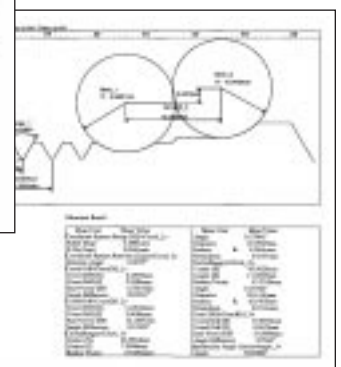
Geometric data, measurement conditions, contour tolerancing results, and comments can be laid out as desired and printed out in a report. Once a layout has been saved, it can be reused as a template if the same measurement is made. A report can be printed in A3 size or A4 size from a color printer (option).



Layout edit window



Printout examples



Data Processing Capabilities

(Depends on Contracer Model)

Calibration Measurement Mode

- Z-axis gain adjustment
- Straightness calibration measurement (This function is not available on CV-1000/2000)
- Symmetry calibration measurement (This function is not available on CV-1000/2000)
- Stylus radius measurement

General Measurement Mode

- Standard measurement: Performs generic measurement. One or multiple elements of measured data can be saved in one file.

Operation Commands

- 1. Point measurement:** Point, peak, contact, intersection, bisector-point (between elements/pieces of measured data)
- 2. Line measurement:** Line, tangent line, perpendicular, parallel line, bisector
- 3. Circle measurement:** Circle (multi-point, range, center and radius)
- 4. Position, difference:** Coordinate difference, true position judgment
- 5. Distance, angle:** Distance, groove length, step, pitch, distance reference, angle
- 6. Coordinate system setup:** Origin setup, coordinate system rotation
- 7. Calculation, statistics:** Arithmetic calculation, absolute value, square root, maximum value, minimum value, mean, sum, standard deviation, unbiased standard deviation, area
- 8. Editing of measured points:** Deletion, translation, rotation, mirror image, positioning, combination, separation, projection

Contour Tolerancing

- Nominal data creation: Function specification (line/circle/aspheric surface, etc.), CAD input (IGES, DXF), measured data conversion, text file conversion
- Tolerancing direction setting: Normal direction, X-axis direction, Z-axis direction
- Reference coordinate system translation/rotation

Note!

Functions listed below vary on some models of Contracer. Confirm specifications prior to purchase.

- Best-fit: X-axis translation, Z-axis translation, rotating direction, several kinds in combination
- Nominal value tolerancing
- Results display: Result list display, graphic display

Special Functions

- 1. Sub-part program:** Calculation procedure can be registered as a sub-part program. The sub-part program can be integrated into a part program, facilitating measurement of a batch of workpieces.
- 2. Measured data/conditions saving:** Measured data and analysis procedure can be saved in the hard disk.
- 3. Layout Edit function:** A measured profile, measurement conditions, etc., can be arranged in a form and laid out as desired. This function allows an original result report to be created and printed out.
- 4. External output of files:** Analysis results can be output in the CSV format, and therefore, can be easily accessed by commercial spreadsheet software. Also, measured data (point group data) can be output in the ASCII code.
- 5. Part program:** Measurement procedures complete with measurement, analysis, contour tolerance judgment, print, and save as a file, can be registered as a part program. The part program can be executed for automatic measurements.
- 6. Polar coordinate development display:** Develops a circular form on to the polar coordinate system, where the range for circle calculation can be specified.

Recommended PC Environment

PC type	IBM PC-Compatible
CPU	Processor: Intel Pentium4 2.4GHz or faster Memory: 256MB or more Hard disk: 20GB or more I/O port: RS-232C OS: Windows® NT4.0/2000/XP
Display	15" TFT monitor
Peripherals	Keyboard Mouse Printer



JSAQ-052
ISO 9001

Mitutoyo

Made to Measure

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