Mitutoyo

Automatic measurement program generation software for CMMs
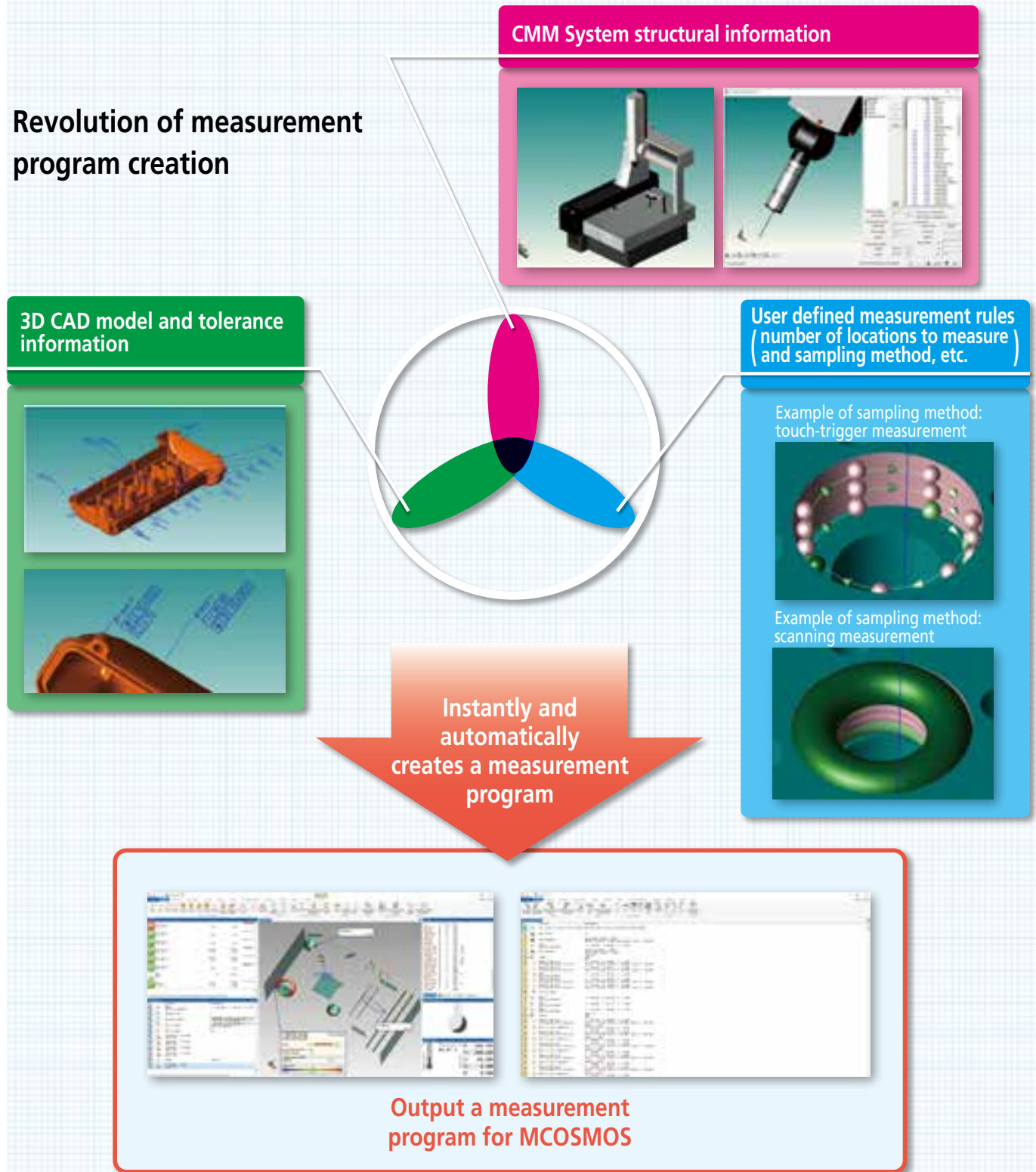# MiCAT Planner

Mitutoyo Quality

Revolution of measurement program creation

COORDINATE MEASURING MACHINES

Mitutoyo

Revolution of measurement program creation

CMM System structural information

3D CAD model and tolerance information

User defined measurement rules (number of locations to measure and sampling method, etc.)

Example of sampling method: touch-trigger measurement

Example of sampling method: scanning measurement

Instantly and automatically creates a measurement program

Output a measurement program for MCOSMOS

FEATURES

1 Adding tolerance information* to the 3D CAD model and clicking once are all it takes to automatically generate a measurement program with MiCAT Planner.

    * The 3D CAD model's Product Manufacturing Information (tolerance information) can also be used.

2 Through its optimization function, the software estimates the shortest route for measurement with the minimum of probe repositioning and tool changing, and creates a program that enables measurement in the minimum possible time.

3 Utilizing the rule editor function to set the measurement rules prevents variation in measurement quality between program writers. Furthermore, the rule editor function allows you to accumulate measurement know-how so that anyone can use it to conduct fully automatic program creation.

Screen setups and features

MiCAT Planner screen setups offer simple interfaces such as 3D view and plan view, thereby enabling intuitive operation. The placement and window sizes of the interfaces can be freely customized.

3D view
Full-color graphics show:
· Measuring machine details
· CAD model with tolerance
  information
· Measurement points and
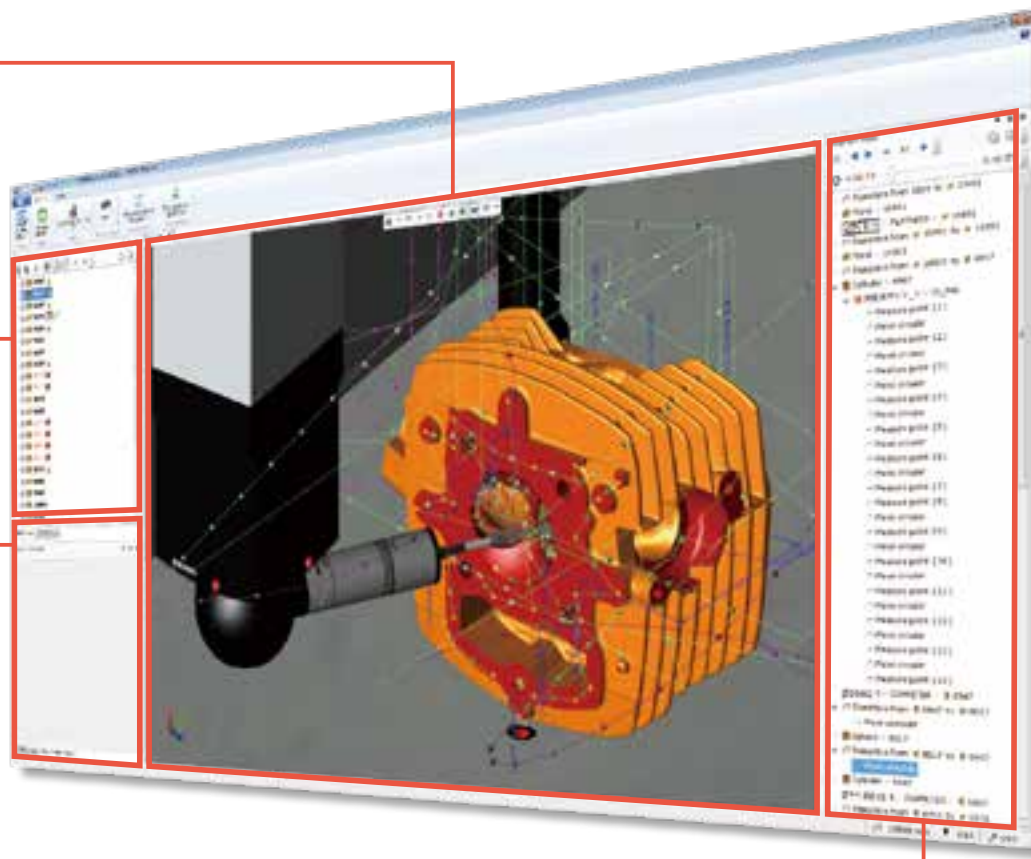 measurement paths
· Measurement animations

Plan view
· Shows lists such as measurement parameters and tolerances.
· Lets you flag measurements and assessments using check boxes.

Properties view
You can change the names of parameters, tolerance items and measurement points, and edit measurement points for individual parameters.

Program view
· Shows measurement details and measurement estimation times.
· Enables animation of measurement programs in 3D view.

Case study

1. Conventional method

Compare the measurement part-programming time for a test piece.

1-1) Programming in 2D drawing: **approx. 45 to 60 minutes**

1-2) Programming using 2D drawing + 3D CAD:
  approx. 15 to 20 minutes

2. With MiCAT Planner

Create with **MiCAT Planner** (using 3D CAD model + PMI):
approx. 3 minutes!

Note: The measurement rules are defined in advance.

Part-programming time
Reduced by up to 95 % !!

Guarantee a **dramatically reduced development phase** and at the same time improve product quality.

Supported CAD formats*1)*2)

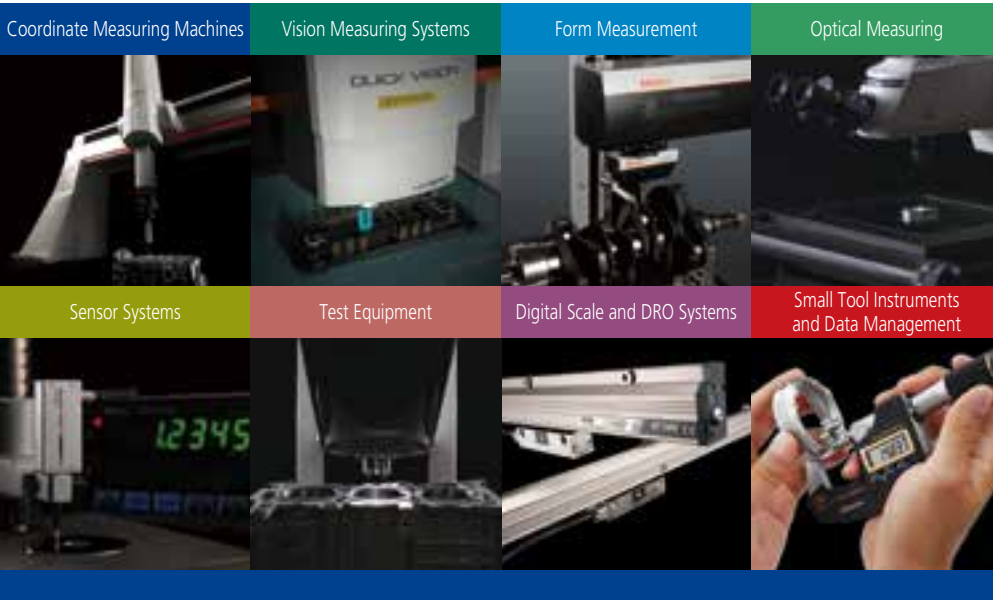| CAD format	Extension
ACIS	.sat
STEP	.step / .stp
NX*3)	.prt
Creo Parametric (Pro/E)*3)	.prt / .prt.*
CATIA v5*3)	.CATPART
Solid Works*3)	.sldprt

*1) For information about supported CAD versions, contact your local Mitutoyo sales office.
*2) A 3D CAD model of the part is required. Assembly data is not supported.
*3) Option

Supported languages

Japanese, English (US/UK), German, French, Spanish, Portuguese, Italian, simplified Chinese, traditional Chinese, Korean, Polish, Czech, Dutch, Turkish, and Russian

Coordinate Measuring Machines	Vision Measuring Systems	Form Measurement	Optical Measuring

Sensor Systems	Test Equipment	Digital Scale and DRO Systems	Small Tool Instruments and Data Management

**Whatever your challenges are,
Mitutoyo supports you from start to finish.**

Mitutoyo is not only a manufacturer of top quality measuring products but one that also offers qualified support for the lifetime of the equipment, backed up by comprehensive services that ensure your staff can make the very best use of the investment.

Apart from the basics of calibration and repair, Mitutoyo offers product and metrology training, as well as IT support for the sophisticated software used in modern measuring technology. We can also design, build, test and deliver measuring solutions and even, if deemed cost-effective, take your critical measurement challenges in-house on a sub-contract basis.

**Find additional product literature
and our product catalogue**

https://www.mitutoyo.co.jp/global.html

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