

Renishaw OMV



Simple

Point-and-click feature selection,
simple graphical reporting



Time saving

Check your machined parts fit
the CAD model – before leaving
the machine!



Innovative

Comprehensive, customisable,
graphical and textual
data reports

Renishaw OMV

CAD Import

Renishaw OMV supports all the major 3D model types importing into its proven CAD manipulation engine. The model is displayed from any angle and can be viewed in solid, in wireframe, or even transparently. Full support and manipulation of CAD levels allows sections of the model to be hidden when not required.

- AutoCAD
- CATIA V5*
- Cimatron*
- VDA/FS
- IGES
- Parasolids*
- ProE2000i2*
- ProE2001*
- ProE2001i*
- SDRC – Ideas*
- SET
- Solid Edge*
- Solid Works*
- STEP
- WildFire*

* Additional charge applies

What is Renishaw OMV?

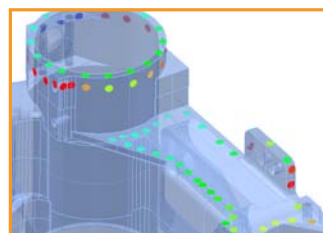
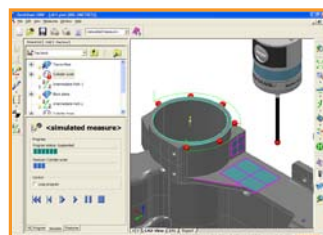
Renishaw OMV is a Microsoft Windows™ compatible software package, which allows you to perform verification processes using your machine tool.

With Renishaw OMV, you can:

- Save time and money by verifying the part before moving it from the machine
- Verify free-form surfaces and geometric features
- Display captured data on the CAD model
- Produce clear and detailed graphical reports

Simple graphical reports and an on-line results display give you an instant indication of the match of your part to the CAD model, allowing instant Go/No-go decisions. Renishaw OMV also features comprehensive best fit and alignment functions, to minimise the set-up time required when returning parts to the machine after an external process. In most cases, a rough set-up of the work co-ordinates is enough to give accurate, repeatable results.

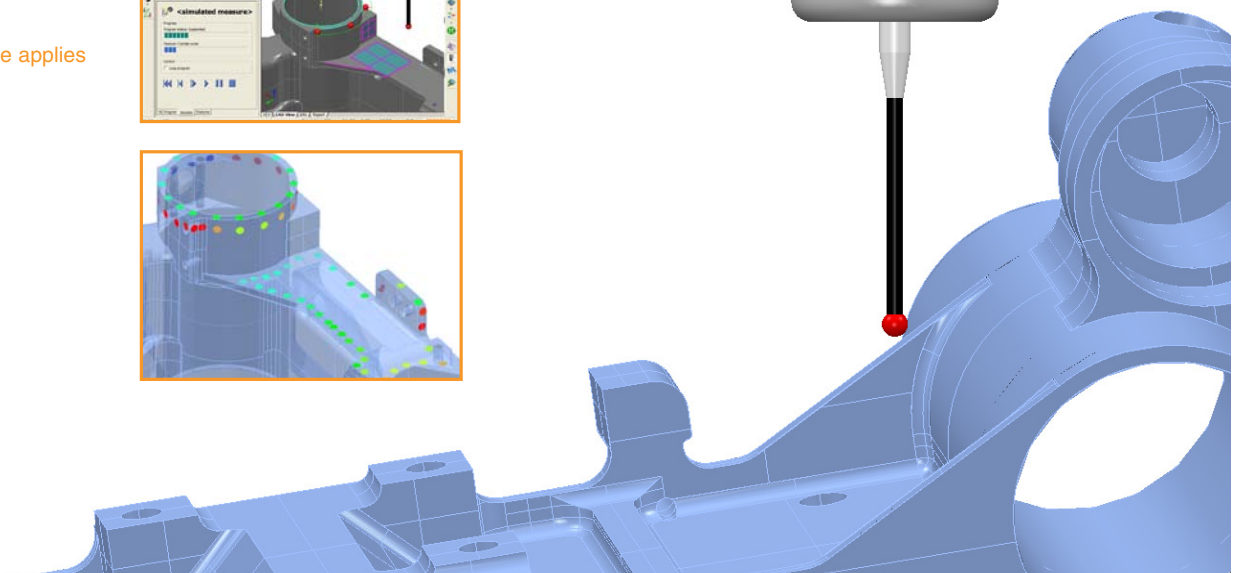
Renishaw OMV probing cycles can be produced and simulated in the design office, increasing confidence on the shop floor and reducing prove out time. No direct PC connection is required to run the generated program on the machine tool; the points collected can be read back into the machine using a floppy disk, Ethernet, or RS232. Renishaw OMV can also be used to give immediate feedback on the object tolerance by displaying colour-coded points on the CAD model.



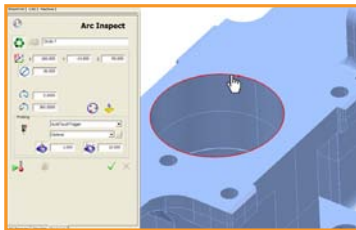
Supported machine controllers

Renishaw OMV supports most major machine controllers through its versatile post-processing system. If you are using a customised system, additional software is included to allow the output to be tailored to your needs. If your controller type is not listed, please contact us:

- Fanuc
- Haas
- Heidenhain i530 (controller option required for optimum performance)
- Hitachi Seiki
- Makino
- Mazak ISO
- Mitsubishi Meldas
- Mori Seiki
- Selca
- Siemens 840D
- Yasnac



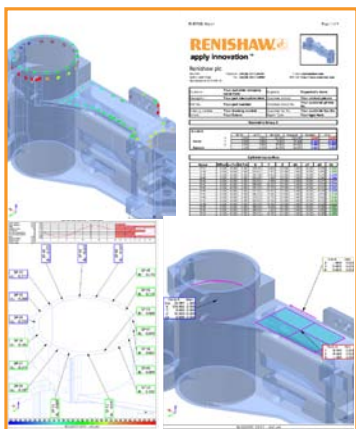
On Machine Verification



1. Select - Verify geometric and free-form surfaces with only a few mouse-clicks



2. Measure - Use Renishaw probing systems to take repeatable measurements from your part



3. Report - Generate easy-to-understand graphical reports, and export measured values in HTML or Microsoft Excel™ format.

Renishaw OMV features - three simple steps...

1. Select

Renishaw OMV allows you to program the entire verification cycle on the PC, before using it on a machine tool.

When creating your verification routine, you can:

- Select 2D or 3D features with a single click
- Use automatic or manual probing routines for geometric shapes
- Select free-form surfaces
- Choose features to use for alignment
- Automatically generate a probe path
- Simulate the full verification cycle on your PC

The entire range of Renishaw machine tool inspection probes is supported in Renishaw OMV, and new styli can be constructed on the fly, using the supplied database of Renishaw parts. Renishaw recommends the use of the high accuracy strain gauge OMP400 and MP700 probes which give accurate, repeatable results and reduce calibration times.

2. Measure

The program you create is converted into a specific language for your machine controller, using a customisable postprocessor. It is then loaded into the controller using your usual method. All moves near the part are probe protected, so you are certain of safe operation.

Renishaw OMV uses stored calibration data from Renishaw probe qualification routines, to give the best possible metrology performance.

Renishaw OMV can use serial line, Ethernet, flashcard, or floppy disk to read the collected data from the machine. When using RS232, instant feedback during point collection indicates whether the part is within acceptable limits by displaying coloured tolerance indicators on the CAD model.

Using powerful alignment and best-fit algorithms, Renishaw OMV can calculate the closest fit of your part to the CAD model. Next time you export a probe path, it will be updated with this new data to give you the best possible accuracy.

3. Report

Renishaw OMV produces reports in a graphical format, giving you the fastest possible recognition of data, and a visual cue to any necessary re-machining.

For more detail, structured numerical reports can be configured to display selected statistics about the part, derived from the data. The format of the reports can be configured to your needs, lending each report a professional and personalised quality.

Renishaw OMV reports feature:

- Colour-coded result data plotted back onto the CAD model
- Statistical plots of the tolerance distribution
- Detailed tabular reporting
- Customisable HTML and Microsoft Excel™ output

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Renishaw applies innovation to provide solutions to your problems

Renishaw is an established world leader in metrology, providing high performance, cost-effective solutions for measurement and increased productivity. A worldwide network of subsidiary companies and distributors provides exceptional service and support for its customers.

Renishaw designs, develops and manufactures products which conform to ISO 9001 standards.

Renishaw provides innovative solutions using the following products:

- Probe systems for inspection on CMMs (co-ordinate measuring machines).
- Systems for job set-up, tool setting and inspection on machine tools.
- Scanning and digitising systems.
- Laser and automated ballbar systems for performance measurement and calibration of machines.
- Encoder systems for high accuracy position feedback.
- Spectroscopy systems for non-destructive material analysis in laboratory and process environments.
- Styli for inspection and tool setting probes.
- Customised solutions for your applications.

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