MODUS™ IM DMIS software

**MODUS™ IM intelligent metrology software**

Put the power of Renishaw in your hands

Renishaw's MODUS™ IM software represents a step-change in intelligent metrology, with our 50 years of experience built in.

Take control of your entire process

MODUS™ IM DMIS software is built on the proven MODUS™ metrology software to provide a powerful, comprehensive inspection solution. It contains a range of applications designed for programmers, operators, data analysts and automation engineers, maximising the performance of Renishaw's Equator-X™ 500 dual-method gauge.

Renishaw's MODUS™ IM DMIS software provides a powerful method for metrology program creation. It allows you to produce individual inspection programs for parts with a wide range of complex features.
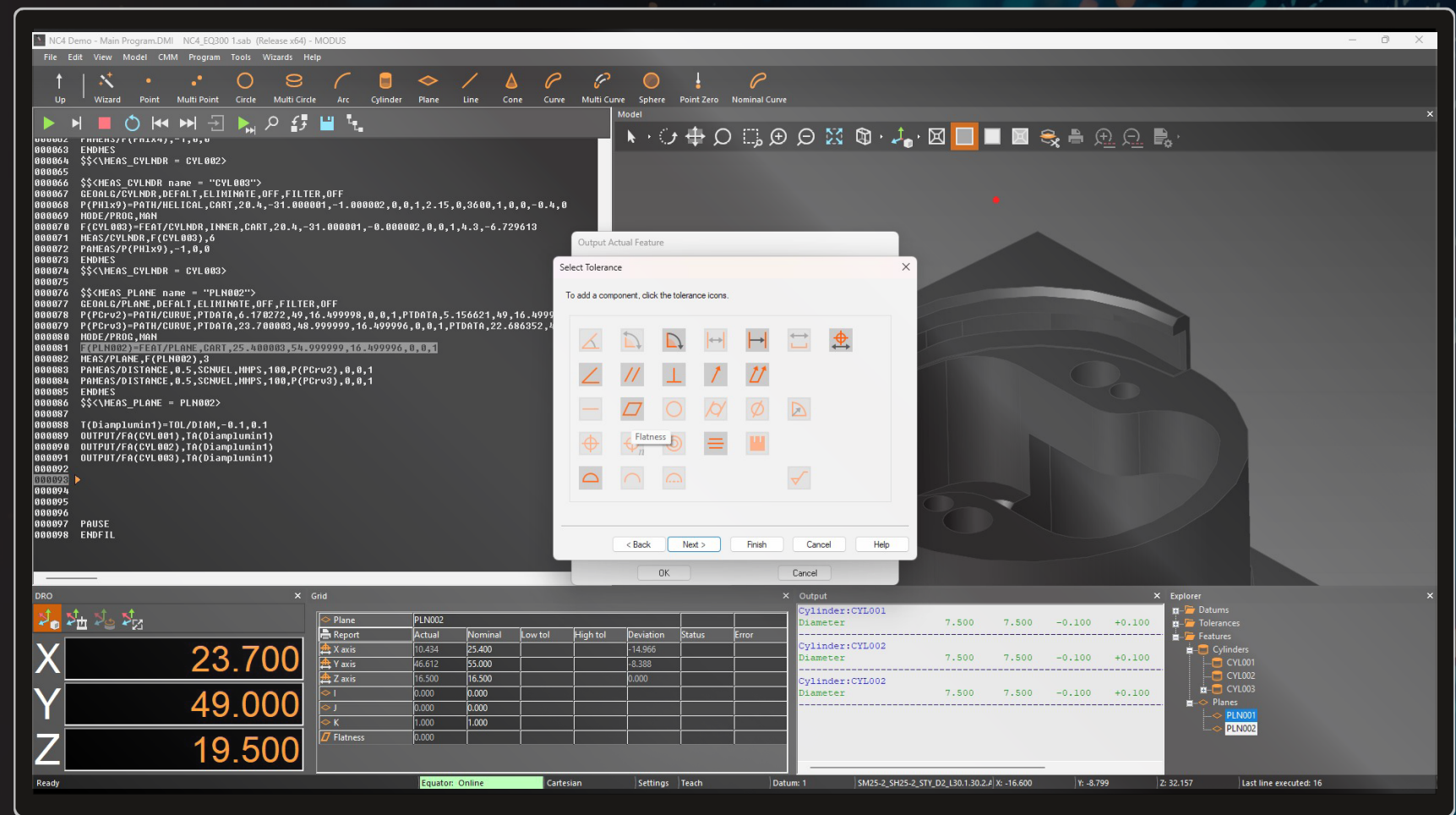
When machining large volumes of parts, MODUS™ IM DMIS software provides clear visibility of process trends and data-rich, detailed reports. You are able to consistently track part quality throughout the factory even with complex workflows and limited resources.

MODUS™ IM DMIS software is designed to maximise your productivity, throughput and yield by reducing the time taken to run tasks and improve reproducibility.

Optimised solutions for Equator-X™ 500 dual-method gauging systems

Employing the established DMIS standard from DMSC, carrying ISO 22093:2011 status, MODUS™ IM DMIS software unlocks advanced metrology solution programming for power users.

Enables both Absolute and Compare modes

Absolute mode helps you to create 100% traceable inspection programs. Create CAL files to support the Compare process. All comparison types – golden, feature/dimension, and calibration – are supported.

Access the full range of MODUS™ IM applications

Seamlessly integrates with all MODUS™ IM applications including;

- MODUS™ IM CHART, for customisable reporting

- MODUS™ IM Environment Manager to create a digital environment to manage hardware changes and system set-up

- MODUS™ IM Operator for a clear, efficient operator interface

- Renishaw Central to display and monitor machine and component metrology information across multiple installations.
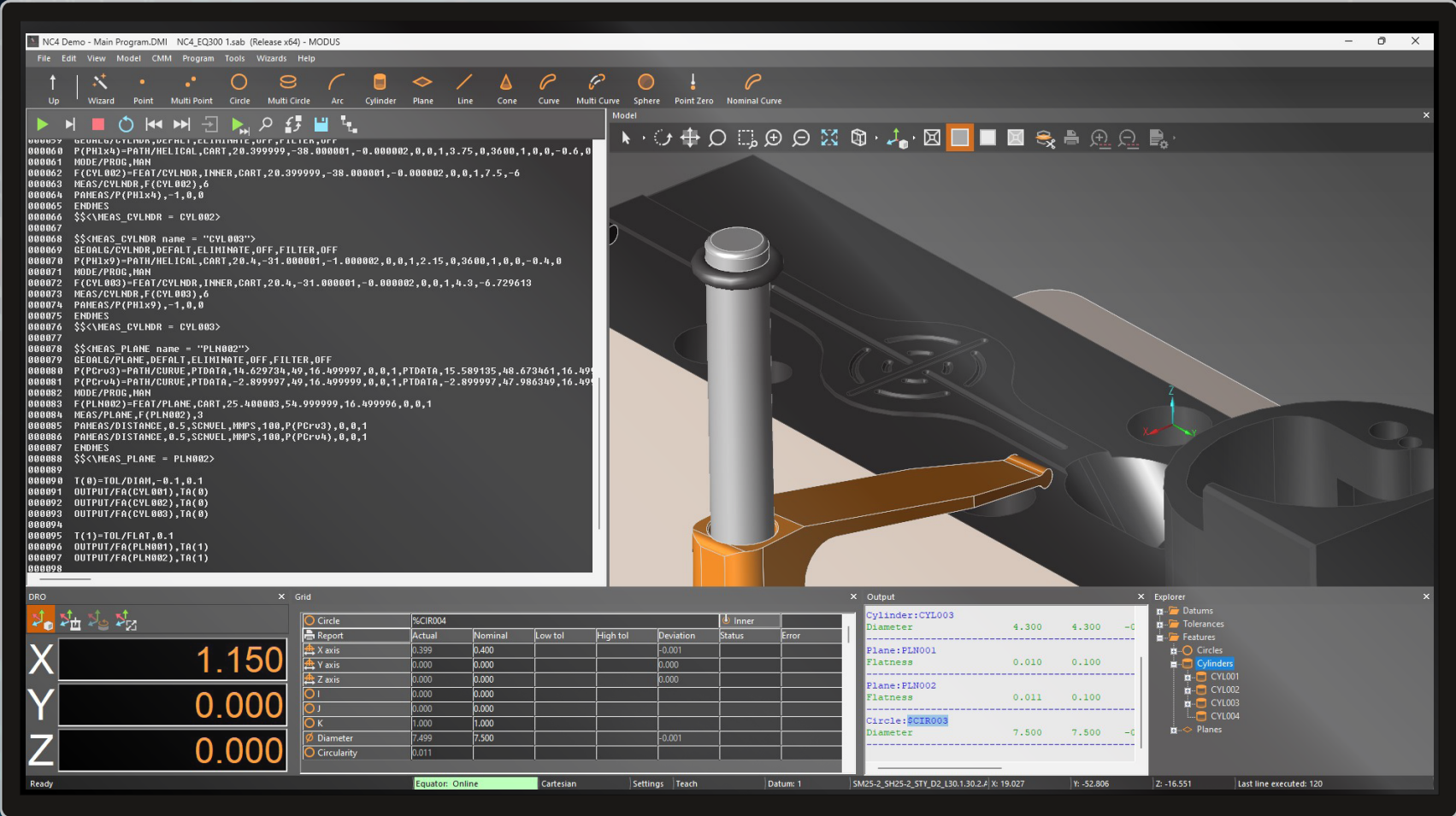
Industry-proven MODUS™ software technology

Join the thousands of worldwide customers experiencing the benefits of MODUS™ software platform.

Access your library of MODUS™ software programs

Backwards compatible with programs written in all previous versions of MODUS software. Edit and run your existing library of MODUS software programs.

Industry-standard output formats

Export data to different formats including QIF, CSV and Adobe® PDF. Output to Renishaw Central (see page 8) delivers actionable insights into manufacturing performance.

One product; many applications

Integrating a comprehensive range of applications (MODUS™ IM Programmer, MODUS™ IM Environment Manager, MODUS™ IM Operator, MODUS™ IM CHART and Renishaw Central) on a unified platform, MODUS™ IM DMIS software delivers a cohesive experience across all applications.

MODUS™ IM DMIS Programmer

The MODUS™ IM DMIS Programmer application allows you to program and run inspections for a full range of parts using the Equator-X™ dual-method gauging system, in either Absolute or Compare mode.
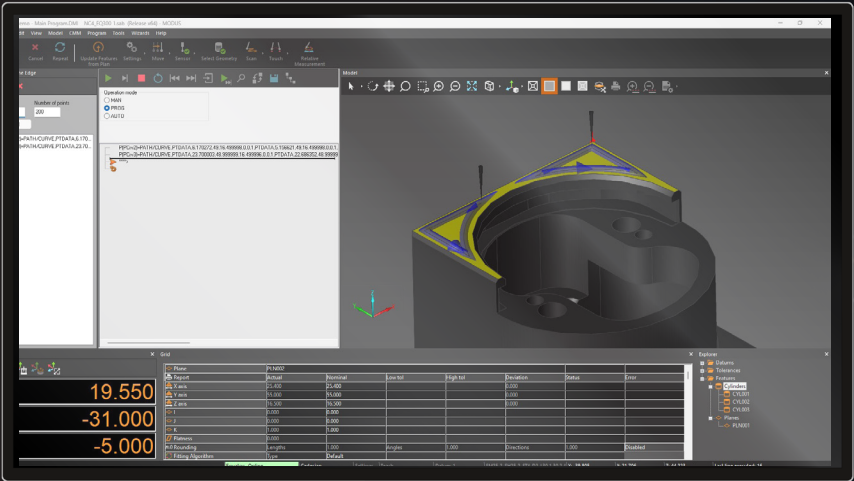

MODUS™ IM Operator

The MODUS™ IM Operator application provides an interface for operators to run programs on the shop floor. The interface links applications together, allowing users to run programs and view device data such as remaining run-time, current measurement results and pass/fail status of the previous 10 runs.


MODUS™ IM Environment Manager

All measurement machines require a digital twin to generate measurement programs and manage tool re-qualification. This digital twin environment contains the available measurement probe configurations, rack storage arrangements, calibration artefacts and other key machine information.
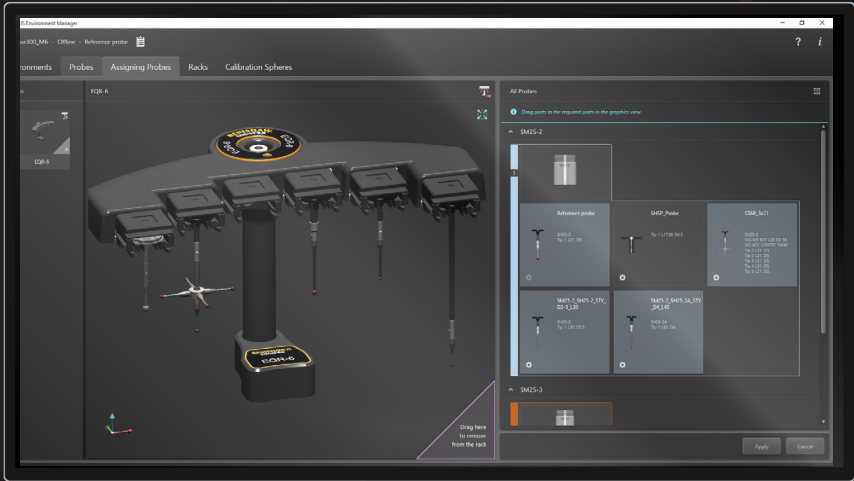
MODUS™ IM CHART

The MODUS™ IM CHART application creates Adobe® PDF reports for measurement results. All standard results tables and form plots are available, along with unique capability to superimpose plots onto a CAD model. This removes the need to interpret which feature certain results are referring to, reducing manual effort and error. Inspection results can be interrogated in detail on the CAD model post-inspection.
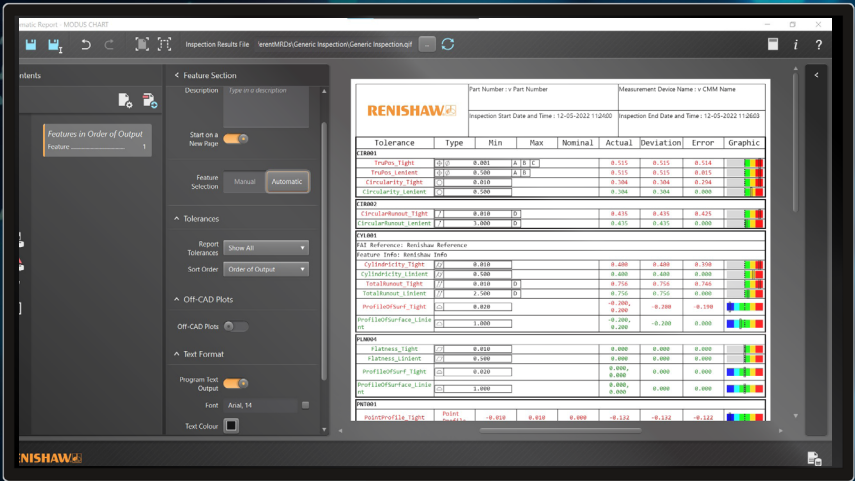
# Renishaw Central: Unlock the power of data-driven manufacturing

MODUS™ IM DMIS software also includes Renishaw Central; a smart manufacturing data platform that collects and presents accurate, actionable process and metrology data.

Today, factories are collecting and processing more data than ever before. But only those with access to the right data, at the right time, can take real advantage of the smart factory.

The result is a highly efficient and productive factory, with optimised processes, reduced downtime, minimised waste, and reduced costs.
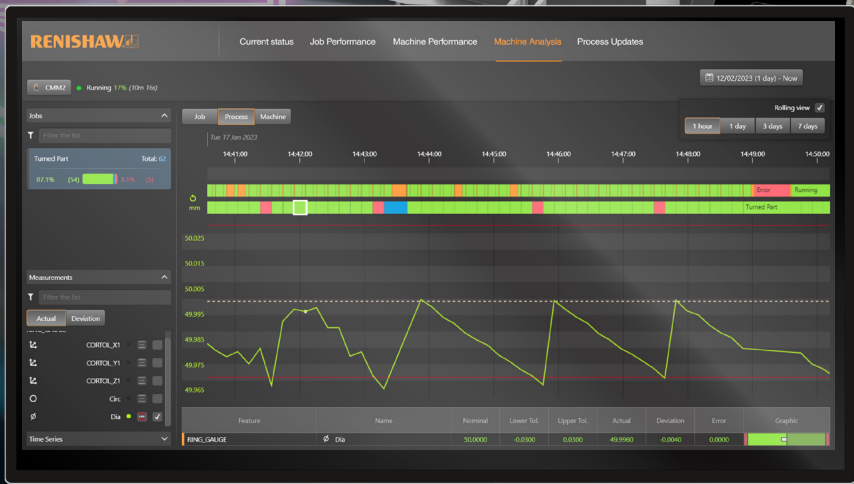
Current status

A top-level overview covering the status, alerts and outcomes of recently run jobs.
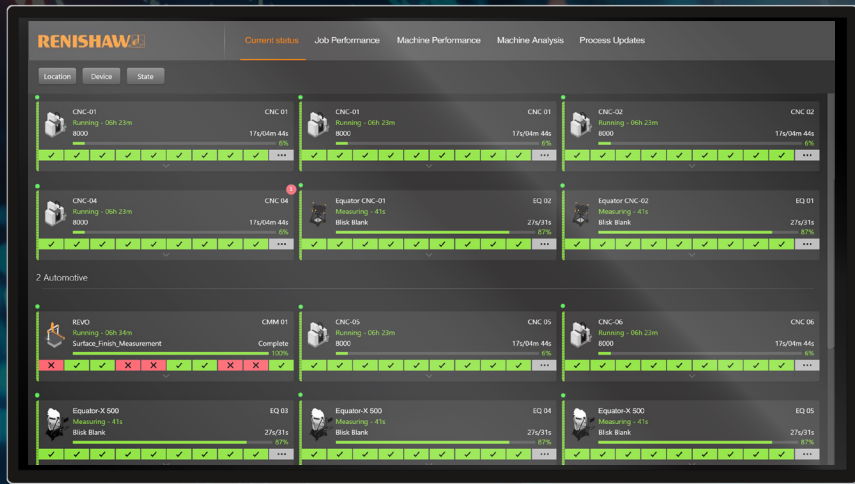
Machine analysis

Access and compare feature measurement data from individual jobs in powerful visual display

Regularly monitoring machine stoppages and errors helps streamline the production process and progress towards 'lights-out machining'.

Performance

Quickly analyse outcomes of all jobs and apply filters like pass/fail, count/percentage, total jobs, and cycle time to focus on areas of interest or concern.

You can also see an overview of completed jobs highlighting machine performance metrics, such as utilisation and any errors occurring during that period.

Intelligent Process Control (IPC)

IPC enables machine shops to leverage the data collected in Renishaw Central, and optimise manufacturing by clearly linking measurement processes to corresponding manufacturing processes.

Renishaw Central helps you monitor the active process updates managed by IPC. You can identify updated machines, and the extent and timing of applied changes.
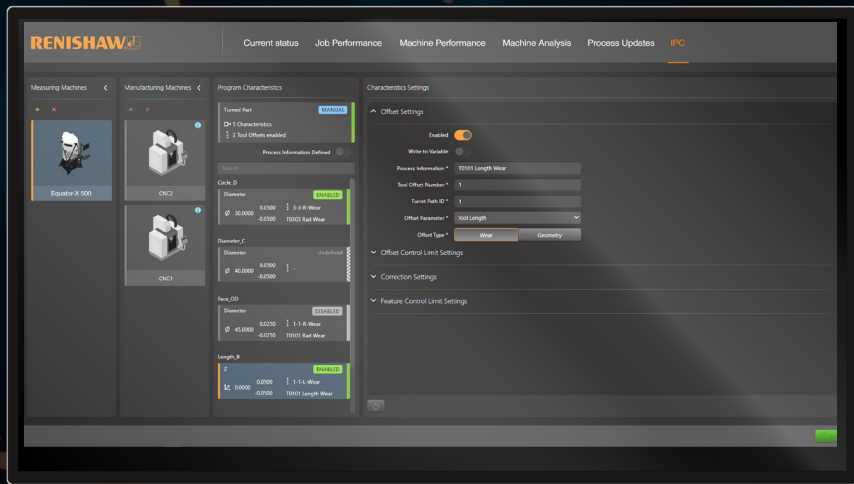
The Productive Process Pyramid™

Our data-driven approach to process control

At Renishaw, we've applied our own innovative approach to eliminating or controlling sources of variation in our manufacturing and we use our own p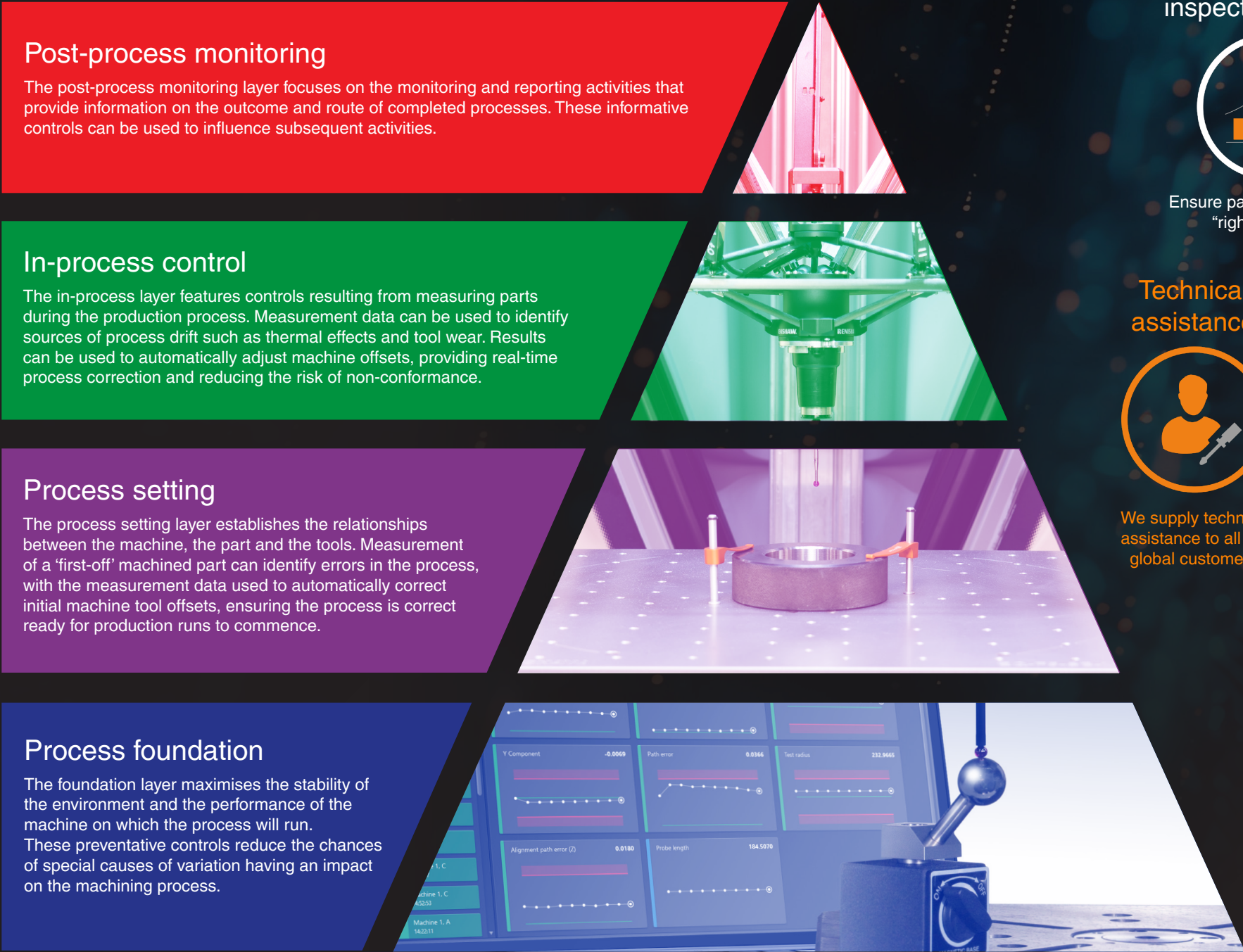roducts to address these common challenges. We've shared our learning with our customers who are now consistently producing performance parts, manufactured to tighter tolerances and with minimal human intervention.

For further details, visit **www.renishaw.com/processcontrol.**

Post-process monitoring

The post-process monitoring layer focuses on the monitoring and reporting activities that provide information on the outcome and route of completed processes. These informative controls can be used to influence subsequent activities.

In-process control

The in-process layer features controls resulting from measuring parts during the production process. Measurement data can be used to identify sources of process drift such as thermal effects and tool wear. Results can be used to automatically adjust machine offsets, providing real-time process correction and reducing the risk of non-conformance.

Process setting

The process setting layer establishes the relationships between the machine, the part and the tools. Measurement of a 'first-off' machined part can identify errors in the process, with the measurement data used to automatically correct initial machine tool offsets, ensuring the process is correct ready for production runs to commence.

Process foundation

The foundation layer maximises the stability of the environment and the performance of the machine on which the process will run. These preventative controls reduce the chances of special causes of variation having an impact on the machining process.

The Renishaw advantage

At Renishaw, we have an excellent reputation for delivering strong support to our customers through a global network of service and support offices.

Reduce scrap and rework

Monitor manufacturing process and correct for errors before they occur

Optimise your inspection process

Ensure parts are machined "right first time".

Save time and money

Produce more parts reliably and accurately.

Gauging benefits
Service and support

Technical assistance

We supply technical assistance to all our global customers.

Spares and accessories

Buy spares and accessories online or obtain quotes for Renishaw parts 24/7.

Training

We offer standard and bespoke training courses to meet your requirements.

Support and upgrades

We provide a variety of support agreements bespoke to your needs.
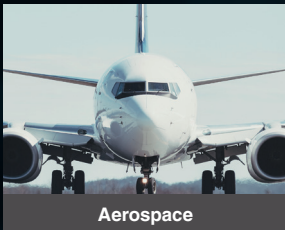
RENISHAW
apply innovation™

Applying innovation since 1973

Renishaw is one of the world's leading engineering and scientific technology companies, with expertise in precision measurement and healthcare.

Our worldwide network of subsidiary companies and distributors provides dedicated global customer support, wherever you are.
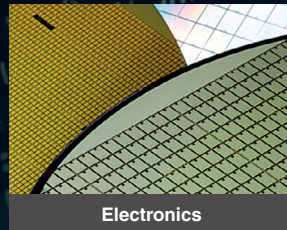
Our principal markets include:

Aerospace	Automotive	Electronics	Energy
Heavy industry	Medical and healthcare	Precision manufacturing	Scientific

www.renishaw.com/modusimdmis

#renishaw

📞 **+44 (0) 1453 524524**   ✉ **uk@renishaw.com**

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