

# CMM Inspection Execution

A web-based solution for analyzing and disseminating quality measurement information throughout your enterprise

## Benefits

- Reduce time and cost of training shop floor personnel by leveraging an easy-to-use inspection environment
- Increase operator productivity by running CMM and NC machines from the same inspection job user interface
- Improve resource utilization by running the same inspection program on different machines without requiring reprogramming
- Improve cross-discipline communications between manufacturing engineers and shop floor operators by sharing inspection results and eliminating ambiguity
- Accelerate entire product development process by using one common method to share, analyze and view inspection results on different CMM and NC machines

## Summary

Tecnomatix® CMM Inspection Execution software is a web-based solution that enables manufacturers to store, retrieve and execute DMIS inspection jobs that can be run on a shop floor's coordinate measure machines (CMM) and NC machine tools. You can use the solution to store and retrieve inspection jobs and work instructions, execute these jobs from an easy-to-use job page, monitor/analyze the job's inspection results and save these results for subsequent enterprise retrieval.



Manufacturers can use CMM Inspection Execution in conjunction with CMM Inspection Programming to establish an inspection environment where they can define and evaluate the dimensional quality of their shop floor jobs on CMM and NC machine tools.

- *CMM Inspection Programming* provides an end-to-end, offline programming solution for creating and validating inspection programs (available for NX™ software and Catia)
- *CMM Inspection Execution* executes DMIS programs generated by CMM Inspection Programming on the CMM or NC machine, improving efficiency of the job execution process

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## CMM Inspection Execution

### Features

- Ability to execute DMIS inspection programs on CMM and NC machines
- Easy graphical navigation for inspection job retrieval
- Easy review of graphical operator instructions
- Inspection results and measured data automatically stored in industry standard DML format
- Printer-friendly PDF, CSV and HTML inspection results output

CMM Inspection Execution has three advantages not found in any other competitive solution.

- A central repository stores DMIS files generated by the CMM Inspection Programming solution – as well as job results generated by CMM Inspection Execution.
- A simple-to-use web-based interface enables shop floor operators to retrieve the inspection jobs and work instructions, as well as execute these jobs/instructions on the manufacturer's CMM and NC machine tools.
- Operators are able to monitor job execution and view job results on the shop floor. A bidirectional interface between the shop floor machines and the manufacturing design environment can be leveraged to take DML measurement data back to the CAD model where inspection results can be compared against a part's design tolerances and graphically reviewed with CMM Inspection Analysis.

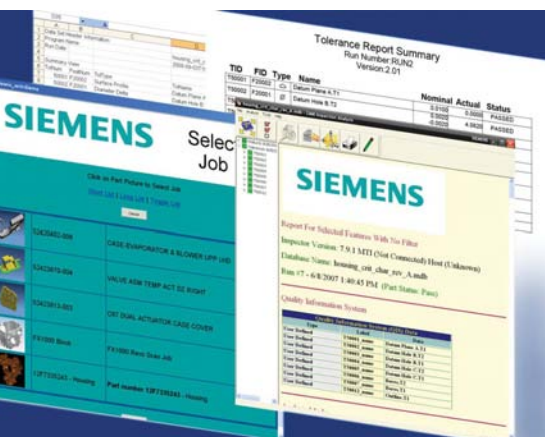
execute the inspection job at the click of a button. The solution communicates with the CMM using the Inspection PlusPlus Dimensional Metrology Equipment (I++DME) interface specification. As a result, operators use the same user interface to run CMM and NC inspection programs, regardless of the shop floor machine model.

### Graphical navigational tool for viewing results

The solution provides shop floor operators with a graphical navigational tool to view the inspection results on the shop floor, thereby enabling operators to immediately determine what issues may have affected the inspection job in question.

The solution leverages a real-time bidirectional communications interface between the CMM machines and the master CAD model in the manufacturing design environment. This interface enables the solution to perform a consistent and accurate dimensional quality analysis by comparing the inspection results against a part's design tolerances.

The solution automatically stores inspection results and measured data in an industry standard DML format. Inspection reports are generated into printer-friendly HTML, PDF and CSV formats.



### Inspection execution

The CMM Inspection Execution solution allows shop floor CMM operators to employ a common web-based user interface to access inspection jobs and work instructions that reside in a central repository. You can execute DMIS programs created via CMM Inspection Programming, as well as DMIS-compliant programs from another source. CMM Inspection Execution performs a DMIS syntactical check against AMSE or ISO standards.

Operators use a graphical job page to quickly retrieve the program they need, view its related work instructions and

Contact  
Siemens Industry Software  
Americas +1 800 498 5351  
Europe +44 (0) 1276 702000  
Asia-Pacific +852 2230 3333

[www.siemens.com/plm](http://www.siemens.com/plm)

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