

EC Data

Workpiece tracking of operating, process and quality data in complex machines and manufacturing systems

System requirements

- » EMAG machine tools with SINUMERIK 840Dsl control panels
- » ETHERNET infrastructure for connecting the machine tool (provided by customer)
- » Specific workpieces with unique identifiers (e.g. DMC) and corresponding readers at the machines; alternatively, integration in revolving workpiece carrier systems using RFID chips.
- » Server infrastructure provided by customer if necessary

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Advantages

- » Meets the requirement for data traceability
- » Logging of process and operating data for machines and manufacturing systems
- » Support for offline stations (measuring stations, batch processes, etc.)
- » Use of IT standards (Ethernet, SQL server, etc.)
- » Export function (*.xml, *.csv, Q-DAS, etc.)
- » Advanced data management, use of mobile clients
- » Simple project configuration and start-up
- » Individual adjustments possible



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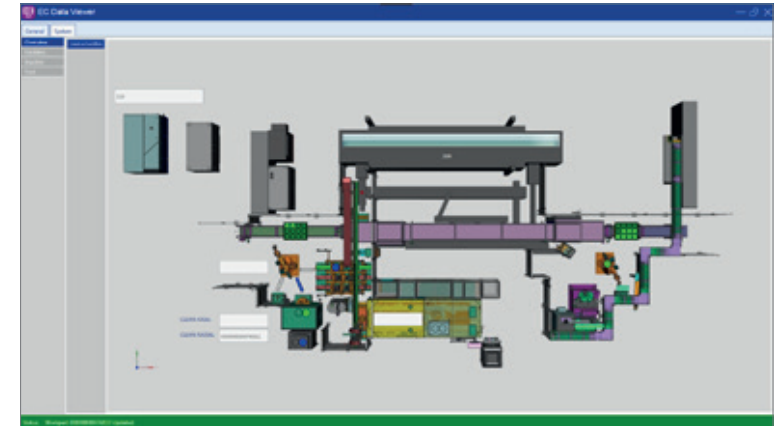


EC Data ensures traceability of production and quality data

EC Data is a software package that provides traceability of production and quality data for a workpiece. When production lines consist of several machining units, data is collected centrally and then made available on an SQL server for further processing. EC Data also provides export interfaces for Q-DAS, Excel, and many other systems.

EC Data software modules

- » EC Data NC: Software for generating the operating, process, and quality data; one required per control unit
- » EC Data PC: Collecting of operating and process data for individual machines, results visualization
- » EC Data DB: Server for data concentration and storage



Layout of a manufacturing system, including visualization of parts flow and of production status

EC Data provides traceability for every single workpiece. This includes the storage of all machining results and the documentation of operating and process data for the machines. EC Data controls the naming and data management, even across multiple manufacturing systems. The result is a history for each workpiece that includes all relevant technical production information.

Production results remain available even years later, ensuring seamless quality control and documentation. For example, workpiece identification allows parts that were removed from the manufacturing process for external quality control to be introduced back into the manufacturing process. Since the full machining history is available, the workpiece will be automatically transported to its next production step for completion.

Workpiece	Machine	Operation	Process Parameters
1000000001	1000000001	1000000001	1000000001
1000000002	1000000002	1000000002	1000000002
1000000003	1000000003	1000000003	1000000003
1000000004	1000000004	1000000004	1000000004
1000000005	1000000005	1000000005	1000000005
1000000006	1000000006	1000000006	1000000006
1000000007	1000000007	1000000007	1000000007
1000000008	1000000008	1000000008	1000000008
1000000009	1000000009	1000000009	1000000009
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1000000099	1000000099	1000000099	1000000099
1000000100	1000000100	1000000100	1000000100

Parts route through the manufacturing system, including visualization of production status for individual stations

EC Data Viewer

General

System

Workpiece

Machine

Operation

Process Parameters

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