

MCIS Tool Data Information for Teamcenter

Benefits

- Direct tool list transfer to the tool management system and controller
- Reduce production costs by optimizing tool potential
- Increase tool availability
- Reduce tool inventory costs
- Reduce machine downtime with faster setups
- Reduce scrap
- Eliminate setup errors caused by manually keying in tool offsets
- Ensure accurate tool length and diameter measurement
- Automate tool offset calculation and correction

Features

- Ability to monitor all tools
- Tool presetting and identification
- Integration of tool handling/presetting equipment
- Tool planning and usage balancing
- Controlled tool handling
- Ability to connect to external tool management systems

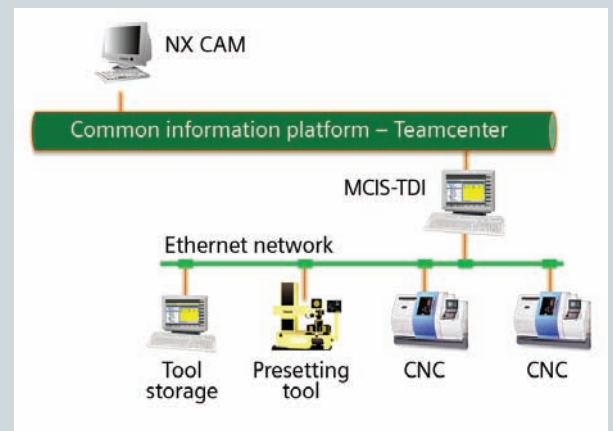
Summary

Teamcenter® software's integration with Tool Data Information (TDI) – the shop floor tool management system for Siemens' Motion Control Information System (MCIS) – ensures that the cutting tools specified in your manufacturing plan are the right tools used in production. MCIS-TDI provides electronic delivery and automated entry of machine tool setup information to increase your confidence that the right manufacturing information and equipment are in the right place at the right time for production.

Deliver a complete set of manufacturing information and tools to machining centers

Highly productive manufacturing planning and CNC operations require effective tool management. You can combine MCIS-TDI and Teamcenter to maximize your machine and tool utilization by ensuring that plan-specified cutting tools are available and set up for a specified job.

By delivering a complete package of electronic information and physical tooling for machine setups, MCIS-TDI ensures that parts are manufactured in accordance with the resources specified in the plan. The delivery of electronic tooling information automates the entry of machining data, such as tool offsets and tool life, thereby eliminating costly errors.



Transferring tool list data managed by Teamcenter to the tool management system on the shop floor for tool utilization planning and machine set up.

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MCIS Tool Data Information for Teamcenter

Standardizing planning and production tool libraries

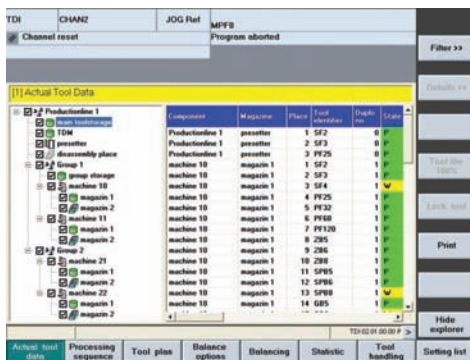
You can save time and effort by ensuring that NC programmers and manufacturing planners utilize resources that exist on the shop floor and standardizing the range of cutting tools in the planning library with those on the shop floor.

Delivering tooling requirements to the shop floor

The planning data generated by NX™ CAM software and managed by Teamcenter includes the tool list for each job, which can be read into the MCIS-TDI tool management system. MCIS-TDI uses the tool list to prepare the tool utilization plan.

Managing tools on the shop floor

You can increase tool availability by using MCIS-TDI to analyze and issue a report that provides a complete overview of all existing and required tools at any time. By integrating with your tool storage systems, MCIS-TDI is able to locate a tool – whether it is in storage, in a magazine or on a spindle – when it is needed.



Viewing an overview of all tools on the shop floor in a simple tree list structure with MCIS-TDI.

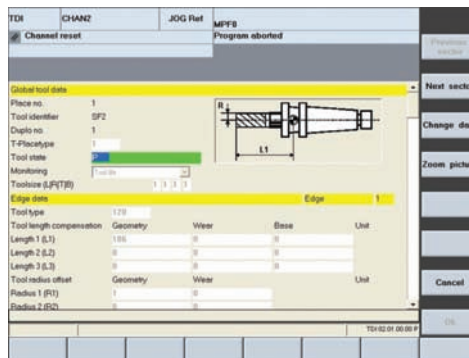
The MCIS-TDI application provides a simple tree structure, which is useful for taking

inventory and organizing tools based on their location within cabinets, cribs, temporary storages, tool magazines and spindles.

Monitoring tools

By leveraging an integrated tool management and tool identification system, you can monitor tool life for each individual tool. You can automate measuring and inspection with a networked presetter station to capture important tool preparation data, including tool length, diameter, corner radius, service life, cutting edge quality and then calculate offset and remaining cycle times for each tool and insert.

MCIS-TDI supports many tool carrier types, including Moby, Balluf, Bilz and Barcode. The chip/bar-code on the holder is used to identify and track the tool.



Using MCIS-TDI to manage and view tool parameters including tool offset, cutting edge and tool life.

Planning tool utilization

You can plan production runs on the basis of tool availability and remaining tool life. Machining time can be balanced between multiple tools. Machining operation times and the required number of tools to

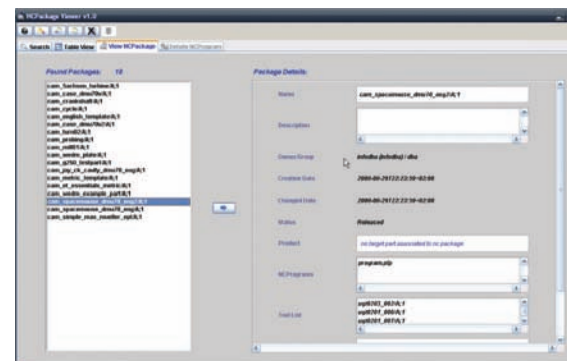
complete a job are calculated based on the simulation of the NC program. Insufficient or missing tools can be replaced in advance of production runs.

Setting up the machine

You can visualize tool lists and tool states to ensure proper loading on machines for upcoming jobs. MCIS-TDI also can control loading/unloading of tools at the machine with automatic entry of tool offset information on the controller.

Scaling the solution to your needs

MCIS-TDI scales to support a wide range of production requirements. You can start with a shop floor tool management solution that connects to the presetter for tool data transfer and loading/unloading of tools on a single machine. Or you can extend the manufacturing infrastructure to manage tools for the entire production facility while also connecting to the Teamcenter planning system for direct transfer of planning data to production.



Using the NC Package Viewer to search for and visualize manufacturing data managed in Teamcenter.

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