# **Shop Floor Connect for Teamcenter**

#### **Benefits**

- Control distribution of the manufacturing plan data right to the point of use
- Maintain transparency across the manufacturing organization
- Meet regulatory compliance constraints on traceability
- Eliminate separate shop floor databases
- Provide process accountability by documenting the production processes.

#### **Features**

- Download and upload NC data and tool target data tol from NC controllers
- Upload shop floor programmed NC programs in Teamcenter
- Upload and administer machine parameters in Teamcenter to ensure security
- Connect to all types of NC controllers and tool presetters
- Connect through a serial (with adaptor hardware) or Ethernet interface at the NC controller
- View all Teamcenter manufacturing information via a browser based interface

#### Summary

Shop Floor Connect for Teamcenter is an application add-on for Teamcenter® software that delivers CNC program files from Teamcenter directly into the machine controller. More than just a traditional DNC system, the connection to the centralized Teamcenter database avoids data duplication and manages revisions to make sure the correct manufacturing data is used on the shop floor. It also enables your production staff to access current and released CNC programs, drawings, 3D models and other data sources through a web-based user interface that runs on any browser-enabled device or controller.

#### **Connection to Teamcenter**

Shop Floor Connect for Teamcenter is an application that communicates directly with Teamcenter, Siemens PLM Software's comprehensive system for managing product lifecycle management (PLM) data and processes from design and engineering through production.

Teamcenter provides an environment that you can use to manage product and process definitions, data files and resources. It maintains workflows and roles for users who work in process chains, as well as tracking capabilities for monitoring document revisions and release status.

Unlike traditional direct numerical control (DNC) systems, Teamcenter eliminates the need for an independent shop floor database; its data remains within a controlled environment until it is sent to the machine tool. Shop floor users can see the source data while it remains



## PLM Software



### **Shop Floor Connect for Teamcenter**

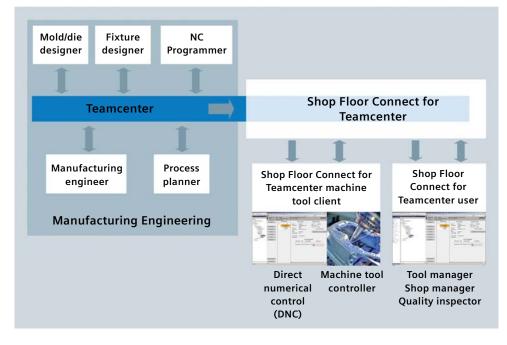
#### Features continued

- Leverage a configurable user interface that determines user roles and rights, as well as appropriate uploading and downloading permissions
- Data logging of all activities with a configurable activity report
- Import legacy production data

inside the Teamcenter managed environment. Data files needed for production can be pulled directly to the point of use in a controller or presetter.

By providing the shop floor with direct access to the source of manufacturing plan via a simple, web browser interface, Shop Floor Connect for Teamcenter facilitates many advantages, including:

- Use of the correct manufacturing data in production
- Fewer production errors
- Fewer shop floor delays while data is checked
- Closer connection between manufacturing engineering and production
- Secure workflow and process flow
- Elimination of local shop floor databases outside of the IT infrastructure
- Transparency to all users
- Reduced paperwork
- · Quicker, more flexible information flows
- Lower product rejection rate



## Access to manufacturing data on the shop floor

Shop Floor Connect for Teamcenter provides shop floor operators with direct access to released Teamcenter data. Using job numbers or work package identifiers, operators can locate the correct data files needed for production, including CNC programs, tool lists, set up sheets and drawings. The following data can be accessed, depending on what has been stored as a part of the manufacturing plan and released for use in production.

- NC programs
- Tooling lists
- Shop documents
- Digital photos
- Operating instructions

- Assembly instructions
- Drawings
- 3D models (JT™ format)
- Tooling setup data
- Movie files

#### Saving and managing shop floor data

When CNC programs are created, modified, or optimized by the production team, they can be saved and maintained by Teamcenter as new data or revisions to existing data.

#### **Process consistency**

Teamcenter workflows and user rules can be implemented to ensure that processes are followed correctly and consistently.

#### Traceability

Teamcenter maintains usage logs and generates audit reports, making it easy to understand where and when data is accessed, downloaded or updated and by whom.

#### Compliance

Managing data in the Teamcenter secure and controlled environment right up to the point of production helps companies meet applicable regulatory requirements for process accuracy/accountability, detailed traceability and auditing.

#### **Machine connections**

Shop Floor Connect for Teamcenter can provide a direct connection to each machine in the shop. Machines connect via Ethernet or through serial connections (using a separately available serial adapter). Most proprietary control systems can be connected.

Tool presetters also connect directly to take advantage of tooling and resource information from the Teamcenter database.

#### Touchscreen ready

Users appreciate the large format buttons and interface elements of Shop Floor Connect for Teamcenter, which make touch screens easy and natural to use. In addition, the browser-based user interface runs on web browser applications that users already understand.

#### Comparison tool

Users can install third-party file comparison software within the Shop Floor Connect for Teamcenter environment so that they can check and evaluate different versions of their data files.

#### Legacy data import

Users can easily import legacy production data into the Teamcenter database by using automatic options that facilitate the loading of tooling data and NC programs.

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