MCIS Direct Numerical Control for NX CAM
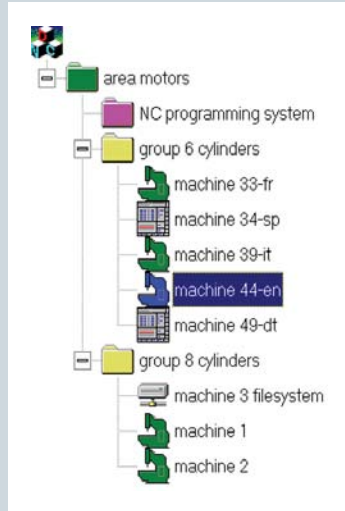
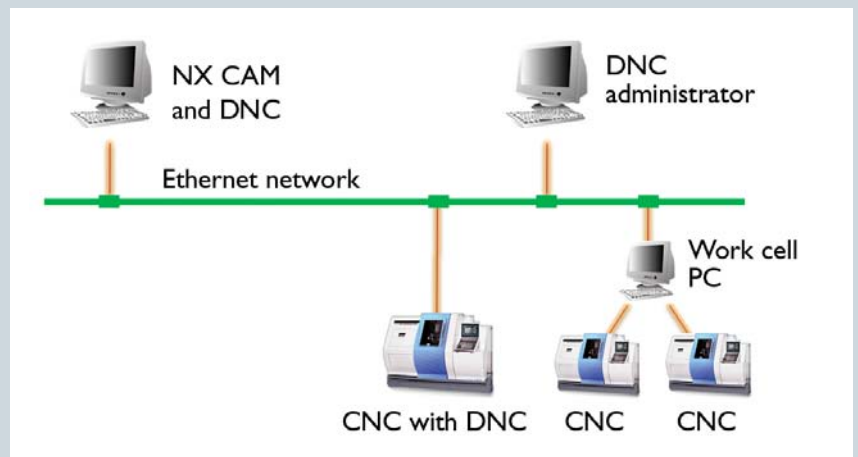## Connect NX CAM output directly to CNC machines

Benefits
- Reduce NC data management costs for the shop floor
- Leverage user-friendly interface to manage NC programs
- Reduce setup times
- Automate NC program transfer to the machine tool
- Keep NC data safe and backed up
- Use Siemens' SINUMERIK controllers without any additional hardware
- Scalable to production requirements

Summary
NX™ CAM software uses direct numerical control (DNC) connections from Siemens' Motion Control Information System (MCIS) to provide CNC file control to the shop floor. By directly linking CNC machines to NX CAM files, DNC enables NC programmers, shop floor managers, and machine tool operators to easily organize, manage and transfer the correct NC programs to specified machines.

Connecting NX CAM data to the shop floor DNC system for transfer to CNC machines.

Using MCIS-DNC Explorer to manage NC programs and related files on the shop floor.

NX machining and manufacturing solutions combine to ensure that parts are manufactured on-time and to specification by helping planning and production departments to work together more efficiently with the right data. The MCIS-DNC system can be configured to automatically transfer NC program files posted directly from NX CAM to the proper machine tools on the network. This gaurantees that the right NC program is always loaded on the right machine.

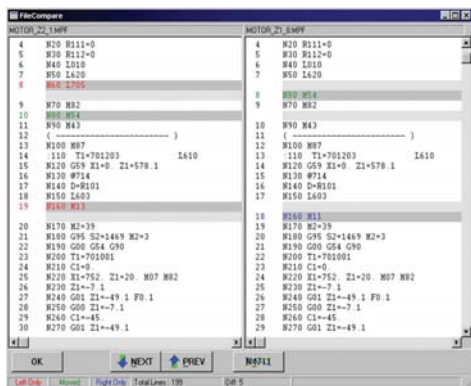### Automatically route NX CAM data to the shop floor
You can generate enhanced NC programs from NX CAM that include special instructions the DNC system can use to automatically route programs to specified machines and operators on the shop floor. NC files can include

NX

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MCIS Direct Numerical Control for NX CAM

Functionality
- Centralized NC program management for the shop floor
- NC program transfer to the machine tool via Siemens' SINUMERIK HMI or DNC computer
- Ability to verify and compare NC program
- Automatic NC data backup
- Configurable user profiles and functions
- Ability to connect to Siemens' SINUMERIK and non-Siemens' CNC controllers

Comparing NC programs at the machine tool or at the DNC computer.

instructional information such as machine name, program name, data type, version number, release number and user name.

DNC for the NC programmer
NC programmers can use the DNC system to see which programs are loaded on the machines (for machines equipped with the Sinumerik 840D controller). To keep incomplete programs from releasing to production, NC programmers can place a "hold" on programs that are undergoing edits. NC programmers can see how often specific programs are used and which programs have been changed on the shop floor, as well as the specific edits.

Managing NC data on the shop floor
You can centralize control of manufacturing plan information on the shop floor to reduce NC data management and tool setup costs. The DNC application provides a simple shop floor oriented file structure to organize, view and execute all types of production related files.

Connecting data to CNC machines
You can install DNC at a SINUMERIK controller human machine interface (HMI) or at a dedicated DNC computer to view NC programs, assign versions and release status to files, and transfer NC programs to controllers.

Always using the correct data
You can use the DNC to compare similar NC programs and display number of differences and color code differences. You can compare released programs loaded on the SINUMERIK controller to those in the DNC archive.

Keeping data safe
DNC enables you to keep shop floor data safe, backed up and properly controlled. Lost and mismanaged NC data can cause expensive consequences. DNC provides automatic data backup capabilities to keep NC programs, subprograms and user cycles archived on a scheduled basis.

Configuring user profiles
You can configure DNC user profiles and the application interface to support specialized processes with functions to display, verify, compare, edit, print, copy, paste, delete and execute files.

You can use DNC to prevent unplanned modification and release of NC programs. You can configure user profiles to allow full or restricted access to information and functions.

Scalable solution
You can start with a cost-effective DNC solution for a single SINUMERIK controlled machine, add a small group of machine tools, or extend the manufacturing infrastructure to the entire production facility.

DNC is a Windows-based client-server system that works with both Siemens' and non-Siemens' controllers. DNC with non-Siemens' controllers is able to:
- Distribute data to/from the controller
- Compare NC programs on the DNC computer
- Back up data on the DNC computer