

# Networked DNC

- Microsoft Windows based
- Uses standard PCs and networks
- Supports up to 8 machine tools from each shop floor PC
- Storage and display of all manufacturing data for each job
- Access controlled text and graphic file viewing
- Graphic file status control
- Quality level DNC with full control and management
- Simultaneous drip feed for all connected machines
- Viewing of web based HTML files
- 8 level user access control
- Compares and manages edited NC programs
- Log books recording each NC program transfer
- Supports Windows "short cuts"
- Links to PDM, MRP and Tool Management Systems
- Optional customisation via unique "script" facility
- Optional display of "work to lists" for operators

The SEIKI SYSTEMS Networked DNC System has been specifically developed for those users who require a high level, easily managed system for shop floor communications.

The system provides for the controlled transfer of NC files and tool offsets between the server and CNC machine tools. Additionally the system enables the viewing of all the data relevant to a specific job, viewing of graphics files and a 8 level user access control.

The software is installed on the server and on each PC networked to the server (via any Windows compatible network). The shop floor PCs accesses files or folders stored on the server under machine related directory names for each machine tool connected, i.e., as configured in the standard Microsoft Explorer.

## QUALITY LEVEL DNC

NC Programs are stored on the server either in a CNC directory or as part of a job folder. On the shop floor, there is access controlled viewing and editing and the transfer to each CNC is via Status Control which includes transfer restrictions. Programs edited on the CNC can easily be returned either to overwrite the existing file or as a separate file for Management approval. Returned programs can be via user 'prompts' for auto generation of traceability files and all transfers are recorded in a log book.

## PAPERLESS MANUFACTURING - DATA DISPLAY

A text file viewing facility is included for viewing NC programs or other ASCII format files.

As an option the SEIKI SYSTEMS Multi Format Viewer can be supplied which supports: .TXT .HPGL .TIFF .BMP .DXF, etc, file formats. This viewer also includes a red line mark up facility. For further information see the SEIKI SYSTEMS Multi Format Viewer Software Technical Data Sheet.

Alternatively the Networked DNC System includes the facility to incorporate any other "command line" accessible viewer.

## EDITOR

The SEIKI SYSTEMS NC Editor is included with the system and can be installed on the Host PC and accessed by the shop floor terminals (via user access control). The NC Editor enables NC programs to be rapidly compiled / edited and any two NC files can be easily compared (e.g., shop floor edits) for a line by line comparison.

On the shop floor, the NC Editor may be used to re-start a drip fed program (eg, after a tool breakage) and includes easy appending of start up blocks, etc.

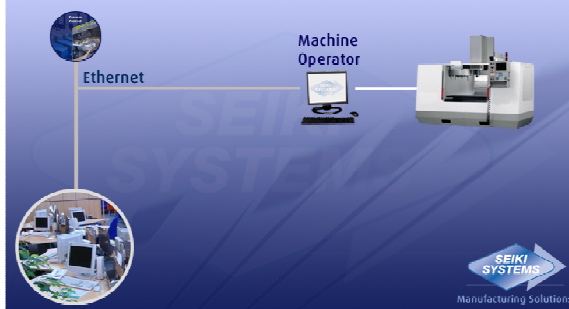
For full details, see SEIKI SYSTEMS "NC Editor Software" Technical Data Sheet.

## Technical Information

The SEIKI SYSTEMS multi port serial boards and Direct DNC Software enable simultaneous requests from each CNC

SEIKI SYSTEMS multi port boards provide for combinations of 4 and 8 ports up to maximum of 32 ports per PC.

## Networked DNC



## Individual Customisation

The Seiki Batch Script (SBS) facility is included to enable individual customisation. Examples include, deviation logging, automatic revision control, auto notification of unproven program being loaded, notifying CAD/CAM in event edits are made, etc.

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## INTEGRATION and CONTROL

The system supports links (short cuts) for data common to number of job folders, e.g., component drawings. Also incorporated is a configurable graphical file status control which can be used to provide warnings for unproven programs, block access to programs until edits are approved, etc. The file "status control" can be incorporated into "links" to create an integrated manufacturing system environment. As an example, the downloading of NC files can be automatically stopped if the status of a "linked" drawing in the folder is changed.

Also included is the facility to view HTML Web based files via a secure viewer.

## ADDITIONAL INFORMATION

### 1. Drip Feeding:-

The Networked DNC Software can be used for simultaneous drip feeding of long NC files. This requires the correct setting of handshakes, etc, in the set up module and in this event the size of the file for drip feeding is only limited by the disk capacity.

### 2. Machine Tools Without RS232 Interface:-

Behind The Reader (BTR) units can be supplied to provide RS232 interface.

### 3. Security:-

The shop floor PCs do not require an external floppy disk and the Networked DNC Software can be configured to eliminate the Windows control buttons to restrict access to the DNC software only. The software also includes a 8 level access control facility with password.

### 4. Fanuc Data Server:-

The software includes auto routing of composite files for machines equipped with a Fanuc Data Server.

## GROWTH

1. A "job queuing" system can be incorporated into the Networked DNC System. The job queues can be either the direct output of an MRP or manually created. For further information see SEIKI SYSTEMS Job Queue Management Software Technical Data Sheet.

2. The Shop Floor Terminals can be configured to request data from a EDM or PDM type system. For further information, see Seiki Systems "EDM / PDM Shop Floor Interface" technical data sheet.

3. The Networked DNC System can be upgraded to the Networked Manufacturing System. This system incorporates a data collection / analysis facility. The data collection can include current job, unproductive events, etc with the data being stored for Analysis. For further information see SEIKI SYSTEMS Networked Manufacturing System Technical Data Sheet.

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