Press Release

November 8, 2007

Development of the "Machining Program Automatic Transfer System" using Information about Workpieces from the Robot
No need for machine monitoring, will be introduced at the Chiba Campus

Mori Seiki Co., Ltd. has developed a "**Machining Program Automatic Transfer System**," which combines robots, 2D bar code readers and machines as an automated system for multi-item, small-lot production, and will introduce it at the Chiba Campus Machining Plant. It will start operation in February 2008.

Until now, machining programs have all been stored in the machine's CNC, and when the workpiece to be machined changed it was necessary to search for the required program based on the commands from the robot. All Mori Seiki's machining programs are made using CAM, but since we had to overwrite the program stored in the machine tool's CNC when changing programs or programming for a new workpiece, we used to carry the program from the office to the machine using a memory card or a USB memory. By introducing this system, it is possible to transfer new programs which are stored on the server in the office and to modify programs swiftly and accurately. It is also possible to share programs between several machines. This system has been developed based on Mori Seiki's NC program management system, the Mori-Server.

■ **Features**

1. Transfers machining programs automatically using the network

When the operators set the workpiece on the pallet, they read the 2D bar code (QR code) which is printed on the operation instructions, called a Progress Check Sheet, using a bar code reader. The workpiece information which is read is saved by the **robot control unit**, and when the workpiece is mounted in the machine tool, a command requesting the program is sent from the robot via the machine to the Mori-Server (machining program server) system. The Mori-Server system transfers the required program to the machine over the network. Since the commands to transfer the machining programs to the machine are sent to the server automatically like this, **the operators do not have to be monitoring the machines all the time.**

2. Centralized management of machining programs

By storing the machining programs on one server, **central program management** is possible. Also, it is possible to register a different program for each machine, even for identical workpieces, so when machining the same workpieces on machines with different specifications you can create and edit separate machining programs for each machine.

You will be able to see the Machining Program Automatic Transfer System, which is already in partial operation, at the **Winter Productivity Show 2007** at Mori Seiki's Chiba Campus from November 14 (Weds.) ~ 17 (Sat.).

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Machining program server

⑤When machining is finished, the machining program is backed up automatically.

②After the workpiece is mounted, the machining program is requested.

③The machining program is sent.

①The QR code on the Progress Check Sheet is read and registered in the robot.

Part No.
Machine
Qty. etc.

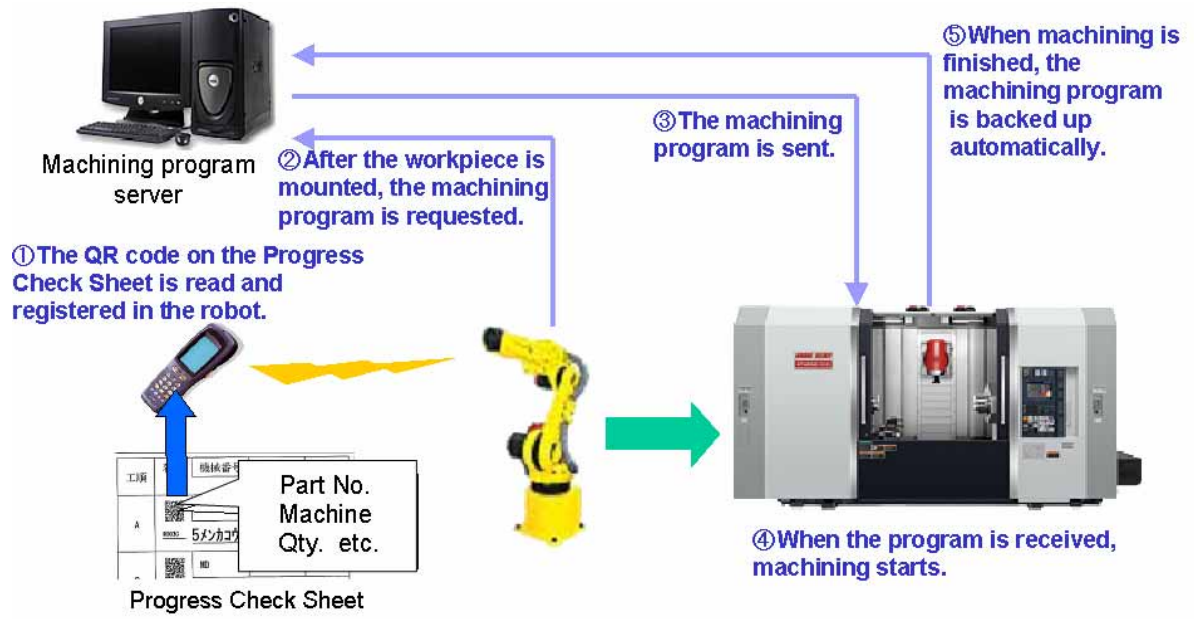Progress Check Sheet

④When the program is received, machining starts.

Diagram: Outline of the Machining Program Automatic Transfer System