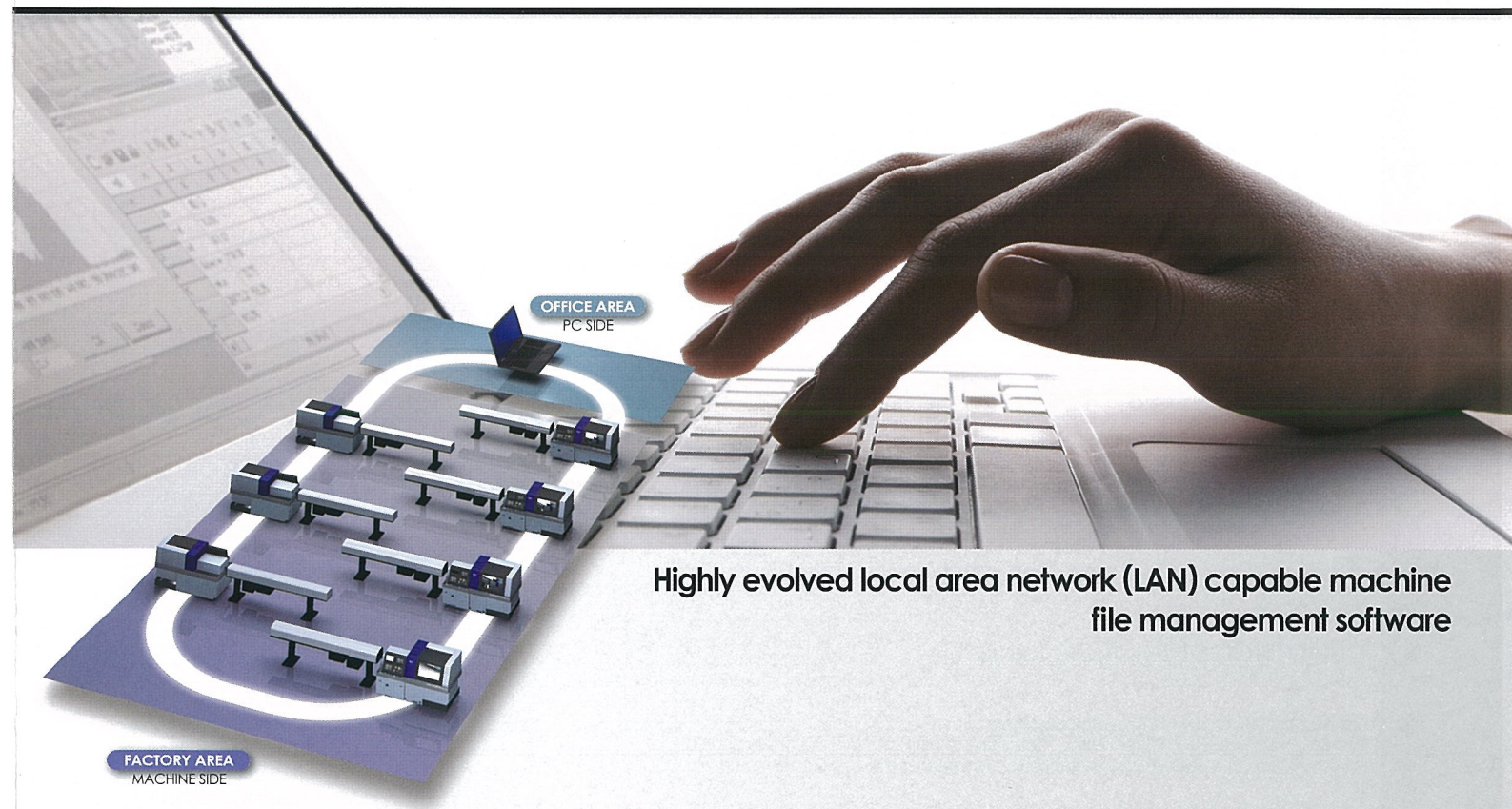




PU-Jr.

Program Utility Jr.



Highly evolved local area network (LAN) capable machine file management software

- ◎ On-line management of multiple machines with a single PC / laptop through the LAN system
- ◎ Reinforced functions of multi-channel program management including program input/output at the same time for all channels

Development of the Program Utility Jr software (PU-Jr) for editing & management of machine files continues to enhance machine file management from a desktop PC. The innovative software includes more functionality to enable efficient CNC data management.

Multiple machine management by LAN

PU-Jr., the software for rationalizing the management of NC programs through PC, is equipped with the following functions :

- Centralized management of multiple machines
- Program editing by using an exclusive editor
- Communication between PC and machine (serial / LAN)

Major functions :

- Creation and editing of NC programs
- Management of NC program files
- Transmission / reception of NC programs to / from the machine
- Management of NC programs in the machine (copy / delete / rename)
- Collection of communication history information

FUNCTION 01

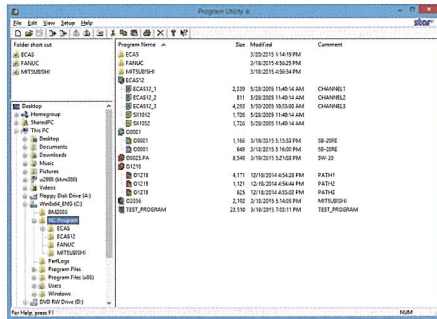
File management and communication function

● **Program management through files and folders**
 Folders can be created and managed in the same manner as using Windows Explorer for simplified program management.

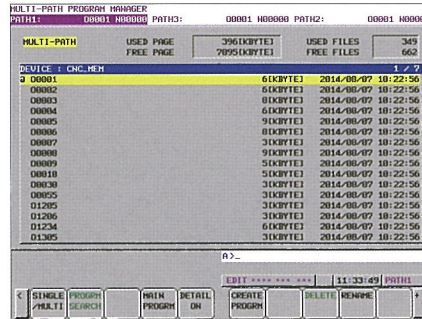
● **Reinforcement of integrated management of multi-system programs**
 By using a multi-channel program (.PA) and STAR original multi-channel program management screen, 3-channel programs can be managed as one file. By inputting / outputting a multi-channel program once, a program is input / output for all channels at one time.

● **“O number” not required for a file name**
 By naming a machining program file, using a machining part, contents of a file can be easily recognized. A comment is also attachable to display details of parts.

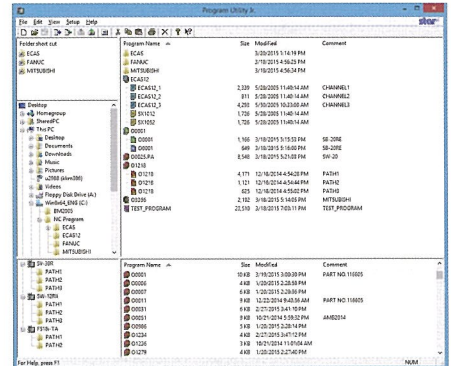
● **Management of multiple machines from the PC through LAN system**
 Multiple registered machines can be connected with a personal computer through the LAN system. Simply by operating the personal computer, NC programs can be input / output (transmission / reception by drag & drop). Program copy, deletion and name change are also possible.



Main screen



Management of multi-channel programs



Main screen with LAN function valid

FUNCTION 03

Coordinate calculation function

Coordinates required for creating an NC program can be calculated based on the dimensions described on parts drawings. Coordinate calculation is possible by selecting a shape type from the shape list (corresponding to a required coordinate) and by inputting dimension values.

● **Enhanced efficiency of various calculations**

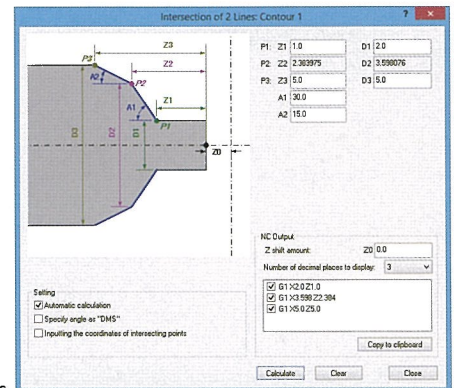
Calculation of the intersection of two linear lines, contact point of two linear lines and the circle and chamfering coordinate can be supported to improve the efficiency of program editing.

● **Paste of calculation result**

The NC program is displayed in the output list after calculation is finished. The displayed program can be copied & pasted on the program editing screen.

● **Optimization of settings according to the machine specifications**

Selection of the number of digits to display (1 through 5 digits after the decimal point) as the calculation result and switching of a specified unit (deg / min / sec) as angle specifications are possible.



Calculation of coordinates of two linear lines

Easy management of programs for multiple machines & multiple systems

Program editing function

●Screen display in pursuit of visibility (UI)

Multi-channel programs can be displayed on one screen.

●Highly functional printing for multiple channels

The multi-channel program allows printing by positioning the waiting code between systems.

●Code list function

By searching a specific code, a list can be displayed by aligning the wait codes. In case of illegal wait code format, a relative code is displayed in red.

●Template function

Frequently used machining programs are patterned to be stored and used for improving programming efficiency. Template program files can be created, saved, edited, copied & pasted, read and inserted into the editor (as well as dragged & dropped).

This function supports NC program creation and editing to allow quick and easy programming.

●Program check function

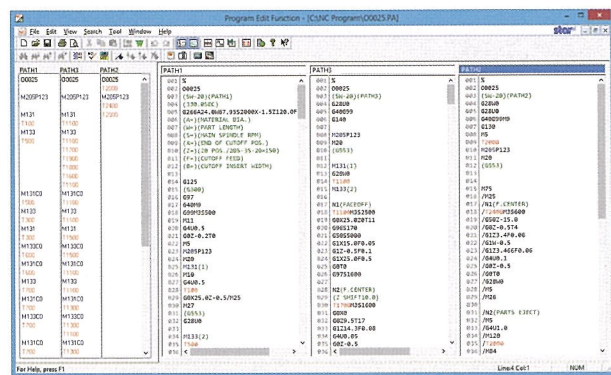
The program validity can be checked easily as below:

- Whether an uncommendable G code or M code is used for the selected machine
- Whether an M code of the same group is commanded in the same block
- Whether the waiting code and the synchronous M code is commanded correctly
- Whether the bracket is closed
- Whether any full-size character is used

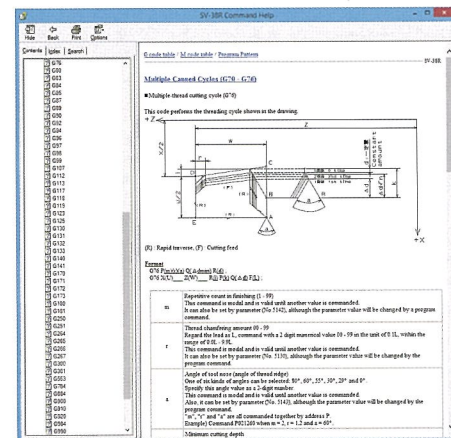
* Only a simple program check function is available. Therefore, the program may not operate normally on the machine even if no error is found by this check function.

●Command help

Programming is possible by referring to the explanation of G codes, M codes and program patterns through the help function. A sample program can be used for program editing function through a copy & paste operation.



Multi-channel program display



Command help

Tooling function

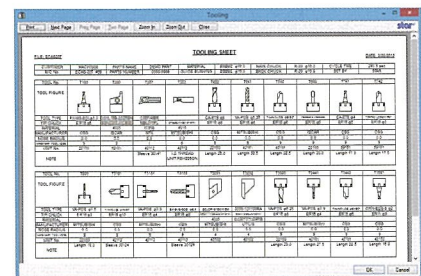
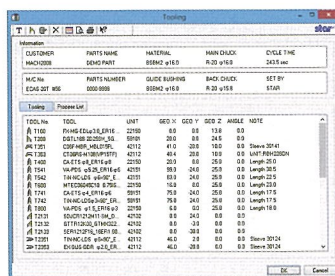
Management of information about geometry offset, tools and units is possible.

●Batch management of NC program file and tooling information file *1

●Printing of tooling sheet, geometry offset sheet and tool list

●Reading of tool information output file by machine *2

●Output of tool offset information *3 and unit information *4 into files



* 1. By setting tool information (geometry offset, units, tool types, etc.) using the tooling function, corresponding tool information is automatically read when the NC program file is opened.
 * 2. Applicable models are limited.
 * 3. For ECAS: GEO, For FANUC: G265
 * 4. For ECAS :STU command, For FANUC : G264

PU-Jr : General Specifications

Applicable machine	STAR MICRONICS machine tools
Applicable machine	Windows® XP 32 bit
	Windows® Vista 32 bit / 64 bit
	Windows® 7 32 bit / 64 bit
	Windows® 8 32 bit / 64 bit
	Windows® 8.1 32 bit / 64 bit
PC operating environment *	Hardware (*1)(*2)
	CPU : CPU of higher version than recommended by currently used Windows® operating system (*3)(*4) Memory : Memory capacity larger than recommended by currently used Windows® operating system (*4) HDD : With free space of more than 10MB Optical drive with CD-R is readable Display : Resolution of more than 640 x 480 dots (*5) Pointing device (mouse, touch pad, etc) One of the following interfaces : <input type="radio"/> Serial (RS-232C) port operable by Windows® standard driver <input type="radio"/> USB port (*6) <input type="radio"/> PC card slot (Type II) <input type="radio"/> LAN port

*. Other systems than the stated Windows® operating system are not supported.
 *1. Sufficient performances may not be achieved depending on the personal computer type, performance, working conditions, etc.
 *2. Each function of PU-Jr will affect the speed of executing other applications. In the same way, other applications will affect the speed of executing each function of PU-Jr.
 *3. A multiprocessor-equipped personal computer is not compatible.
 *4. Check the specifications of the Windows® operating system.
 *5. 16-color display mode is not compatible.
 *6. Operation of the system using any means other than the USB converter included in the package for USB connection is out of the warranty.

PU-Jr : Software Specifications

File management & communication function	NC program folder management. Multi-channel programs for Fanuc / Yasukawa Electric / Mitsubishi Electric CNCs are managed as one file Three-channel programs for ECAS are managed as one file Program input / output between the personal computer and the machine 3-channel programs and sub programs for ECAS can be transmitted / received as a batch. Display of program list comments. Printing of program lists. Deletion, copy and name change of programs in the machine by LAN connection.
Program editing function	Easy operation (similar to Windows Explorer) Simultaneous display of multi-channel NC programs Display of 3 channel program in one screen for ECAS machines Search function. Copy / cut / paste editing Undo / redo editing Selection of auto space insertion / deletion between words Simultaneous display of multiple NC programs (by overlapping / dividing). Calculator function Printing of multi-channel programs (2 or 3 columns) Display & printing of M code positioning. Multi-channel synchronous scroll Color setting for comment, label and M code positioning with validation / invalidation by colour coding List of waiting M codes / T codes Editing of NC programs created by other applications is also possible. Book mark function. Template function. Program check function. Command help.
Coordinate calculation function	Calculation of various line intersections and circles Calculation result copy function Selection of 1 through 5 digits after the decimal point Selection of unit (degree, minute, second)
Tooling function	Batch management of NC program tool information Printing of tooling sheet based on tool information Printing of process sheet

■ Specifications are subject to change without prior notice.

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