Programming Environment

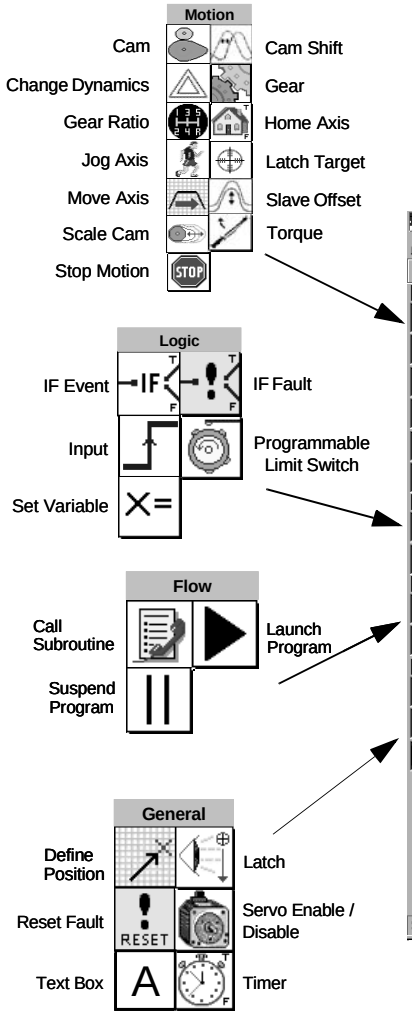
Yaskawa provides a choice of programming environments with the MP940.
1. MW+ is an intuitive icon based programming environment. -- part# CP717 Plus
2. LadderWorks provides a familiar PLC-style language. -- part# MPE720

Most local and distributed control applications that include sequential and process logic can easily be developed in the flow charting MW+ environment. In addition, an MW+ program can be opened within the Ladderworks environment for convenient shop floor monitoring and troubleshooting. Both MW+ and Ladderworks contain servo setup, tuning and troubleshooting utilities for charting position, I/O status, torque transitions, etc. during operation.

MotionWorks+™ (MW+) Software Features

Create programs by arranging motion and control icons in a visual flow chart. Setup wizards and simple menus guide you through controller setup, servo setup and tuning, variable management, and communications options. Monitoring tools for start-up and troubleshooting are included.

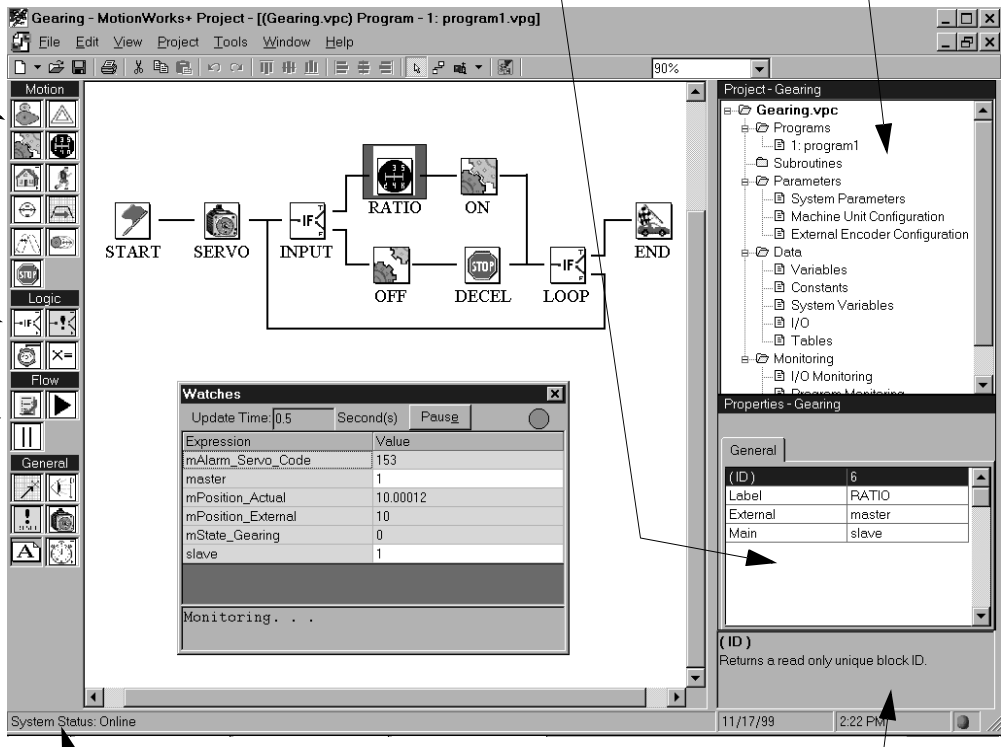
Drag and drop programming tools



Visual Basic™ like front end*

Tool box properties
- definable program priorities (high/low scan rates)
- real world tag names definable for I/O and variables

Project explorer
- up to 8 multi-tasking program files per project
- up to 62 subroutines for each program



Choice of ON or OFF-line programming

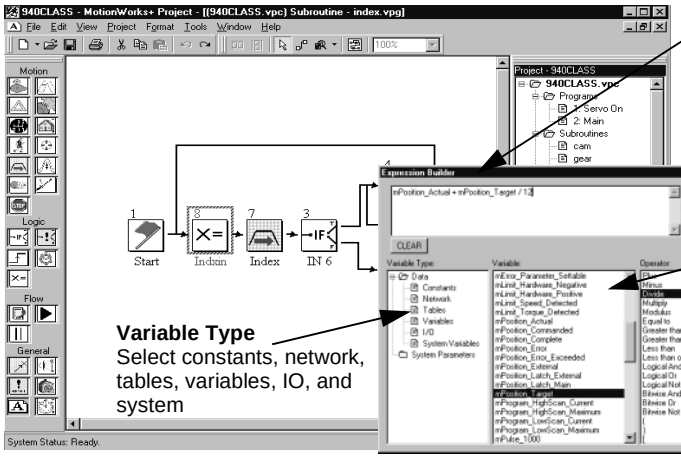
Brief property descriptions
Complete on-line help manual included

* Visual Basic is a trademark of Microsoft

MP940

Capabilities and Performance

Object-based flow-charting language

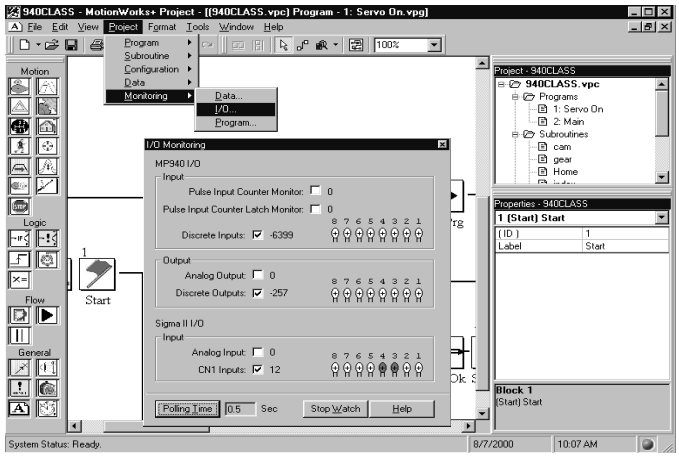


Expression Builder
- used for any object property that accepts an expression (examples; SET VARIABLE, MOVE AXIS, CHANGE DYNAMICS, etc.)
- logic expressions can be created for blocks such as IF EVENT and IF FAULT

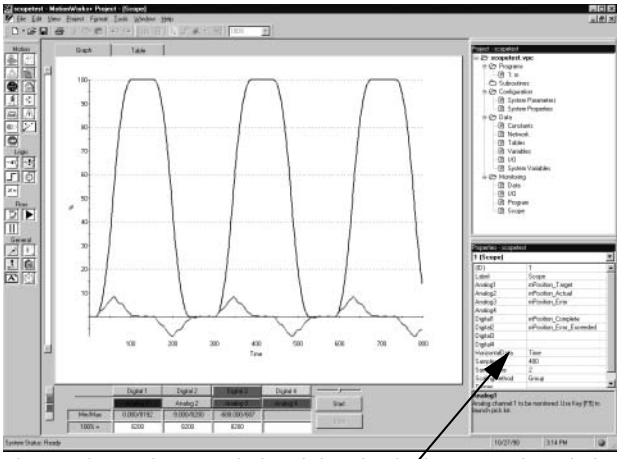
Variables
- Includes accessible system data
- Up to 72 readable system variables including actual position, speed, torque, network and controller variables, etc. that can be updated at run time

Math functions
select from this list that also includes trigonometric, square root, etc.

I/O Monitoring



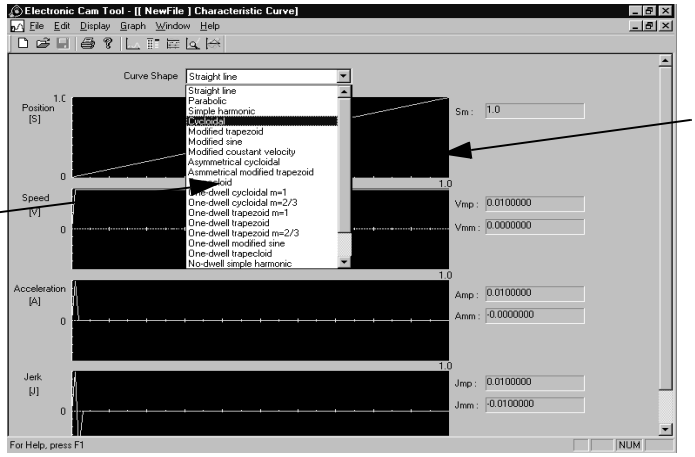
Troubleshooting Scope



Choose data to be recorded and duration in the properties window
Up to 8 separate data elements can be displayed simultaneously

Electronic Cam Tools

- A cam profile can be divided up to 20 definable sections with 4096 points
- Automatic interpolation between points
- Select cam curve shape for each section from 21 available shapes



Data graph shows resulting cam profile from the information set provided from the parameter set-up window