

Educational Simulator

- Mechatronics Simulator : V-MECA

| About | Case Study | Testimonial | Package |

About   

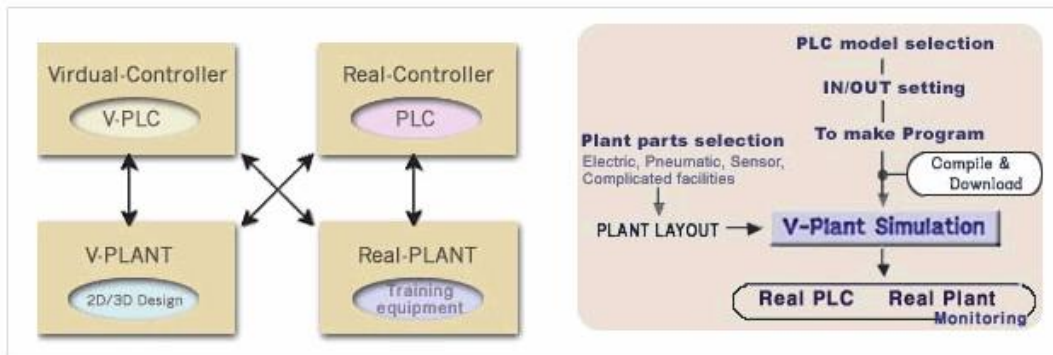
Introduction

V-MECA is the abbreviation of Virtual-Mechatronics

Mechatronics is a virtual word composed of Mechanism and Electronics, it is a learning for this complex technology

V-MECA is specific mechatronics simulation software which design and assemble structure or mechanism, and control it with electric and PLC

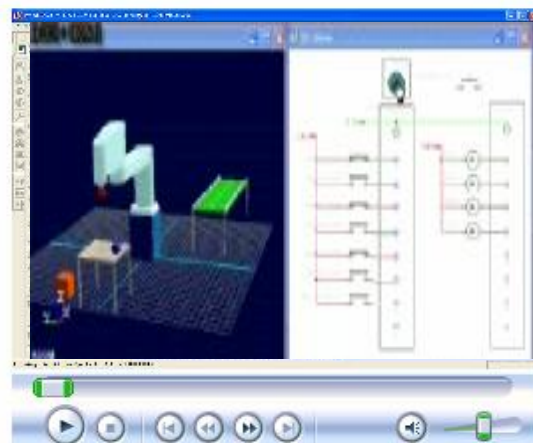
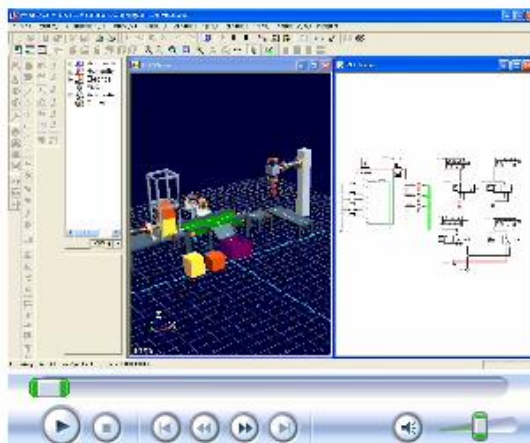
layout



plant

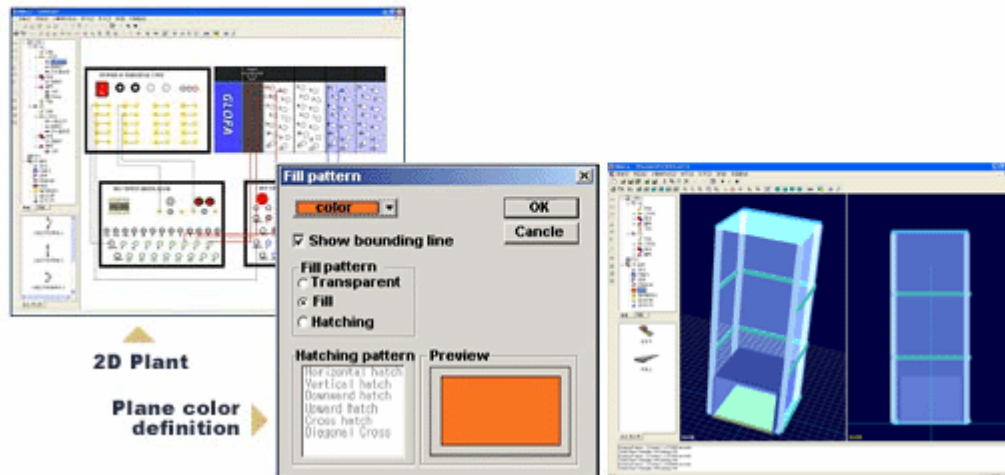
* Comfortable design tool considering user's convenience

- Virtual CNC machining view
- 3D Multi-window for user's intuition
- Free view setting with mouse control(Rotation, Zooming in/out, Movement, View divide)
- Tree view type various Library (Conveyor, Robot, Sensor, Cylinder, Motor, Switch)



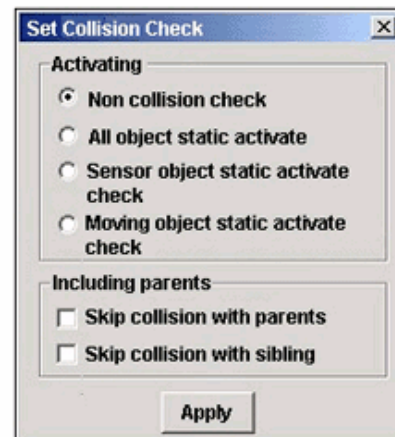
* Free modeling structure

- Primitive design such as cylinder, sphere, cubic,
- Rendering point, line, plane,



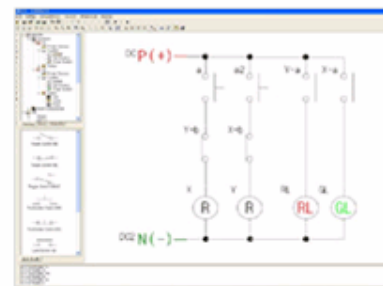
* Various structure parameter definition

- Definition of Fixation, linear, rotation movement method
- Setting up ON/OFF, darkness, position,color of a source of light
- Setting up point, parallel, concentrated light source, material
- Controllable speed of Real Time Simulation
- Checks collision in manipulators



* Electric

- Actual electric wiring diagram design that internal structure viewable
- Setting up a capacity of electric source, motor, LED, Relay
- Single phase and Triple phase current
- Input/Output, Transform, Safe device
- Setting up color and thickness of wiring
- Error message when short circuit
- Supporting IEC standard
- Each component function chart



Plc

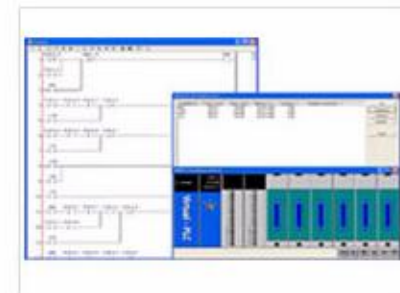
* Quick PLC program

- Any PLC model supporting
- LD, FBD, SFC of IEC, ... programming language supported
- Plural number of PLC program could be executed simultaneously
- To make Tag List and printing it



* Exact PLC design function

- Setting up the number of IN/OUT channel
- Direct connection using channel of PLC and Equipment
- Plural PLC supported
- To make Tag List and printing it



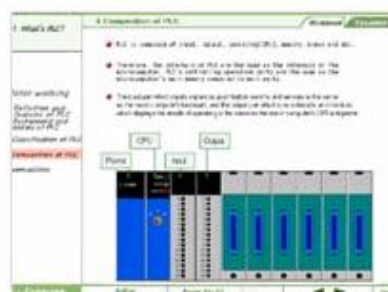
* Simulation & Interface

- Checking and monitoring on program during simulation
- Confirming variable value through time chart
- Communication through RS232C between Real PLC and software
- Communication through interface card between actuator and software
- Any PLC model supporting



* e-Education

- Study program step by step and practice example
- Study Target >> Study Content>>Summary>>Test
- Theory of electrics and PLC
- Various plant control example



▣ Use Environment

	Basic Spec	Recommend Spec
CPU	Pentium II 300MHz	Pentium III 500MHz
OS	Windows 2000 / XP	
MEMORY	64MB	128MB~
DISPLAY	800 x 600 16 Million Color 4MByte Video Memory	1024 x 768 32 Million Color 32MByte Video Memory
HDD	300MB	500MB~

▣ Effect

- Component study necessary for automation is possible in stages
- Field adaptation ability can be improved by exercising PLC of each model
- Pre-simulation is possible when structuring and modifying automation line
- Amount invested can be reduced because exercise kits are able to be operated without PLC
- New education system connected with other various concepts