Standard Slim PLC

DVP-SS2

Economic and compact model

- 32-bit CPU for high-speed processing
- Max. I/O: 480 points
- Program capacity: 8 k steps
- Data register: 5 k words
- Max. execution speed of basic instructions: 0.35 μs
- Built-in RS-232 and RS-485 ports (Master / Slave)
- Supports standard Modbus ASCII / RTU protocol and PLC Link function

Motion Control Functions

- 4 points of 10 kHz pulse output
- 8 points of high-speed counters: 20 kHz / 4 points, 10 kHz / 4 points

Built-in High-Speed Counters					
1-phase 1 input		1-phase 2 inputs		2-phase 2 inputs	
Counters	Bandwidth	Counters	Bandwidth	Counters	Bandwidth
4 / 4	20 kHz / 10 kHz	2	20 kHz	2 / 2	10 kHz / 5 kHz

Advanced Slim PLC

DVP-SA2

Advanced model supporting 2-axis interpolation

- 32-bit CPU for high-speed processing
- Program capacity: 16 k steps
- Data register: 10 k words
- Max. execution speed of basic instructions: 0.35 μs
- Built-in 1 RS-232 and 2 RS-485 ports (Master / Slave)
  ※ Note: RS-485 will be reduced to 1 port in DVP28SA2
- Supports standard Modbus ASCII / RTU protocol and PLC Link function
- No battery required; RTC function operates for 15 days after power off
- Supports DVP-S Series modules (left-side and right-side)
  ※ Note: DVP28SA2 only supports right-side modules

Motion Control Functions

- 4 points of high-speed pulse output: 100 kHz / 2 points, 10 kHz / 2 points
- 8 points of high-speed pulse input: 100 kHz / 2 points, 10 kHz / 6 points, 1 set of A / B phase 50 kHz
- Supports 2-axis linear and arc interpolation

Built-in High-Speed Counters					
1-phase 1 input		1-phase 2 inputs		2-phase 2 inputs	
Counters	Bandwidth	Counters	Bandwidth	Counters	Bandwidth
2 / 6	100 kHz / 10 kHz	2	100 kHz	1 / 3	50 kHz / 5 kHz

Slim PLC DVP-S Series

Compact, Flexible Extension

DVP-SS2

Standard Slim PLC

Model Name	Specifications
DVP28SS211R	DC 16 12 R
DVP28SS211T	DC 16 12 T
DVP28SS211S New	DC 16 12 T
DVP14SS211R	DC 8 6 R
DVP14SS211T	DC 8 6 T
DVP12SS211S	DC 8 4 S

DC power supply Inputs Outputs
T Transistor output (NPN) R Relay output
S Transistor output (PNP)

DVP-SX2

Analog I/O Slim PLC

Model Name	Specifications
DVP20SX211R	DC 8 6 R 4AI/2AO
DVP20SX211T	DC 8 6 T 4AI/2AO
DVP20SX211S	DC 8 6 S 4AI/2AO

DC power supply Inputs Outputs
T Transistor output (NPN) R Relay output
S Transistor output (PNP)

DVP-SA2

Advanced Slim PLC

Model Name	Specifications
DVP28SA211R*1	DC 16 12 R
DVP28SA211T*1	DC 16 12 T
DVP28SA211S*1 New	DC 16 12 T
DVP12SA211R	DC 8 4 R
DVP12SA211T	DC 8 4 T

*1 The models do not support left-side modules.

DC power supply Inputs Outputs
T Transistor output (NPN) R Relay output

DVP-SV2

High Performance Slim PLC

Model Name	Specifications
DVP28SV11R2	DC 16 12 R
DVP28SV11T2	DC 16 12 T
DVP28SV11S2	DC 16 12 S
DVP24SV11T2	DC 10 12 T 2AI

DC power supply Inputs Outputs
T Transistor output (NPN) R Relay output
S Transistor output (PNP)

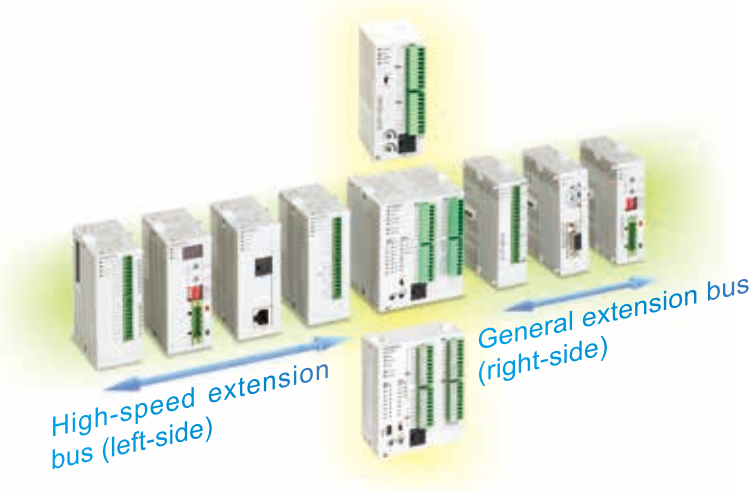
DVP-SE

Network Type Advanced Slim PLC

Model Name	Specifications
DVP26SE11R*1	DC 14 12 R
DVP26SE11T*1	DC 14 12 T
DVP26SE11S*1 New	DC 14 12 T
DVP12SE11R	DC 8 4 R
DVP12SE11T	DC 8 4 T

*1 The models do not support left-side modules.

DC power supply Inputs Outputs
T Transistor output (NPN) R Relay output



Slim PLC DVP-S Series
Extension Modules

High-speed Extension Modules (left-side)*1

Network Modules

- **DeviceNet Master**
  DVPDNET-SL
- **CANopen Master**
  DVPCOPM-SL

- **Ethernet**
  DVPEN01-SL
- **PROFIBUS-DP Slave**
  DVPPF02-SL

- **RS-422 / RS-485 Serial Communication Module**
  DVPSCM12-SL
- **BACnet MS / TP Slave Serial Communication Module**

Analog Extension

- **Analog Input**
  DVP04AD-SL
- **Analog Output**
  DVP04DA-SL

Load Cell / Tension

- **Load Cell Module**
  DVP01LC-SL
  DVP02LC-SL
  DVP201LC-SL
  DVP211LC-SL
  DVP202LC-SL

General Extension Modules (right-side)*2

I/O Point Extension

- **Input Point Extension**
  DVP08SM11N
  DVP16SM11N

- **Output Point Extension**
  DVP06SN11R
  DVP08SN11R / T
  DVP08SN11TS
  DVP16SN11T
  DVP16SN11TS

- **Input / Output Point Extension**
  DVP08SP11R / T
  DVP08SP11TS
  DVP16SP11R / T
  DVP16SP11TS

- **Pin Header Input**
  DVP32SM11N

- **Pin Header Output**
  DVP32SN11TN

- **Digital Switch**
  DVP08ST11N

Analog Extension

- **Analog Input**
  DVP04AD-S
  DVP06AD-S
  DVP04AD-S2

- **Analog Output**
  DVP04DA-S
  DVP02DA-S
  DVP04DA-S2

- **Analog Input / Output**
  DVP06XA-S
  DVP06XA-S2

Temperature Measurement

- **Sensor: Pt100, Pt1000**
  DVP04PT-S
  DVP06PT-S

- **Sensor: J,K,R,S,T thermocouple**
  DVP04TC-S

- **Sensor: New NTC thermocouple**
  DVP08NTC-S

- **Temperature Control:**
  DVP02TUN-S
  DVP02TUR-S
  DVP02TUL-S

- **Remote Temperature Control Module:**
  DVP02TKN-S
  DVP02TKR-S
  DVP02TKL-S

Communication Modules

- **PROFIBUS Slave**
  DVPPF01-S

- **DeviceNet Slave**
  DVPDT01-S

Power Supply Modules

DVPPS01
DVPPS02
DVPPS05

Axis Control Module

- **Single-Axis Positioning**
  DVP01PU-S

*1. DVP32EH00R3-L & DVP32EH00T3-L are also compatible with the left-side high-speed extension modules.

*2. Max. quantity of right-side extension module is 14, among which the quantity of –S and –S2 modules must be equal to or less than 8. If the total quantity of extension modules is over 14, applying high density extension modules is recommended.

Specifications

Electrical Specifications

	AC	DC
Power Supply Voltage	100 ~ 240 V_{AC} (-15% ~ 10%), 50 / 60Hz ±5%	24 V_{DC} (-15% ~ 20%)
Fuse Capacity	2A / 250 V_{AC}	ES: 2A / 250 V_{AC}; SV: 2.5A / 30 V_{DC}
Spike Voltage Durability	1500 V_{AC} (Primary-secondary); 1500 V_{AC} (Primary-PE); 500 V_{AC} (Secondary-PE)	
Insulation Impedance	> 5 MΩ (all I/O point-to-ground: 500 V_{DC})	
Noise Immunity	ESD: 8 kV Air Discharge EFT: Power Line, 2 kV Digital I/O: 1 kV Analog & Communication I/O: 1 kV RS: 26 MHz ~ 1 GHz, 10 V/m	
Earth	The diameter of grounding wire shall not be shorter than that of the power supply cable. (When many PLCs are in use at the same time, please make sure every PLC is properly grounded.)	
Storage / Operation	Storage: -25 °C ~ 70 °C (temperature); 5% ~ 95% (humidity) Operation: 0 °C ~ 55 °C (temperature); 5% ~ 95% (humidity); pollution degree 2	

Input Specifications*1

Max. Input Frequency		10 kHz	20 kHz	100 kHz	200 kHz
Input Signal Type		NPN (Sink) / PNP (Source)			
Input Signal Voltage		24 V_{DC} ±10% (5 mA)			
Response time*2	**DVP-EH3 / SV2 / PM**	OFF→ON: 20 µs ON→OFF: 50 µs	ES / EX / SX / SS2 / SX2 OFF→ON: 3.5 µs ON→OFF: 20 µs	ES2 / EX2 / SA2 / SX2 OFF ON: 2.5 µs ON→OFF: 5 µs	ES3 / EH3 / SV2 / PM OFF→ON: 0.15 µs ON→OFF: 3 µs
	DVP-ES3 / ES2 / EX2				
	DVP-ES / EX				
	DVP-SX				
	DVP-SS2				
	DVP-SA2 / SX2 / SE				

*1. For more detailed specifications, see the "Specification" section in the instruction sheet of each model.

*2. When the input point on PLC conducts only general input functions, use D1020 or D1021 to adjust the response time (default: 10ms).

Output Specifications*1

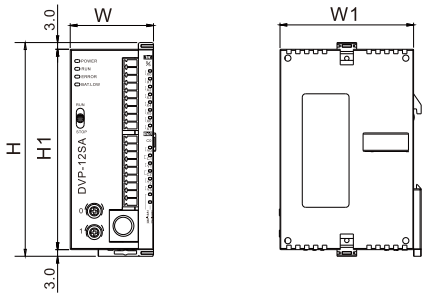
		Relay-R	Transistor-T		
			General-speed	High-speed	
Max. Exchange (working) Frequency		1Hz*2	10 kHz	100 kHz	200 kHz
Current spec.	**DVP-EH3 / SV2 / PM**	2A / 1 Point	0.3A / point @40 °C	SA2 / SX2 / ES2 / EX2 / SE Resistive: 0.5A / point (4A / COM) Conductive: 12 W (24 V_{DC}) Light bulb: 2 W (24 V_{DC})	ES3 / EH3 / SV2 / PM Resistive: 0.5A / point (4A / COM) Conductive: 12 W (24 V_{DC}) Light bulb: 2 W (24 V_{DC})
	DVP-ES3 / ES2 / EX2				
	DVP-ES / EX				
	DVP-SX	1.5A / 1 Point			
	DVP-SS2 / SA2 / SX2 / SE				
Voltage Spec.		250 V_{AC} / 30 V_{DC}	30 V_{DC}		
Response Time		10 ms	OFF→ON: 20 µs ON→OFF: 30 µs	OFF→ON: 2 µs ON→OFF: 3 µs	OFF→ON: 0.5 µs ON→OFF: 2.5 µs

*1. For more detailed specifications, see the "Specification" section in the instruction sheet of each model.

*2. Relay life: Resistive load more than 200,000 times; conductive load more than 80,000 times.

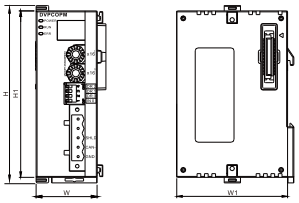
DVP-SE / SX / SS2 / SA2 Series

Model Name (mm)	H	H1	W	W1
DVP28SS211R/T/S	96	90	46	60
DVP28SA211R/T/S	96	90	46	60
DVP26SE11R/T/S	96	90	46	60
DVP14SS211R/T	96	90	25.2	60
DVP12SS211S	96	90	25.2	60
DVP12SA211R/T	96	90	37.4	60
DVP12SE11R/T	96	90	37.4	60
DVP10SX11R/T	96	90	37.4	60



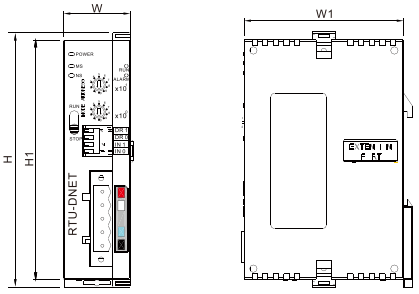
High-Speed Extension Modules (left-side)

Model Name (mm)	H	H1	W	W1
DVPEN01-SL	96	90	33.1	60
DVPCOPM-SL	96	90	33.1	60
DVPDNET-SL	96	90	33.1	60
DVPPF02-SL	96	90	33.1	60
DVPSCM12-SL	96	90	33.1	60
DVPSCM52-SL	96	90	33.1	60
DVP04AD-SL	96	90	33.1	60
DVP04DA-SL	96	90	33.1	60
DVP01LC-SL	96	90	33.1	60
DVP02LC-SL	96	90	33.1	60
DVP201LC-SL	96	90	33.1	60
DVP202LC-SL	96	90	33.1	60
DVP211LC-SL	96	90	33.1	60



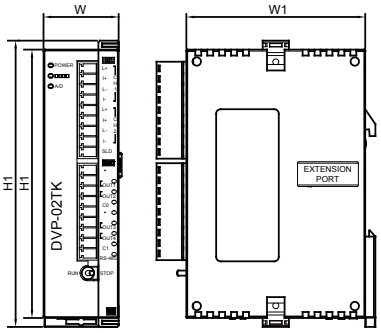
Remote I/O Modules

Model Name (mm)	H	H1	W	W1
RTU-DNET	96	90	25.2	60
RTU-485	96	90	25.2	60
RTU-EN01	96	90	25.2	60
RTU-PD01	96	90	25.2	60
RTU-CN01 New	96	90	25.2	60
RTU-ECAT New	96	90	25.2	60



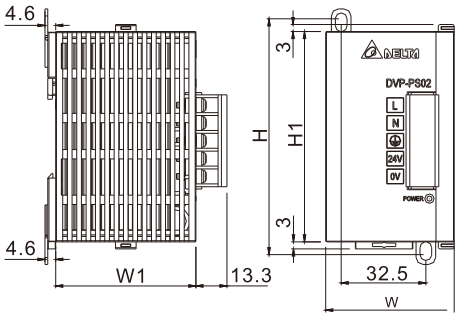
Remote Temperature Control Modules

Model Name (mm)	H	H1	W	W1
DVP02TKN-S	96	90	25.2	60
DVP02TKR-S	96	90	25.2	60
DVP02TKL-S	96	90	25.2	60



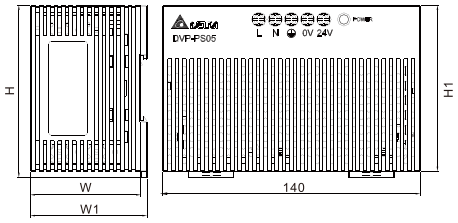
DVP-PS01 / 02 Power Supply Modules

Model Name (mm)	H	H1	W	W1
DVPPS01	100	90	36.5	60
DVPPS02	100	90	55	60

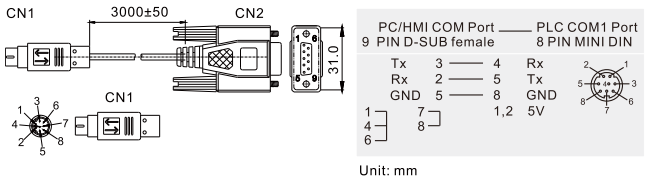


DVP-PS05 Power Supply Modules

Model Name (mm)	H	H1	W	W1
DVPPS05	93.3	90	60	63.4



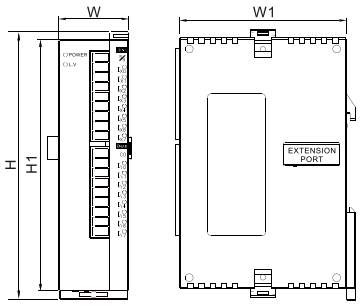
PIN Definition of UC-MS030-01A



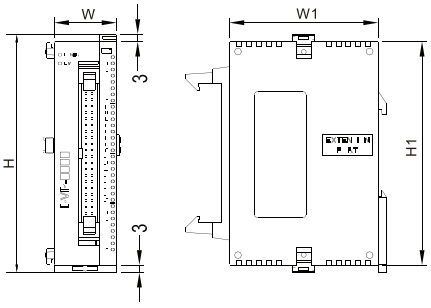
Unit: mm

DVP-S Series I/O and Extension Modules

Model Name (mm)	H	H1	W	W1
DVP08SM11N	96	90	25.2	60
DVP16SM11N	96	90	25.2	60
DVP06SN11R	96	90	25.2	60
DVP08SN11R/T/TS	96	90	25.2	60
DVP08SP11R/T/TS	96	90	25.2	60
DVP16SP11R/T/TS	96	90	25.2	60
DVP16SN11T	96	90	25.2	60
DVP16SN11TS	96	90	25.2	60
DVP04AD-S	96	90	25.2	60
DVP04AD-S2	96	90	25.2	60
DVP06AD-S	96	90	25.2	60
DVP02DA-S	96	90	25.2	60
DVP04DA-S	96	90	25.2	60
DVP04DA-S2	96	90	25.2	60
DVP06XA-S	96	90	25.2	60
DVP06XA-S2	96	90	25.2	60
DVP04PT-S	96	90	25.2	60
DVP08NTC-S	96	90	25.2	60
DVP06PT-S	96	90	25.2	60
DVP04TC-S	96	90	25.2	60
DVP01PU-S	96	90	25.2	60
DVPPF01-S	96	90	25.2	60
DVPDT01-S	96	90	25.2	60
DVP02TUN-S	96	90	25.2	60
DVP02TUR-S	96	90	25.2	60
DVP02TUL-S	96	90	25.2	60



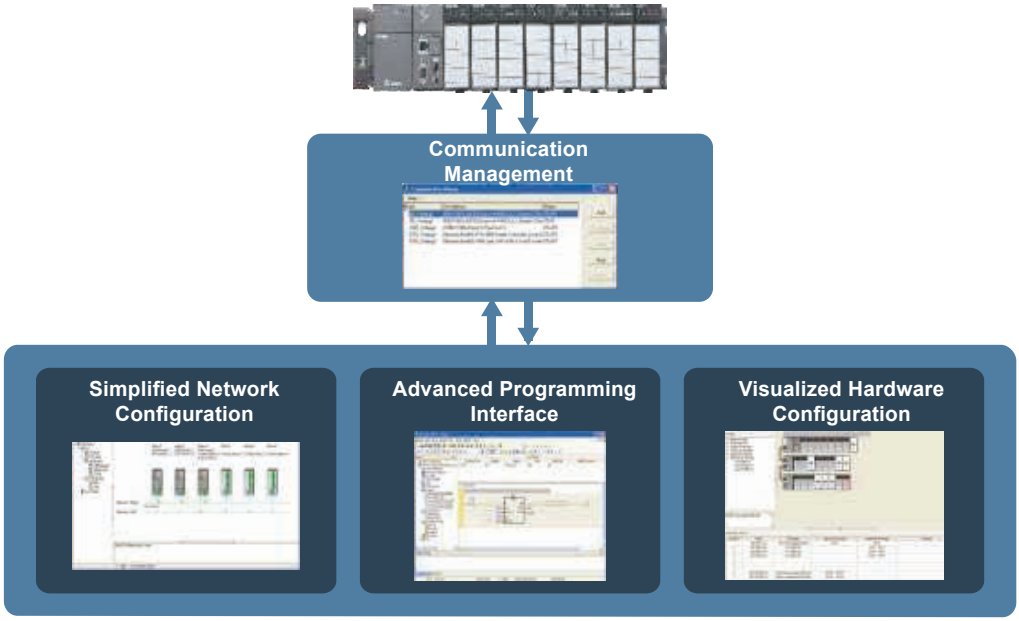
Model Name (mm)	H	H1	W	W1
DVP32SN11TN	96	90	25.2	60
DVP32SM11N	96	90	25.2	60



PLC Editing Software: ISPSoft V2.0

Highly Accessible Programming Software with Fully Integrated Interface

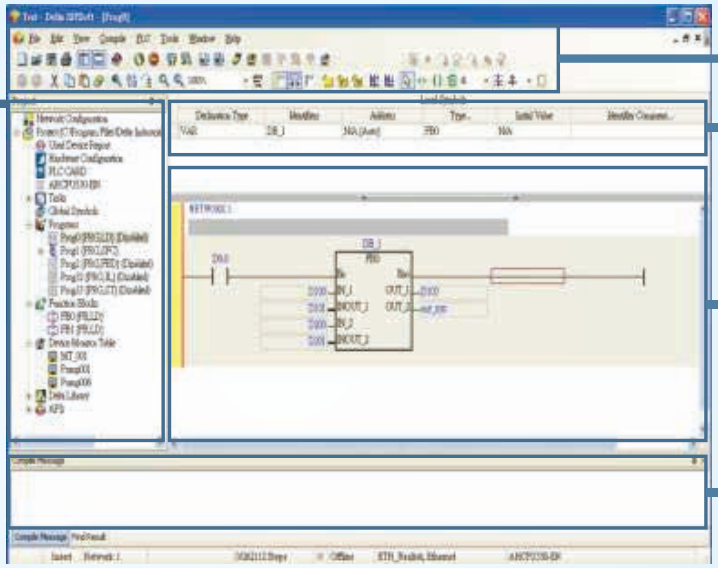
Advanced Programming Interface + Visualized Hardware Configuration + Simplified Network Configuration



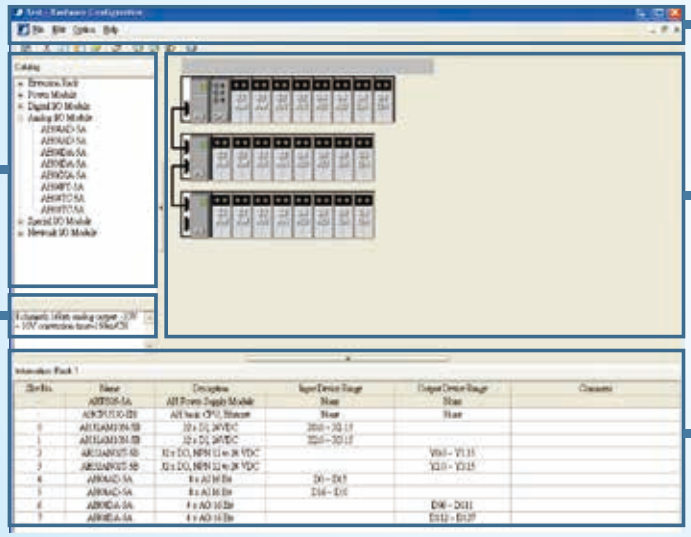
Advanced Programming Interface

Project Management Window

- **New functions:** Network configuration (NWCONFIG), hardware configuration (HWCONFIG) and PLC card utility
- 5 programming languages for programs and function blocks (FB): LD / FBD / SFC / IL / ST
- **Function Blocks:** Symbols can be introduced in call-by-value or call-by-reference types. Function blocks can be called in a function block for up to 32 levels
- **Monitor Table:** It can be stored and managed separately. Multiple monitor tables can be stored in a single project
- **User Library:** Users can design frequently used instructions for specific applications in different industries
- **Task:** Supports cyclic, I/O interrupt, timer interrupt, external interrupt, and more. Software will provide the usable tasks for different CPUs
- Built-in Delta Function Blocks provide a convenient programming environment for operators



Visualized Hardware Configuration



Module Selection

Module Description

Toolbar

- System hardware configuration can be monitored in On-Line mode
- Hardware configuration can be displayed by Scan function

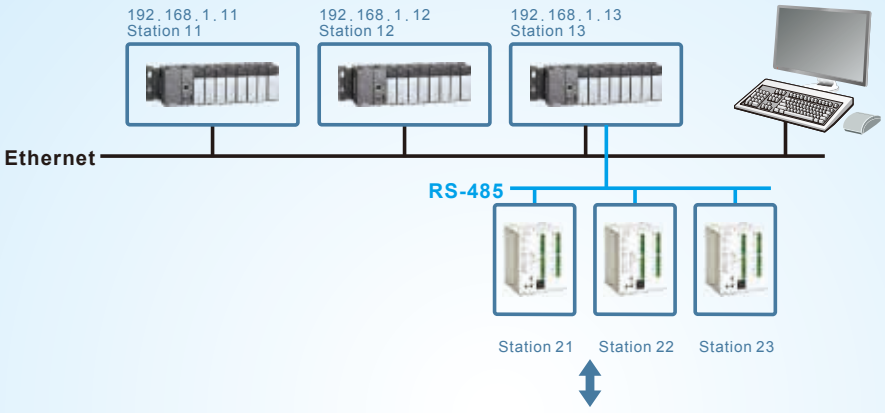
Hardware Configuration Area

- Operations of Cut / Copy / Paste / Delete are available for modules and racks
- Parameters of each module can be directly configured

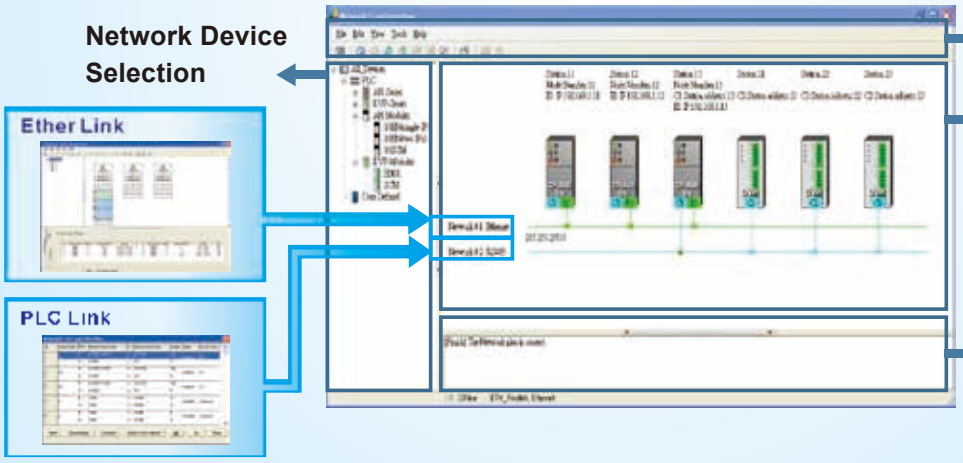
Rack Information

- I/O device range can be specified by the user

Simplified Network Configuration



Network Device Selection



Toolbar

Network Configuration Area

- Master device settings
- Ether Link editing function
- PLC Link editing function

Network Information