DIAView

Establish links to external devices

Webber

2019/08/26

- Channel and devices

- Driver

- Communication status

- Simulator

Purpose

In this chapter, you will learn …..
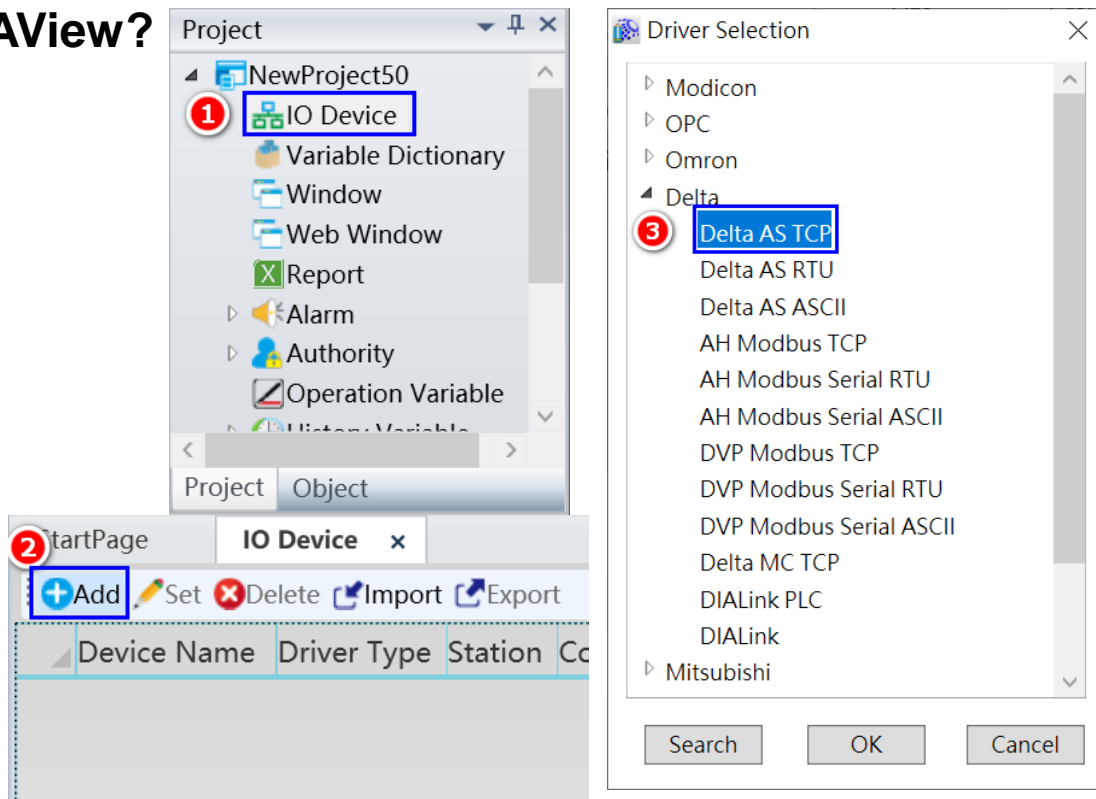
…   more about channel and devices of DIAView

…   more about driver supported by DIAView

…   more about how to set up connection with device

- **Channel and devices**

- Driver
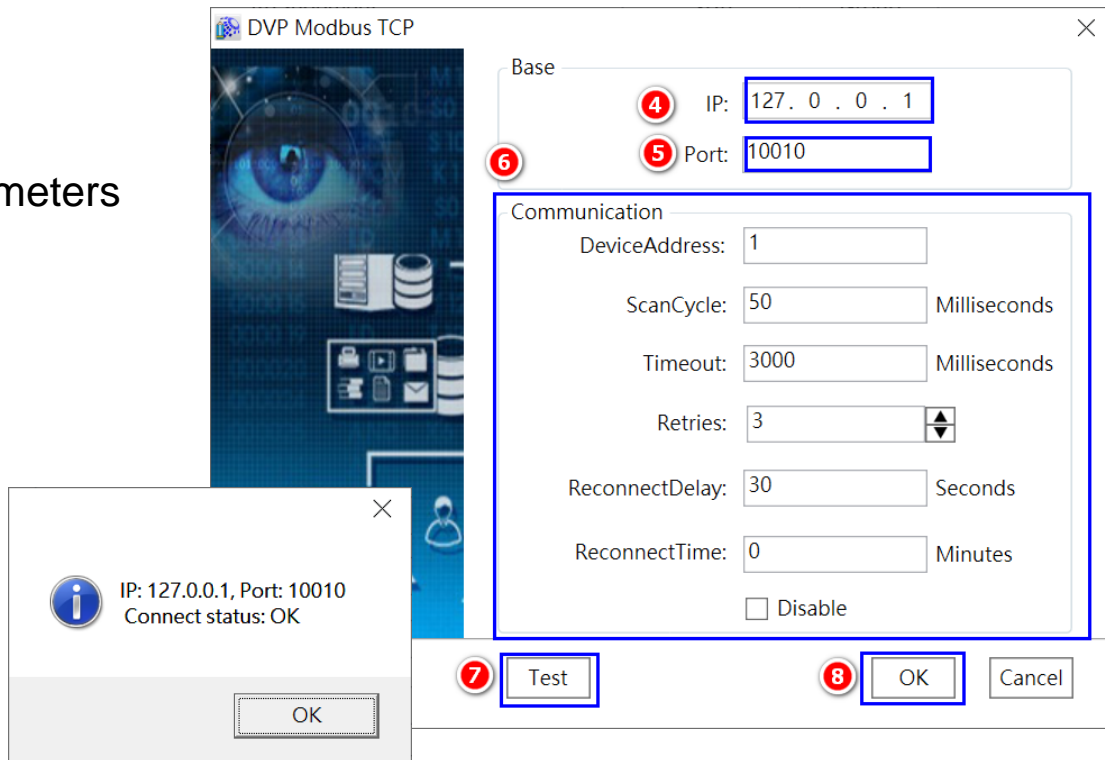
- Communication status

- Simulator

➢ **How to connect a device in DIAView?**

① Left click "IO Device"

② Press "Add"

③ Choose the Driver you need to connect.

➢ How to connect a device in DIAView?

④ Set IP address

⑤ Set connection port

⑥ Set communication parameters

⑦ Test ping to device

⑧ Finish setting

Channel and devices

> **Communication Parameters:**

Property	Description
DeviceAddress	Address number of the connected device
ScanCycle	The scan cycle of the IO communication data is preset to 100 milliseconds.
Timeout	If the device did not respond for an extended period of time, it will be determined to have communication timeout according to the time length set. The timeout length is preset to 1000 milliseconds
Retries	This is the number of times the system will try to reconnect to the device when there is communication timeout. The default number of retries is 3 times.
ReconnectDelay	This option is used to set the period of time of delay before trying to reconnect again when the number of retries have reached the limit and reconnect was unsuccessful. The reconnect delay time is default to 30 seconds.
ReconnectTime	Default to 0 minutes: No time limit, which means it will continually try to reconnect with the device; Other value: sets the reconnect time length. If the system cannot connect and receive responds from the device within the reconnect time limit, it will discard the connection to that device.
Disable	The current configuration equipment will be disabled from communicating with the DIAView software.

- Channel and devices

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Driver List:

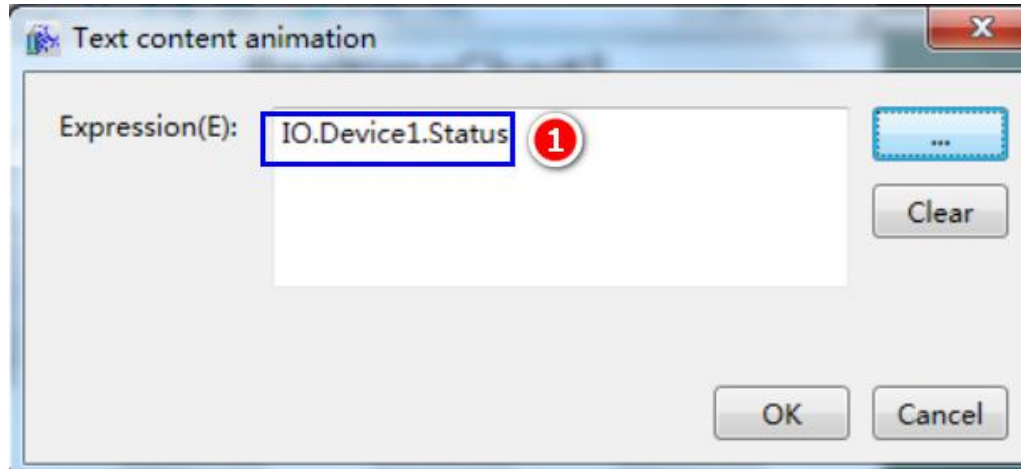| Driver type	Example
Modicon	Modbus TCP, Modbus Serial RTU, Modbus Serial ASCII
OPC	OPC, OPCUA
Omron	FINS TCP, FINS ASCII,HostLink ASCII
Delta	Delta AS series: TCP, RTU, ASCII Delta AH series, TCP、RTU、ASCII Delta DVP series: TCP RTU、ASCII, Delta MC TCP DIALink
Mitsubishi	Mitsubishi FX Serial, Mitsubishi ProFX Serial Mitsubishi Q Serial, Mitsubishi Q EtherNet Mitsubishi FX EtherNet
Siemens	S7300 TCP, S71200 TCP, S7300 MPI S7200 TCP, S7200 PPI, S7200 Smart TCP
Simulator	Simulator
Delta Power Meter	DPM-C530 Ethernet, DPM-C530 Serial
Rockwell	Rockwell Controllogix Ethernet

※ Please refer to the user manual CH5.8, CH5.9 for driver settings

- Channel and devices

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- **Communication status**

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➢ **How to confirm the device communication status is in DIAView project?**

    ① Draw a basic "text" graphic in any window of an existing project and configure

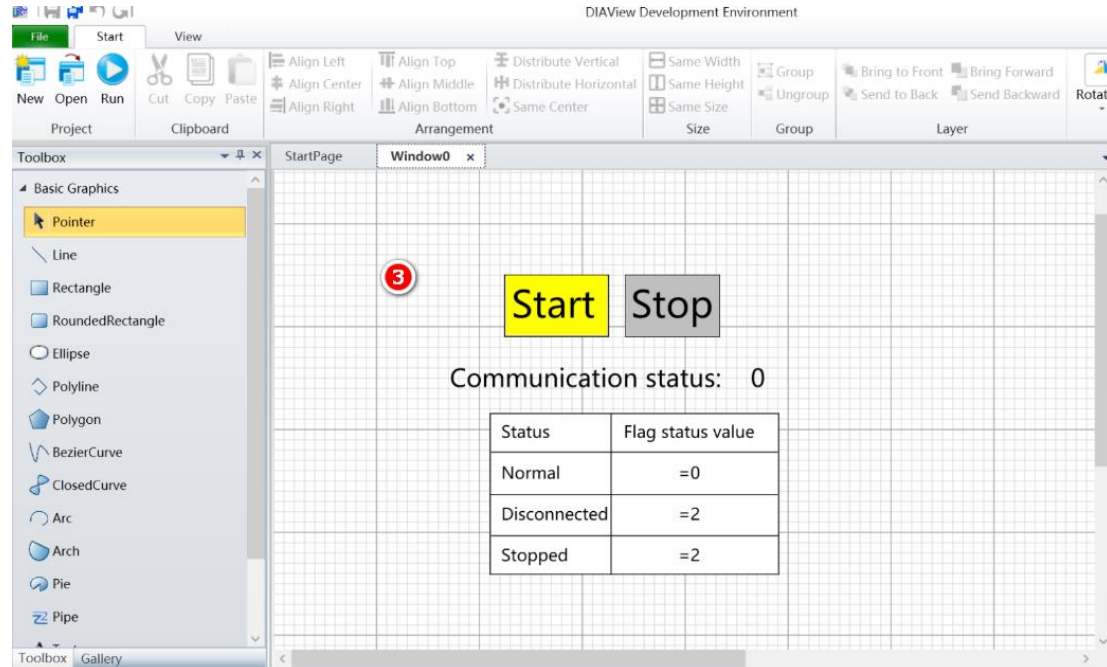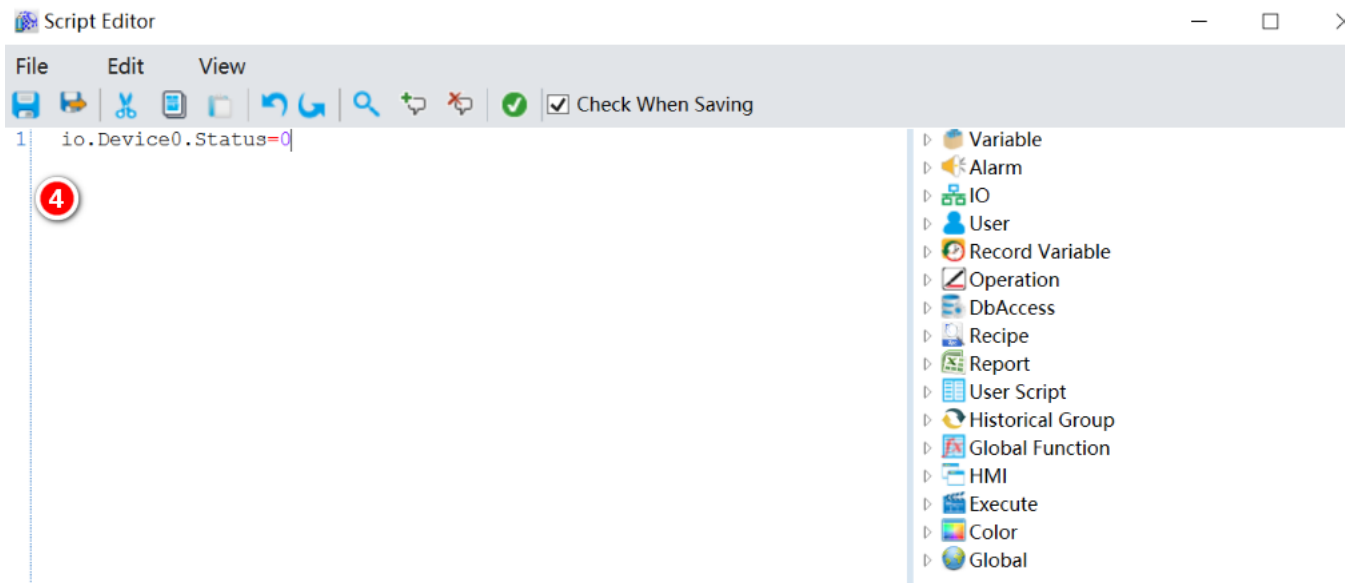   "Expression(E)" in the Text animation window, as shown in the figure below:

Communication status

➢ **How to confirm the device communication status is in DIAView project?**

 ② The communication status of the [device] can be checked once executed; please

 refer to the table blow:

Status	Flag bit status value (0 is normal communication status, other values are abnormal)
Communication normal	IO.[device].Status = 0
Communication disconnected	IO.[device].Status = 2
Communication stopped	IO.[device].Status = 2

> **How to confirm the device communication status is in DIAView project?**

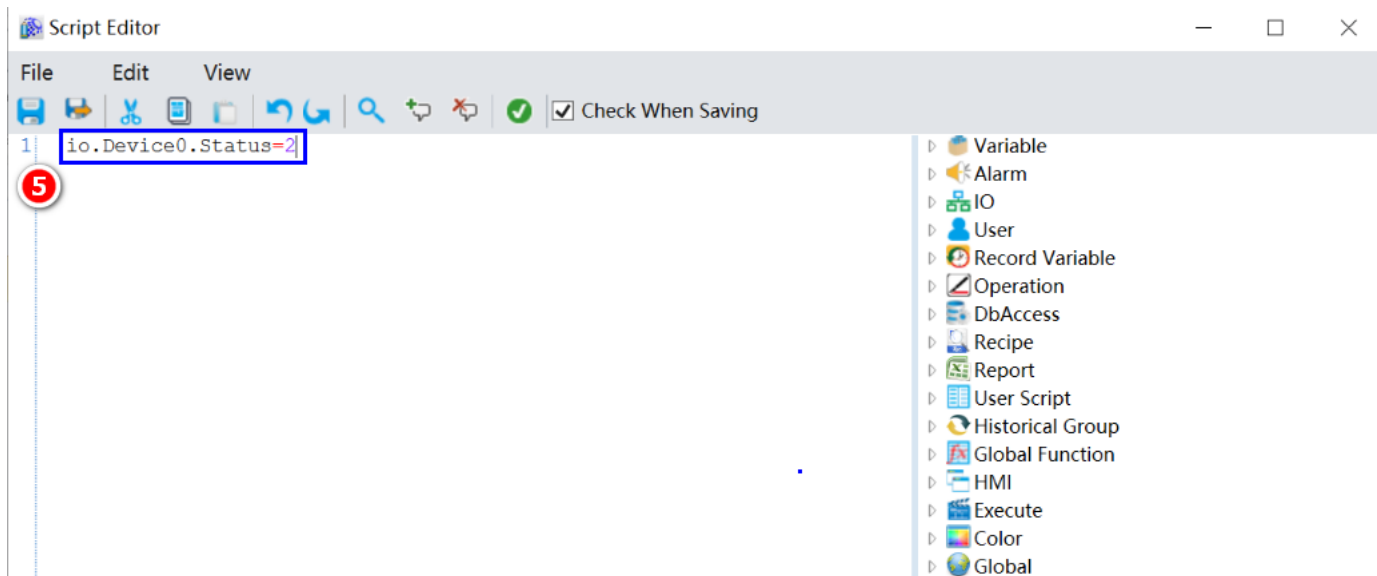③ Draw two buttons and two texts in the window of an existing project, as shown in the figure below:

➤ **How to confirm the device communication status is in DIAView project?**

④ Configure a "Left-click" event for the "Start button", as shown in the figure below:

> **How to confirm the device communication status is in DIAView project?**

⑤ Configure a "Left-click" event for the "Stop button", as shown in the figure below:

➢ **How to confirm the device communication status is in DIAView project?**

⑥ Once executed the initial communication status of the "Device0" is as follows:

Communication status: 2

Status	Flag status value
Normal	=0
Disconnected	=2
Stopped	=2

> **How to confirm the device communication status is in DIAView project?**

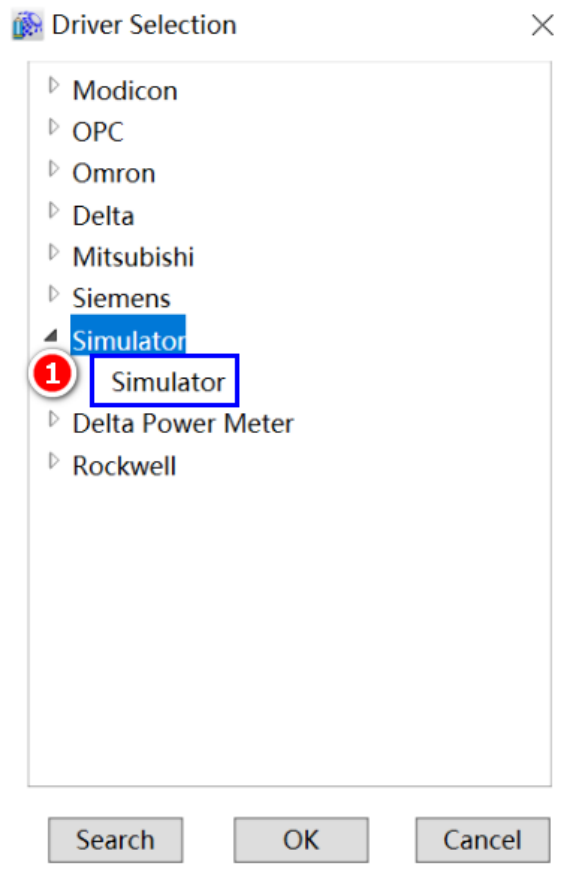⑦ The communication status of "Device0" is as follows after clicking the "Start" button:

Communication status: 0

Status	Flag status value
Normal	=0
Disconnected	=2
Stopped	=2

- Channel and devices

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> **How to creating communication between DIView and Simulator?**

  ① Right click on "IODevice "node and select " New Device ", select "simulator" in the driver selection window

➢ **How to creating communication between DIView and Simulator?**

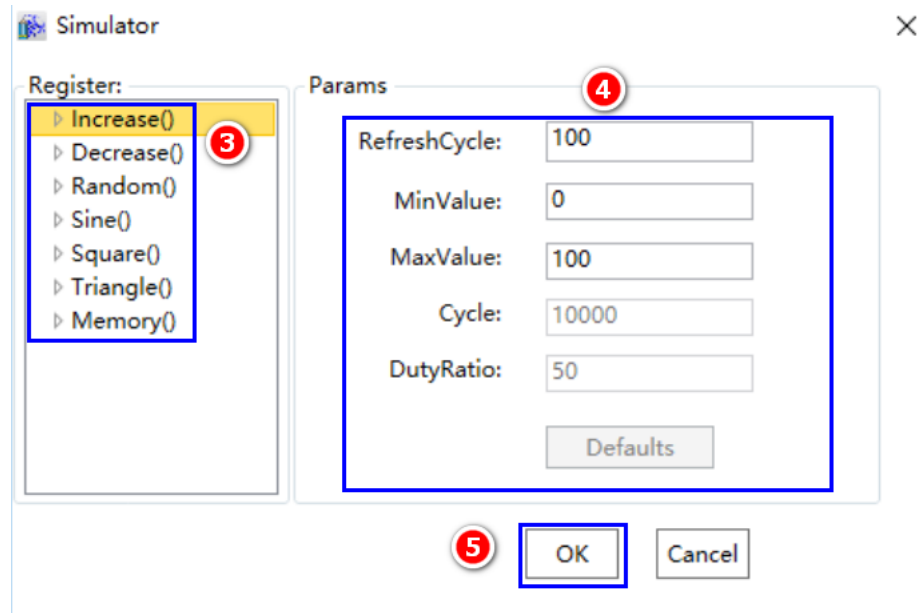② Configure the system simulator communication parameters, default values can be kept .

> **How to creating communication between DIView and Simulator?**

③ Select the register type of the simulator

④ Set register parameters

⑤ Press"OK"

➢ **Simulation parameters:**

Register	Range	Description
Increase	0~63	Increase
Decrease	0~63	Decrease
Random	0~63	Random
Sine	0~63	Sine wave
Square	0~63	Square wave
Triangle	0~63	Triangle wave
Memory	0~63	Memory, read-write

- **Refresh cycle:** Data change cycle
- **Minimum value:** (Int32 type value, minimum value), -2,147,483,648
- **Maximum value:** (Int32 type value, Maximum value), 2,147,483,647
- **Cycle:** Partially used; a data cycle
- **Duty ratio:** Refers to the position of positive pulse in the pulse period (only can be set for Triangle and Square)

De

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