

WEINTEK LABS., INC.

Free Protocol Server

Demo Project

Nicolas Wu
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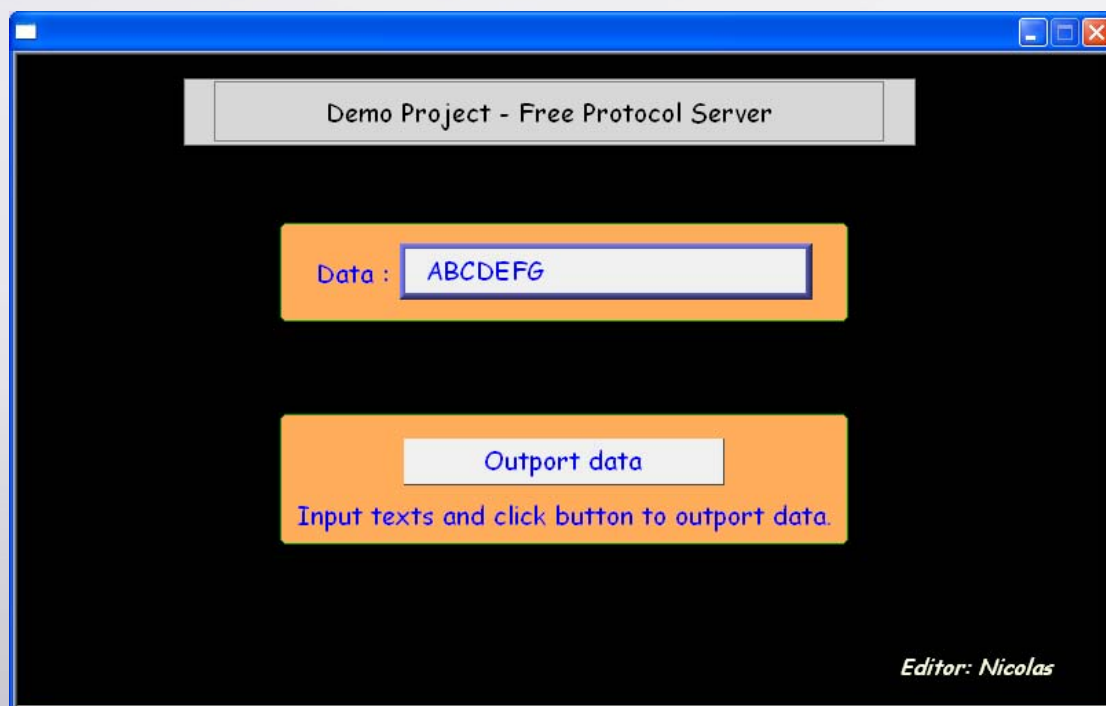
1. Overview and Operation

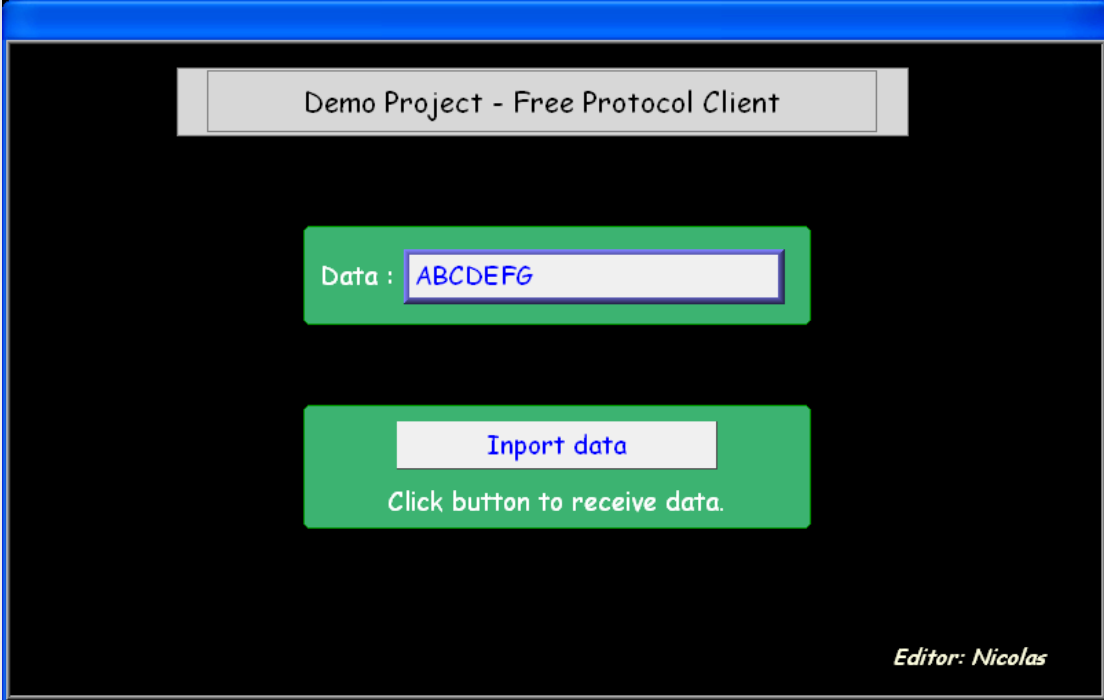
Overview

This demo project explains how to use HMI as free protocol server and communicate with another HMI or device.

Operation

Follow the steps to create two projects, one for Free Protocol Client, and one for Free Protocol Server. Separately download each project to HMI and connect the two HMIs via Ethernet. Press on the Server HMI, enter data, and then press the button to transfer data. Press the button on the Client HMI to receive and display data transferred from Server HMI.





Demo Project - Free Protocol Client

Data :

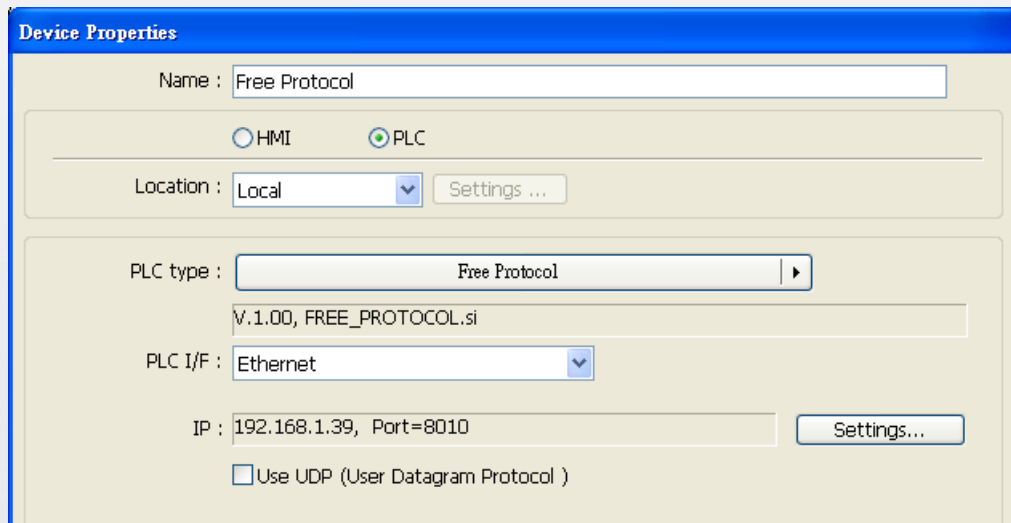
Click button to receive data.

Editor: Nicolas

2. Setting up the Screen

Create the project for Free Protocol Client.

- Step 1. Add Free Protocol driver in the Device List. In [PLC I/F] select [Ethernet], and enter the IP address of the Server HMI, and then select an unused port number.



The screenshot shows the 'Device Properties' dialog box for the 'Free Protocol' driver. The 'Name' field is set to 'Free Protocol'. Under the 'HMI' and 'PLC' radio buttons, 'PLC' is selected. The 'Location' is set to 'Local'. The 'PLC type' is set to 'Free Protocol'. The 'V.1.00, FREE_PROTOCOL.si' file is listed. The 'PLC I/F' is set to 'Ethernet'. The 'IP' address is '192.168.1.39' and the 'Port' is '8010'. There is a 'Settings...' button next to the IP/Port field. The 'Use UDP (User Datagram Protocol)' checkbox is unchecked.

- Step 2. Build Free Protocol Macro as the following.

```
macro_command main()
```

```
char Text[20]
```

```
short BytesRead
```

```
FILL(Text[0], 0, 20)
```

```
INPORT(Text[0], "Free Protocol", 20, BytesRead)
```

```
SetData(Text[0], "Local HMI", LW, 0, 20)
```

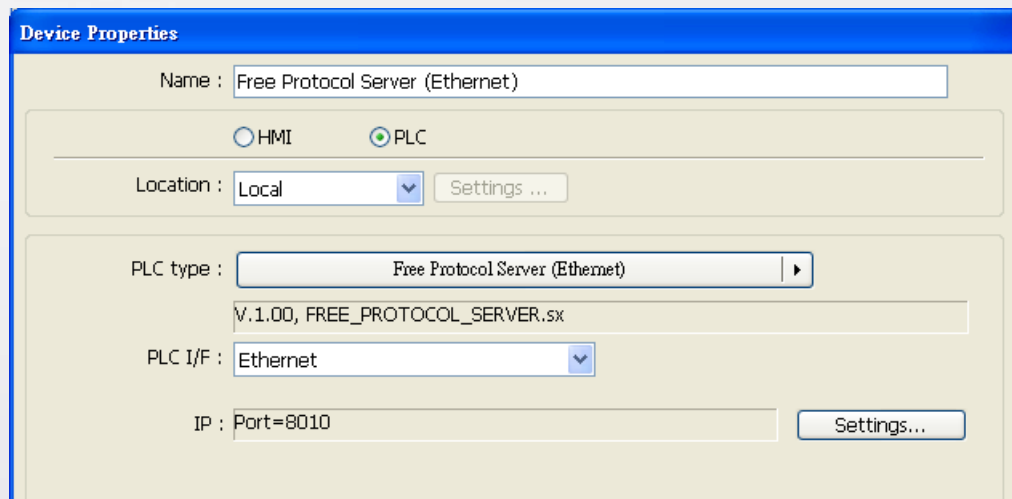
```
SetData(BytesRead, "Local HMI", LW, 20, 1)
```

```
end macro_command
```

- Step 3. Create an ASCII Display object, set address to LW-0, and the number of word to 10 words.
- Step 4. Create a Function Key object to trigger the Macro.

Create the project for Free Protocol Server.

- Step 1. Add Free Protocol Server driver in the Device List. In [PLC I/F] select [Ethernet]. Set the port number to the one used in Client HMI project.



- Step 2. Build Free Protocol Macro as the following.

```
macro_command main()
```

```
char Text[20]
```

```
GetData(Text[0], "Local HMI", LW, 0, 20)
```

```
OUTPORT(Text[0], "Free Protocol Server (Ethernet)", 20)
```

```
end macro_command
```

- Step 3. Create an ASCII Input object, set address to LW-0, and the number of word to 10 words.

- Step 4. Create a Function Key object to trigger the Macro.

3. Addresses

The object addresses used in this demonstration are listed below, please set based on actual usage.

Object	Address	Object ID	Description
Project of Free Protocol Client			
ASCII Display	LW-0	AD_0	Displays data
Function Key		FK_0	Triggers Macro
Project of Free Protocol Server			
ASCII Input	LW-0	AE_0	Enters data
Function Key		FK_0	Triggers Macro