Share Global Variables
With Visual IO

Communication by Ethernet or RTC modem between several Visual I/O applications

Principle

The applications <u>must include</u> the **same** global variables declarations. When one of the applications modifies one of its global variables, the new value is sent immediately on the network to all other connected applications via the server.

During a connection of a new application at the network, the application asks for a total update of its global variables from the application declared as the server.

Ethernet or RTC modem

Global Variables	Global Variables	Global Variables
Application 1 Server	Application 2 Client	Application 3 Client
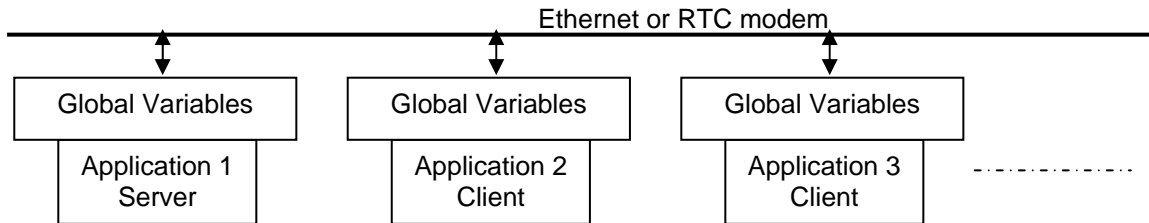
With RemoteVpu library :

1. All is included in your application.
2. You have to use only one component generally placed in your main form.
3. In run you must define an application "Server" and the others "clients"
4. When the server stops all communications are stopped.

Example

Global Variables Declaration, these variables will be shared between applications under the Ethernet network.
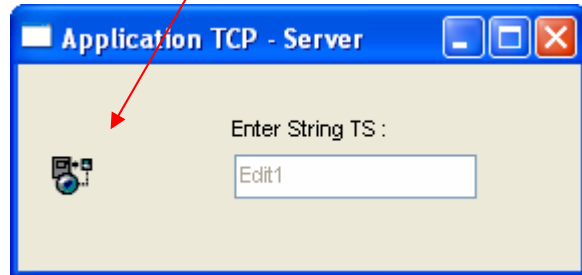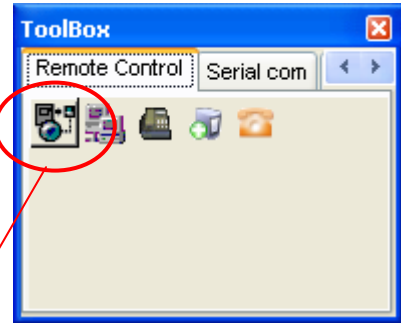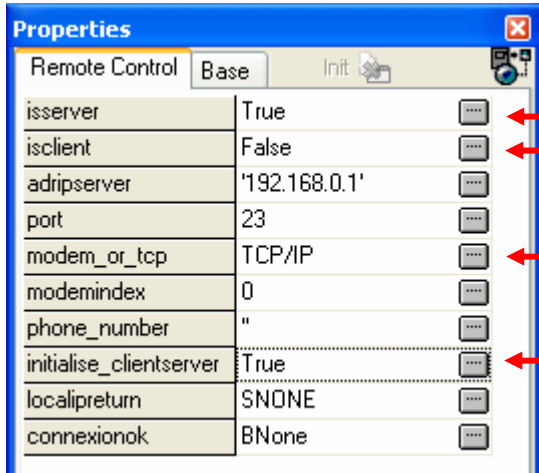
```
W0        : Integer;
TS        : String='REMOTE APPLI';
R0        : Real;
W1        : Integer;
B1        : Boolean;
B2        : Boolean;
B3        : Boolean;
B4        : Boolean;
```

ETHERNET

The Server Side

The main component is "*RemoteControl*" in the tool box
This component allows defining your application as a server or a client

In the application "Server" as it is called, place this component in the main form (first form at launch time).
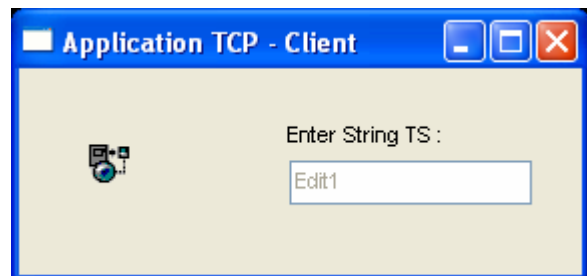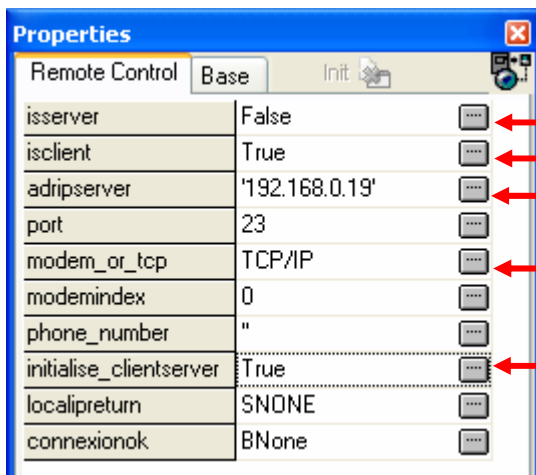

Just set 4 parameters to be a server. You can change the Port address if necessary

Note: For the demonstration and the test we have added an Editbox to modify the TS variable.

The Client Side

The client Side is similar except the properties of the Component.

Just set 5 parameters to be a client.
Attention: Report the IP address of the server and its port address.

Note: Parameter *Initialise_ClientServer* = True. In this case of TCP/IP the initialisation could be done at launch time because the IP address of the server in the client is forced at design time.
If you need to enter (for example by editbox) the IP address of the server it is necessary to initialise the communication after for example by a button.

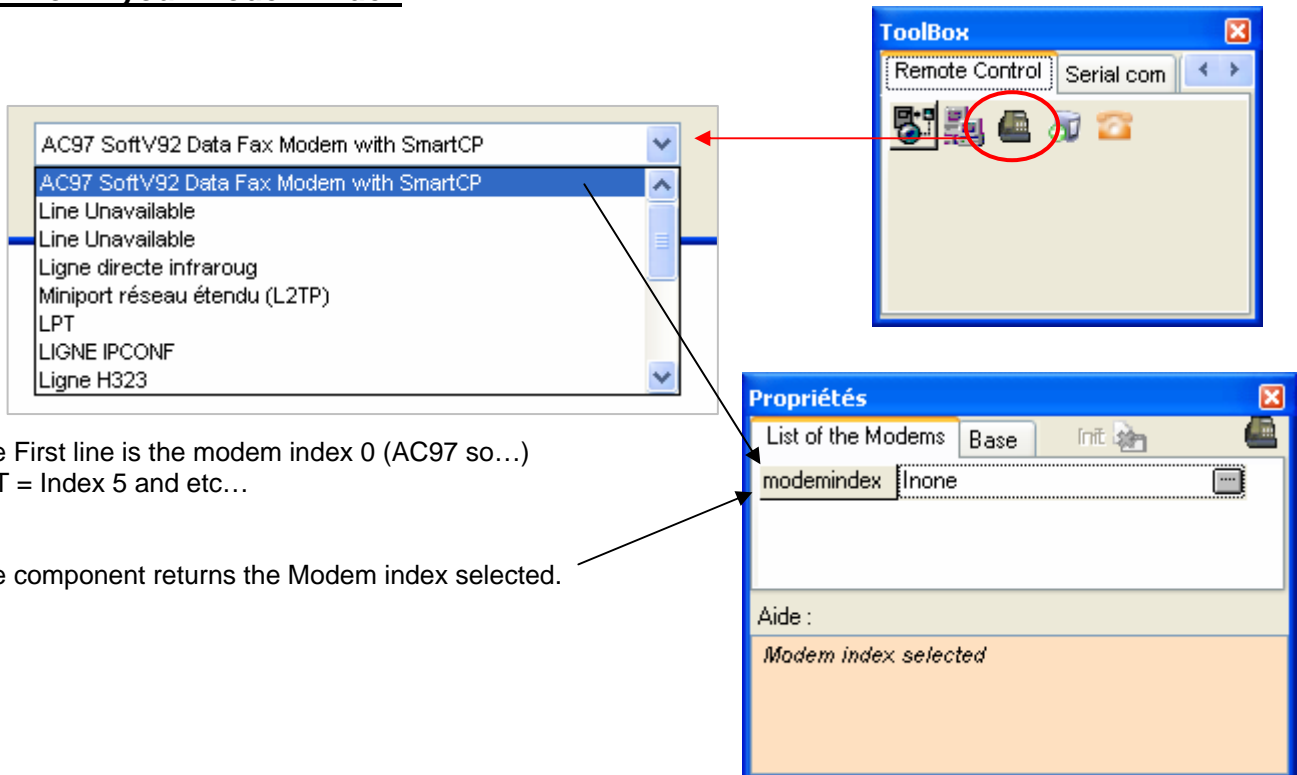Launch the server executable on the PC and several Client executables on other PC.

To known your IP Address

You can show it on a form thanks to the IPADRLOCAL component
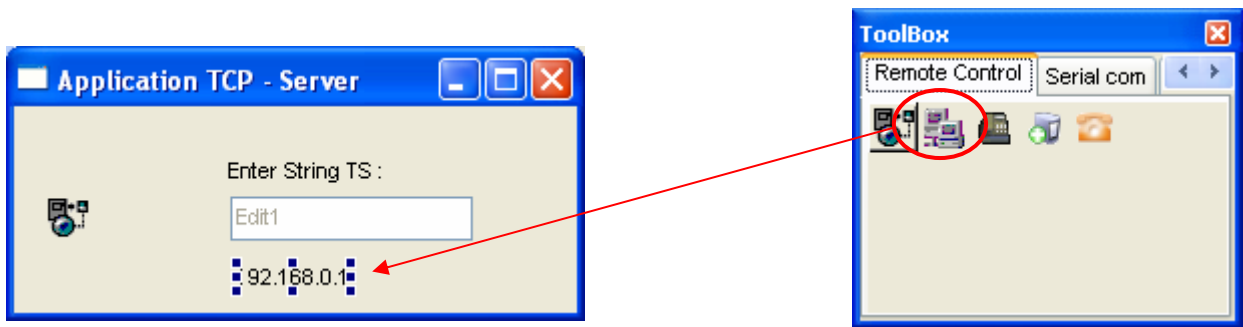
This component show you the IP address of the PC. The clients will need this information to connect the server.
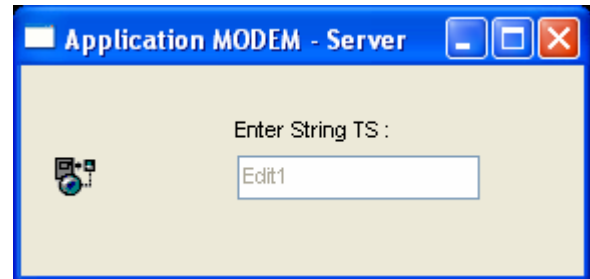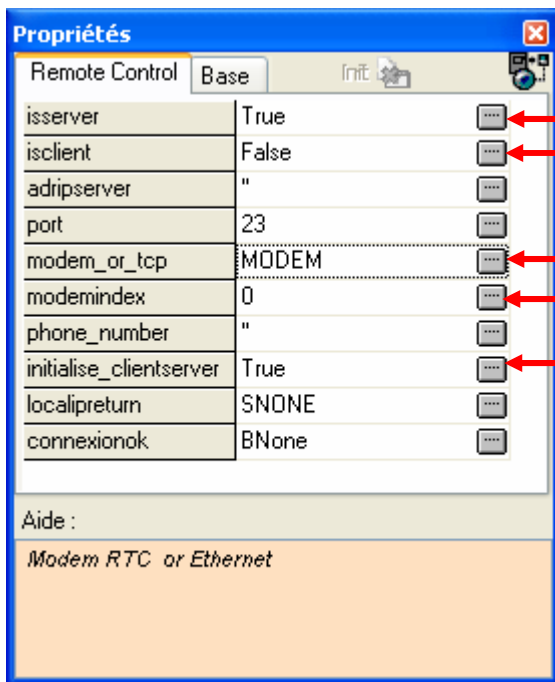
To known your Modem Index

The First line is the modem index 0 (AC97 so…)
LPT = Index 5 and etc…

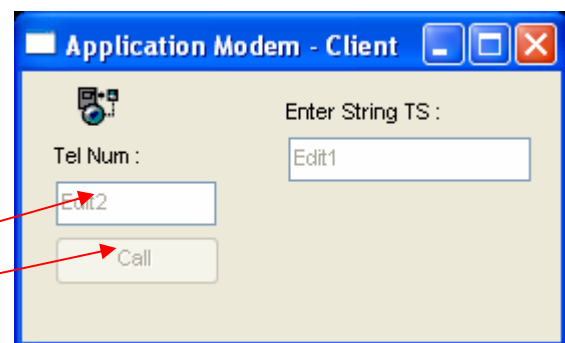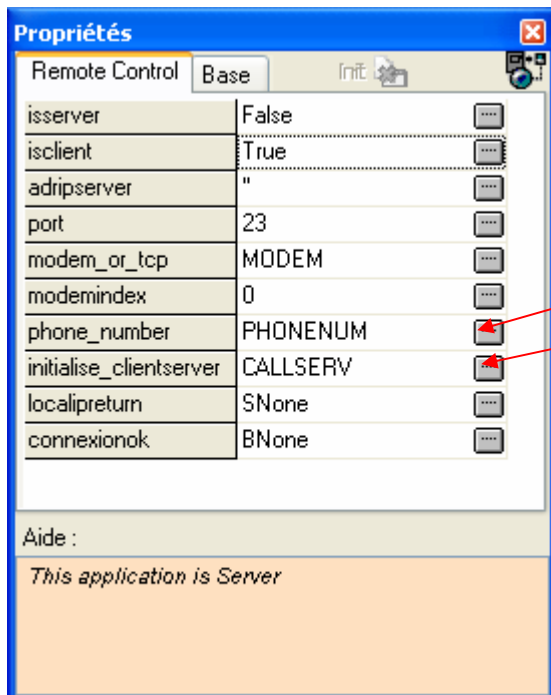The component returns the Modem index selected.

MODEM

The Server Side

Use the same component as for the Ethernet connection. You just have to specify MODEM

Just set 5 parameters to be a server. You can change the Modem Index if necessary
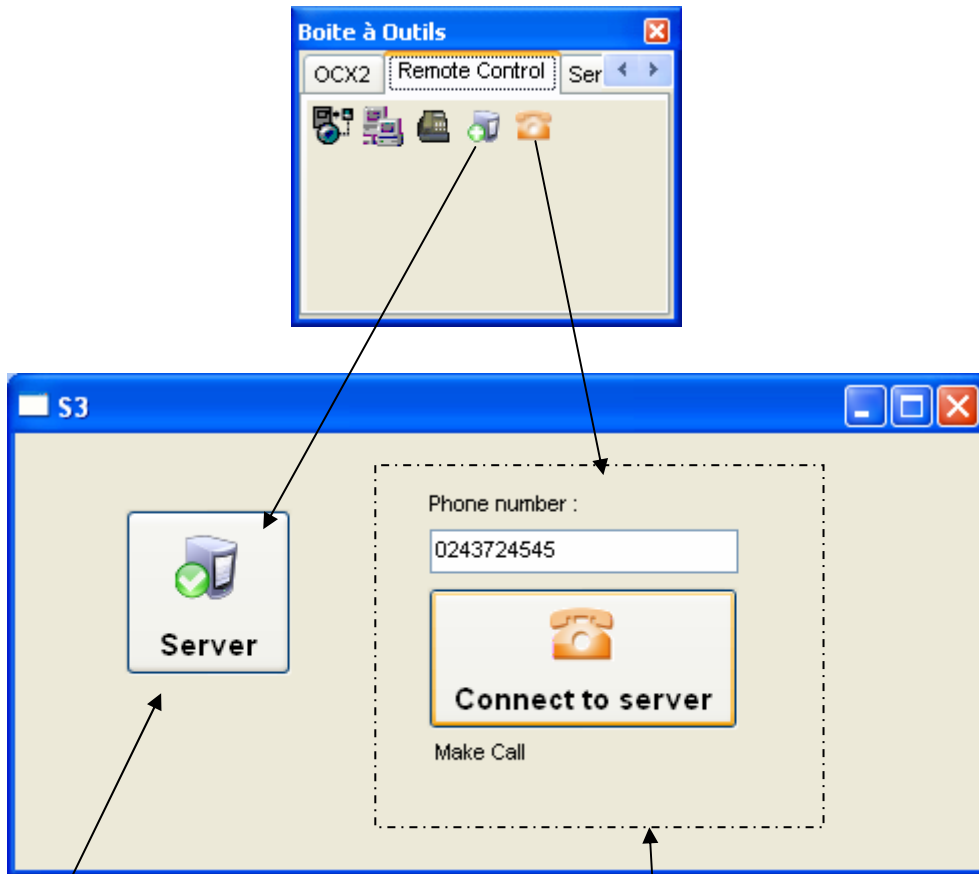
The Client Side

Just set 5 parameters to be a client.
You can change the Modem Index if necessary.
Phone_number could be as a constant or be enter from an editbox.

Initialise_ClientServer : Allows to call the server.
(To Dial the phone number)

2 Predefined components

Server Side :
This component implements A button to initialise the application as a server. You must click on the button to initialise.

Client Side :
This component implements An editbox for entering the Phone number. A button to dial-up.
And a text to display the current status of the modem.