MacComm OCX file

MacComm VB Test

MAC

Parameter Number [ ]

Normal   Alternate

[Send]   [ ]   [ ]   [Alternate Send]

[ ]   [ ]

[Flash]   [Read]   [Reset]
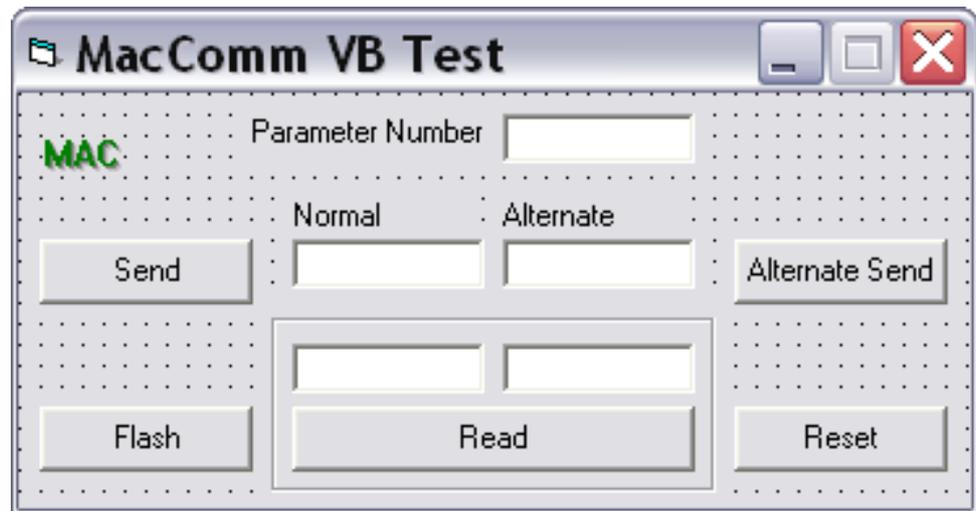
JVL's MacComm OCX* file makes it easy to develop Windows software with JVL's MAC motors.

This OCX can be used with Windows 95, 98, Me, 2000, XP, and makes it easy to communicate with the MAC and QuickStep motors and controller SMC75. The OCX enables applications to be easily developed in for example:

• Visual Basic
• Visual C++
• Visual .Net
• Delphi
• Borland C++ Builder
• LabView
• Excel

or any other environment supporting OCX controls.

The OCX makes it easy to send/read register values to/from MAC and QuickStep motors as well as the Controller SMC75. Developers do not have to think about opening and closing the RS232 port. Communication is taken care of entirely by the OCX. The OCX will take care of the special MAC protocol with checksum, inverse byte, register length and register format. You only have to specify a register no. to read from, or a register no. and value to write to. In Visual Basic the OCX only needs to be added to the controls bar, and from there dragged to a window, and it is ready to use.

Besides access to the registers the OCX also has the following features:
• Reset
• Write to flash
• 3 different customizable factors for easy data processing:
    - Position
    - Acceleration
    - Velocity

The OCX is supplied on a CD as a self extracting installer.
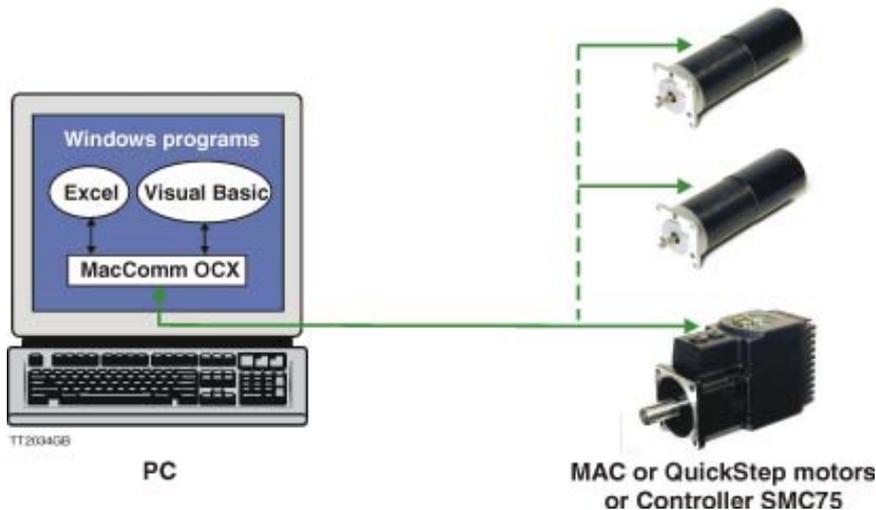
Order no.: MacCommOCX

* MacComm OCX (OLE Custom Controls. Also known as ActiveX controls)

MacComm OCX file

Placement

The following illustration displays the placement of the OCX in a typical implementation:

The registers can be read/sent in 2 ways:
- Direct
- Alternative (Using factors for relevant registers for easy data processing)

It is possible to control multiple motors MAC or QuickStep motors in a single program in 2 ways:
- Using addressing on the motors
- Adding multiple instances of the OCX each controlling their own COM port (possibly multiple motors on each port using addressing)

Installation and Use

The MacComm OCX and required DLLs are installed automatically by running Setup.exe and following the onscreen prompts.
You have the option to install a Visual Basic sample and a LabVIEW sample along with the OCX.

It can also be done manually by copying the following Microsoft redistributable DLLs to the Windows\System folder:
- OLEAUT32.DLL
- OLEPRO32.DLL

MacComm.OCX should be placed in a directory called MacComm in the Windows folder, and registered with RegSvr32 i.e. "Regsvr32 C:\Windows\MacComm\MacComm.ocx"

Adding MacComm OCX to the program

Visual Basic 6
1. In the menu Projects click Components.
2. Make sure the "Selected Items Only" checkbox is NOT selected
3. Find "MacComm OCX Control module", and put a checkmark besides it, and click OK

The MacComm OCX is now available in the controls bar
When put on a form the properties page of the object can be used to set the startup values for the 2 properties (Retries and ComPort)

Visual .NET
1. In the menu "Tools" click "Customize Toolbox..."
2. Find "MacComm OCX Control module", and put a checkmark besides it, and click OK

The MacComm OCX is now available in the Toolbox
When put on a form the properties page of the object can be used to set the startup values for the 2 properties (Retries and ComPort)

LabVIEW 7.0
1. Place an ActiveX container on your Front Panel.
2. Right click it and select "Insert ActiveX object..."
3. Select MacComm Control from the list.
4. Connect it to a "Property node" and use this to setup the properties.
5. Connect it to an "Invoke node" and use this to call the methods.

Examples of use in Visual Basic:
- Getting Operation Mode (register 2) for MAC motor on address 1:
MacComm1.ReadParameter(1, 2, Value)

- Setting Position (register 3) to 4096 for MAC motor on address 1:
MacComm1.WriteParameter(1, 3, 4096)

- Getting Register number for P_IST value:
ParamNum=MacComm.GetParam NumFromName("P_IST")