

# GCP++ TCP/IP Visual Basic Custom Controls

**GCP++ is your TCP/IP custom control vendor, with more TCP/IP controls than any competitor!** Visual Basic makes it possible to quickly write custom applications, and Dart Communications makes reliable TCP/IP access as easy as setting properties! We specialize each control to a particular protocol, so programmers are not concerned with setting numerous parameters...each control is operational in minutes!

## *Overview*

**GCP++ TCP/IP Visual Basic Custom Controls** provide a rich set of tools to develop TCP/IP applications within the Visual Basic environment, relieving the programmer of the detailed programming that the Windows Sockets interface requires. Each of Dart's TCP/IP VBX's is designed for a particular programming challenge (UDP, TCP, TFTP, TELNET or VT-200 emulation), greatly simplifying the communications task while lowering both cost and risk.

Dart's TCP/IP VBX's operate over all Windows Sockets compliant kernels, allowing your application to utilize a large installed base of existing TCP/IP licenses.

For a one-time distribution fee, developers may copy and distribute run-time support...NO ROYALTIES!

## *Controls*

All controls support outbound buffering, fault-tolerant operation, explicit event notification, and completely asynchronous, event driven operation:

- UDP** Datagrams sent and received on any port. Broadcast also supported.
- TCP** Passive *and* active stream connections.
- TELNET** Complete option *and* sub-option negotiation support! Passive connections too!
- TFTP** Get and put files from any UNIX host. Both server and client functionality!
- VT-220** Build your own customized emulator using this visual control without writing any TCP/IP *or* emulation code! Dial-up interface included!

## *Operating Environment*

Windows 3.1, Windows for Workgroups 3.11, or Windows NT. Microsoft Visual Basic version 2.0/3.0. GCP++ binds to *any* Windows Sockets version 1.1 compliant transport. Microsoft, Lanera, NetManage, Wollongong, Novell, FTP Software, Distinct, Frontier Technologies and others supply this functionality.

## *Support*

Dart Communications provides a money-back guarantee and free installation support for 30 days. The "GCP++ Developers' Forum" is a free mailing list that all GCP++ customers may join, and provides GCP++ technical support as well as a forum to discuss technical and business issues. Software maintenance support package is available. Consulting services are offered.

## *Installation*

Completely automatic. A program manager group is created and populated with icons for applications, help files, documentation, etc.

## *Licensing Policy*

The Single Develop/Run License provides development support and a license to develop and test VB applications using the custom control. The Unlimited Run-time license allows you to distribute the custom control, GCP Server, and interface library with your compiled application. If your customer needs to recompile your program, they need to purchase a Single Develop/Run license from Dart Communications. NO ROYALTIES!

## *Sample Applications*

Each Custom Control comes with a working Visual Basic application demonstrating it's operation.

# GCP++ VB Property and Event Descriptions

## *UDP Properties*

|                      |   |
|----------------------|---|
| <b>RemoteAddress</b> | Set dot address or name of host for datagram delivery. Read for datagram source.        |
| <b>RemotePort</b>    | Set remote port for datagram delivery. Read for datagram source.                        |
| <b>OpenComm</b>      | Set to True to open port, set to false to close port.                                   |
| <b>LocalPort</b>     | Set local port for datagram transmit/receive  |
| <b>Output</b>        | Set with your output string and it is sent to the RemoteAddress & RemotePort specified. |
| <b>Instance</b>      | Set to identify Output instance (reported in OnOutput event).                           |
| <b>ShowServer</b>    | Set True or False to show TCP/IP Server.  |

## *UDP Events*

|  |  |
|--|--|
| <b>OnOpenComm (Error as Integer)</b>                 | asynchronously reports on opening a UDP port.                |
| <b>OnCloseComm (Error as Integer)</b>                | asynchronously reports on closing a UDP port.                |
| <b>OnOutput (Instance as Long, Error as Integer)</b> | asynchronously reports on sent data (buffering is provided). |
| <b>OnInput (Buffer as String, Error as Integer)</b>  | asynchronously reports received data.                        |

## *TCP Properties*

|                      |   |
|----------------------|---|
| <b>RemoteAddress</b> | Set dot address or name of host for TCP connection.                                     |
| <b>RemotePort</b>    | Set remote port for TCP connection..  |
| <b>OpenComm</b>      | Set to True to connect to RemoteAddress & RemotePort, set to false to close connection. |
| <b>LocalPort</b>     | Set local port for passive connect.   |
| <b>OpenDaemon</b>    | Set to True to open passive connect (daemon), set to false to close daemon.             |
| <b>Output</b>        | Set with your output string and it is buffered for transmission to the connected host.  |
| <b>Instance</b>      | Same as UDP.  |
| <b>ShowServer</b>    | Same as UDP.  |

## *TCP Events*

|  |   |
|--|---|
| <b>OnOpenComm (Error as Integer)</b>                 | asynchronously reports on TCP active connection.    |
| <b>OnOpenDaemon (Error as Integer)</b>               | asynchronously reports on TCP passive connection.   |
| <b>OnCloseComm (Error as Integer)</b>                | asynchronously reports on closing a TCP connection. |
| <b>OnCloseDaemon (Error as Integer)</b>              | asynchronously reports on closing a TCP daemon.     |
| <b>OnOutput (Instance as Long, Error as Integer)</b> | Same as UDP.  |
| <b>OnInput (Buffer as String, Error as Integer)</b>  | Same as UDP.  |

## *TELNET Properties are same as TCP plus:*

|                    |   |
|--------------------|---|
| <b>DoCmd</b>       | Set to value of TELNET command you want to send.              |
| <b>DoOption</b>    | Set to value of TELNET option you are telling host to do.     |
| <b>DontOption</b>  | Set to value of TELNET option you are telling host to not do. |
| <b>WillOption</b>  | Set to value of TELNET option you are willing to do.          |
| <b>WontOption</b>  | Set to value of TELNET option you are not willing to do.      |
| <b>SubOption</b>   | Set to string representing suboption negotiation.             |
| <b>DoSubOption</b> | Set to suboption value (utilizes SubOption string).           |

## *TELNET Events are same as TCP plus:*

|   |   |
|---|---|
| <b>OnCmd (Cmd as Integer, TelnetOption as Integer, SubOption as String, Error as Integer)</b> | informs you of option negotiation messages from the host. |
|---|---|

# GCP++ VB Property and Event Descriptions

## *VT-220 Properties*

|                        |  |
|------------------------|--|
| <b>RemoteAddress</b>   | Same as TCP  |
| <b>RemotePort</b>      | Same as TCP  |
| <b>OpenComm</b>        | Same as TCP  |
| <b>ShowServer</b>      | Same as TCP  |
| <b>LogFileName</b>     | When set, starts log to specified file                                       |
| <b>Username</b>        | For automatic login  |
| <b>UsernamePrompt</b>  | Keys Username send   |
| <b>Password</b>        | For automatic login  |
| <b>PasswordPrompt</b>  | Keys Password send   |
| <b>ForeColor</b>       | To set text color of control   |
| <b>BackColor</b>       | To set background color of control   |
| <b>BoldColor</b>       | To set bold color for text   |
| <b>CharSet</b>         | Set character set from enumerated list                                       |
| <b>KeyMap</b>          | Set key mappings   |
| <b>TermType</b>        | VT-220, VT-100, or VT-52   |
| <b>ClearComm</b>       | Clears the communication buffers.  |
| <b>Emulate</b>         | Set True or False to enable emulation  |
| <b>SevenBitControl</b> | Set True (or False for eight-bit controls)                                   |
| <b>ClearScreen</b>     | Clears the screen  |
| <b>ResetTerminal</b>   | Resets terminal to default values.   |
| <b>Columns</b>         | Use 80 or 132 char columns   |
| <b>AutoWrap</b>        | Wrap if characters go off end of line  |
| <b>KeyPad</b>          | Set to Application or Numeric  |
| <b>CursorKeys</b>      | Set to Normal or Application   |
| <b>EditKeys</b>        | Set to DEC or IBM keyboard mapping   |
| <b>LocalEcho</b>       | Echo characters to screen  |
| <b>Copy</b>            | Copies highlighted text into Windows Clipboard                               |
| <b>Paste</b>           | Copies contents of clipboard into display at cursor location.                |
| <b>PrintMode</b>       | Set print mode to Normal, Autoprint, or Controller                           |
| <b>PrintScreen</b>     | Print screen to specified file   |
| <b>Protocol</b>        | TELNET or none (Async direct connect to com port)                            |
| <b>CommSettings</b>    | Com string (ie "com1:9600,n,8,1") if Protocol is none                        |
| <b>Output</b>          | Same as TCP. Useful for sending modem control strings.                       |
| <b>Display</b>         | Sends string to the display.   |
| <b>FlowControl</b>     | Sets flow control if no Protocol.  |
| <b>EnableInput</b>     | If true, send input data from how to OnInput event instead of displaying it. |

## *VT-220 Events*

**OnOpenComm (Error as Integer)** same as TCP.  
**OnCloseComm (Error as Integer)** same as TCP.  
**Console (Message as String)** provides console messages  
**OnInput (Buffer as String, Error as Integer)** same as TCP. EnableInput must be True for this to work.

## *TFTP Properties*

|                       |   |
|-----------------------|---|
| <b>RemoteAddress</b>  | Set dot address or name of host for file transfer                             |
| <b>RemoteFileSpec</b> | Set file specification to reference remote file.                              |
| <b>OutputFileSpec</b> | When set, file is sent to remote host.  |
| <b>InputFileSpec</b>  | When set, file is input from remote host.                                     |
| <b>OpenComm</b>       | Set to True to initialize TFTP client. Set to False to terminate TFTP client. |
| <b>OpenDaemon</b>     | Set to True to initialize TFTP server. Set to False to terminate TFTP server. |
| <b>Instance</b>       | Set to identify file transfer instance (reported in OnOutput event)           |
| <b>Mode</b>           | Set to identify binary or text transfer.                                      |
| <b>ShowServer</b>     | Same as UDP   |

## *TFTP Events*

**OnOpenComm (Error as Integer)** asynchronously reports TFTP client is initialized.  
**OnClose(Error as Integer)** asynchronously reports TFTP client is terminated  
**OnOpenDaemon (Error as Integer)** asynchronously reports TFTP server is initialized.  
**OnCloseDaemon (Error as Integer)** asynchronously reports TFTP server is terminated.  
**OnOutputFile (LocalFileSpec as String, Instance as Long, Error as Integer)** reports file was sent by server or client  
**OnInputFile (LocalFileSpec as String, Instance as Long, Error as Integer)** reports file was received by server or client



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