Contents for the GCP++ Sample Client Application

This help file applies to GCP_CLNT.EXE that dynamically links to GCP.DLL, providing an interface to the GCP TCP/IP Server.

How To ...

Introduction

GCP++ is a system comprised of a single GCP Server (GCPxx.EXE) and GCP clients. GCP_CLNT is a client example that use the server via library function calls. Four primary GCP function calls, GCPopen(), GCPdispatch(), GCPclose(), and GCPquery() have provided the model for the GCP_CLNT menu bar, and each menu item is used to fill in various parameters and make the function call. Thus, GCP_CLNT is intended to test and exercise the GCP++ system, and to provide an interactive learning tool for the application programmer who is using it.

GCP_CLNT may be used to test GCP++ functionality on one or multiple workstations. Due to the "loop-back" support provided by most TCP/IP vendors, connections may also be made back to the host workstation that test all session functionality. To do this, start two copies of GCP_CLNT on your workstation, and use your host address for all connections.

It is also possible to start multiple servers from a single GCP_CLNT task, but when this is done the extra handles are discarded...the only ramification is that created sessions will not be closed until GCPxx.EXE is manually closed.

GCP++ has been written to make your TCP/IP programming tasks easier. Enjoy!

Signed,

Mike Baldwin, GCP++ Developer

GCPopen ()

This menu is used to select the type of communications session the user wishes to use. Please refer to the GCP++ Developer's Guide for a description of the 4 server types (TELNET, TCP, UDP, TFTP), and the parameters required for each. The selection of a GCPopen() menu item instantiates a dialog box that supports the specification of address, port, etc., and builds a GCPopen() function call that is executed when the appropriate button is selected.

Generally, the "SESSION" button refers to the creation of an entity that implements the "client" side of the client-server model. The "DAEMON" button refers to the creation of a daemon that waits for an incoming service request before spawning the appropriate matching SESSION.

GCPdispatch ()

This menu is used to command an agent that was instantiated in response to the GCPopen() function call. Every selection on the GCPdispatch menu builds a GCPdispatch() function call and executes it when selected.

The GCPdispatch menu offers the following commands:

Send Instantiates the Message Transport dialog box that allows the user to build a string and send it out over the established connection. When a message arrives (asynchronously), it is displayed in the main client window. The Size field allows the user to send very large buffers. The Repeat field allows the user to specify numerous copies to be sent serially. The Remote Host group box supports UDP datagrams only that are addressed individually. When messages are received, they are displayed in the listbox at the bottom.

File Instantiates the File Transport dialog box. This supports the transfer of files (TFTP server type only).

TELNET Command When a TELNET command sequenced is received, this modal dialog box is instantiated with the parameters of the sequence. The user may then specify his own TELNET Command sequence and send it back. The sub-option string performs a coding of unprintable characters in the form: ^xxx, where the carrat symbol means that the following 3 digits contains the decimal value of the unprintable character. The coding is valid for both incoming and outgoing sub-commands.

Show GCP Server Shows the GCP Server as an icon (this is default operation when GCP++ is started via mouse click). If not started, this action starts the application (hidden).

Hide GCP Server Hides the display of the GCP Server (this is default operation when GCP++ is started via an API function call). If there are no active sessions or daemons, this also causes the GCP Server to unload itself from memory.

GCPclose ()

This menu is used to close a specific session. If the abort flag is set to true, files and/or buffers are immediately discarded. If the GCP Server is hidden, closing the last session will cause the GCP Server to unload.

The GCP_CLOSE message is received via callback confirming the close occurred.

GCPquery ()

This menu is used to query a GCP Session or the GCP Server. Each menu item builds a GCPquery function call that is executed upon command.

Selection of the Host Table item instantiates a dialog box that displays the local host name and address (line 1 of the list box), and all other names present in the host name table.