PBUS 'G' and 'V' COMMANDS
ADDENDUM

Version 032213

The PBUS protocol has been extended to add two commands that allow control of GTP-32/DC21 GPOs and Virtual GPIs using text based commands. These additional commands allow control of GPOs, VTR transport, switcher crosspoint, or any other actions supported by the GTP-32 / DC21 from a serial or ethernet interface.   The Virtual GPIs are source events (VGPI_x) that appear in the Event Monitoring Table source label drop down table.

"GTP" will be used throughout the document to include the GTP-32 Programmable-Logic Control Processor and DC21 Device Controller.

Serial Interface
Baud Rate: 38400
Parity: ODD
Data Bits: 8
Stop Bits: 1

Ethernet Interface
Default port: 50030

On the Protocol Assignment Table web page of the GTP, the selection of the interface is done under the "Edit Protocol Assignment table" link on the page. Each channel will have a Physical Connector drop down menu where the selection of serial or Ethernet can be made.

Example:

PROTOCOL ASSIGNMENT TABLE

Channel#	Physical Connector	Channel Label	Control Protocol	Group Toggle Range	
1	Ethernet_1	label0	pbus	0	0
2	Serial_1 / Ethernet_1	label1	Unassigned	0	0
3	Serial_3	label2	Unassigned	0	0
4	Serial_4	label3	Unassigned	0	0

Select Serial to use the serial interface. Select Ethernet to use the Ethernet interface.

'G' COMMAND (DC21 Only)

The 'G' command is used to turn on or off the GPOs on the GTP. GPOs controlled using the G command still follow the settings configured in the GTP's GPO Configuration table. For information on configuration of the GPOs, please refer to the GTP-32 or DC21 User Manual.

The format for the command is:

G<2 digit ASCII decimal number><ON or OFF><CR>

The command always begins with 'G'. The 2 digit ASCII decimal number represents which GPO is controlled by the command, ranging from 1 to 32. This is followed by either 'ON' to turn on the selected GPO, or 'OFF' to turn off the selected GPO. The command is terminated using <CR> which is hexadecimal value 0x0d or decimal value 13.

Examples:
G15ON<CR> = Turn on GPO 15
G02OFF<CR> = Turn off GPO 2

'V' COMMAND (GTP-32 and DC21)

The 'V' command can be used to trigger a Virtual GPI within the GTP. Virtual GPIs are momentary events that are used in the Event Monitoring Table to trigger actions. Assign an action from the ON Function pull-down menu. Because Virtual GPIs are momentary events, actions selected in the OFF Function pull-down menu are not executed. For information on configuring the Event Monitoring Table, please see the GTP-32 or DC21 user manual.

The format for the command is:

V<2 digit ASCII decimal number><ON><CR>

The command always begins with 'V'. The two digit ASCII decimal number represents the Virtual GPI that is controlled and it ranges from 1 to 32. This is followed by 'ON' and terminated using <CR>, > which is hexadecimal value 0x0d or decimal value 13.

Examples:
V01ON<CR> = Turn on Virtual GPI 1
V20ON<CR> = Turn on Virtual GPI 2