

# Model 5971-003 Amplifier Control Interface

Version 1.1

## Features

Manipulates gains on any logical channel

Easy-to-use, color-coded windows

User-selectable channel groups

Up to 8 channel groupings at once

Channels can be assigned to multiple groups

Maintains Gain Files that encapsulate all channel settings and groups to a single, easily-loaded file

Rapid gain configuration

Rapid channel-group configuration

Simple gain and channel modifications

Clear, easy-to-read system status message display

Easy group or channel assignment and configuration via dedicated windows

The Amplifier Control Interface tool (ACI) is component of the DSPCon Piranha III™ system suite. It directly manipulates gains on any Logical Channel in the current acquisition configuration. (Logical Channels are chains of connected device channels). The ACI interfaces via Ethernet to the Piranha System Executive (Model 5960-001). This enables it to be run remotely by any PC with permission to access the workstation on which System Executive is running.

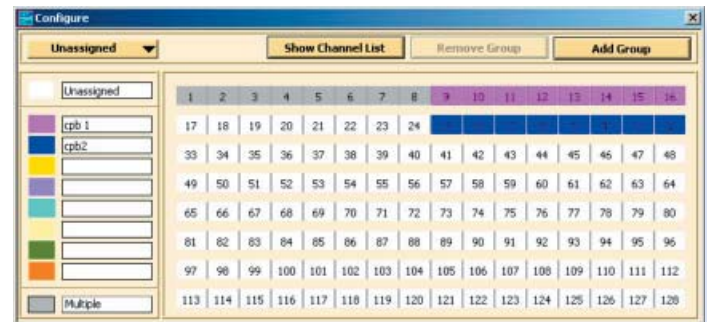
The Amplifier Control Interface Tool creates, loads and saves gain configurations. These configurations can be used for rapid modification of gain settings on logical channels. The Tool uses the concept of Channel Group operations to perform these functions.

## Channel Group Concepts

A Channel Group is a user-selected list of channels that can be assigned the same gain setting in a single operation. The ACI allows for the creation of eight channel groupings. Grouping enables similar channels to be assembled together.

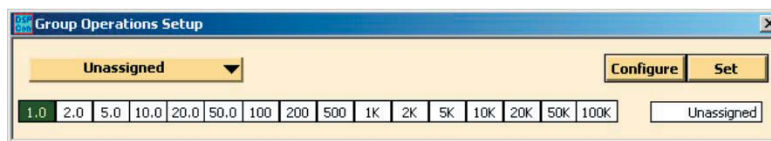
All channels not assigned to a group are included in an "Unassigned" category. Unassigned categories are not groups, per se, as channels cannot be directly assigned to them. However, the ACI performs group operations on an unassigned category just as they are performed on a group.

A channel can be assigned to multiple groups. Group and channel settings can be saved as an Acquisition Gain File that encapsulates all channel settings and channel group assignments to a single file. (Continued on page 2)



Sample Group Assignments

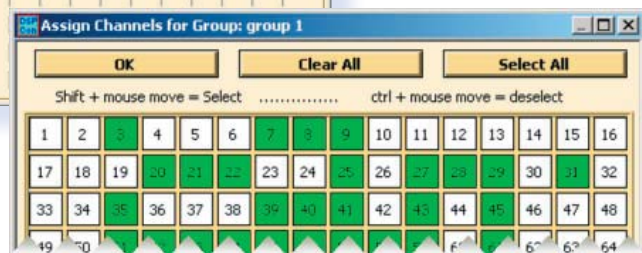
## Sample GUIs



Group Operations Setup Window



Configure Groups Subwindow



Assign Channels Subwindow

All Amplifier Control Interface windows are color-coded to provide a simple, easy-to-interpret format.

## Ordering Information

Model 5971-003



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# Simple Configuration and Modification

## File Types

An **Acquisition Gain File** encapsulates all channel settings and channel group assignments into a single file that can be created, loaded or saved at any time using the ACI's File Menu. Upon loading, an Acquisition Gain File modifies the current settings to those contained in the gain file for each channel. The new settings can then be applied to the current acquisition.

A **Group File** contains a group's name and default setting. Channel assignments are not contained in the group configuration. Although groups can be created at any time, only those groups that existed on startup are available for configuration.

**FILE MENU**  
Deletes, Loads, Saves and Creates new Gain files and Groups.

**SETUP MENU**  
Launches the Group Operations Setup function for configuring Channel Groups and setting Gain Values.

**STATUS & CONFIGURE PANE**  
Color-coded display that provides information on *current operating state* and *currently-active test definitions*.  
*Group Button* launches the Group Operations Setup window, *Clear Button* removes all pending changes, *Apply Button* applies new gain settings and restarts acquisition.

**Channel Number**

**Channel Name**

**GAIN CONTROL PALETTE or CONTINUOUS GAIN SELECTOR**  
Color-coded display that shows up to 16 discrete *Gain Control* settings (shown) OR the *Continuous Gain Selector* slider controls.

**Group ID**

**SCROLLBAR**  
Used to move through the entire range of channels displayed in the window.

Amplifier Controller  
File Setup Help  
Test Definition: ... Testing\cpb\sysconfig\_1ss\TDF 1ss1amp Limits100.xml  
... State: Idle (Ready) ...  
Group Clear Apply

Channel Number	Channel Name	1.0	2.0	5.0	10.0	20.0	50.0	100	200	500	1K	2K	5K	10K	20K	50K	100K	Group ID
1	M1 Tach	1.0	2.0	5.0	10.0	20.0	50.0	100	200	500	1K	2K	5K	10K	20K	50K	100K	10K
2	M2 Tach	1.0	2.0	5.0	10.0	20.0	50.0	100	200	500	1K	2K	5K	10K	20K	50K	100K	10K
3	CH3	1.0	2.0	5.0	10.0	20.0	50.0	100	200	500	1K	2K	5K	10K	20K	50K	100K	10K
4	CH4	1.0	2.0	5.0	10.0	20.0	50.0	100	200	500	1K	2K	5K	10K	20K	50K	100K	10K
5	005-G0217G01-R1	1.0	2.0	5.0	10.0	20.0	50.0	100	200	500	1K	2K	5K	10K	20K	50K	100K	10K
6	005-G0217G02-R1	1.0	2.0	5.0	10.0	20.0	50.0	100	200	500	1K	2K	5K	10K	20K	50K	100K	10K

This illustration provides a road map to the main Amplifier Control Interface application window.

