

# What's New for Cascade and Cascade Plus with APWIN versions 2.22 / 2.24

April, 2003

## New Features and Changes in the System Two Cascade control software, APWIN versions 2.22 / 2.24

Audio Precision® APWIN™ version 2.24 is a maintenance release to version 2.22. Version 2.22 supports and adds new capabilities to the System Two Cascade and Cascade Plus Audio Test Systems.

### Support for New PSIA-2722 Programmable Serial Interface Adapter

The key new feature in APWIN 2.22 is software support for Audio Precision's PSIA-2722 Programmable Serial Interface Adapter.



Figure 1. PSIA-2722 accessory.

The PSIA-2722 is an accessory unit for System Two Cascade and Cascade Plus. A serial interface adapter such as PSIA-2722 is required to transmit or receive digital signals and associated clock inputs and outputs for non-AES3/IEC60958 serial formats often encountered in telecommunications and converter design and testing.

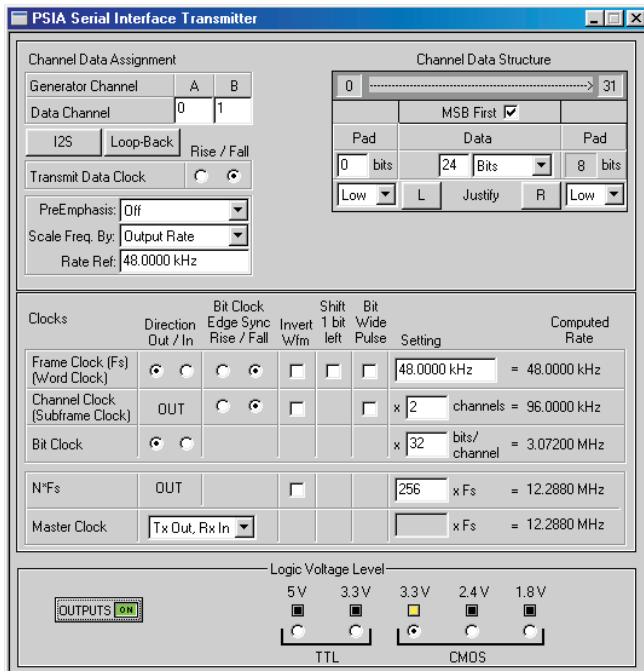


Figure 2. PSIA-2722 Transmitter Panel

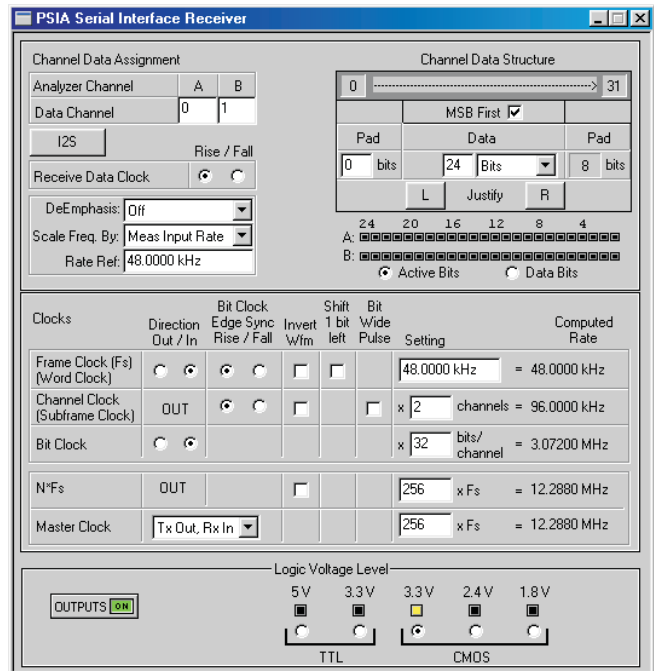


Figure 3. PSIA-2722 Receiver Panel

The PSIA-2722 is similar in capability to the earlier Audio Precision SIA-2322 accessory, with a great advantage: the PSIA-2722 is software controlled. PSIA-2722 is configured and operated from new PSIA Transmitter and Receiver panels in APWIN version 2.22. The setting of master clock rate, N\*Fs, Bit rate, number of channels, word length and sample rate is much more intuitive and is aided by automatic software calculations. What's more, each test configuration is saved as part of the Cascade test file. Setups for specific converters can be loaded from previous tests or imported from sample files.

### DCX-127 Port D (J141) now addressable

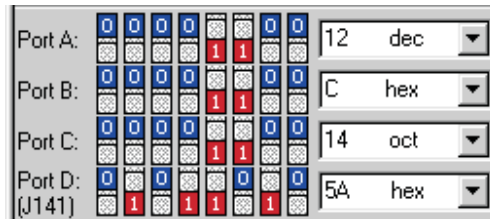


Figure 4. New Auxiliary Output Port on the DCX-127 panel.

Port D, the fourth Auxiliary Output port on the DCX-127 Multifunction Module, was previously only addressable by AP Basic command. APWIN Version 2.22 enables you to address this port directly from within the control software. Port D is available on the 15-pin D-Sub connector labeled “J141” on the DCX-127 rear panel.

### Data Export as Excel spreadsheet now available

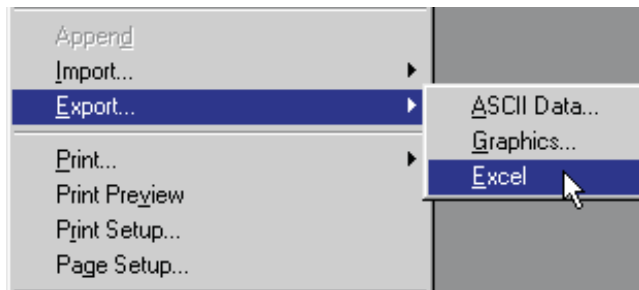


Figure 5. New File > Export > Excel option.

In addition to the ASCII text format available in previous versions, in APWIN 2.22 you can now export test data as a Microsoft Excel spreadsheet. Microsoft Excel must be installed on your PC for this option to function.

### New Graph Legend features

	Sweep	Trace	Color	Line Style	Thick	Data	Axis	Comment
✖	1	1	Cyan	Solid	1	DSP Anlr.Level A	Left	
✖	1	2	Green	Solid	1	DSP Anlr.Level B	Right	

Figure 6. New Graph Legend columns.

Three new columns have been added to the Graph Legend window, displaying more information about each trace in an APWIN graph. The new columns are **Sweep**, **Trace** and **Comment**.

- In a multiple-sweep graph (such as appended sweeps or nested sweeps), **Sweep** identifies each by number.
- In a multiple-trace sweep (Data 2 through Data 6 used), **Trace** identifies each by number.
- **Comment** provides a cell to enter an optional comment for each trace row in the Graph Legend.

### ***New AP Basic Graph commands***

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APWIN version 2.22 adds the following set of commands for automation of APWIN graph features. These commands are discussed in detail in the *APWIN 2.22 Addendum*.

- AP.Graph.AddComment
- AP.Graph.CompanyNameShow
- AP.Graph.Label
- AP.Graph.LabelAuto
- AP.Graph.Legend.Comment
- AP.Graph.Legend.LineColor
- AP.Graph.Legend.LineStyle
- AP.Graph.Legend.LineThickness
- AP.Graph.RefDataClear
- AP.Graph.RefDataShow
- AP.Graph.RefDataStore
- AP.Graph.ScrollBarsOn
- AP.Graph.Sweeps
- AP.Graph.SweepShow
- AP.Graph.SweepsTrace
- AP.Graph.TimeDateShow
- AP.Graph.Title
- AP.Graph.TraceShow
- AP.Graph.ZoomOriginal
- AP.Graph.ZoomOut

### ***Tests Using Digital Analyzer Amplitude References are Now Correctly Loaded***

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In previous versions of APWIN, values for amplitude references (**dBr1**, **dBr2** and **V/FS**) for the DSP Analyzer programs (Digital Analyzer, FFT, FastTest and Distort) that were loaded by opening a test were not correctly applied to the opened test. The loaded reference values were visible in the appropriate References fields, but the values actually applied to the test were the default values for each reference. This was incorrect operation.

APWIN 2.22 has fixed this bug, and the reference values loaded in an opened test are now correctly applied to the test. If the reference values saved in the test were different from the default values, any data in the test that are dependent upon one of these references will have been incorrectly computed by earlier versions of APWIN, and such a test opened in APWIN 2.22 will show different (but correct) measurement values.

## ***OLE command APGen.Ampl is deprecated***

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We recommend that you do not use the command APGen.Ampl.

APGen.Ampl sets the amplitudes of both Channels A and B when both elements are active. In previous versions of APWIN the command would also set the Channel B amplitude even if the Channel B amplitude element were currently inactive due to Track A being set.

This incorrect behavior has been fixed in version 2.22, with the consequence that an APGen.Ampl command when Track A is set generates an error. To set generator amplitudes with Track A set, instead use APGen.ChAAmpl.