

Application Note 6

Trendview Recorder Demo Mode

Setting up and using the Demo function of the Trendview Recorders

The Trendview recorders have a built-in demo mode feature to aid in demonstrating the capabilities of the recorder. Pens that are associated with unused input card slots in the recorder can be set up as part of the demo to show signal traces on the recorder's display. A number of different signal types such as sine wave, square waves, ramps and pulses can be programmed, which aid in demonstrating Alarms and Message capabilities. When using the "Demo Traces" Mode of the recorder, keep in mind that these are only displayed if there is no Analog or Digital I/O card installed in the input card slots of the recorder.

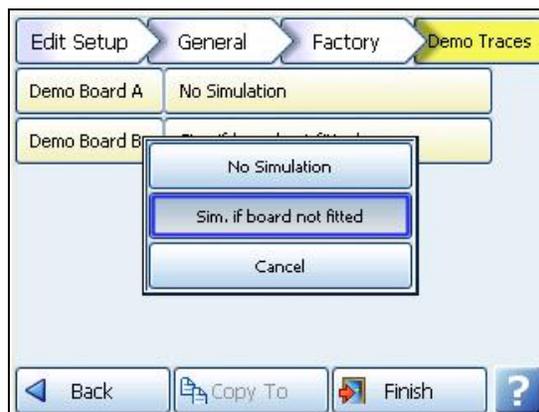
Configuration of the Demo Traces Function

Using the "Demo Traces" function can be very useful for demonstrating many of the features and capabilities of the recorder without have to connect an actual signal to the analog or digital input channels of the recorder. Demo Traces can be set to produce a number of different signals such as Sine, Square waves, Ramps, a Pulse or just a Random noise signal. When using the Demo Traces, there are a number of steps required in order to generate the most impact. It requires not only turning on the Demo Trace function but setting up the corresponding Analog I/O channels, the Pen Settings and the Layouts that will show these values. Adding Events and Messages can further enhance the demo. The first step is to make sure that no boards are in the slot(s) you plan to use for the demo traces, if it is, you need to remove this board for the Demo Traces to work.

Once this has been accomplished, you can go into the recorder's Configuration to enable the Demo Traces; this is found by following the path *Main Menu>Configure>Setup>Edit>General>Factory*. This gets you to the screen shown below, which allows you to enable the Demo Simulation Traces if board is not fitted.



Factory Set Up Menu



Enable Demo Traces

Setting up the Analog I/O for Demo Traces

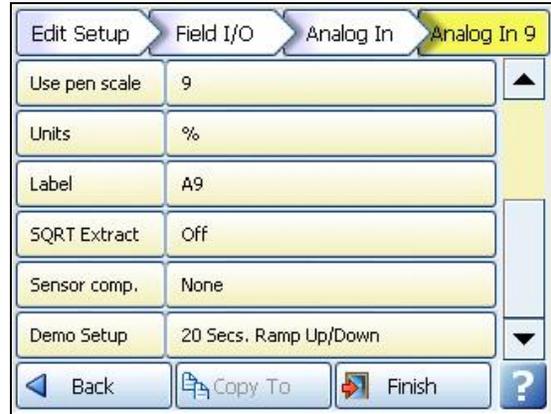
The Analog I/O controls the basic traces used in the demo program; this is where you set the type of demo trace to be displayed, whether it is a square wave, sine wave, ramp or other type of trace. To set this, go to *Main Menu>Configure>Setup>Edit>Field IO>Analog In*.

Select the Analog Input that corresponds to the inputs for the Slot being used for the Demo – If Slot A is being used these would be AI 1 through AI 8,

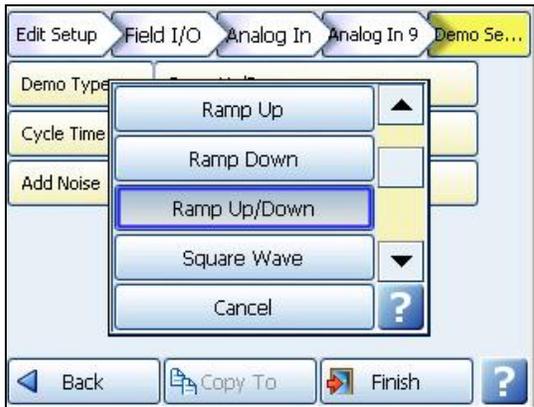
Slot B would be AI 9 through AI 16. For this write up, slot B is being used so the first input, AI 9 will be set up as a Demo trace using a ramp up/down signal.



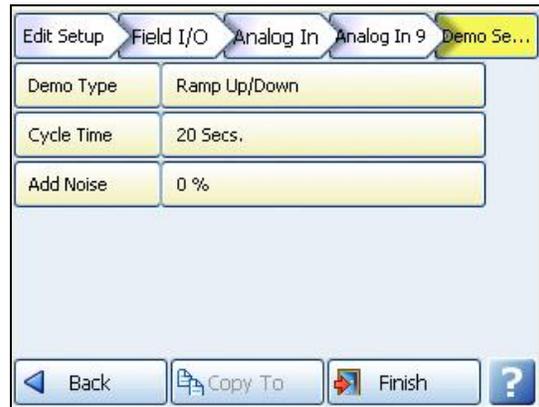
Setting AI 9 to Be a Demo Trace



Setting Type of Demo Trace



Demo Trace selecting Ramp Up/Down



Setting Parameters for the Ramp

Setting up the Pens and Layout for Demo Traces

The Pens Setup allows you to set the Pen to the Analog Input set up with the Demo Trace, adjust the Scaling, enable Logging and set Alarms.

For the demo, set the Pen Math expression to equal the previously set Analog input (Edit Maths = A9).

Enable Logging and select an appropriate rate in order to have some logged data that can be imported into TrendManager Pro, and set an Alarm that can be used to demonstrate some of the Alarm features like tying a Message to an Alarm, the Allow Change feature and Alarm Acknowledge.

For putting an Alarm Message on the chart, set up an Event with the Alarm as a Cause and the Effect as "Mark Chart".

Edit Setup		Pens		Pen 9	
Maths Type	Full Maths		▲		
Edit Maths	A9				
Scale	0.0 to 100.0 %				
Logging	✓ 10 Sec Cont				
Alarms	1 Hi				
Totaliser	✗		▼		
◀ Back		📄 Copy To	▶ Finish		?

Setting Pen Parameters for Demo

Edit Setup		Pens		Pen 9		Alarms		Alarm 1	
Enabled	Enabled Always		▲						
Type	High								
Level	40.0 %								
Tag	P9 Alm 1								
Allow Change	✓								
Relays Out	None		▼						
◀ Back		📄 Copy To	▶ Finish		?				

Setting Alarm Parameter for Ramp Demo

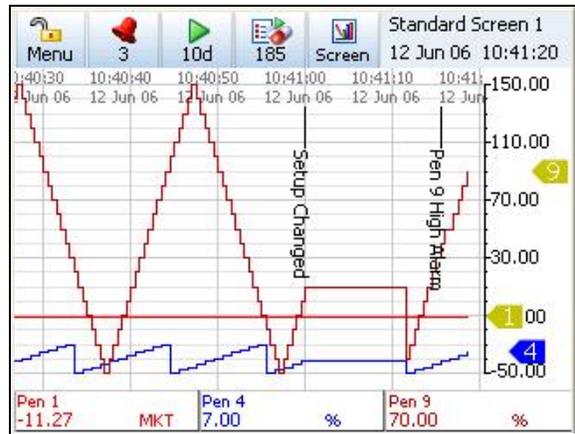
Once the Pen, Alarm and Event parameters have been set, the final step is to configure the Layout to show the Pens being used for the demo traces. The Minitrend can support up to 20 different screens while the Multitrend can have up to 32 different screens. For demo purposes it is best to configure a few of the screens to show the different types of standard screens available to the user. These include screens like the Digital Panel Meter, Digital Panel Meters and Bar graphs, Charts and Digital Panel Meters, Charts and Scales (Single or Multiple Scales) and Charts, Digital Panel Meters and Scales. Custom Screens can also be used for those that have enabled this function in the "Credits" Menu.

To set up the Layouts, go to *Main Menu>Configure>Layout>Screen 1* and set the Type and Pens to be displayed.

Once these Configuration parameters have been committed, selecting the screen that you set up will allow you to see the final results of setting up the Demo Traces, the Analog I/O, the Pens with an Alarm, the Event and the Layout as shown below.

Screens		Screen 1	
Name	Standard Screen 1		
Enabled	✓		
Template Type	Chart and DPM's		
Showing (Pens)	1, 4, 9		
Orientation	Horizontal		
Background C...	◆		
◀ Back		📄 Copy To	▶ Finish

Setting Layout Parameters



Final Demo - Display Chart & DPM's

Summary

As you can see the Demo Traces can provide a convenient, simple method of demonstrating many of the features found in the Trendview recorders without having to supply your own input signals. The demo traces make it easy to set up a variety of changing signals that make the demo more interesting. Setting up the Demo Traces will provide a good understanding of how the functions within the recorder interact since it requires you to set up an Analog Input, a Pen, an Event and the Layout in order to show the demo trace.