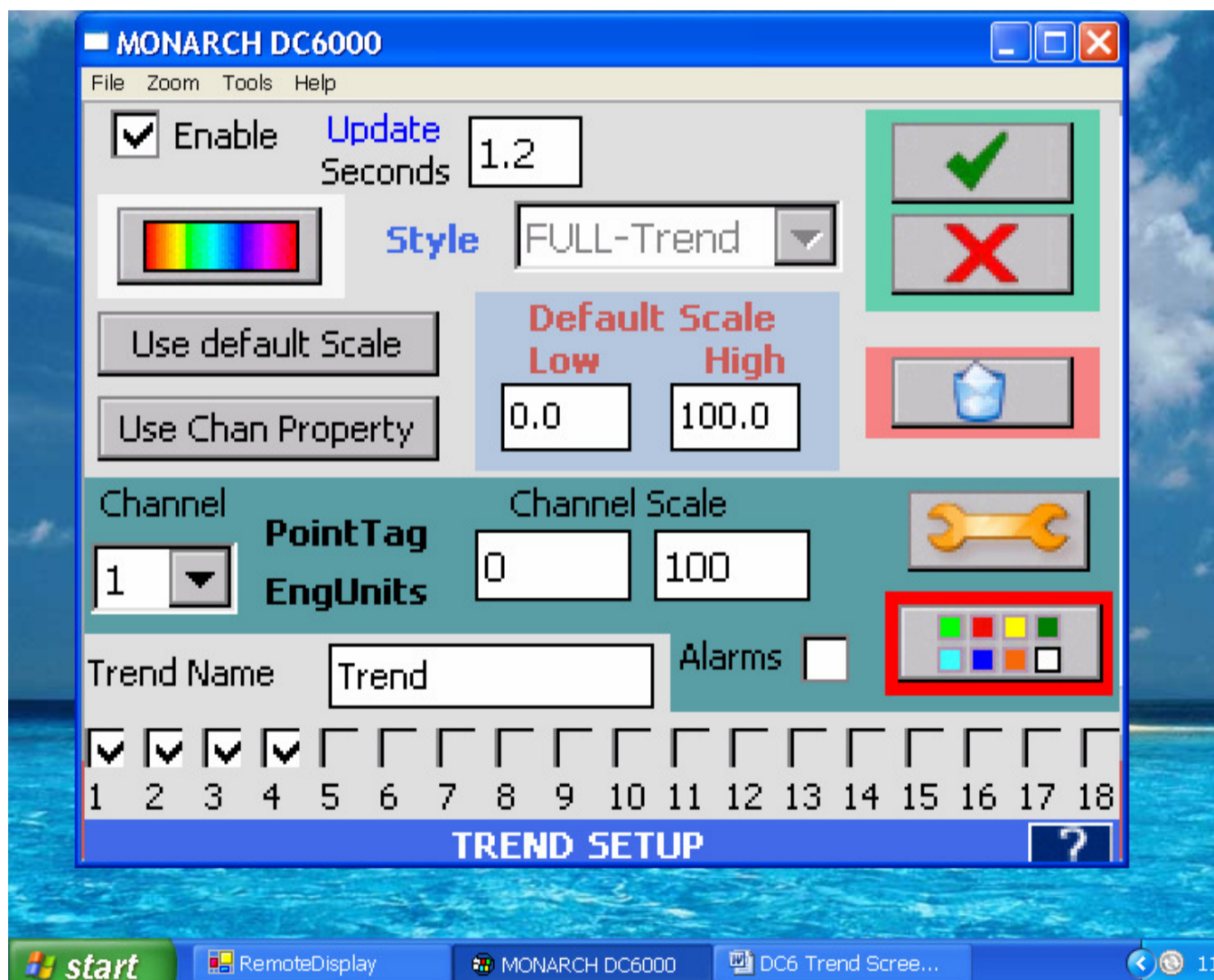


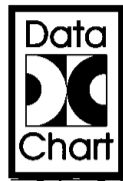
DATA CHART DC6000 APPLICATION NOTE

TREND SCREEN SPEED CONTROL AND BUFFER SIZE

The DC6000 Horizontal Live Trend Screen is a representation of the information in an internal buffer independent of what data gets recorded to the storage medium. The live screen is made up of approximately 250 samples. You can also “pause” the trend and view about 5 times that many samples from the buffer that the live screen uses to form its display. The Update setting in the Trend Setup Menu (see illustration below) determines the screen (chart) speed. Approximately 72 samples equals one inch. 72/60 seconds equals 1.2 seconds per sample. In the trend screen setup shown below, the setting is for 1 inch per hour screen (chart) speed.



With one sample per 1.2 seconds times 1250 samples (buffer size), the trend screen can be reviewed historically for 1500 seconds (approximately 25 minutes). At a sample rate of every 10 seconds, you would see approximately 3.5 hours in the buffer. If the sample rate were set to one per minute, you would be able to review approximately 21 hours. At a sample rate of one per 10 minutes, you would be able to review 9 days. 30 Minutes would yield 27 days, and 1 hour would provide 54 days, and so on.



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Dividing any of these calculations by 5 will give you the amount of data being viewed in the live trend view at any given time.

It is important to remember that the samples in this buffer are the averaged value sampled real-time at 8 times per second, regardless of the rate that you write an update to the screen (chart). So no data is lost or not considered in the actual trended or recorded data. Alarms are checked at 8 times per second as well so no alarm information can be lost or missed as a result of any update rate chosen in the Trend Screen Setup Menu.

Below is a snapshot of a live trend screen with a chart speed of 1 inch per minute.

