

TrendView Recorders Printing and Trend Documentation Capability

Product Information Note

The TrendView Recorders provide efficient methods to save and document process data to easily provide historical records of process performance. The recorders provide the ability to print reports and graphs locally to a direct-connected printer, to print to a network-connected printer, to save the trend images locally in a bit map format, to save or print recorder generated reports in a RTF (Rich Text Format) and to e-mail them directly to users. The TrendView Recorders can also be networked, providing data in real-time or via file transfers using the TrendManager Pro software so reports and graphs could be generated at the PC

Local Printing and Documentation Capabilities of TrendView Recorders

The TrendView recorders provide the ability to generate process reports and print graphs directly from the recorder or to save these to the local USB or Compact Flash memory in a format that allows them to be printed without special software from a PC.

The recorder allows a local printer to be connected through the USB port or network and to print these graphs and reports right at the recorder for a quick hard copy record. Screen captures of the current display can be saved or printed from the Replay or Real Time display modes, allowing the user to capture a paper record of the actual recorder screen if desired. Recorder Reports can also be generated using the Reports function and saved to the removable media, printed and e-mailed. The printing to a local or network printer requires the printer to support PCL 3, PCL3GUI or PCL5 (Print Command Language). There are many multi-function printers that do scanning, printing, photo prints and faxing that may support PCL 3, PCL3GUI or PCL5 language commands but also use special drivers that support these other functions. These can easily be loaded on a PC but will not work with the TrendView recorders because the recorder does not support the installation of these other drivers.



Key capabilities of the recorder's print capability include:

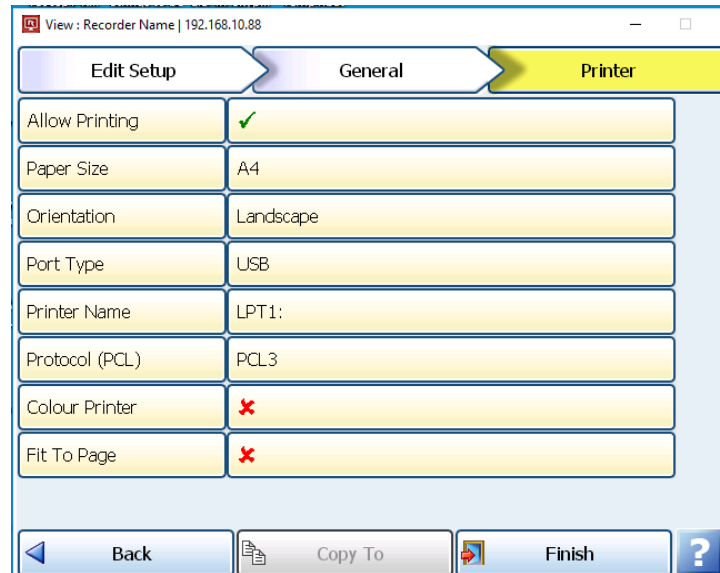
- Print a "screen capture" to a local or network printer
- Save a bitmap image of the current recorder screen to the local USB or Compact Flash memory
- Use the Event System to print a screen to a local or network connected printer and e-mail this image
- Use the Event System to store a bitmap image to the local media
- Print summary Reports generated by the "Reports" capability and either print, save them to the local media or e-mail
- Tick "Fit To Page", if the recorder screen printing to be stretched to "Paper Size" selected. Print Samples section has some of the stretched images for reference.

Connecting to a Printer

The TrendView recorder makes it very simple to connect a local or network printer in order to print out a graph or report from the recorder. For local printing, the printer is connected to the front or rear USB port of the recorder. In case of DR Graphic recorders the printer cable is connected to the internal USB extension cable socket above the power supply. A few simple commands on the printer set up configuration screen of the recorder are needed to define the paper size, print orientation, Port Type, Protocol (PCL), Fit To Page whether it is a color printer, to allow printing and setting the local path or printer name for the printer. For a locally connected printer you would use the configuration "LPT1:" in the Printer Name. If the printer is to be a network connected printer the printer name would be the IP address, or IP address:, Port number, or network path to the printer, so a configuration like "\\pa62NT001\printer name" might be used.

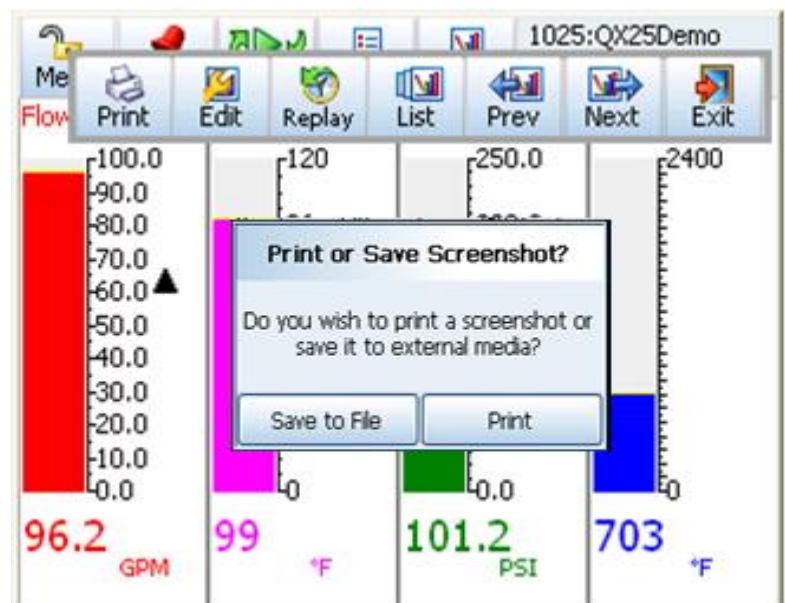
This may also require setting a User name, Password and Domain in the Network Administration configuration screen if the recorder is on a secure network. The recorder screens where these parameters are set as shown in the image alongside.

As with any network set up, the IT department should be involved with getting any network or shared printing working based on the network topology because issues with network paths, blocking by virus protection software and such can affect the set up.



Screen Captures

The TrendView Recorders supports the ability to do a screen capture; allowing the user to print these, to save them to the local media and to e-mail these to up to twelve e-mail addresses. The screen capture can be done in either the Real time mode or from the Replay mode. The Screen button on the Main Menu provides access to the sub-menu Print button allowing the user to select the printing or screen capture function. (Shown below) The file is captured as a bitmap (.bmp file) and for the eZtrend QXe and Minitrend QX recorders is approximately a 150kbytes while a Multitrend SX and DR Graphic screen capture is approximately 940Kbytes.



These can also be set up so the screen capture or printing is triggered automatically using the Event system of the recorder. Up to four causes, such as an alarm or End Batch event, can be used to trigger a screen capture plus up to three additional effects. An example of how this could benefit a user would be to set up an Event that when a batch ends, this causes the creation of a Recorder Batch Report, does a screen capture of the current trend display and e-mails them to the process engineer so he knows that the batch has ended and he has a summary report and graph of the batch.

Setting Events to Print or Do a Screen Capture

The Event function of the TrendView Recorders allows you to establish predefined actions to trigger single or multiple events within the recorder. Up to four specific "causes" can be used to trigger up to four specific actions or "Effects". The causes are set up as an "OR" function with the Effects being an "AND" function so if you have three causes set up and four Effects, if any one of the causes occur it with causes all of the configured Effects to happen.

The Event System is a powerful capability that is part of the recorders and enabled using the Credit capability of the recorder. It allows the user to configure actions to occur automatically based on process conditions. This allows the user to set these actions to insure that data is captured and actions are taken based on these process conditions. In regards to printing and capturing data, there are a number of Event functions that support this. These include such Effects as Marking the Chart, Starting/Stopping the Logging, Printing the current Screen (either to a printer or local memory), or creating a Report. Combining these Event actions with other Effects allows the information to be e-Mailed or another action to occur at the same time.

Event Set up to Trigger a Report, Printing it Locally and E-mailing the Report

The configuration of an event is easy to set up in the recorder; to set up an Event could require setting the parameters within a number of configuration menus depending on the actions being taken. In this example, since we plan to create a report, print the report and e-mail the report we will need to configure the following configuration areas in the recorder – Reports, Comms, General>Printer and Events.

The set-up of the printer for local printing was covered earlier. Up to 10 different reports can be configured in the report configuration. The Report function includes a number of selections that the user can decide to include in the report set up.

These include Current Pens Values, Min/Max Values, Averages, Totals, Messages, Counters, Digital Inputs and Digital Outputs.

In addition to this, as part of the Report set up, the user can decide the output options for the report; the user can decide to e-mail the Report and which recipients are to receive it, whether to print it and if you want to export the report to the local media. In the case of the Report most of the printing, e-mailing and exporting is set up in the Report configuration and the Event just triggers when to do the actual report.

Printer Recommendations

As indicated previously, the TrendView Recorder firmware and the printing capability is designed around the PCL 3, PCL3GUI or PCL5 (Print Command Language). There are many multi-function printers that do scanning, printing, photo prints and faxing that may support PCL 3, PCL3GUI or PCL5 language commands but also use special drivers that support these other functions which results in problems with trying to use these types of printers. Some printers that have been tested and found to work with the TrendView recorder are:

- HP Office Jet Pro 6230
- HP Office Jet Pro 8210
- HPS DeskJet Ink Advantage 3635

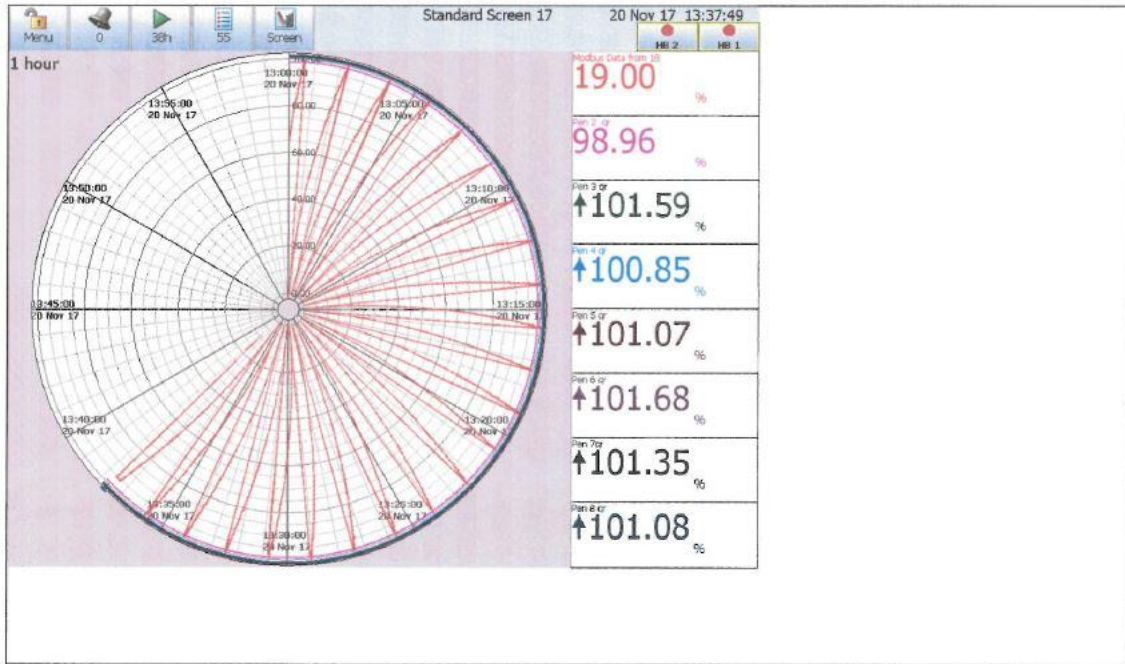
Summary

The TrendView Recorders provide many features for displaying, documenting and archiving your process data. It provides the flexibility to do screen captures and to print them locally, to save them to the local memory and to e-mail them to a number of recipients. Local printing does require the use of a compatible type printer but the ability to save them as a file can help with this issue. Use of the Event System provides additional flexibility and capability to create reports and use the Event System to trigger the generation of these reports.

Print Samples

Standard Screen 17

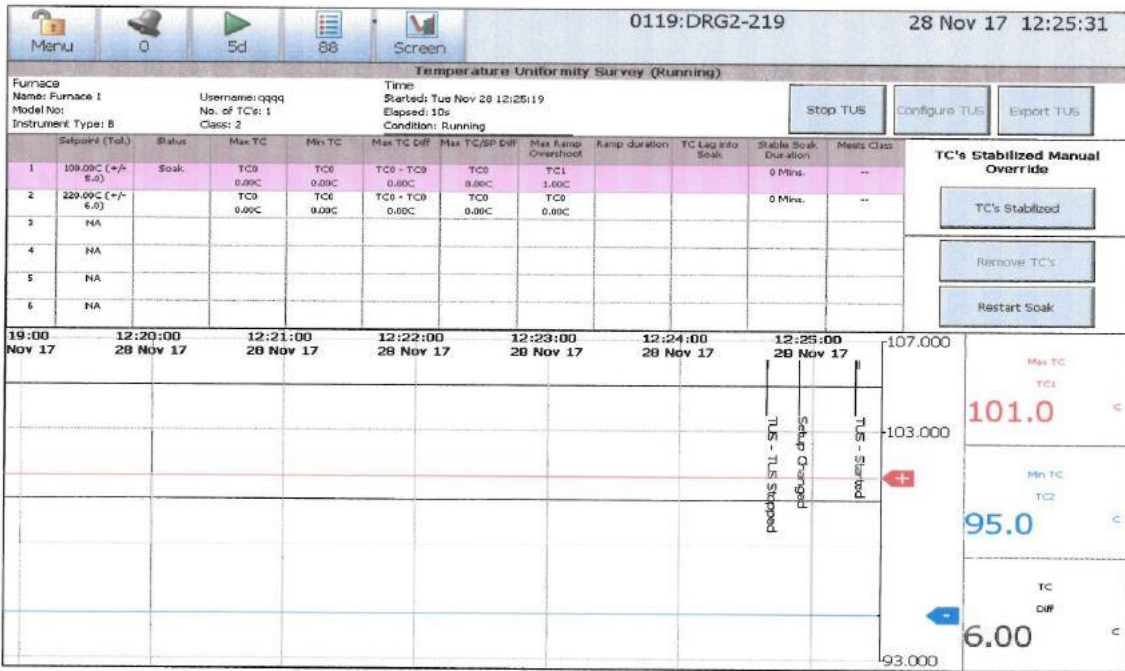
Multitrend GR218



RTD100Ω 1 to 16

Multitrend GR218





For More Information

Learn more about Honeywell Paperless Recorders, visit www.honeywellprocess.com or contact your Honeywell Account Manager, Distributor or System Integrator.

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