

Fluke 433/434 Inrush Capture & Reporting

PowerCET Operational Skills QuickRef #8

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Instrument Setup

Inrush is a 'single shot' mode that records current and voltage trends after a current event (the trigger) has occurred.

- Connect instrument voltage & current probes to circuit to be monitored
- Power On and press **OK (F5)**. Press **MENU** key. Arrow key down to **INRUSH**, press **ENTER** key to view inrush setup screen
- Using the left/right arrow keys, pick a **Duration** (7.5 secs to 30 min), This is how long you want the trend to continue once it's triggered
- Arrow down and use left/right arrows to set **Nominal Amps**. This is the steady-state (non-inrush) current usage of the circuit
- Arrow down and use left/right arrows to set the trigger **Threshold**. This is the percent above nominal that will indicate the inrush event **start** (non-inrush) current usage of the circuit
- Arrow down and use left/right arrows to set **Hysteresis**. This is the percent below the trigger threshold that will indicate the inrush event **end**

Starting/Stopping/Saving Inrush Capture

- Press **START (F5)** to begin the capture session. Monitoring continues until the preset duration ends, unless stopped manually

Ending a Session (manually) and Saving Data:

- Press the **HOLD/RUN** key (**F5**) to halt transient capture
- Press the **MEMORY** key. Press **SAVE (F3)**
- Use the arrow keys to name the file (a "dataset") and press **OK (F5)** You must save the dataset, or it will be lost when you leave the inrush screen!

Flukeview: Importing Dataset, Printing Inrush Trends

Here you import your monitoring data into your PC and plot trends

- Connect the 434 to your PC and start Flukeview. It should automatically contact the instrument in preparation for data transfer
- Press the **SCOPE** key on the instrument and then **HOLD (F5)**
- Select **Display dataset** from the Instrument menu and then select your data from the datasets on the instrument and click **Start**.
- When the dataset is loaded, select **Save As** from the File menu. Give it a descriptive name and save as a Flukeview (.fvf) file

Plot trends from an inrush dataset, paste them into Microsoft Word:

- From the **File** menu, open the dataset containing the inrush trend plots you captured on the 434
- In the window that opens, click on **View** to display the trend in the 434 simulator window
- From the **Instrument** menu, select **Display Trend**
- In the window, check the boxes next to the voltage and current channels you wish to plot. Click **Start** and wait for the trends to be plotted
- Select a trend window. Scroll right to see the inrush. Zoom in (drag a bounding box over an area of interest) on the plot, and drag the cursors to measure peak current and duration
- Select **Copy Graphics** from the **Edit** menu. Start Microsoft Word and **paste** the trend into your word file at the appropriate spot. Repeat with other trends to fill out your report as needed
- In FlukeView, you can **Save** these trend plots with the dataset, or alone as data files (.csv, .txt) for use with Excel or another graphing program

