

NPS Documentation

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2022-09

NPS Documentation

The majority of my work this month was documentation, mainly for NPS. Two examples are Visio drawings of the crystal array and draft pages of the Phoebus screen user manual.

The three views of the crystal array, Fig. 1, are a simplified, not-to-scale, representation of the crystals, carbon fiber dividers, mu-metal dividers, and copper shell. These drawings are used in a Note and presentation.

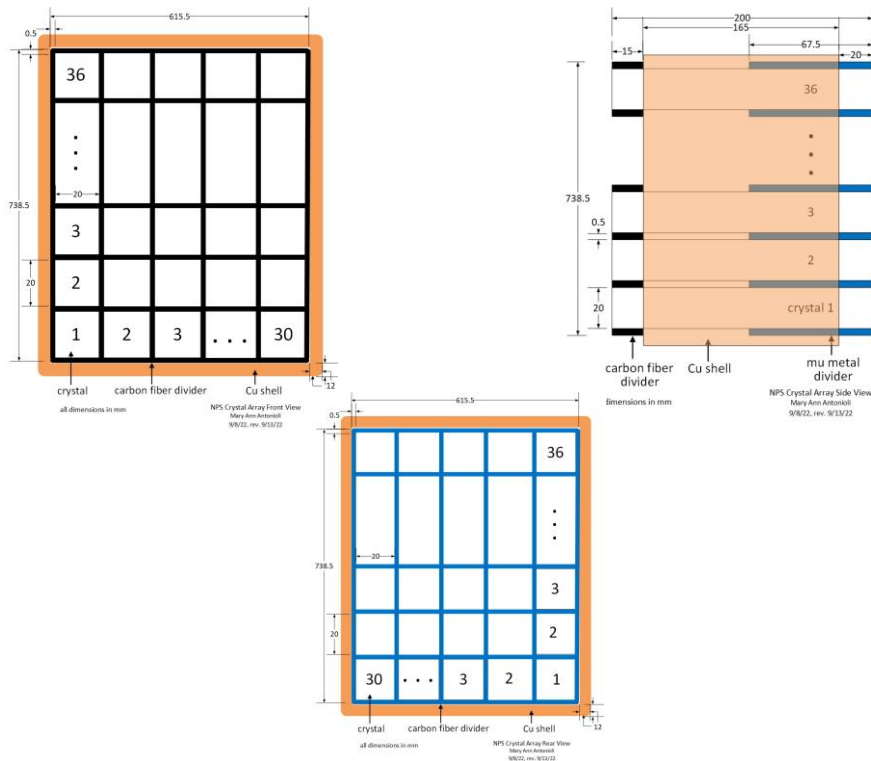


FIG 1. Three views of the NPS crystal array; top—front and side, bottom—rear.

- Project documentation being prepared
- Example 1: Visio drawings of the NPS crystal array
- Example 2: User manual for NPS Phoebus screens

NPS Documentation

I have begun writing a user manual for the NPS Phoebus screens previously developed. The manual will show a picture of each screen, with the screen's indicators and controls numbered. Information will be provided for each numbered item. Figure 2 is a draft of pages 3 and 9, which discusses the crystal zone monitoring screen and the crystal zone controls screen, respectively.

Front and Back Crystal Zone Temperature Sensor Monitoring Screens

The Front Crystal Zone Temperature Sensor Monitoring screen and the Back Crystal Zone Temperature Sensor Monitoring screen are the same. The screen for the front crystal zone is shown below.

1. The numbers in the crystal column correspond to the crystal number where the sensors are located.
2. Column T is the current temperature being read.
3. Column Avg is a running average of the temperature.
4. Column SD is the standard deviation of the temperature.
5. An LED under link status will turn red if there is an interlock for the sensor in the same row.
6. An LED under Latch status will turn red if there is a latch for the sensor in the same row.

Crystal Zone Temperature Sensor Controls Screen

The Front Crystal Zone Temperature Sensor Controls screen and the Back Crystal Zone Temperature Sensor Controls screen are the same. The screen for the front crystal zone is shown below.

1. The numbers in the crystal column correspond to the crystal number where the sensors are located.
2. A value can be input for a low alarm limit. If the temperature equals this value, or goes below, an interlock will occur.
3. A value can be input for a high alarm limit. If the temperature equals this value, or goes above, an interlock will occur.
4. Sensor enables trips a sensor on or off.
5. Avg enables trips averaging on or off.
6. A value can be input into # of pts to avg to set how many values to include in the running average. It is set to a minimum of 300.
7. Link enables turns on or off whether or not the links will cause an interlock.
8. Trip delay enables turns on or off whether or not there will be a delay before an interlock occurs.
9. The trip delay time in seconds is the length of time between when the temperature goes out of limit and an interlock occurs.

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FIG. 2. Draft pages from NPS Phoebus screens manual.

Work will continue on this manual in the upcoming month.