

The high voltage for the silicon sensors is supplied by a 16-channel module from Iseg<sup>®</sup> located in an Iseg crate in the hall. It is connected via an USB-CAN interface (small white box with a single red LED) at the PC named LBTBXP02. The control program can be started in 2 ways: either by clicking on **isegCANHVControl** on the desktop of LBTBXP02, or by All Programs << isegHVwithCAN << **isegCANHVControl**.

Operating the isegCANHVControl:

- Note that the software treats the 16-channel power supply as two 8-channel modules - the are shown as **EHS 02** and **EHS 03** on the main panel. If you don't see them, move the mouse cursor into that panel and they should become visible.
- Click on **EHS 02** or **EHS 03** to open the daughter-panel that shows individual channels.
- While the daughter panel is still open you can click on either module on the main panel to (re)select it, but you can not see both modules at same time.
- Vnominal and Inominal mean (hardware ?) maximal !!! What really comes out are the values in Vset and Iset
- A right-click outside a particular channel gives the possibility to modify general settings.
- To select a particular channel left-click on its label (or a bit to the right of it) and make sure that channel got selected.
- After you select a channel right-click it and choose the setting to be modified.
- Clicking the bulb icon (top left) gives info about the temperature of the module.

#### Logging the HV data:

- Click Timer -> Record time and choose the sampling period in seconds
- Click Group instructions -> Statistic to activate the recording (a diskette icon appears)
- The data accumulates in memory (not on disk !). To save this data click the diskette icon and choose the file.
- The file format is: Voltage; Time; Current; Time; etc.
- There is a catch: You can only monitor the group of 8 channels you see on the screen. If you switch to the other group the program logs data from the other group without making any notice - thus the data in the file will be mixed up.

Particularities:

- This HV power supply should be safe for humans (a current above 24 mA is only considered dangerous) but remember that this is still **HIGH VOLTAGE**.
- Be careful with the cable that connects to the front panel and the connectors along that cable: they are fragile and not easily repairable.
- Do not forget to turn on the fan for the HV crate: the switch is in front but a bit hidden at the bottom. If you forget the power supply may get hot (but should not fail). You can check the temperature by clicking the "bulb" icon.
- Next to the crate there is a power supply labelled "elind", which provides the front-panel enable (which rather confusingly is labelled "inhibit"). It should be set to 2-3V and a small current limit.
- From the Iseg modules a cable goes to an aluminum patch panel with 15 outputs, labelled 0-14. The last channel is thus absent from the patch panel.

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This topic: LHCb > HV

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