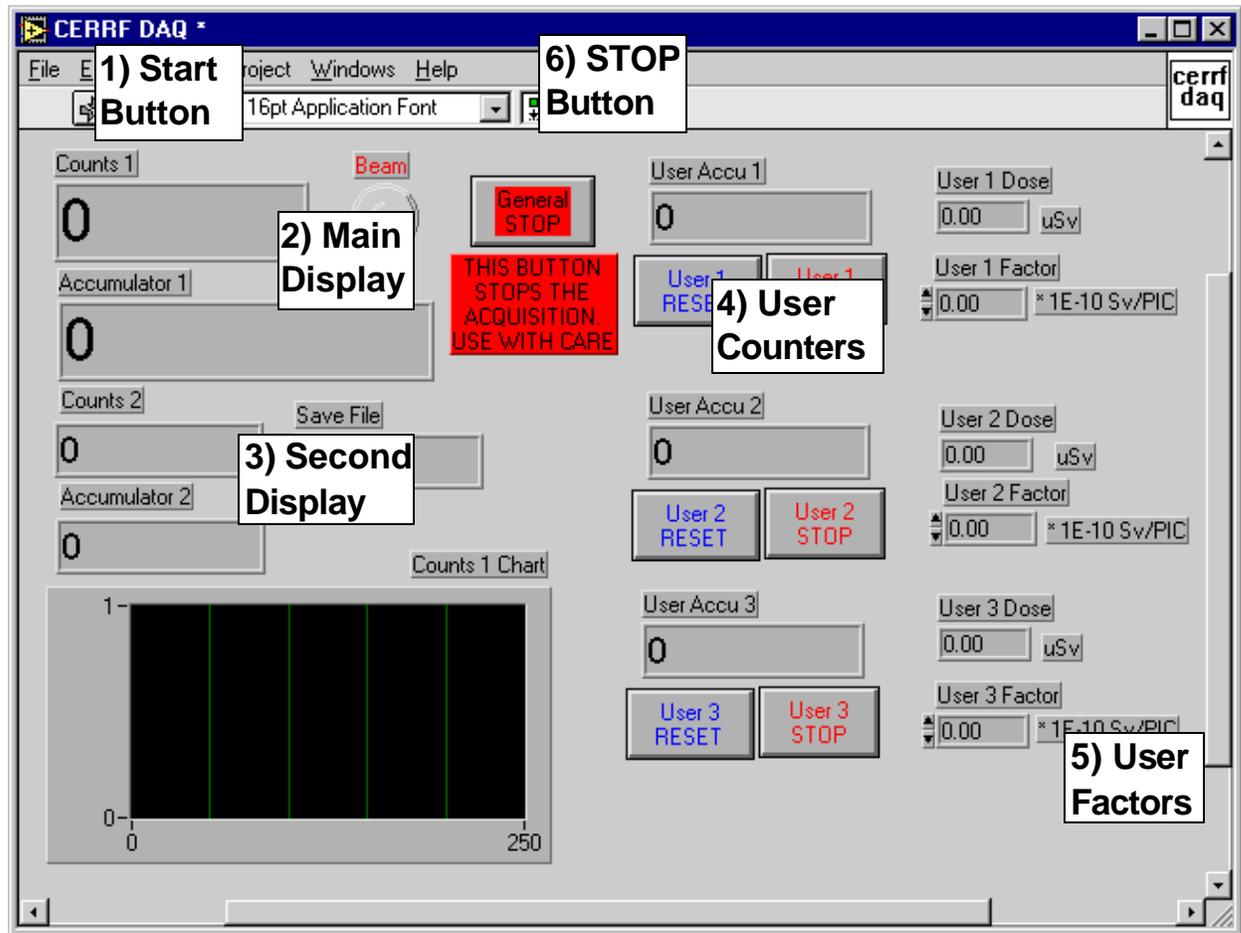# CERF data acquisition program for the primary beam monitor (PIC)

1. How to use the data acquisition program

1) **START BUTTON.** This button starts the data acquisition. The user is asked for a filename to save the data to disk. Do not choose an existing file name, the data might be overwritten. The filename in DOS-convention should give an indication of target position and starting date, e.g. "I130897.dat". All accumulators and user factors are reset on start of acquisition.

2) **MAIN DISPLAY.** These two displays ("counts 1" and "accumulator 1") show the number of PIC-counts in the last burst and the total since start of the acquisition (1).

3) **SECOND DISPLAY.** These two displays show the number of counts of a second counter, if any, in the last burst and the total since start of the acquisition (1).

4) **USER COUNTERS.** The three-user counters work like simple scalers, connected to the incoming data of Counter 1 (PIC-counts). They can be stopped/started without being reset and they can independently be resetted.

5) **USER FACTOR** (default value 3E-10 Sv/PIC) can be changed at any time by clicking with the mouse cursor on it and by typing a new value. The PIC-counts are multiplied with the user factor to yield the estimated accumulated dose in a given field of the CERF.

6) **STOP BUTTON.** If GENERAL STOP is hit, the acquisition stops and has to be restarted with (1), choosing a new filename. This should only be done at a change of target position.

2. Start-up procedure of the data acquisition program

This procedure should be necessary only in case of a power failure in the hall EHN1 or any other event which makes the DAQ-PC switch off or reboot:

1) Turn on the computer. DOS and WINDOWS load automatically.
2) Locate the LABVIEW-Icon in the Program Group of the same name. Normally, the program group is opened and the icon is situated in the upper left of the group window. Start LABVIEW by double-clicking with the mouse on the icon. Be patient!
3) Answer questions for username, passwords, etc, by clicking on cancel. This actually works!
4) An empty LABVIEW-document opens. Select with the mouse the menu entry "File", "Open".
5) Select (always with double-clicks of the mouse) the directory "Thomas" and in it the library "CERRFDAQ.LLB".
6) Open the file "CERRFDAQ" as usual with a double click. Even more patience, this is an old computer with an Intel 80386 processor.
7) You should now see the familiar panel (as shown on the previous page) and you can start and stop acquisition as described above.