

The beacon consists of 10 independent pocket backend with 8 channels each. These work in a master slave mode, mastered by the first pocket backend. The beacon hardware is located in the backend room, on the left side of the control room. This box is connected by an optical fiber to **beacon** computer **10.100.100.10** inside the Faraday room. On this computer runs as user beacon the pbeControl program, which takes the data from the 10 independent backends and creates a single backend tcpip stream which is transferred to the control program (port 15010). The program is controlled vis UDP on the port 15008 from the control system.

It turned out over the last months a couple of problems:

- The system turns out to get stuck if a wrong blank sync rate (too fast, sync < 8 ms) is delivered. The data acquisition program can't handle this properly in all cases. Then no data is send (an acoustic warning "**backend problem**" occurs). In some cases it is not possible to recover from this inside the running software. One may see in the log of the control program that the phases are different for the different 10 backends. Then the software has to be restarted.
- In certain cases the frontend does not get set up properly. Then no blank sync is sent or at a much higher/lower rate then expected and the backend can't send data. The system claims acoustically **backend problem** rebooting/restarting the software won't help in that case.
- Sometimes we see internal timing problems. In that case individual samples are missed. If the situation is rather severe, restarting the computer and/or program may help...there is no solution to this at the moment.

There is now a script to restart the beacon acquisition program. Login to **be4** as user **obseff** and restart the beacon program with:

`/usr/local/bin/beacon_restart`

The script restarts beacon software and checks when the software is back to work. this is much faster and should be ready in 15 sec. After you see beacon restarted you can start observing. **BE CAREFUL** the first observation will fail. Try it again, it is very likely it will operate then normally.

If this does not cure the problems you have to reboot the beacon computer. Login and reboot!

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