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AWS, no pain?



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Running an automatic weather station (AWS) should be child's play and very different from the old pioneers work who three times a day (some even more often) jumped to their Stevenson hut to write carefully down the readings of the different instruments. How lucky are we today to have computers doing this chore! Really?

Today was a good example at meteoLCD how things can go spectacularly wrong. This morning I wanted to make a quick recalibration and a last check before leaving for vacation. Opening the door of the meteoLCD main room, a ghostly silence struck me. Usually there is a whirring of fans, clinking of pumps and many other sounds making for a noisy background. Not so today! The big 5000VA UPS had blown, disrupting many fuses and making a really mess of a normally good working ensemble. When I tried to power it up again, even fuses at a wiring closet further down tripped. I quickly rerouted the power cables, but nothing worked as it should. The radioactivity computer started with a blue screen, the computer interrogating the logger was unable to get a proper RS232 connection, the NOx sensor was stone dead.

After a lot of detective work, it was clear that at least one hidden fault showed now up: the logger computer had a flat BIOS battery, so that it was total amnesic to correct restarting after new BIOS settings. A connector of the RS232 cable had a loose solder joint, and the blue screen was a document that the power loss had damaged the boot sector of the hard disk. Making a repair with the W2k system CD solved the last problem. Also resoldering the RS connector was not a big feat. The cause of the NOx sensor death remains a mystery.

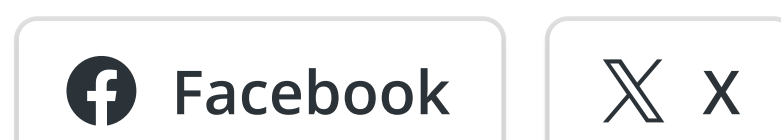
Another rather spooky fact was that the clock of the main logger computer which runs quite a lot of Automate scripts was really corrupt, and indicated a next operation at a time in the past. I use a short program called Rockettime to fetch the clock from the internet (the sync feature was introduced only with WinXP).

Finally I managed to find in our small town a shop which had a 1000VA UPS (1000VA corresponds to about 432 W), barely enough to drive the 6 computers. Luckily I had one of these male EU connectors which goes into the UPS outlet, so I could make this cable with a normal DIN socket (one never has a spare of these...). I finished work in the evening, after spending about 7 hours on this repair.

Tell me about modern lazy AWS operators and about the wonderful world of constantly perfectly working computers!

(picture courtesy <http://www.treatmentscancer.info>)

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