

SLR station Riga software upgrade

K.Salminsh

Institute of Astronomy
University of Latvia
kalvis@lanet.lv

Software subsystems

- RT Telescope control
- Event timer RT 2006
- Data management, postprocessing, predictions

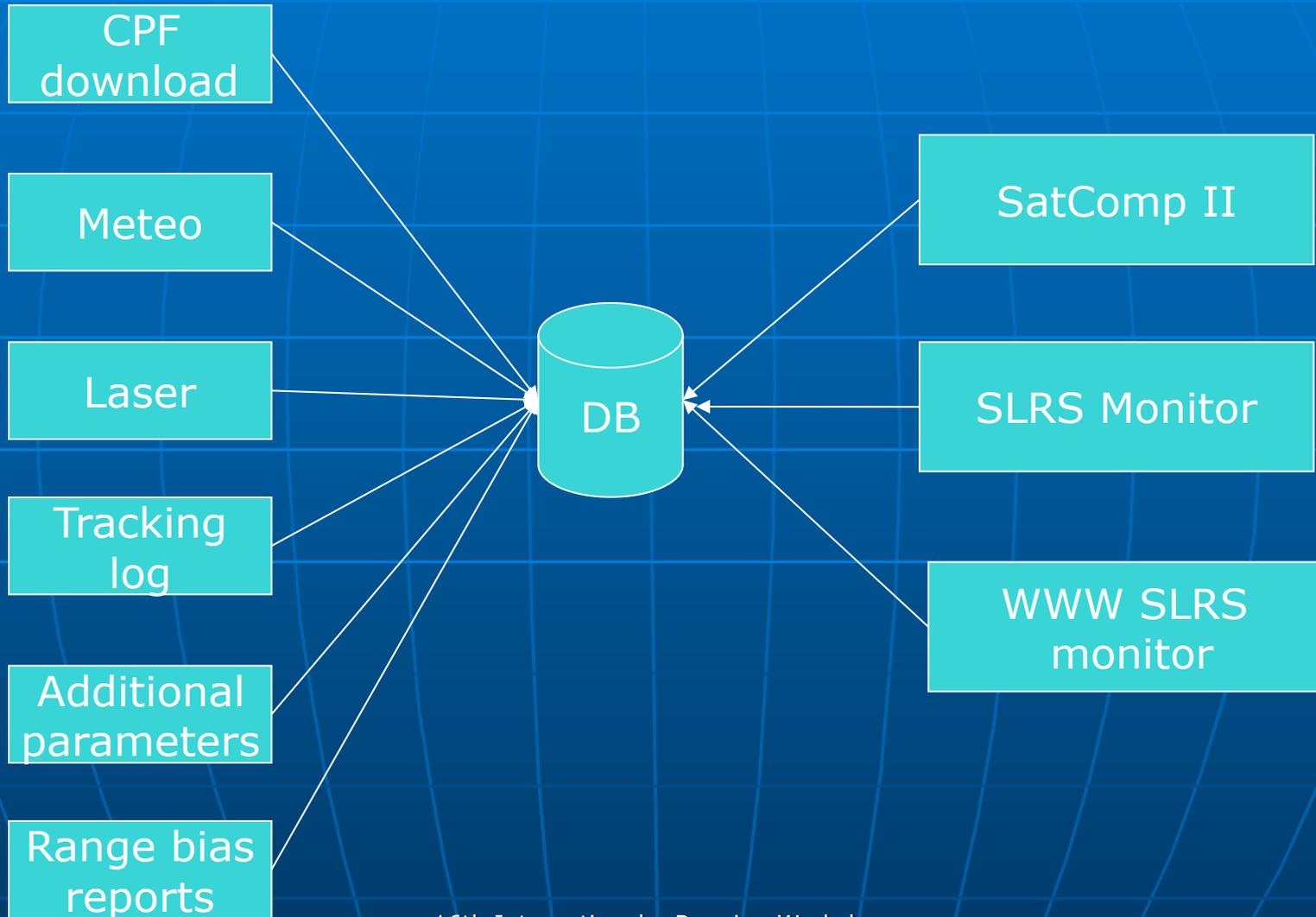
Why upgrade?

- New data formats e.g. CPF, CRD
- Current workflow involves too much manual operations
- No network support
- Maintenance issues

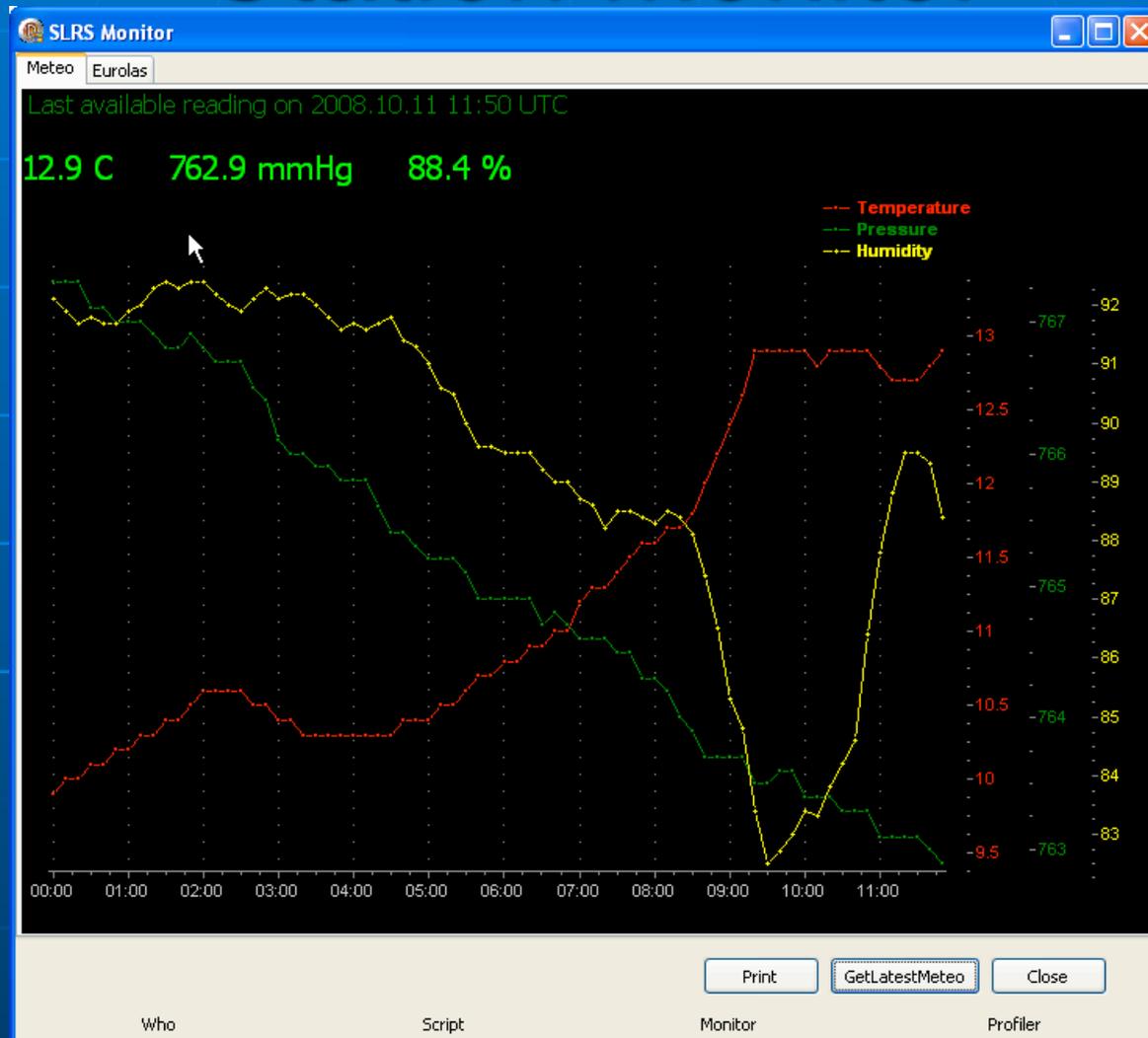
Key elements

- Based on existing SLR data processing software
- RDBMS for data storage
- XML based formats for the ranging data
- Remote access capability
- Multitier application architecture

Software organization

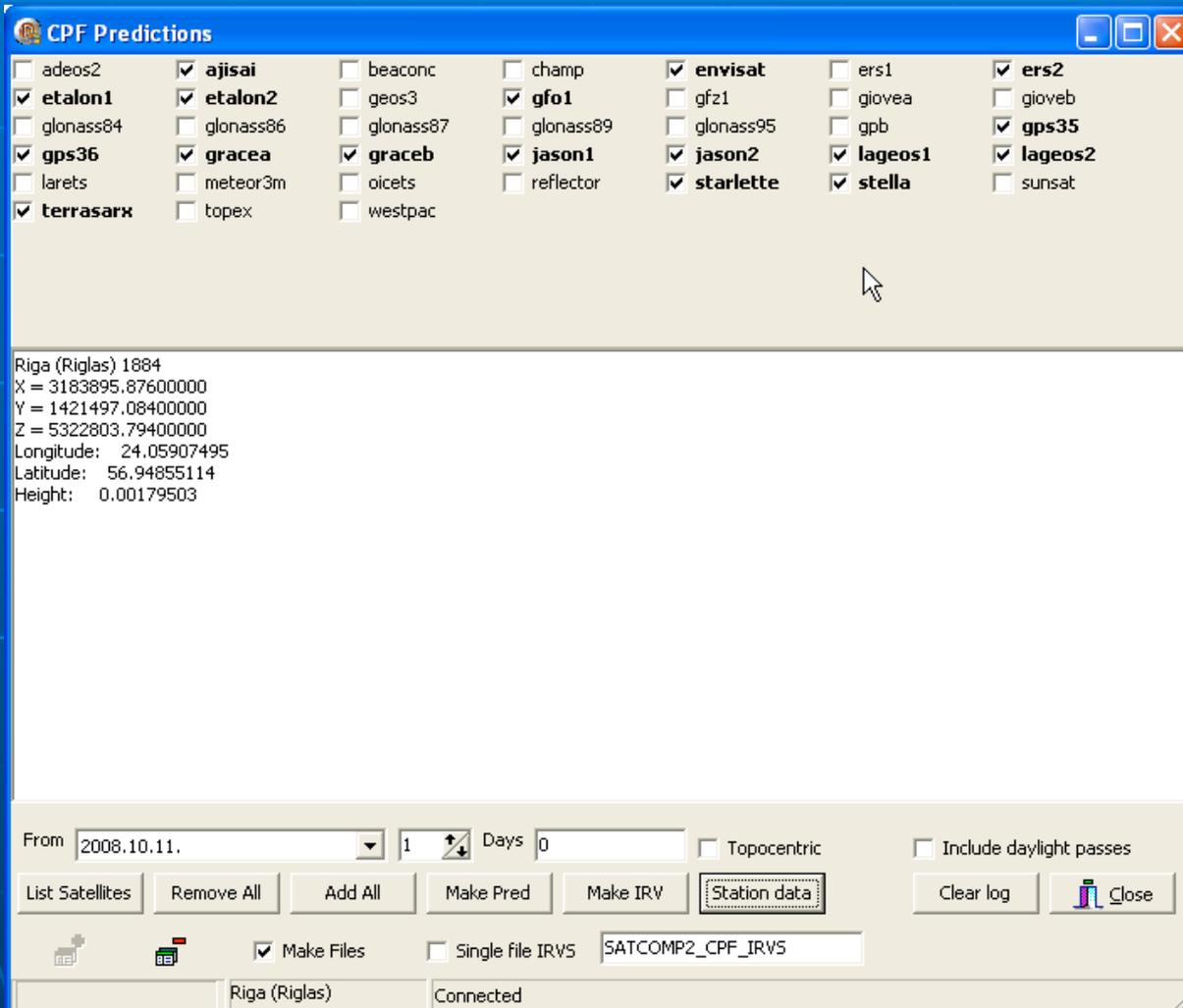


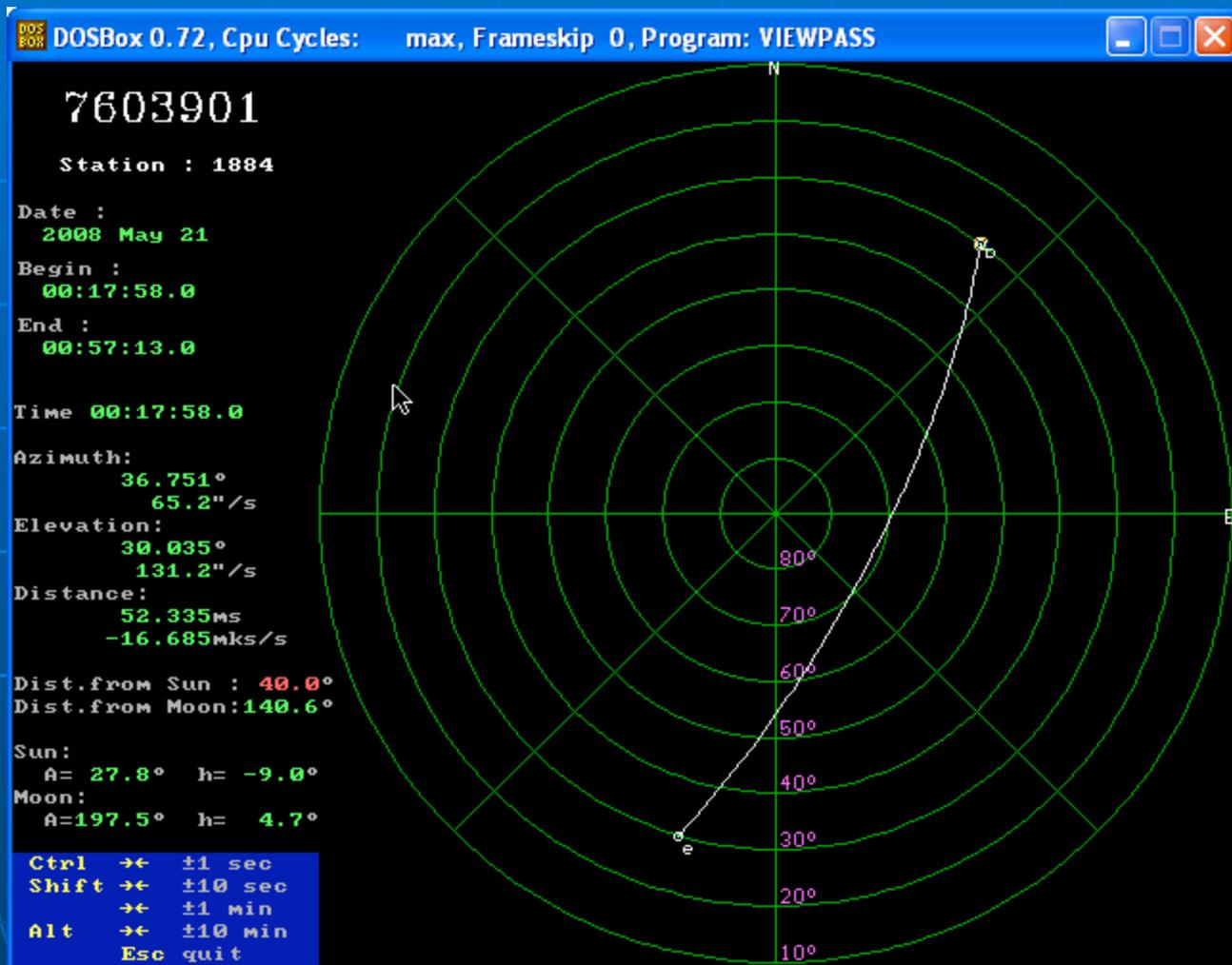
Station monitor



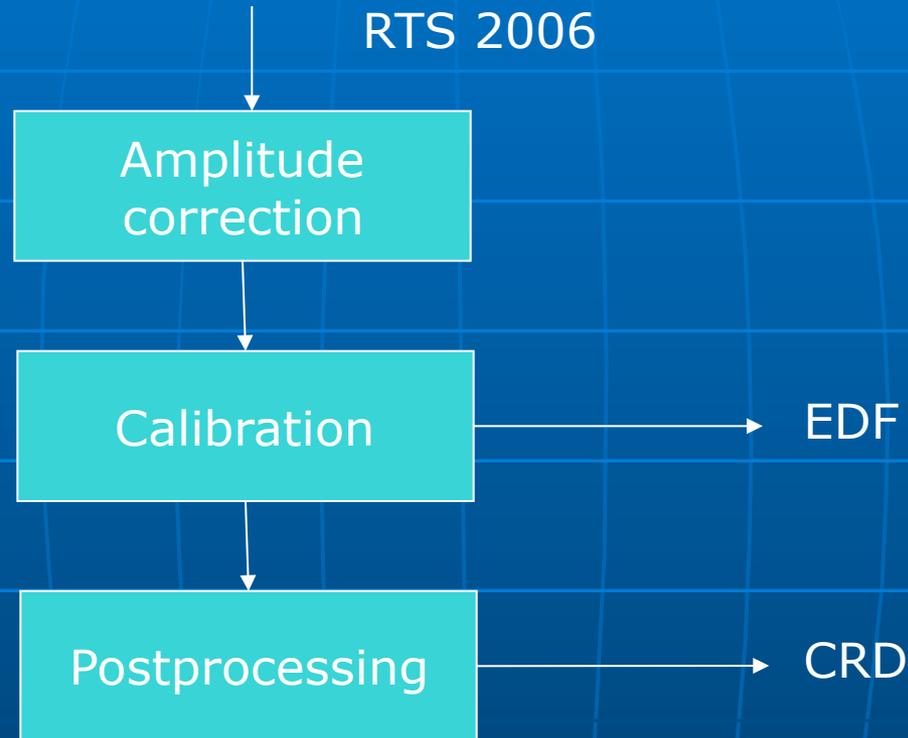
16th International a Ranging Workshop.
October 13-17, 2008 Poznan, Poland

Prediction generation





Data postprocessing



kHz ranging support

(SatComp 2k)

- Data size
 - Compression reduces ~40%
 - Data offloading from database to the external storage

SLRS_1884_WORK_2008_09_26	fbk	231 M	09/26/08	12:03
SLRS_1884_WORK_2008_09_05	fbk	212 M	09/05/08	13:05
SLRS_1884_WORK_2008_07_08	fbk	160 M	07/08/08	14:18
SLRS_1884_WORK_2008_06_30	fbk	153 M	06/30/08	12:42
SLRS_1884_WORK_2008_06_25	fbk	149 M	06/25/08	10:04
SLRS_1884_WORK_2008_04_21	fbk	86 M	04/21/08	10:29
SLRS_1884_WORK_2008_02_15	fbk	13 M	02/15/08	09:43
SLRS_1884_WORK_2008_1_31	fbk	9693 K	01/31/08	12:16

Additional features

- Automatic error reporting
- Internal tests