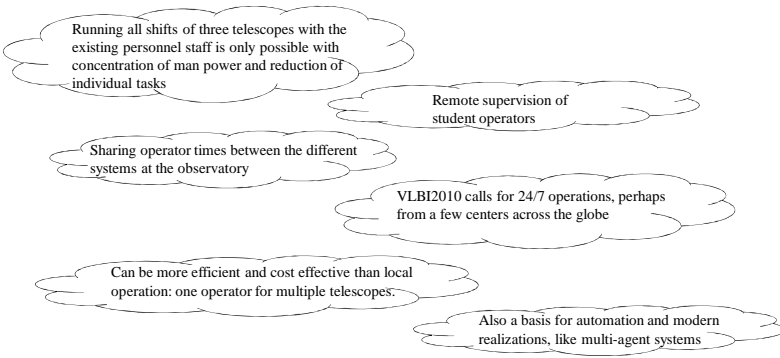Contact:
neidhardt@fs.wettzell.de

The new release of e-RemoteCtrl 2.0

Alexander Neidhardt[1], Jim Lovell[2], Jamie McCallum[2], Ed Himwich[3]
([1]FESG Wettzell, [2]University of Tasmania, [3]NASA/GSFC/NVI)

Abstract:

A new release of the telescope control software e-RemoteCtrl, which is designed to run VLBI observations remotely, has been realized during a development and research stay at the University of Tasmania. The final software release will be released this year and includes new features, bug fixes and optimizations as a result of feedback from the AuScope operators, from tests at Hartebeesthoek, and from user experiences at Wettzell. The poster describes the new features and gives additional information about the software.
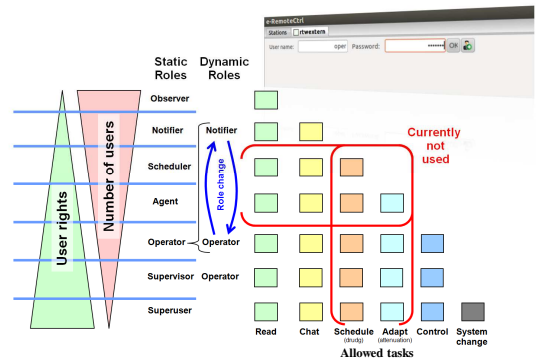
Remote control at a glance

Running all shifts of three telescopes with the existing personnel staff is only possible with concentration of man power and reduction of individual tasks

Remote supervision of student operators

Sharing operator times between the different systems at the observatory

VLBI2010 calls for 24/7 operations, perhaps from a few centers across the globe

Can be more efficient and cost effective than local operation: one operator for multiple telescopes.

Also a basis for automation and modern realizations, like multi-agent systems

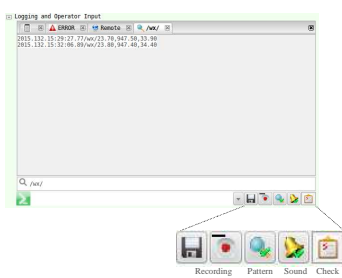**Control room for all radio telescopes in Wettzell**

New features and fixes, which were mainly suggested by AuScope and HartRAO

- Color codes for each antenna
- Flexible, configurable checklists with entry points for text input, cancel possibilities, named, and colorized with antenna codes
- Correct presentation of DBBC system temperatures
- More graphical formatting of status outputs
- Stable behavior according to network problems with reconnections and information output
- Additional checks for errors, like missing log outputs
- Recording possibility with history of recording states and previous log outputs
- Possibilities for individual sound files also on sound cards on the FS PC
- Presentation of individual data from a local system monitoring as text or HTML output
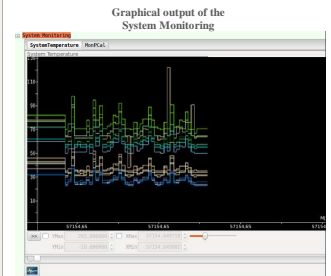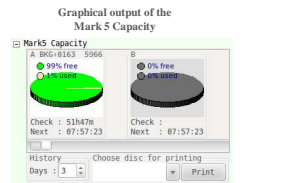
Security, using user roles and encrypted SSH-tunnels

Static Roles / Dynamic Roles

Observer
Notifier — Notifier
Scheduler
Agent
Operator — Operator
Supervisor — Operator
Superuser

User rights · Number of users · Role change

Currently not used

Read · Chat · Schedule (drwg) · Adapt (attenuation) · Control · System change

Allowed tasks

Impressions

Logging and Operator Input

Recording Pattern matching Sound Check lists

Log output and operator input with:
- Log history
- Pattern matching of log output strings
- Configurable separation of log messages
- Command history
- Local copy or recording of log output
- Recording history
- Local sound output after error detections with configurable alarm levels
- Checklist activation
- Graphical help text output of NASA Field System help pages
- Configurable hot-keys

Graphical user interface for the NASA Field System

Graphical output of the Mark 5 Capacity

Graphical output of the System Monitoring

SysMon Data

Relative telescope height
2012-10-17 21:29:23
(Updated every 60 sec)

Sensor	Value	Unit
Rel. height	-0.454	mm
Temp1	15.13	deg. C
Temp2	19.73	deg. C
Temp3	20.86	deg. C
Temp4	15.97	deg. C

Individual output of system parameters as text or in HTML

Chat window

Release is expected by end of June 2015

Also as extension on the FS download servers

http://www.econtrol-software.de