meeting 2009-03-09 Multiknobs Req & GUI Review

WHAT: Multiknob GUI Review Meeting Minutes
WHEN: Monday, March 9, 2009, 4:15-5:30
WHERE: MCC Conference Room

Attendees: Paul Emma, Franz-Josef, Mark Woodley, Tom Himel, Henrik, Patrick, Mike Z, Greg White, Paul Chu, Sonya Hoobler, Debbie Rogind, various operators

The "MultiknobRequirements" doc is located here:
https://slacspace.slac.stanford.edu/sites/LCLS%20Document%20Storage/01%20-%20LCLS%20Systems/electronbeamsys/controls/Shared%20Documents/Applications/Multiknobs%20and%20Bumps/MKBRequirements.doc

Mike Zelazny first presented the Multiknobs requirements in a power point located here:
https://slacspace.slac.stanford.edu/sites/LCLS%20Document%20Storage/01%20-%20LCLS%20Systems/electronbeamsys/controls/Shared%20Documents/Applications/Multiknobs%20and%20Bumps/MultiknobsTalk.ppt

Mike demonstrated the Multiknob mock-up GUI, available from lclshome , user dev panel. The project relates to relative multiknobs with LINEAR math (no sines, cosines, etc...). Users were solicited for their input prior to this review, so there were no "surprises". Many details were discussed in the course of the meeting. The main details are summarized below.

Notes on Requirements:
- Phase 0 is represented in the GUI mockup.
- Some requirements (such as searchable files) are satisfied intrinscially by using the file system outside of the GUI
- Emphasis from physicists is for a quick, phased 0 approach to get something usable in the control room once beam comes back

Misc details:
- Multiknob files will be assigned and deassigned to EPICS PVs of the type "MKB:SYS0:<1-x00>:VAL
- TBD how to deassign
 a) Auto - if value hasn't changed within programmable time period (ie 1 hour), then deassign
 b) Manual - display of each assignment with a "Deassign" button beside each
- Generic way of configuring knobs so that users don't have to request and so Mike doesn't have to manage by hand
 ie edm display containing multiple lines of slider bar + blank text box such that MKB PVs can be dragged and dropped
- Dedicated MKBs for often used?
- Be clear with coefficient - label that they are multipled (like SCP)
- Units of the knob are entered into EGU (ie micron, mm, etc)
- Sensitivity only applies to hardware mechanical knobs. Doesn't apply to Correlation Plots
- Hi/low calculation is based on when knob is assigned.
- Save to file has required fields of label and description. If not filled in, a prompt should appear telling the user to fill in.
- Description field is limited to 40 characters and will be assigned to the multiknob's .DESC field in EPICS
- How to archive MKBs while going in and out of assignment.... Suggestion to create another GUI that filters out pertinent information from both the cmlog and archiver.
- Always have to caclculate prior to each new knob setpoint to make sure you're not moving outside of any one of the devices' limits. Mike will solicit input for any math required
- Don't allow use of another mutliknob in a multiknob
- Mike will provide a Matlab wrapper for multiknob file creation
- Add creation date in file
- Provide one directory, perhaps with subdirs of "scratch" and "normal". In $PHYSICS_DATA/mkb area
- Provide a save to scratch and normal choice.
- Provide a button to move from scratch to normal (can be later phase)
- Files will not be cvs'ed.
- Physicists fore-warned that the syntax of the mkb files may contain xml tags.

These minutes, as well as any comments, will also be posted on our HLA confluence website.
Comments/ corrections are welcome!
Thanks goes to Mike!

-Debbie