



## jddd graphical display development for the XFEL

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- What is jddd?
- Screenshots
- jddd usability and performance
- Statistics:
  - Number of participants in jddd training
  - Number of created displays at DESY
- Outlook



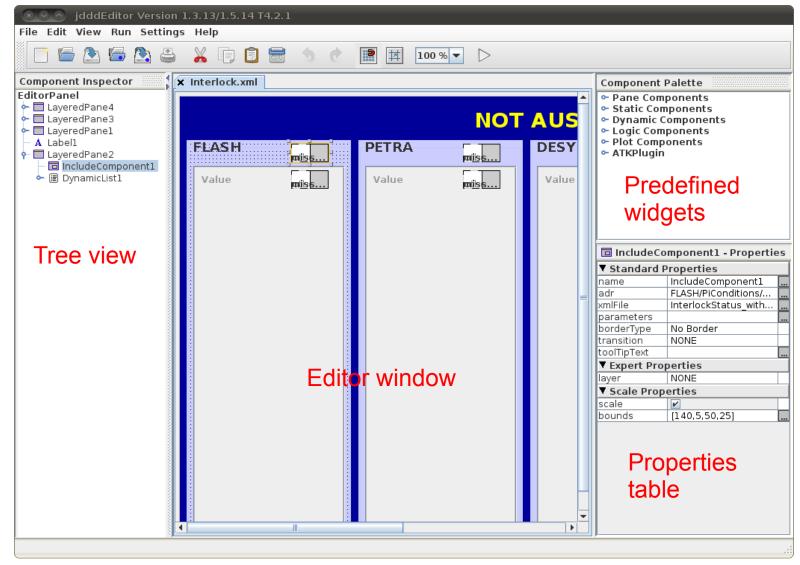


#### FEL What is jddd?

- jddd is a graphical editor and runtime engine for control system displays
- jddd = Java Doocs Data Display
- Developed at DESY (MCS4 group)
- The jddd editor is similar to standard editors like in Netbeans or Eclipse
  - Editor is easy to use for non-programmers
  - Rich set of predefined widgets/components for control panel design
- All control systems used at DESY are supported:
  - DOOCS, TINE, TANGO, EPICS



## XFEL What is jddd? The jddd editor





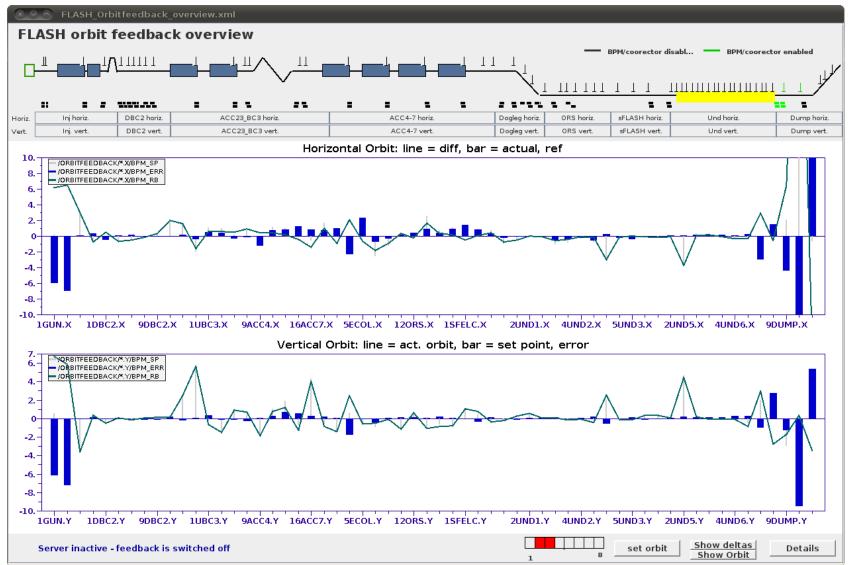
## Screenshot: DOOCS watchdog overview





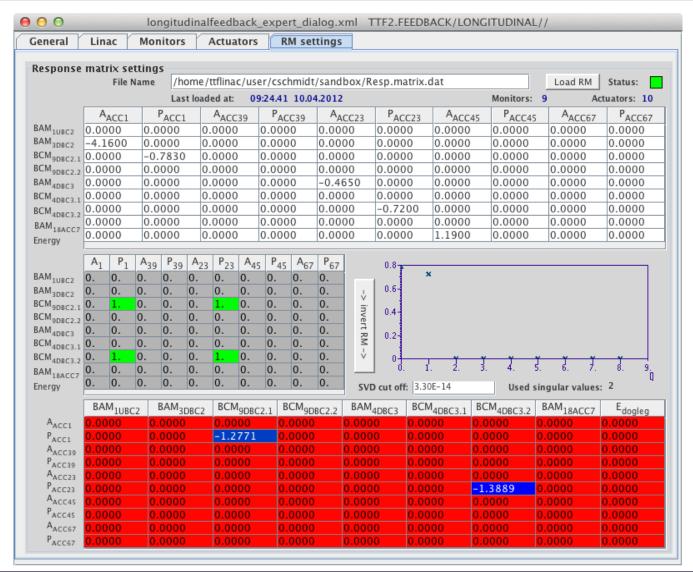


### **Screenshot: FLASH orbit feedback**





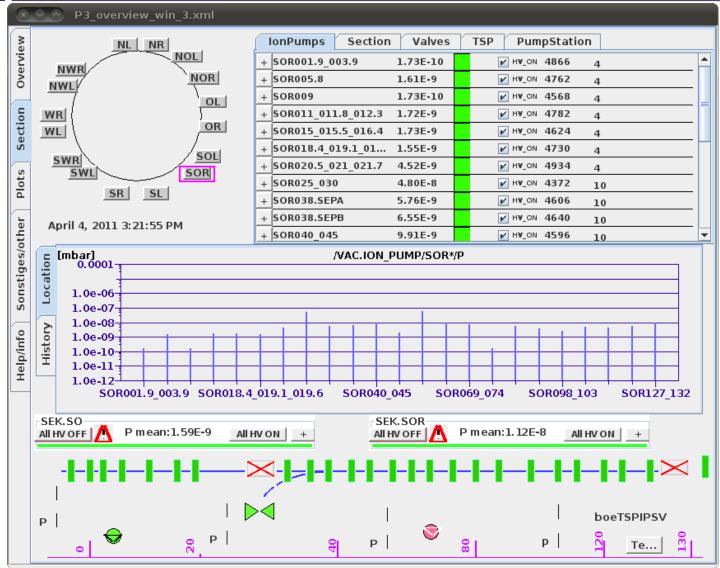
## Screenshot: FLASH longitudinal feedback







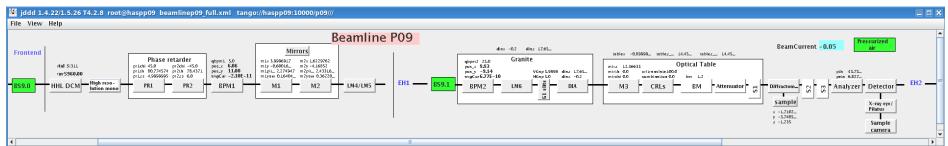
#### Screenshot: Petra III vacuum overview

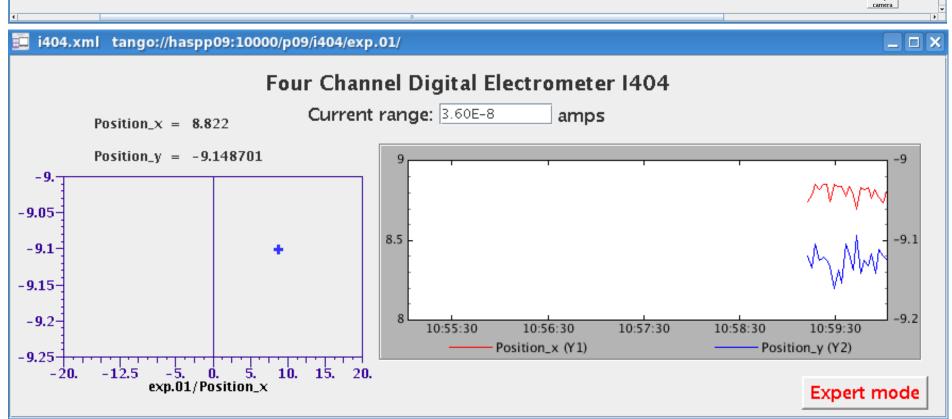






# Screenshot: Hasylab panels displaying Tango data









## FEL | jddd usability and performance

- The panel developers like iddd because:
  - It is easy to use
  - No programming skills are needed
  - Complex control system panels are quickly developed with ready-made widgets
  - We(MCS4) offer jddd training courses
- Performance
  - In general fine
  - Excellent at runtime for reasonable update rates
  - A huge number of Swing components (O(1k)) affects startup time



#### FEL | jddd statistics

- jddd training:
  - 2009: 2 trainings at DESY with 25 participants
  - 2011: 4 trainings at DESY with 43 participants and 1 workshop in Grenoble with 12 participants
- Number of created jddd panels at DESY:
  - Since 2008 approx. 1500 jddd panels were stored in our subversion repository.



## Next steps in jddd development:

- We will focus on runtime stability and performance tuning.
- The widgets will be improved according to the wishes of the users.
- The test facility is FLASH:
  - New high level displays will be developed with jddd
  - Important displays will be converted (ddd → jddd) and improved using the new features of jddd.



## **FEL** Thank you for your attention



- Introduction
- Special Features
- E Creenshots
- JAVA Web Start
- Start Panels
- Flash Tutorial
- Help
- Papers
- License
- Contact

- Webpage:
  - http://jddd.desy.de
- Documentation:
  - http://jddd.desy.de -> Help
- Examples:
  - http://jddd.desy.de -> Start Panels
- Contact:
  - jddd@desy.de

