

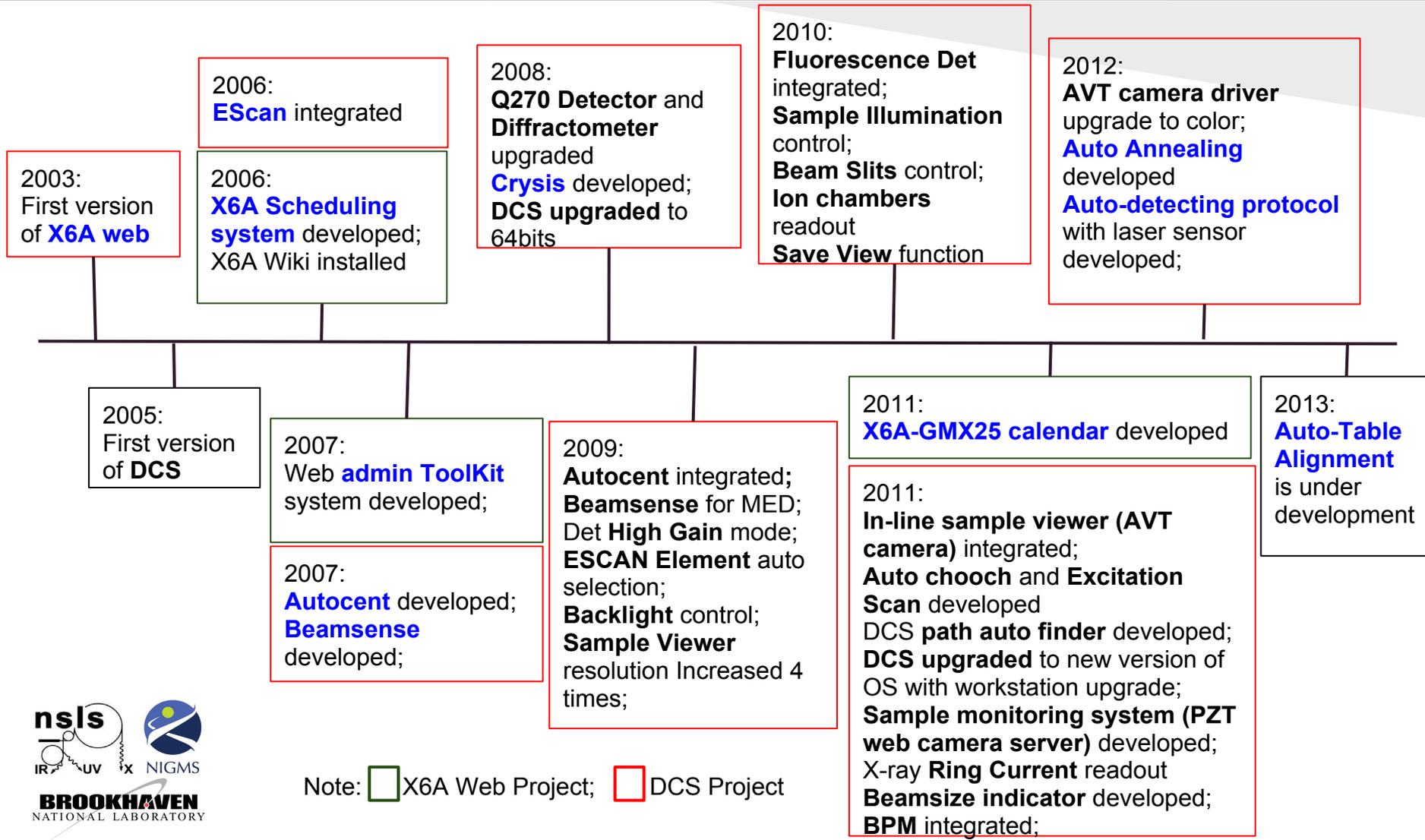


X6A 10-year Software View

Kun Qian

X6A SAC Review, 1/24/2013

10-years History of X6A Software



Why we are OneOfaKind?

- A leading web-based user-self scheduling system and beamline admin system

The screenshot shows the 'X6A Schedules' page. It features a calendar for January 2013 with a color-coded grid. A legend on the right lists activities such as Maintenance, Inhouse, Projects, Students, Conditioning, Training, Commissioning, Template, Shutdown, and Holiday. A sidebar on the left contains navigation links for X6A Home, News, X6A User Corner, X6A Schedule, GM-X25 Beamline Request, and Experimental Guides.

The screenshot shows the 'Annual Survey Analysis' page. It includes a table with columns for Year, Project, User, Inhouse, Training, User, Beamtime, and NLS Operation. Two charts are displayed: 'User Score Line' (a line graph with error bars) and 'User Scheduled Beamtime Vs NLS Operation' (a bar chart comparing scheduled beamtime to NLS operation). A sidebar on the left contains 'My Account' and 'Manage Projects' options.

- new trend for beamline ops
 - a. minimize workload
 - b. encourage use access
 - c. improve ops efficiency

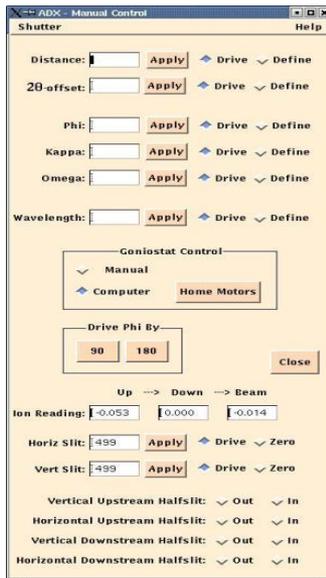
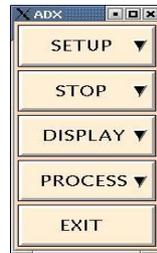
- can be easily adopted and expanded
 - a. admin toolkit & GM-X25 system
 - b. cross-system communications

Why we are OneOfaKind?

- An Integrated and stable experiment control system

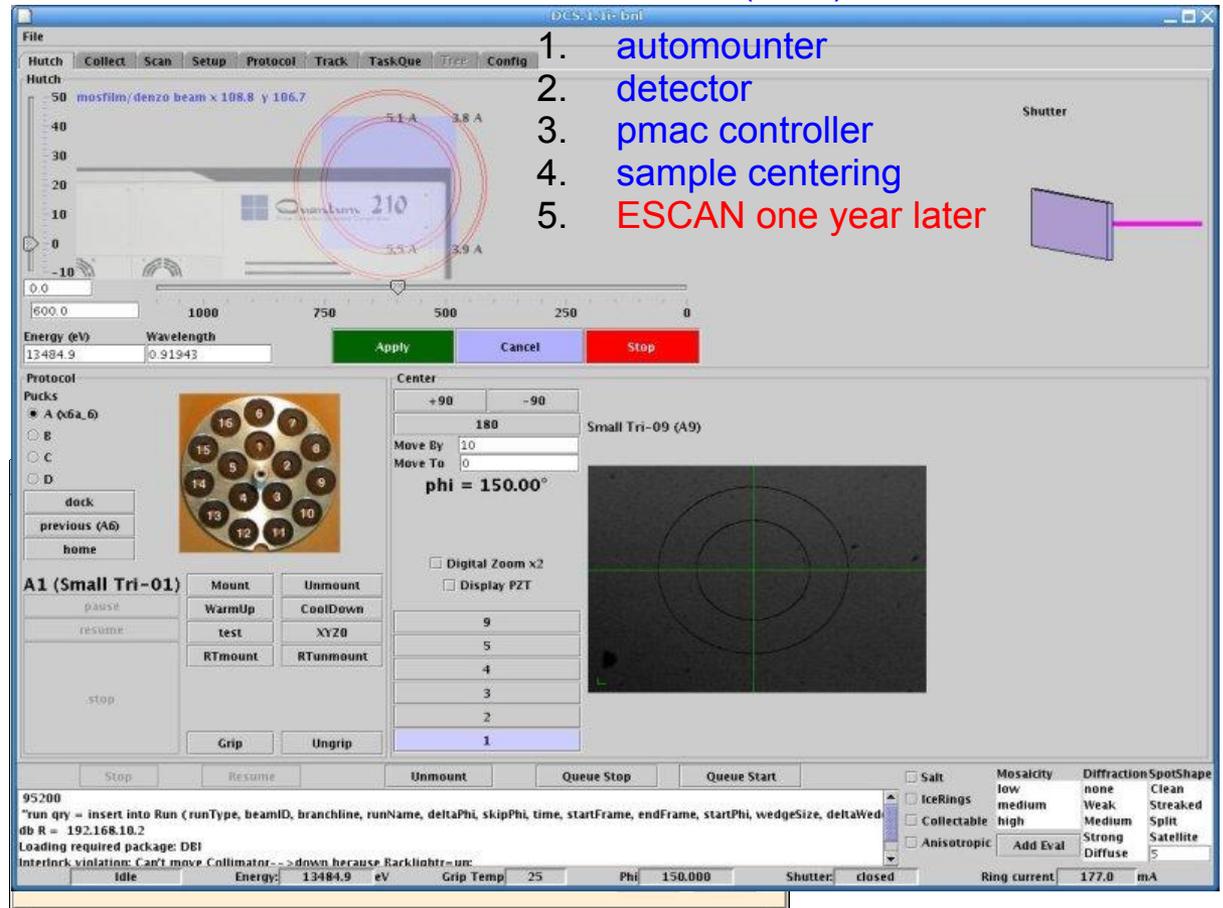
1st Version (ccdsys)

1. detector
 2. pmac controller
 3. sample centering
- not available



2nd Version (DCS)

1. automounter
2. detector
3. pmac controller
4. sample centering
5. ESCAN one year later



Why we are OneOfaKind?

1. Fast response to hardware upgrade
2. A One4All System
3. System stability
4. Friendly User Interface
5. From hardware integration To auto-analysis and software integration

The screenshot shows the DCS64.0 dev. bml software interface. The main window displays a 'Quantum 270' detector image with a red circle highlighting a region. The interface includes a menu bar (File, Hutch, Collect, Scan, Setup, Protocol, Track, TaskQue, Config), a status bar at the bottom showing 'Beam Unavailable', and various control panels for energy, wavelength, protocol, and camera settings.

Key interface elements include:

- Energy (eV):** 11500.1
- Wavelength:** 1.07811
- Protocol:** A (22)
- Center:** 180
- phi = 655.50°**
- Camera:** sarathy15 (A15)
- Status:** Beam Unavailable
- Current:** 0.0 mA
- Energy:** 11500.1 eV
- Grip Temp:** 27
- Phi:** 655.500
- BPM:** 499662 counts

Why we are OneOfaKind?

- Transaction from purely outsourcing to mostly self-maintaining and developing
- A unique support team for software engineering
 - a. the team for gathering requirements
 - b. the team for partially testing
 - c. the team for feedback and suggestions

Thank You!