

## **New features in data collection and beamline controls**

### **As of June 4, 2011**

#### **Raster tab:**

- Auto-raster
  - User enters rastering parameters and initial search area
  - JBluIce runs multiple grid searches to find promising sites in two orthogonal planes
  - Sites are individually centered for data collection and crystal size reported
- "Position Sync" is now replaced by "Save Position"
  - Before a raster run starts, the sample position can be saved
  - Once a rastering run starts, user saved positions are cleared

#### **Collect tab:**

- Collect tab layout is slightly changed
  - "Single" mode disables vector collection for a given run
  - "Vector" mode enables setting the vector position and then the parameters
  - "Vector" options are moved to a separate sub-tab
- Collect tab field interaction is improved
  - When setting up vector collection, only the "step size" and "number of sites" fields will significantly change the number and spacing of the sites.
  - It's recommended that "step size" and "number of sites" are set first, before any other parameters.
- Strategy
  - In run 0, the user checks "strategy" and enters a second frame angle
  - Clicking "collect" takes two frames and processes them to generate a data collection strategy
  - The results are viewed on the strategy tab
  - Clicking "export" will create a new run tab with the generated strategy
- The collect run 0 start angle field has a dropdown for +/-90 degrees

#### **Screening tab:**

- Separate pop-up window with the name and status of the mounted sample

#### **Log tab:**

- Beam X,Y and Vector parameters are saved in the log file.
- Log files are now written for images collected from the Screening tab

#### **Other:**

- Red Hat EL6 support
- XDS input file is written for a data set containing more than 5 images. User can type xds or xds\_par in the sub folder for processing. For now, unit cell parameters should be changed manually.