

## QUICK REFERENCE GUIDE ---- APEX22

- The BIS program/Video and APEXII programs must be running
- In APEXII Log in

- Point to Instrument → Connect → localhost

- Point to Sample → New

- Enter your project name etc.

- Wait for Panels (if not visible) to appear on the left

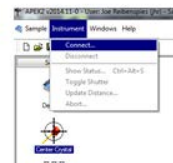
- Point to **Setup**

- Point to **Describe**

- Fill in the formula, crystal color/shape

- Point to **Simple Scans**

- Chose the radiation



<For small weak crystal choose Cu anode otherwise use Mo >

- Point to **Center Crystal**

- On the right bottom point to the “right” button

- Center Crystal

- Point to Spin Phi 90

- Center Crystal

- Point to Spin Phi 180

- Check centering adjust if needed

- Point to Left

- Check centering adjust if needed



- On Panels point to **Evaluate**

- Point to **Determine Unit Cell**

- In the Automatic Panel (on the right) point to Run

- Allow unit cell determination (~14mins)

- If no unit cell is found find another crystal and repeat



(over)

## Data Collection.

On the Panels (left) Point to **Collect**

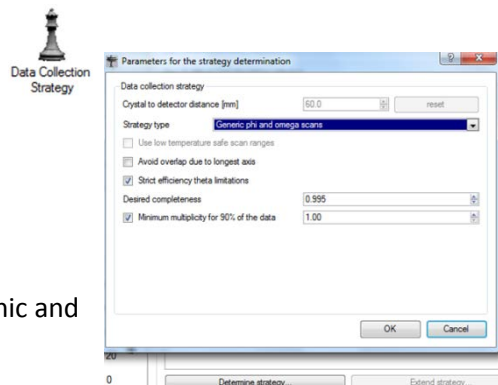
### Step 1. Data Collection Strategy (Queen)

Check Cell and Resolution (on the right)

- Change if necessary (resolution < 0.7 Mo 0.88 Cu)

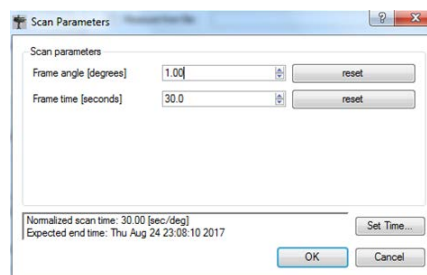
### Step 2. Point to Determine Strategy (bottom left)

- Point to OK
- Wait for program to finish (~1-3mins)
- Check Completeness and Multiplicity
  - > 90 complete and > 4 Multiplicity (monoclinic and above and >2 triclinic)
  - If not point to extend strategy button



### Step 3. Point to Select Scan Parameters (bottom)

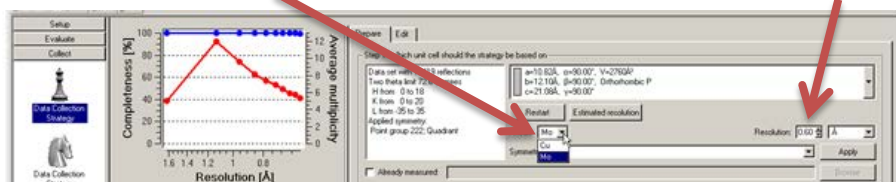
- Change step scan width to 1.0
- Change step scan time (then click outside of step scan time box)
  - The data collection end time/date will be displayed.
  - If exceeds 9:30am (the next day) then reset scan time



### Step 4. Data Collection : Point to Run Experiment

- Point to Append Strategy (Lower left )
  - (optional) Add strategy for Cu/Mo Radiation Re-run Step 1.

<Re-run strategy for Cu/Mo : in Anode switch radiation : in resolution fix Mo to 0.7 or Cu 0.88>

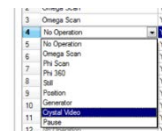


- Re-run Step2 and 3.
- After last run line right click No Operation tab Choose **Anode Type in Mo or Cu**



- Append new strategy to old strategy

- After the last run line, point to the first No Operation tab
  - Right Click Tab and pull down to Crystal Video
- On the next No Operation tab
  - Right Click Tab and pull down to Position
- Point to Validate if OK then to Execute.



Operation	Active	Distance [mm]
1 Omega Scan	Yes	60.000
2 Omega Scan	Yes	60.000
3 Omega Scan	Yes	60.000
4 Crystal Video	Yes	
5 Position	Yes	60.000
6 No Operation	Yes	
7 No Operation	Yes	

(over)