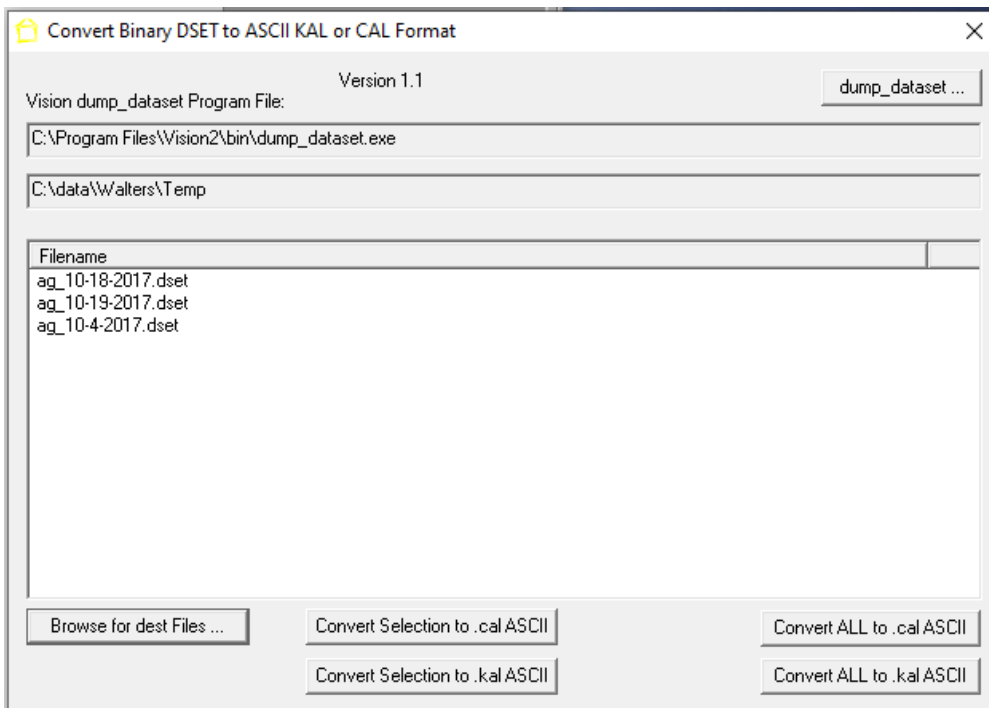


## **CasaXPS Data Processing**

The Kratos .dset data format must be converted to the proper format in order to process the data using CasaXPS. *Note: The dataset must not be open in the Vision Processing software or the file will not convert properly*



- 1. Double click on the “CnvtDset.exe” icon on the desktop**



- 2. Click on the “Browse for dset Files” button and find your folder that contains the data you wish to process**
- 3. Select the .dset file you wish to convert and click the “Open” button.** Note: All .dset files in the directory will be opened regardless of which file is chosen.
- 4. Click on the “Convert Selection to .kal ASCII” button to convert one selected file, or click on the “Convert ALL to .kal ASCII” to convert all the files in the directory.** This creates an ASCII copy of the file with a .kal extension on the filename.
- 5. Double click on the “Shortcut to CasaXPS.exe” icon to open the CasaXPS software**
- 6. Under the “File” pull down menu, choose “Convert”**
- 7. Find the folder that contains the data file you wish to process and select the .kal version of this file.**
- 8. Click on the “Open” button to load the file into CasaXPS**

See the “UserGuideV12” pdf manual for specific instructions on using CasaXPS

## Typical Steps in CasaXPS data processing

1. **Calibration** (Processing menu → Calibration tab)
  - a. It is typical to calibrate to the C-C peak at 284.8eV
  - b. Click on the C-C peak to enter the measured value
  - c. Type in the true value (284.8) and click **Apply**
  - d. To apply this calibration to all data:
    - i. Select all other data by clicking on the data blocks while holding down the Ctrl key
    - ii. Right click on the graph and select **Processing** and then click **OK**
2. **Survey Scan Processing**
  - a. **Identify peaks** (Element Library menu → Periodic Table tab)
  - b. **Label peaks** (Tile Annotation menu → Peak Labels tab)
    - i. Select desired peak labels by clicking on the labels while holding down the Ctrl key and then click on **Apply**
    - ii. In the Element Library menu click on **Clear All Elements**
  - c. **Quantification** (Quantification menu → Regions tab)
    - i. Click **Create From Labels**
    - ii. Deleted unwanted regions (should only choose one region per element)
    - iii. Zoom in and adjust region boundaries if needed
  - d. **Display quantification table** (Tile Annotation menu → Quantification tab)
    - i. Select desired display parameters and click **Apply** (I typically check Exclude Variable, Exclude Area, and Exclude Line Shape)
  - e. **Clean up graph**
    - i. Close quantification window (if still open)
    - ii. Click **Regions On ↔ Off** icon three times to toggle and remove regions and region labels
    - iii. Click **Background On ↔ Off** icon to remove background lines
  - f. **Label graph** (Tile Annotation menu → Text tab)
    - i. Type in desired title or text (note that font can be adjusted) and click **Apply**
    - ii. Select **Annotation History** tab to move text and labels by clicking and dragging the location boxes that appear
  - g. **Save picture of graph** (File menu → Save Picture)
3. **Region Scan Processing**
  - a. Select **Quantification menu → Regions tab** and click **Create**
    - i. Click **Background on ↔ off** icon to display background lines
    - ii. Adjust region boundaries as needed
  - b. Select **Quantification menu → Components tab**
    - i. Click **Create** to create a component, and repeat until the desired number of components have been created
    - ii. Click **Fit Components** to fit to the data
    - iii. Change component **names** in the component table if desired
  - c. **Display component table** (Tile Annotation menu → Component tab)
    - i. Select desired display parameters and click **Apply** (I typically check Exclude Line Shape, Exclude FWHM, and Exclude Area)
  - d. **Label graph and Save picture of graph** as described above