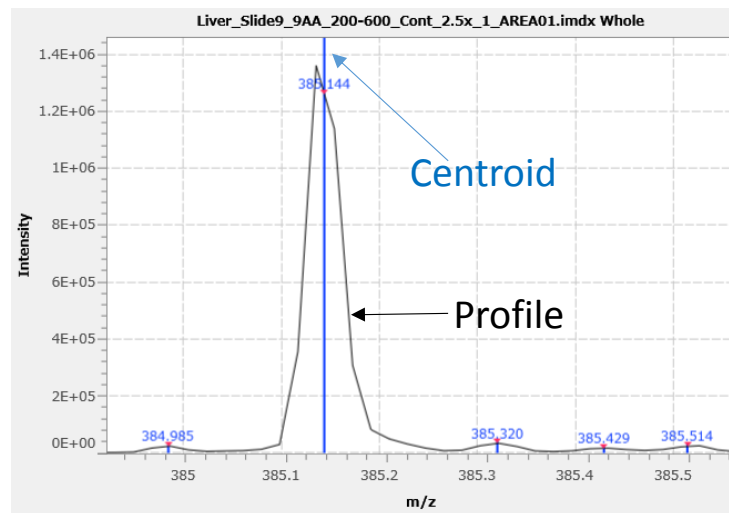


Centroid or Profile?

# profile and centroid in Mass Spectrometry?

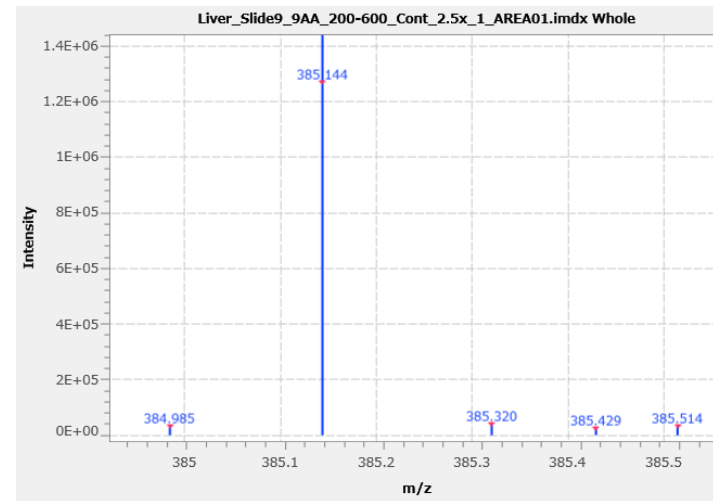
- Profile means the continuous wave form in a mass spectrum.
  - Number of data points is large.
- Centroid means the peaks in a profile data is changed to bars.
  - location of the bar is center of the profile peak.
  - height of the bar is area of the profile peak.



# Centroid data

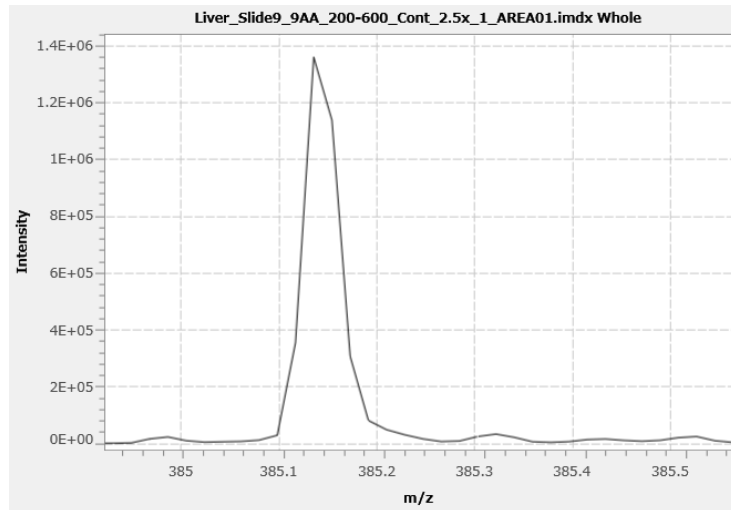
- m/z values are discrete. (intervals are inconsistent)

m/z	Intensity
384.984665047	54456.2286536
385.143690786	2768404.7943995
385.320233292	89927.6801977
385.429055848	59170.4580289
385.514111054	75124.1333699



# Profile data

- Data is a continuous wave form.



m/z	Intensity
384.930560000	2091.0240599
384.949180000	3486.3175904
384.967800000	17452.2559259
384.986420000	24260.5738728
385.005040000	11198.4145429
385.023660000	5920.8725717
385.042280000	7288.1753698
385.060900000	8491.0012475
385.079520000	12986.0801996
385.098140000	30053.8114418
385.116770000	355828.7307075
385.135390000	1360629.3010159
385.154010000	1138985.7693816
385.172630000	307946.1001604
385.191260000	82094.6284085
385.209880000	49671.6649439

# Select Profile or Centroid

Select m/z type to match your data.

The screenshot displays the IMDX Converter software interface, divided into several sections:

- Input KBD/imzML/analyze:** Contains 'Target Data' with fields for Folder, File Name (Yeast01.imzML), Number of Pixels (95(19, 5)), Pitch (10.000 [um]), and Measurement Range (m/z Range: 6019.080078125 - 16896.4296875). A red box highlights the 'm/z:' section with radio buttons for 'Profile' and 'Centroid', where 'Centroid' is selected. A blue arrow points to the 'm/z Range' field.
- Reference Image:** Fields for Folder, File Name, and Preview.
- Output IMDX:** Fields for Folder and File Name (Yeast01).
- Conversion Parameter:** Includes 'm/z Range' (radio buttons for 'All Areas' and 'm/z'), 'Noise Cut' (radio buttons for 'None' and 'Cut Below Specified Percentage'), and 'Peak Width' (input field with '0.01 Da' and a sun icon).
- Sample Information:** Fields for Polarity, Matrix, and Comments.
- Conversion List:** A table with columns: No., Input File Name, Measurement Range, Output Destination Folder, Output File Name, m/z Range.

In the case of Centroid, "Peak width" setting is needed. This analysis software is based on the profile data, you should convert a centroid data to a profile data.