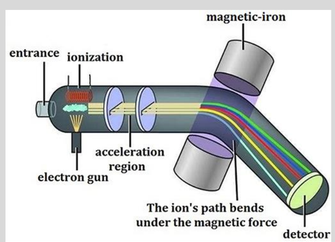
Purdue EAPS

Ryan Ickert | Brian Kwon | Donald Mold | Sophia Davison | Shreya Maganti

Purdue EAPS

Radiogenic Isotope Geology Laboratory at EPAS

- Use high—precision mass spectrometric measurements of isotopes of uranium (U) and lead (Pb) in order to make high-precision measurements of events in the geological past.
- Users a Thermal Ionization Mass Spectrometer (TIMS) to make measurements of the isotopic composition of natural materials.
- A TIMS measurement consists of placing a small, purified sample of Pb or U on a thin metal filament.
- Data Mine Corporate Partnership Team investigate and visualize data collected by the Thermal Ionization Mass Spectrometer (TIMS).



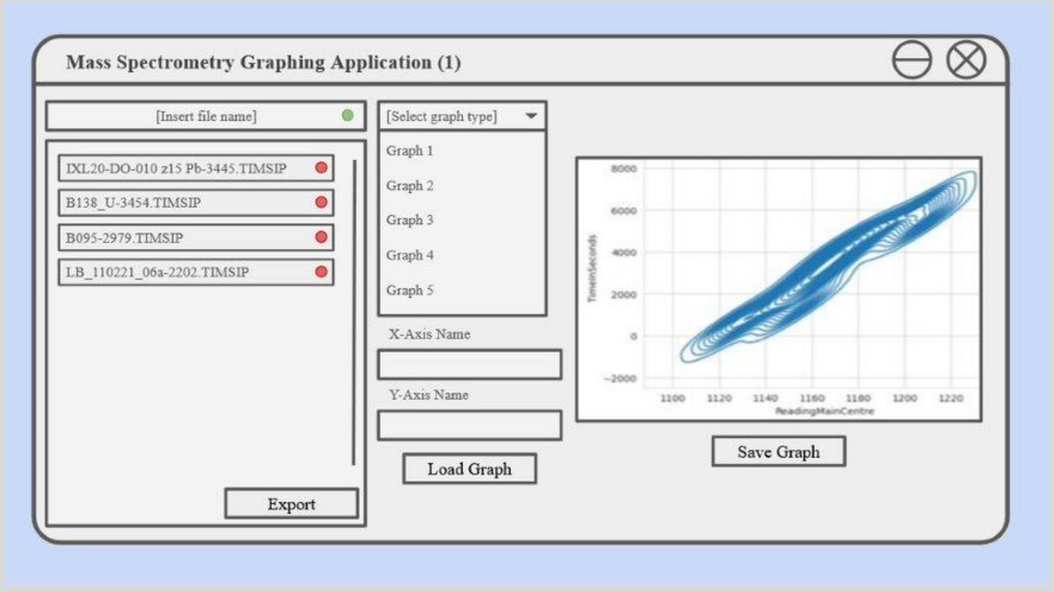
Sprint

Sprint 1-2:
- Distributing tasks and creating teams for the semester
- Attempting to graph multiple data sets at once
- Beginning to automate data cleaning
- Organizing files in Jupyter Notebook

Sprint 3-4:
- Continuing to work on data cleaning automation
- Creating more advanced graphs
- Comparing multiple datasets between one another
- Re-grouping into groups to research SQL

Sprint 5-6:
- Finalizing automated data cleaning.
- Investigating other packages for graphing, create an automated function for two columns.
- Working on the poster and preparing for the Symposium

Sprint 7:
- Working on the final presentation.



User Interface of Cleaning Application

-Clean the two primary data columns and automate a cleaning process

-Find graphical ways to display any trends in the data

-Create a User Interface

-Use SQL to handle and manage large data sets

-Clean several other columns in the data set