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PyLogFinder: A Python Program for Graphical Geophysical Log Selection

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Software

- Review
- Repository
- Archive

Summary

- Many petrophysical or geophysical applications often involve using the same type of geophysical logs from different locations, stored in different LAS files (For such applications see Amosu and Sun 2017a; Amosu and Sun 2017b; Amosu and Sun 2017c; Amosu and Sun 2017d; Amosu and Sun 2017e). The LAS format is a standard file format common in the oil and gas and water well industries for storing well-logging data; it contains records of several sub-surface measurements as functions of depth. Checking for specific logs in a large database of LAS files can be painstaking process taking several days. This process is further complicated by the use of mnemonics (different names) for the same log-type by different companies.
- PyLogFinder is a python program for automating the process of analyzing a large database of LAS files and selecting the LAS files that contain specific geophysical logs needed. PyLogFinder uses a mnemonic database of 2665 common mnemonics in searching the LAS file database. The mnemonic database can be easily edited and expanded by the user. This affords the user the possibility of searching the LAS database using mnemonics they are familiar with. PyLogFinder then generates a list and a graphical representation displaying the results. Figure 1 shows an example of the generated graphical representation for a search for four logs: DT (sonic travel time), GR (gamma ray), LLD (deep lateral log resistivity), and PE (photoelectric factor) in a database. The LAS files that have the logs are shown in green while those that don't are shown in white. PyLogFinder provides a quick visual analysis of LAS files in a database, appropriate for specific petrophysical or geophysical applications.

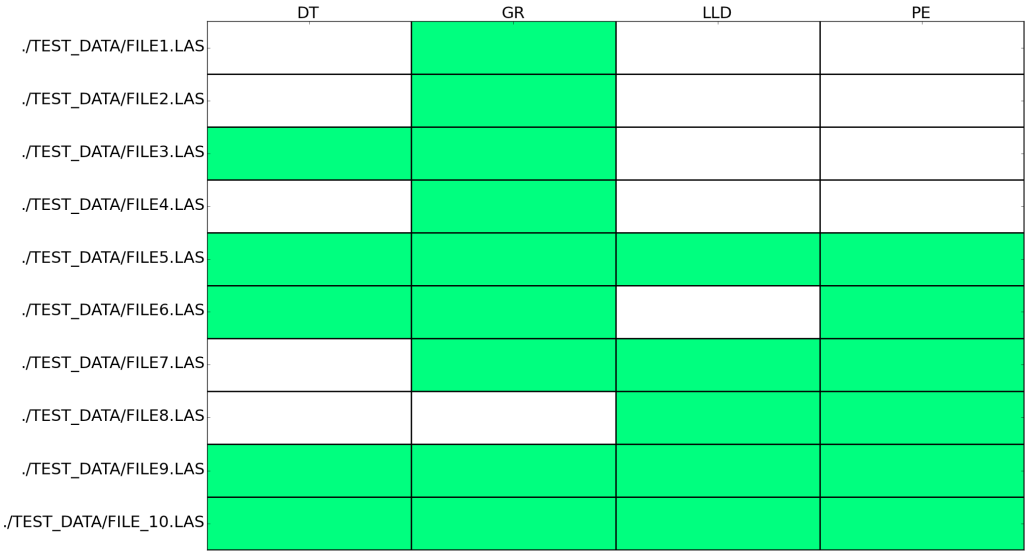

Figure 1 shows Graphical representation of logs present in several LAS files. The green color represents logs present and the white color represent logs which are not present.

References

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