Empower to ADF App & Converter

An Allotrope Community Project

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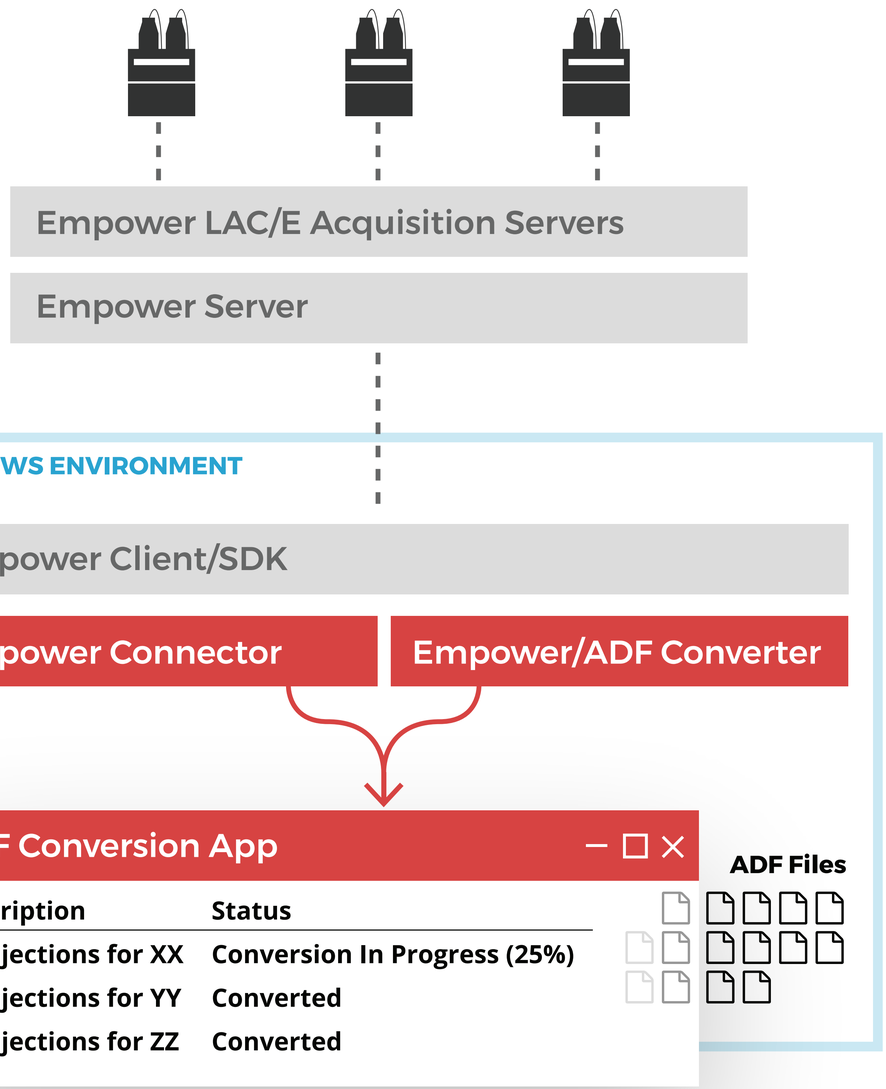
Portability and interoperability of Chromatography data has been a long-standing, unsolved problem. Current chromatography data systems (CDS) are developed using proprietary software and data formats. This limits future-proofness and restricts the downstream use of the data generated by these systems. Empower is widely used, and its data is a prime area of interest for the Allotrope community. Converting Empower data into the Allotrope Data Format (ADF) will accomplish two key things: It will help develop and test the Allotrope Foundation Ontology (AFO) and Allotrope Data Model (ADM), and it will generate a widely-adoptable ADF file.

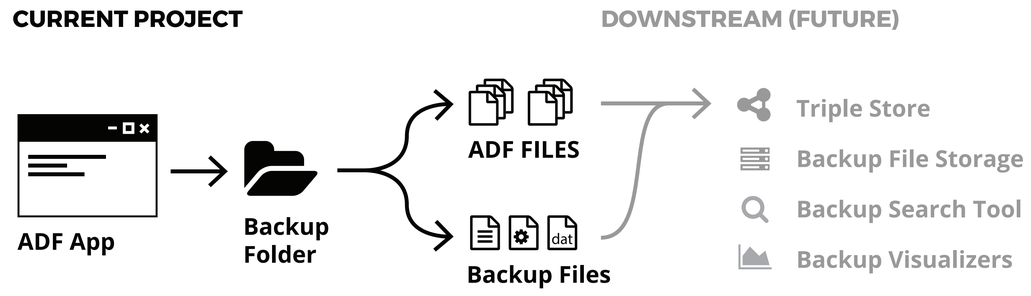


Use Cases

Future-proofing Empower Backups

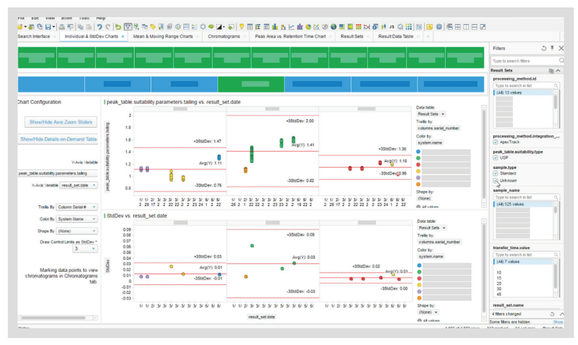
The Empower Tookit (SDK) allows for the creation of Empower backups enabling custom-built utilities to support long-term storage needs. The Empower to ADF community project extends this functionality by producing complementary ADF files that offer a future-proof, vendor-agnostic way for describing these backups.

Having well-described backups allows for searchability via downstream ADF browsing/searching tools, among other capabilities.



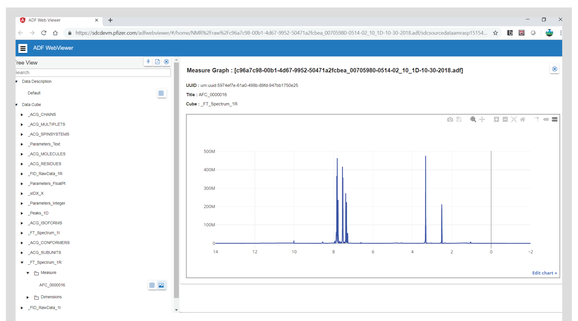
Downstream visualization and analysis

Data standardization using a vendor-agnostic format unlocks a variety of downstream uses, particularly in pulling together disparate data. Information is no longer constrained to just the software where it's produced; it is enriched by through correlations drawn across an expanding variety of domains.



Control Charting (Tailing Factors vs Run Date)

A streamlined and fully automated workflow for producing control charts without needing to manually import or combine data from different software.



Web Viewer for Chromatography Data

A seperate project involving an NMR web-viewer for ADFs is nearing completion. This viewer can easily be extended to support Chromatography ADFs.

Project Status

✔ Complete	✔ Complete	✔ Complete	✔ Complete	In Progress	
Phase 1 Detailed Requirement Gathering	**Phase 2** Technical Specification Review and Finalization	**Phase 3** Design and Minimal Viable Product (MVP)	**Phase 4** Production of test ADFs using Allotrope Converter Stub	**Phase 5** Production of real ADFs using a mutually agreed ADM	**Phase 6** Testing, Packaging and User Acceptance Testing (UAT)

Participating Member Companies