aspentech

Brochure

Secure and Efficient Data Management and Interoperability

Aspen Epos™

The Aspen Epos data management and interoperability infrastructure helps break down silos between domains, enabling secure, efficient and high-quality workflows.

A Multi-Project Environment for Higher Productivity and Enhanced Data Sharing

Terabytes of data, hundreds of projects, multiple users, different locations, and multi-vendor software packages are a daunting task for any geoscience project manager. From one to thousands of users, and from a single project to a network of shared data, the open, innovative Aspen Epos data management infrastructure empowers multi-disciplinary groups of geoscientists comprising geophysicists, petrophysicists, geologists and reservoir engineers to collaborate on projects and interact in a common visualization environment.

Aspen Epos is the data platform that underpins AspenTech Subsurface Science & Engineering (SSE) solutions, allowing interoperability of structured subsurface information. It can be used to easily assemble groups of seismic surveys, wells and cultural data into logical entities for collaborative work by multiple users and for multi-disciplinary projects.

Aspen Epos data services also offer interoperability and data exchange with third-party databases and applications (Figure 1). Each Epos database can be shared quickly and directly, with no need for space- and time-consuming duplication.

Aspen Epos connects to the OSDU® Data Platform and its Domain Data Management Services (DDMS) to access and ingest seismic volumes (in OpenVDS format) and well data to be used in Aspen Epos projects with cross-domain workflows.

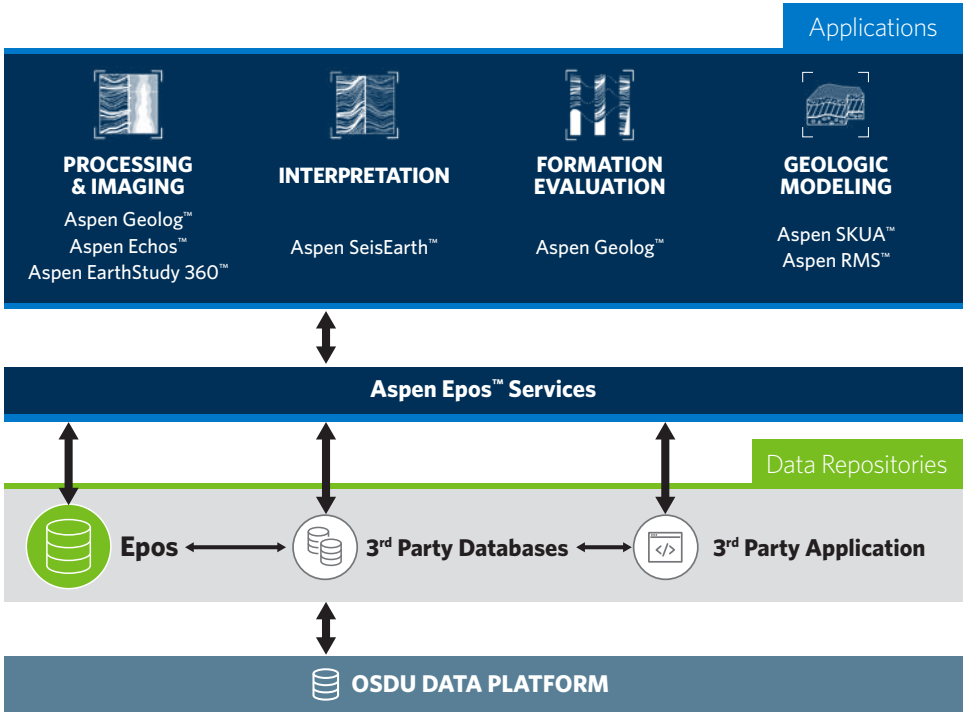

Figure 1. Aspen Epos offers data exchange with AspenTech SSE solutions, and with third-party databases and applications.

Easy Scalability for Changing Performance and Storage Needs

Designed with a rich set of data management tools, the Aspen Epos infrastructure can be easily expanded to meet changing data management needs as projects grow. Its scalability makes it suitable for customers of all sizes, from an individual user to a team collaborating over a network, to very large, geographically distributed enterprises. It is adaptable to any hardware configuration, from one laptop to large clusters, on Microsoft Windows or Linux, including cross-platform Linux-Windows support.

Optimal Data Security and Project Control

A centralized and secure infrastructure supports the needs of both IT professionals and geoscientists. Customizable, role-defined user permissions, and access control tools optimize data security and enable administrators to define the teams that can access and share data on a project, survey or site (Figure 2). A shared infrastructure for AspenTech SSE applications and repositories makes them easy to organize and administer, even in companies with hundreds of users.

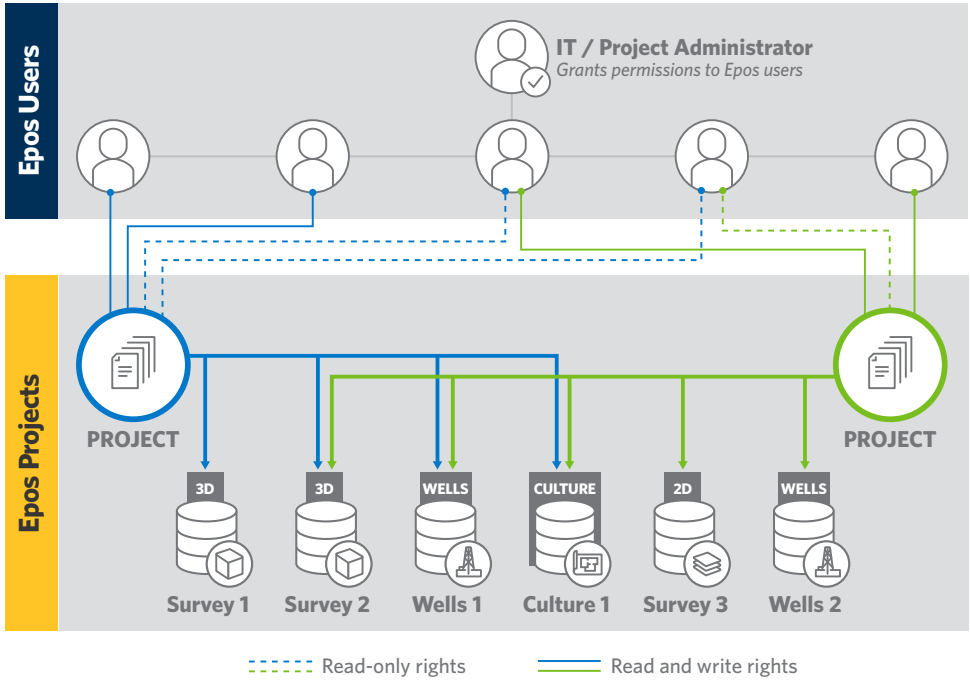

Figure 2. The flexible Aspen Epos infrastructure makes repositories easy to organize and administer.

An Interactive and Collaborative Environment for Integrated Workflows

Aspen Epos offers a collaborative environment for multi-disciplinary groups of geoscientists to share data, interpretations and models in real time. AspenTech SSE processing & imaging, formation evaluation, seismic interpretation and geologic modeling solutions are supported. Any data used and created with these solutions are automatically updated and stored in the Epos database, where they are accessible to all users with access permission.

In the Aspen Epos shared environment, petrophysicists, seismic interpreters and geomodelers all have access to the same Epos project. Well data interpreted by petrophysicists are automatically available to seismic interpreters, where they can be visualized and used to interpret well markers along with their seismic interpretation. Geomodelers can immediately access and integrate the data into a 3D geologic model (Figure 3). The Epos environment makes it easy for interpreters and geomodelers to collaborate on refining and updating the interpretations and ensuring geological consistency of the 3D model.

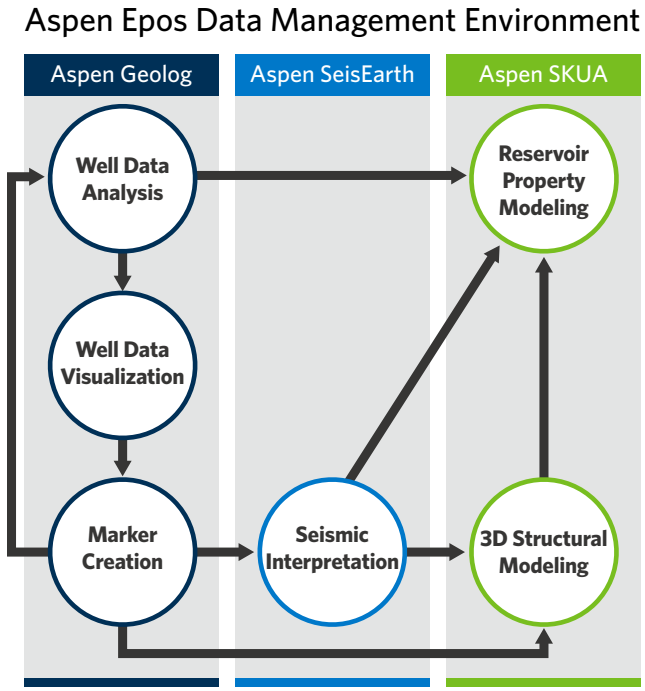

Figure 3. Enhanced collaboration through a shared environment.

Extensive Data Loading Capabilities

AspenTech SSE solutions have out-of-the box connectivity to a vast array of broadly deployed subsurface science tools, enabling access to data stored in other repositories and systems, or generated by third parties. Such connectivity can be leveraged for data migration or for co-existence in heterogeneous subsurface workflow vendor environments, including AspenTech SSE technologies.

The powerful interoperability of AspenTech SSE solutions relies on a broad choice of data formats, including widely used formats such as SEG-Y, LAS, DLIS and ASCII. Data in these formats can easily be used by AspenTech products through import and export utilities.

Dedicated import and export tools are available to exchange data with specific third parties and ease data migration, cross-discipline workflows, and cross-application workflows.

As part of its openness strategy, AspenTech was an early adopter of the RESQML™ reservoir standard format for its subsurface applications, allowing geoscientists and engineers to transfer data between individual RESQML-compliant applications and AspenTech SSE products. The RESQML format helps preserve data integrity among different software applications and improves workflow efficiency.

Features

- A distributed data management system that supports the growing industry need for huge data storage
- A light, robust relational database
- Dedicated data repositories for each data type, making it possible to balance the load on the system
- Support for Linux® and Microsoft® Windows®, including cross-platform Linux-Windows environments and multi-user project sharing in Windows
- A single entry point used to easily assemble a group of seismic surveys, well data, culture data, reservoir data, and drilling data into one logical entity for collaborative work by exploration or asset teams on a regional basis (Epos Project)
- Support for mixed data stored in a Project using different units and projection systems
- Dynamic and extensible project definition
- Import/export tools with a wide choice of data formats, allowing data exchange and streaming with the OSDU Data Platform, and with other third-party repositories
- Multi-site synchronization

System Specifications

- Microsoft Windows 10, 11
- Red Hat® Enterprise Linux 7.6+, 8.4+

The Aspen Epos Advantage

- Real-time data workflows and shared access enable seismic, petrophysics and geologic modeling teams to collaborate on projects and interact in a single environment.
- Common data models, interfaces, services and visualization platforms extend the reach of the geoscientist.
- Easy scalability for changing performance and storage needs as datasets continue to grow.
- Optimal data security and project control support the needs of both IT professionals and geoscientists.

Interoperability

All Aspen Epos-based applications enable interoperability with third-party data stores, including:

- RESQML 2.0.1
- OpenWorks® R5000.10
- Petrel* 2021, 2020 & 2019

*(*is a mark of SLB)*

About Aspen Technology

Aspen Technology, Inc. (NASDAQ: AZPN) is a global software leader helping industries at the forefront of the world's dual challenge meet the increasing demand for resources from a rapidly growing population in a profitable and sustainable manner. AspenTech solutions address complex environments where it is critical to optimize the asset design, operation and maintenance lifecycle. Through our unique combination of deep domain expertise and innovation, customers in capital-intensive industries can run their assets safer, greener, longer and faster to improve their operational excellence.

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