AspenTech Inmation™ Conventional vs Unconventional Use Cases Webinar Q&A

Frequently Asked Questions

During the Q&A portion of the [AspenTech Inmation™ Conventional vs Unconventional Use Cases Webinar,](#) attendees had the opportunity to pose their questions to the panel of experts presenting. Topics ranged from the core functionalities of AspenTech Inmation to its integration capabilities with other systems and platforms. Participants also inquired about real-world success stories and best practices for implementing AspenTech Inmation across different industries and uses.

Q: Is the PLC Connector part of AspenTech Inmation?

AspenTech: AspenTech Inmation can connect to a variety of industrial devices through several open protocols, including OPC Classic (DA, HDA, AE), OPC UA and Modbus TCP. Specialized connectors have also been developed for Allen Bradley Logix 5000 devices, Siemens S7 PLCs, OSI PI + Asset Framework, Honeywell PHD and AspenTech IP.21. A sample list of connections that have been made can be found here [insert link to system connectivity list), but this is by no means a comprehensive list. Beyond these industrial protocols, AspenTech Inmation also supports a broader ingestion of data such as structured files (and parsing), unstructured files for storage (e.g., images, pdfs, etc.), RDBMS systems (ODBC and SQL), API data sources, TCP streams, MQTT and Kafka subscription/consumer.

Q: Is there still a need for OPC servers?

AspenTech: OPC Servers (Classic and UA) are one data source that will exist for a long time in a variety of industrial facilities, but AspenTech Inmation definitely offers the possibility to bring in data in a number of different ways—including MQTT, API calls, files and many more. AspenTech Inmation is really a way to maintain connections to legacy and modern devices.

Q: Are the PLC Connector and the DeltaV App Station proprietary connectors, or is data transferred using OPC DA/ OPC UA?

AspenTech: Today, AspenTech Inmation makes its connection to DeltaV via OPC Classic (DA, HDA and AE) or OPC UA, depending on the licensing of the host system. AMS Device Manager data can be accessed today via ODBC and OPC DA. With Emerson and AspenTech's deepening partnership, combined with advances in DeltaV and AMS Device Manager, the integration between systems will become more extensive as a result to bring in even larger datasets.

Q: I conduct experimental work for catalyst and feed evaluation fusing different reactors to look for certain results, and I get my data in CSV format. How can this help me in my lab environment work?

AspenTech: AspenTech Inmation allows you to ingress the data and build a data model that is most useful for you. You can store the data in the MongoDB and correlate it with any other data that you deem relevant (any file type from any data source). You can present real-time and historical data simultaneously in the built-in WebStudio environment and automate reporting in the built-in Stimulsoft environment. Egress to Tableau, Grafana, PowerBI, etc., is supported if these are desired for visualization. Egress to process analytics tools is also supported for further analysis of your data.

Q: Will a typical development project of AspenTech Inmation implementation always be from scratch specific to the client IT systems and processes landscape and requirements?

AspenTech: This comment is specific to the asset hierarchy. The asset hierarchy in the CMMS is the primary and should be managed/maintained in the CMMS. Updates made to the hierarchy in the CMMS are automatically synchronized with the subordinate system(s) that could be DCS, PLC, MES, etc.

Q: For the Blue Marvel use case—how was the alarm data extracted? OPC A&E?

AspenTech: How alarm and event data is extracted varies by the underlying system being queried. Some systems allow for OPC A&E connections (e.g., DeltaV), while others may require SQL or ODBC queries (e.g., Foxboro can be either, depending on the version). In either case, the data between these source systems does need to be aligned into a more consistent format so that dashboards like the BlueMarvel applications can be leveraged.

Q: Regarding the A&E Bypass—is it possible to share such web studio pages as templates for the AspenTech Inmation community?

AspenTech: The BlueMarvel Bypass application is not built on top of WebStudio. It is a containerized Linux-based application that can be deployed both on premise or the cloud, drawing data either directly from AspenTech Inmation, the customer's cloud infrastructure, or other data source.

Q: What type of validation does AspenTech Inmation require for GMP customers?

AspenTech: Stimulsoft is on board. Egress to third party reporting tools is also supported.

Q: What level of complexity in building workflows to support work processes is possible in AspenTech Inmation—for example, getting user input, capture approvals and forwarding to the next steps in the business process?

AspenTech: Currently, a form environment is offered in AspenTech Inmation, but workflow creation needs to be scripted (using Lua).

Q: Is a custom parsing script the only way to give structure to unstructured data? Or is there a UI EO provided to engineers to build the structure?

AspenTech: There are several standard, no-code ways to ingest structured data, but coding is an option for more complicated structures (e.g., nested structures in an XML).

Q: There are several standard, no-code ways to ingest structured data, but coding is an option for more complicated structures (e.g., nested structures in an XML).

AspenTech: The Lua scripting environment is leveraged to handle the calculations, regardless of the level of complexity. *How are calculations put forth by DOE handled in AspenTech Inmation?*

Q: Is the data real time? Is AspenTech Inmation the only an interface to pull data from different sources? Or can all the data pulled into the data lake become a historian or backup data source?

AspenTech: Data is ingested in real time and transferred through the AspenTech Inmation infrastructure as quickly as bandwidth and latency allows. AspenTech Inmation can be used as an interface from different IT and OT sources and as a historian/OT data.

In the first case, we often refer to AspenTech Inmation as an IT-OT data broker, where it can connect to all the OT technologies at an industrial facility, then move that data into an organization's IT infrastructure, such as the cloud. In this case, we are simply acting as infrastructure to stream data securely from the field to the cloud, and are not storing any data in the system other than logging and audit trail information.

If you choose to use the built-in storage (which uses MongoDB), you have the option of storing the data centrally at your Master Core or locally at sites using Local Core, or both. You also have the ability to configure how long data is persisted at every level. For example, your site stores two-years-worth of data at a Local Core, whereas the Master Core can store data forever.

It's important to note that you can mix and match these data storage strategies as well; you can stream some, or all your data, to the cloud, store data at the Local Core but not the Master, etc. The options are limitless.

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.

aspentech.com