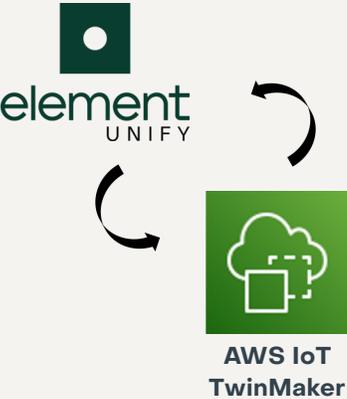


Element Unify for AWS IoT TwinMaker

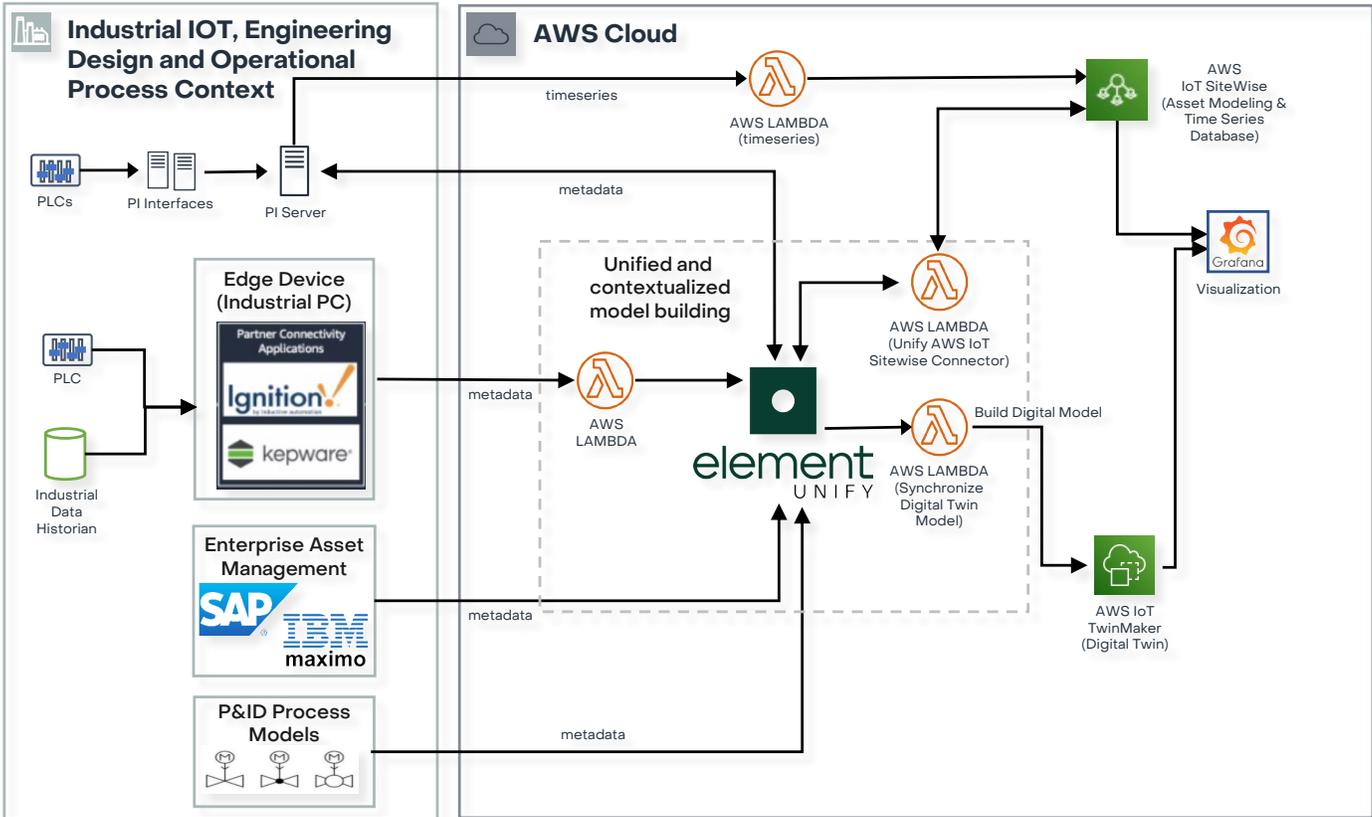
Quickly Build and Deploy Digital Twins



Digital twins are powerful enablers of important use cases such as optimizing performance, avoiding equipment failures, training operators, etc. The efficacy of a digital twin, however, is critically dependent upon the data fed to it. Element Unify uses a knowledge graph-based approach to tracking and managing data relationships and building metadata models. The Unify integration with AWS IoT TwinMaker delivers significant benefits with it comes to building digital twins:

- **Speed** - dramatic reduction in time to build and deploy twins
- **Quality** - confidence that the data used to develop the twin is sound
- **Governance** - based on on-going management of the data feed to ensure on-going value
- **Scale** - ability to scale from one to hundreds and eventually thousands of twins as the needs increase

Reference Architecture - Building Digital Twins with Element Unify and AWS IoT TwinMaker



Connect, Integrate and Contextualize Disparate Data Sources

file	name	annotations	type	associated equipment	label x
01_PID_B01_page001	25IIT10101		instrument	C0125101	935.99
01_PID_B01_page001	25PDT10102		instrument	C0125101	295.05
01_PID_B01_page001	25JIT10103		instrument	C0125101	526.04
01_PID_B01_page001	25SIT10104		instrument	C0125101	765.40
01_PID_B01_page001	25PIT10121		instrument	C0125101	883.71
01_PID_B01_page001	25TIT10123		instrument	C0125101	643.76

- No-code environment eliminates manual effort
- Removes dependence on coding skills
- Fast time to deployment
- Easy to understand and maintain

Build Knowledge Graph-Based Model and Publish to IoT TwinMaker

Query Result: MATCH p=(source)-[relationship]->(destination) RETURN p

Graph Text: 227 Nodes 226 Edges

- Graph model captures data relationships
- Ability to keep digital twin in sync with physical assets
- Flexibility to build/enhance model as needs evolve

About Element Analytics

Element, a leading software provider in IT/OT data management, enables industrial organizations to unite their IT and operations data to produce analytical insights that drive cleaner, safer, healthier, and more profitable operations. Element Unify transforms siloed IT/OT data into contextualized, graph-based models to support diverse analytical workloads and data governance. Element's customers represent over \$250 billion in revenue, \$230 billion in fixed assets and 450,000 employees. To learn more about Element, please visit elementanalytics.com and follow the company on Twitter and LinkedIn.