Atlas Copco Minimizes Cost of Ownership Using Simulation and Digital Twins

Carl Wouters, Atlas Copco

Compressed air applications consume more than 10% of worldwide energy production. A manufacturer of air compressors, Atlas Copco is constantly looking to improve products and services throughout the whole life cycle of its machines.

To do so, Atlas Copco integrates simulation and data analytics from engineering through production to sales and service using digital twins as a single source of truth, relying on MATLAB® and Simulink® to build their Model-Based Engineering Platform. This platform provides their sales engineers access to reliable performance simulations, giving customers tailor-made products. Current models of Atlas Copco compressors are equipped with up to 50 sensors, preparing them for predictive maintenance, and the service division can set up customer-specific maintenance strategies based on real-time data collection from more than 100,000 machines in the field, creating a wealth of insights they have only just begun to explore.
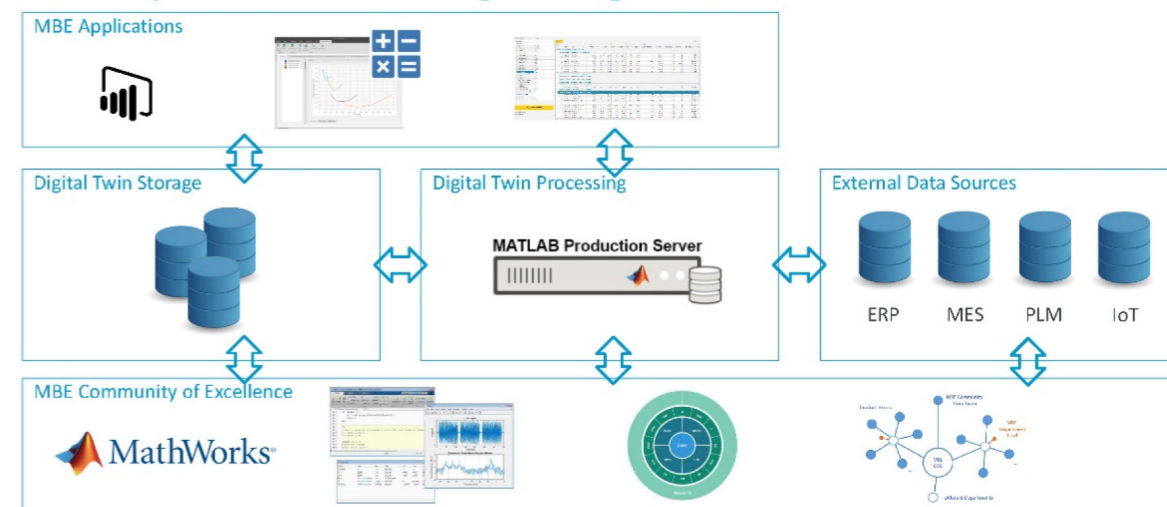
Advantages of using MATLAB:

- Easy interaction with application-specific data sources
- Vast range of data analytics and simulation capabilities
- Ability to combine databases with a physical model
- Open information sharing between teams from engineering, sales, and service

> "To get **access to any data,** it just takes **two lines of MATLAB code.** **After 10 minutes you have all the data** on any given model worldwide and **can start analyzing it.**"

Atlas Copco Model Based Engineering Platform

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