



FOUNDED IN: 1903

LOCATION: DEARBORN, MI

EMPLOYEES: 186,000

AREA OF FOCUS: AUTOMOTIVE

Ford Motor Company is one of the largest automakers in the world, with revenues of almost \$130 billion in 2020. The company sells automobiles and commercial vehicles under the Ford brand, and luxury cars under its Lincoln luxury brand. Headquartered in Dearborn, Michigan, in the United States, the company operates 61 manufacturing plants around the world, and has 186,000 employees.

Customer Success Story

Ford Improves Productivity with TigerGraph

The Challenge

Ford uses the internet of things to remotely manage its manufacturing equipment around the world - this machinery performs a variety of production tasks including welding, painting, assembly, and more. Ford used two relational databases to store and analyze the data collected from its machinery, but quickly ran into problems with data ambiguity that resulted in production downtimes. The company realized they needed an entity resolution system to consolidate their data.

The Solution

Ford decided to complement its relational databases with a graph database, initially to remove data duplicates using entity resolution - this was a challenge that Ford had been trying to address for many months. Once data ambiguities were removed, similarity matching algorithms were applied to maximize production uptimes. Using TigerGraph, they could identify which robotic parts were about to fail so they could replace the failing parts all at once, thereby optimizing their production efficiency.



By 2020, 50% of motor vehicle manufacturers will apply advanced analytics to connected-vehicle data to identify and correct product defects.

Mike Ramsey | **Gartner**

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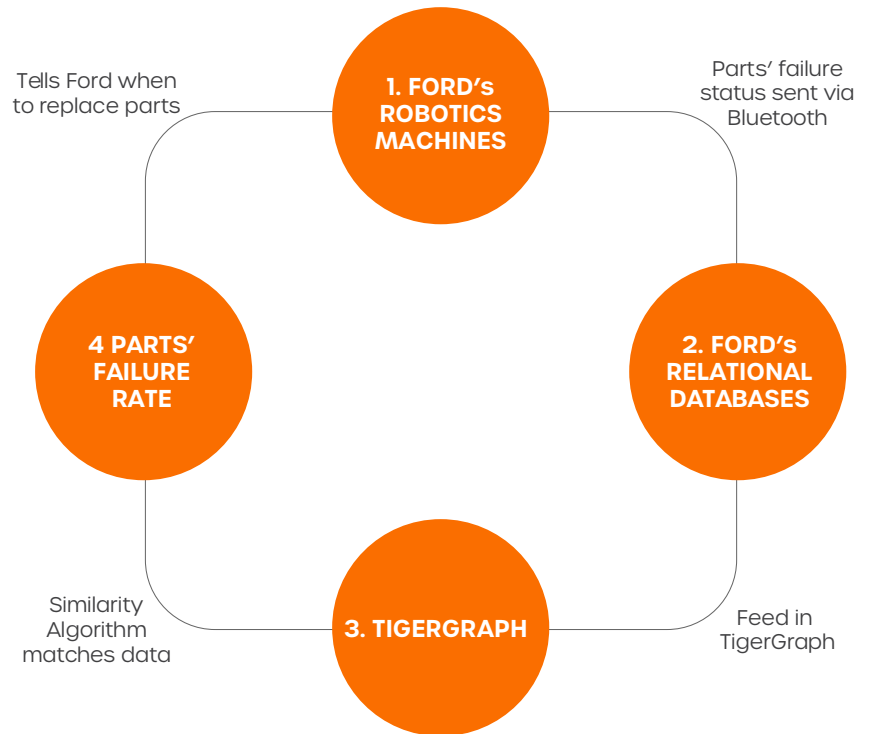


Figure: How both relational databases feed into TigerGraph and map to one source of truth.

The Results

Ford is now able to reconcile data in each of its two databases to the same piece of the production line machinery with 90% accuracy. Since using TigerGraph's entity resolution for asset tag reconciliation, they're able to identify when a part is about to fail so they can pre-plan and avoid unnecessary breaks in the production assembly line.

About TigerGraph

TigerGraph is the world's fastest graph analytics platform designed to unleash the power of interconnected data for deeper insights and better outcomes. TigerGraph fulfills the true promise and benefits of the graph platform by tackling the toughest data challenges in real time, no matter how large or complex the dataset. TigerGraph supports applications such as IoT, AI and machine learning to make sense of ever-changing big data.

For more information, follow the company on [Twitter@TigerGraphDB](#) or visit us at www.tigergraph.com

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