

Throughout your organization, there are stationary and mobile assets that generate data like temperature, pressure and voltage every second of every day. Each of these assets has another key data point — location. However, viewing both real-time AND geospatial data about your assets often requires using separate applications. What if you could easily take all the asset data that you are collecting, analyzing and viewing today with your PI System™ and put it on a map?

Now you can.

OSIsoft, the industry leader in real-time data and events, has partnered with Esri®, the industry leader in Geographic Information Systems (GIS) technology, to deliver a new capability that brings space and time together. Combining the visualization and analytics of the Esri ArcGIS® platform with the real-time data infrastructure delivered by the OSIsoft PI System gives enterprises a new way to understand and share critical data. By taking into account physical location, your operational data becomes more complete, has more context and provides new levels of understanding throughout your business.

Maps are used on a daily basis. Technology has made maps readily accessible so you can always find where you need to go and the shortest distance to get there. When you are on the go, it is always great to view real-time traffic updates for your route. You may discover that the shortest route is not the fastest. With real-time information, you realize that a route which avoids a traffic delay, though longer, gets you where you need to go more efficiently, in the least amount of time. Real-time traffic data enriches your map experience, enabling you to adapt to actual conditions and dynamically adjust your course of action. It empowers you to make a highly-informed decision in a short amount of time.



Using real-time data on a map to make actionable decisions has become second nature in our personal lives, but what happens throughout your enterprise?

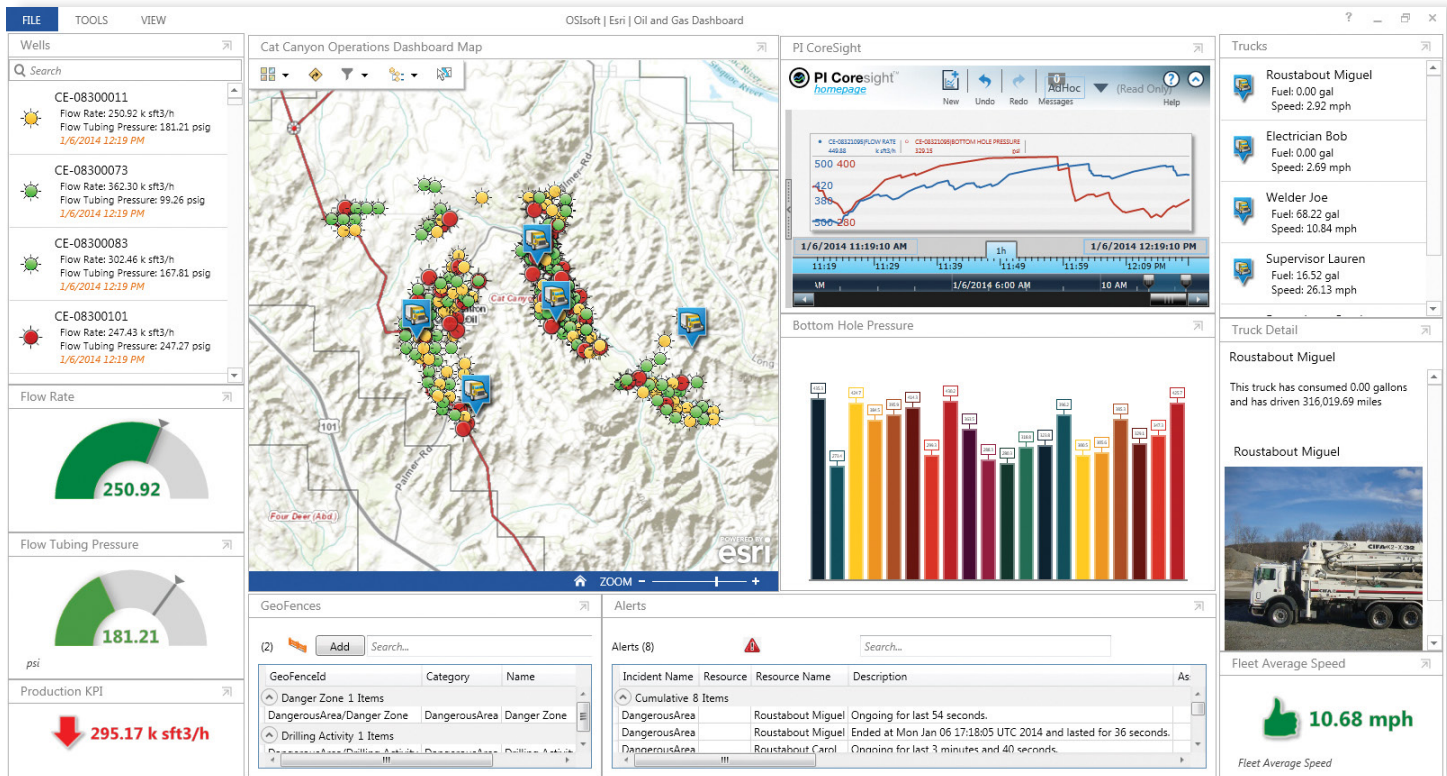
Think of the possibilities if you could easily combine real-time data from your operational assets, see them on a thematic map or dashboard AND interact with them using geospatial analytics. It could enable you to see correlations between assets and behaviors, discover dependencies that you did not know existed, identify inefficiencies in a process or mitigate health and safety risks. It can lead to actionable decisions being made with greater confidence and in shorter times.



Organizations are finding they require data more frequently in order to respond to rapidly changing business conditions where split-second timing is crucial. Viewing up-to-the-moment status information of operations and infrastructure is a vital capability enabled by real-time GIS. Together OSIsoft and Esri are transforming the way people interact with their data, giving them powerful tools for reacting to change at the speed of business.

Through a partnership with Esri, OSIsoft will deliver both a Software as a Service (SaaS) and on premise product to integrate your PI System data with ArcGIS. This service offering, will bring your location data to life with PI System data, all through configuration — without programming.





The PI System with Esri ArcGIS delivers the infrastructure to view real-time and historical operational data within the context of a geography. This capability can be used to bring rich operational data from sensors, control systems, real-time calculations, as well as events onto a live map. It allows you to launch a PI Coresight™ display, in geographic context, so you can seamlessly analyze historical behaviors of individual assets. With the Esri Operations Dashboard (shown above), you can view both real-time and historical data within a geospatial context — in a single dashboard. The OSIssoft solution even provides a mechanism to synch existing asset data with geographic attributes and features.

From logistics to workflows to health and safety to asset management, there are numerous functional teams within an organization that rely on geospatial information to perform their daily work. Now, the maps that are already being used throughout your organization can be easily augmented with real-time data feeds from the PI System.



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Bringing Space & Time Together

The OSIsoft-Esri solution enables you to view real-time and historical operational data using power location analysis tools on an ArcGIS map in order to analyze assets, time and events in space. Integrated views of time and space benefit many teams within your enterprise. For example:

- **Maintenance Engineers & Coordinators** can monitor assets and react to alarms and notifications using map-based navigation. With this capability, issues can be highlighted geographically. Maintenance schedules can be built using filtered views of the assets on a map. Supporting information such as average flow rate, average temperature and runtime hours will be more accessible to planners.
- **Field Technicians** can receive real-time proximity alerts as they approach field assets. Using their mobile devices, technicians can see asset status and access real-time high fidelity asset data – saving time.
- **Operation Engineers & Analysts** can simultaneously compare operating conditions across geography and through time. Identifying opportunities to streamline processes, workflows and equipment.
- **Environmental Health & Safety Teams** can proactively define a safety boundary around assets and be notified if a person or asset crosses the boundary. They can also be more efficient in reactions to EH&S excursions to identify who or what might be at risk when a problem occurs.
- **Planners** can analyze assets and their environment to determine where, when and how to deploy new assets or decommission existing ones.
- **Managers & Executives** can see aggregate and roll-up calculations to quickly view key performance indicators of production values, risk profiles or market data.

Whether you use the PI Integrator for Esri ArcGIS on premise version or cloud based version, the OSIsoft solution is the easiest and most scalable way to build a real-time operational data layer on an ArcGIS map.

To find out more about using the OSIsoft PI System with Esri to combine data and geographic information, please email esri@osisoft.com.



OSIsoft, a global leader in operational intelligence, delivers an open enterprise infrastructure to connect sensor-based data, operations, and people to enable real-time and actionable insights. As the maker of the PI System, OSIsoft empowers companies across a range of industries in activities such as exploration, extraction, production, generation, process and discrete manufacturing, distribution, and services to leverage streaming data to optimize and enrich their businesses. For over thirty years, OSIsoft customers have embraced the PI System to deliver process, quality, energy, regulatory compliance, safety, security, and asset health improvements across their operations. Founded in 1980, OSIsoft is a privately-held company, headquartered in San Leandro, California, U.S.A, with offices around the world. For more information visit www.osisoft.com.