

# Data Discovery

## Visualizing Real-Time Operational Data

Data Discovery is a data visualization tool for Kinetic (the new name for Epicor ERP). With Data Discovery, staff can use their natural visual abilities to quickly spot areas of interest in real-time production data that they might have otherwise missed by just looking at rows and columns of numbers.

In the Data Discovery view, users can set filters and drag and drop measures and dimensions to produce rich visualizations—a process like manipulating a pivot table in a spreadsheet. They can then focus on a data point or area and drill down into the underlying ERP transactional detail.

Driven by real-time Business Activity Queries (BAQs) in Epicor ERP and other data sources, EDD complements Epicor Data Analytics (EDA)—EDD visualizes short-term, up-to-the-second enterprise data out of the box. Meanwhile, EDA allows for longer-term data exploration with full, pre-built content packs running in a cloud-based data warehouse.



Epicor® ERP

**Become a data-driven company able to quickly make informed decisions**

Display live, role-based, key metrics to workers automatically when they log in

Visualize, anticipate, and preempt equipment and production degradation with Epicor IoT

Save time by visually spotting anomalies and automatically drilling down into transactional detail in Data Discovery or Kinetic

Enable employees to access and tailor visualizations in a self-service capacity



*Drag and drop measures and dimensions in the Data Discovery View to gain new insights*

## Compare



Line series    Grouped bar    Stacked bar

## Percent of total



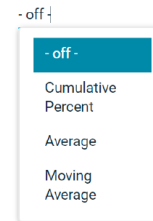
Pareto    100% Stacked bar    Pie

## Correlate



Bubble and dotplot    Pivot table

## Trendline



*EDD action buttons  
instantaneously switch  
views of your data*

## Data Discovery Content

A full assortment of 30+ metrics across five role types is included with Data Discovery. These provide great starting points for users to explore in the Data Discovery View or create new metrics.

### Executive Role

- Average order total today
- Gross profit today
- Sales today
- COGS vs. profit
- Orders today
- Order history

### Finance Role

- AR balance
- AP balance
- Sales YTD vs. LYTD
- Customers past due on payments a.k.a outstanding receivables
- Not invoiced shipments—number and amount
- Aged payables
- Aged receivables

### Supply Chain Role

- Quote win/loss analysis
- Quotes—count and amount
- Orders entered quantity and amount (sales) RMAs quantity and amount
- Obsolete inventory
- Purchase price variance
- Open PO count and amount
- Negative inventory items/out of stock

- Orders past due quantity and amount
- Orders backlogged quantity and amount
- Orders shipped quantity and amount by defined criteria
- On-time/overdue shipments—counts and percentage vs. total shipped

### Manufacturing Role

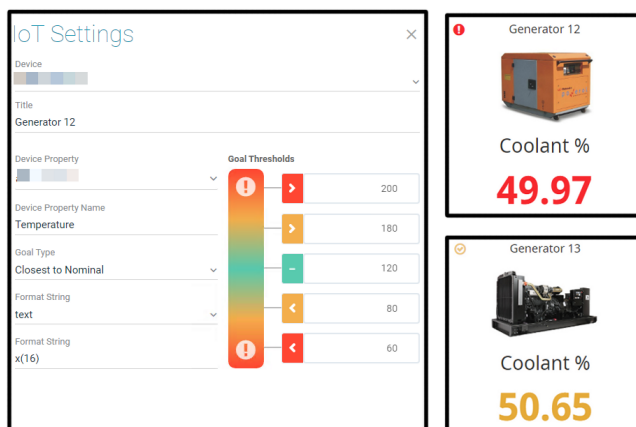
- Clean vs. occurrence jobs
- Manufacturing hours and indirect/ downtime hours
- Job count by status
- Job cost element breakdown
- Indirect hours by reason

### Project Management Role

- Budget vs. actual
- Completion percent
- Profit margins

## Epicor IoT Widgets

Epicor IoT is Kinetic module that integrates with the Microsoft® Azure™ IoT Hub. This application monitors and visualizes data from sensors and other Epicor products. Epicor IoT leverages Microsoft Azure IoT Hub to gather Kinetic's context and in-depth production data. Users gain intelligent insights into the production and day-to-day enterprise activities—achieving deep levels of operational efficiency. The Epicor IoT Data Discovery widget alerts decision makers in real time to what needs attention on the



Indicators with thresholds set up for IoT widgets make it easy to spot the alerts

shop floor and improves productivity as a result. Each machine or device sensor can be set up with a Key Performance Indicator (KPI) setting such as allowable temperature ranges.

## EDD Card Views and Dashboards in Active Home Page

Active Home Page for Kinetic is an optional starting point for a user logging in and is where most users will first encounter Data Discovery. A key component of the Epicor Design System, Active Home Page contains quick access tiles for regularly used forms, links to other applications, and resizable Data discovery card views. Four configurable home pages are provided for these role types—executive, financial, manufacturing, and supply chain—and are populated with the appropriate favorites, Data Discovery card views, IoT widgets, and other widgets that can be easily rearranged and resized on the page. Additionally, the “Discovery Dashboard” widget adds a Data Discovery BI Dashboard as a tab in Active Home Page. You can also create custom Data Discovery views and BAQ grids from system BAQs or your own BAQs and add them to your Active Home Page. The easy accessibility of Data Discovery from Active Home Page will promote data-driven decisions in your business.

## Typical Usage Stories

“I want to see the ratio of jobs with scrap/rework/nonconformance reported versus jobs with no scrap/rework/nonconformance reported. I want to be able to see this by part number for a user-defined date range. If the user does not choose a part, then all jobs in the time frame should be included.”

—Production Manager

**Answer: EDD percentage of jobs without scrap or nonconformance metric**

“I need to be able to quickly review—in a KPI—the total count and amount of all overdue AR invoices. I will need to be able to drill into the KPI and see all of the customers that have invoices past due and what the total amount overdue is for each of the customers. I should be able to drill further and see which invoices make up the total amount overdue for each customer and—for each invoice—review how many days overdue it is.”

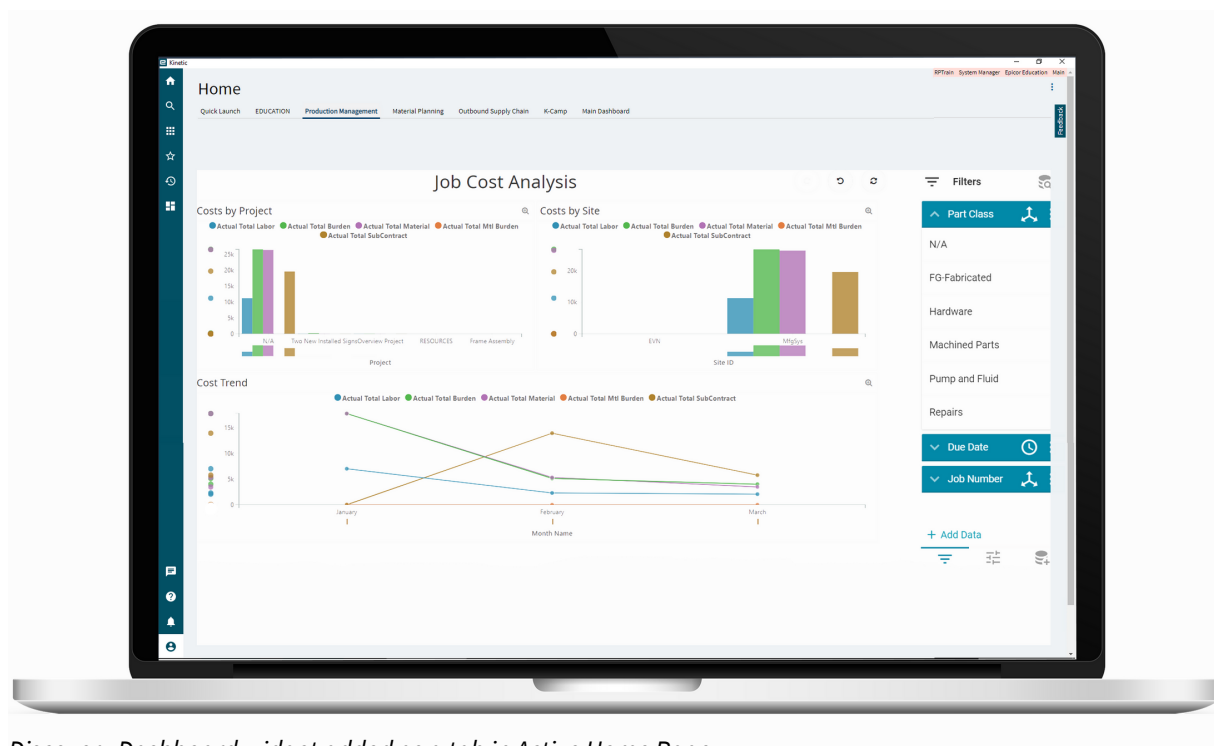
—Collections Manager

**Answer: EDD outstanding receivables metric**

“I need to be able to see the number of quotes won versus the number of quotes lost within a rolling six-month time period. I also need to see the velocity of the wins and losses, as well as a Pareto analysis of wins and losses. I also need to see the value of these quotes based on the expected value.”

—Sales Manager

**Answer: EDD quote win/loss analysis metric**



Discovery Dashboard widget added as a tab in Active Home Page

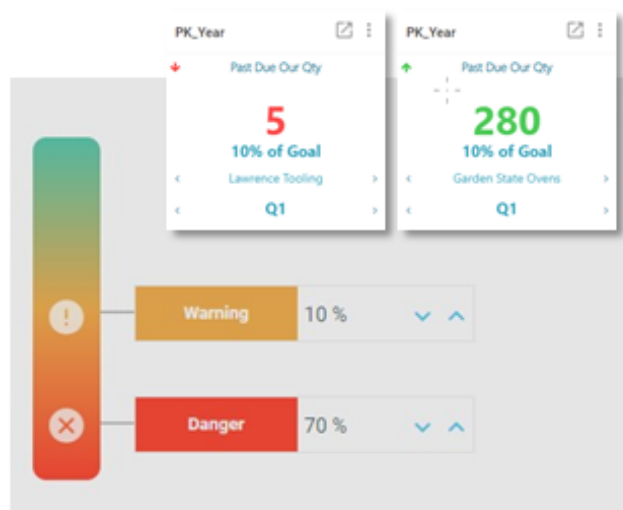
## Data Discovery Advanced

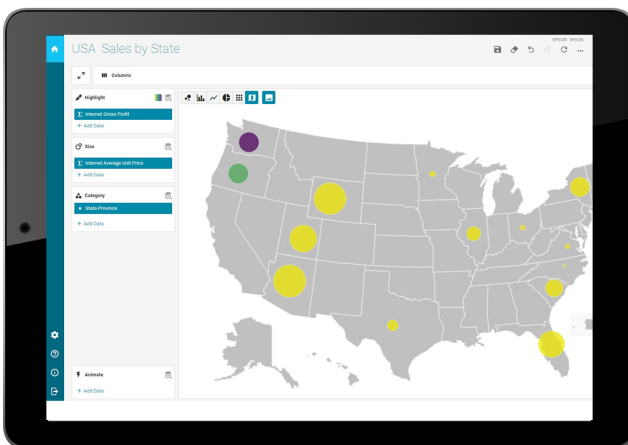
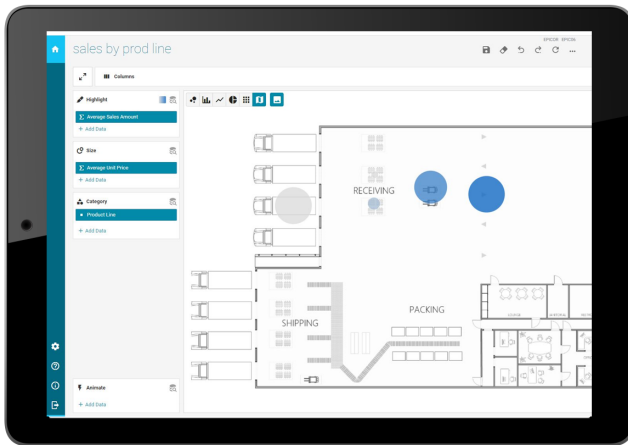
Data Discovery connects to Kinetic BAQs and External BAQs. Data Discovery Advanced allows customers to connect Data Discovery to outside data sources—most notably to multidimensional cubes created in Microsoft® SQL® Server Analysis Services. This allows the Data Discovery BI Dashboard to be populated with both Kinetic and external data sources with shared dimensions and cross filters. Data Discovery Advanced also allows log-ins to Data Discovery to be set up outside of the ERP system via Azure Active Directory or local Active Directory with data-level security set by role. Kinetic users can still log in to Data Discovery via Kinetic login.

### Key Performance Indicators (KPIs)

Visually rich, color-coded, and intuitive KPI tiles and dashboards can be created in minutes with this feature in Data Discovery Advanced. This expands the KPI feature—first introduced with Epicor IoT widgets in Epicor ERP version release 10.2.400—to your other

real-time data. The stoplight approach's greatest strength is its intuitive logic. Your organization sets the goals or operating parameters and then managers can see problems (or achievements!) at a glance and drill down into what requires their immediate attention, in real-time.





## Image Overlay

We all love maps. They provide orientation. They give us a context for the data we are using, they relate most closely to our real-life experience, and they are beautiful to look at. Now an image can act as a background in a Data Discovery Advanced visualization, with data points placed in context on the image. Imagine being able to see a map of your country or the world, with data points displaying information in different provinces or states, or a map of your plant floor as shown. Or an image of a machine, with data points related to sensor placement on the machine. Data points on these maps can simultaneously display data in two categories (dimensions) via size and color, and your users can drill down for more information. This map-based enhancement is sure to engage your users more than any other chart type and promote their use of real-time analytics for increased reactive productivity.

## Key Features

- Built for mobile
- Data Discovery included with Kinetic
- Real-time Kinetic operational data
- Visualizes Epicor IoT data from Microsoft Azure IoT Hub
- Side-by-side display of Data Discovery views with forms and trackers in Kinetic
- Open Kinetic trackers and forms from Data Discovery selected data
- Connects to out-of-the-box and custom Kinetic Business Activity Queries (BAQs)
- Data Discover Advanced connects to cubes built in Microsoft SQL Server Analysis Services
- Tied to Kinetic login
- Data Discovery Advanced has additional option of Microsoft Single Sign-On for Active Directory and Azure™ Active Directory

## Requirements

- Data Discovery is included in the Core packages of Kinetic Versions 10.2.100 and higher
- Data Discovery Advanced is an additional license or SaaS subscription available for Kinetic Versions 10.2.300 and higher
- Discovery Dashboard widgets and IoT widgets are available in Kinetic Versions 10.2.400 and higher
- To view Data Discovery IoT content, a license or SaaS subscription for Epicor IoT is required
- Data Discovery Advanced Image Overlay and KPI's require Kinetic Versions 10.2.600 and higher

## EPICOR

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