

Incuity EMI

Business Intelligence for Manufacturing

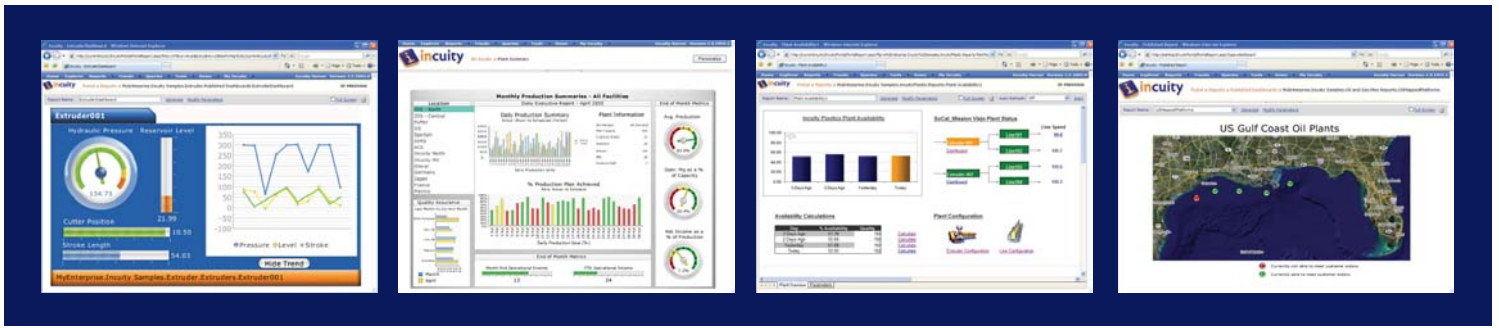


Product Overview

Until now, you could inform some of the people most of the time, and inform most of the people some of the time.... Now, with IncuityEMI™, you can truly inform all of the people all of the time.

For manufacturing/operations companies, getting the right information to the right people in a timely manner has never been more important than it is today – to reduce hidden costs, to increase production, and to maximize profits. It has also never been more possible than it is today - with IncuityEMI.





Control systems, plant historians, ERP applications and manufacturing applications all contain data about aspects of the business of manufacturing: from specifications to planning, to production schedules, to productivity of people and equipment, to product quality, to materials and orders, to shipping product out the door, and so much more. This data is a manufacturing company's greatest hidden asset, but it is difficult to access quickly and even more difficult to correlate and interpret from so many different systems.

IncuityEMI is Business Intelligence for Manufacturing, an Enterprise Manufacturing Intelligence platform that integrates these many silos of data across the manufacturing enterprise. It energizes decision makers by providing timely, clear and context rich information – empowering them to make better decisions that have positive impact on the bottom line.

IncuityEMI brings the power of business intelligence to manufacturing by bridging the gaps between your control systems and business applications, and exposes the full value of the data locked within them. It presents a coherent picture of your manufacturing business through familiar browser and Microsoft Office applications.

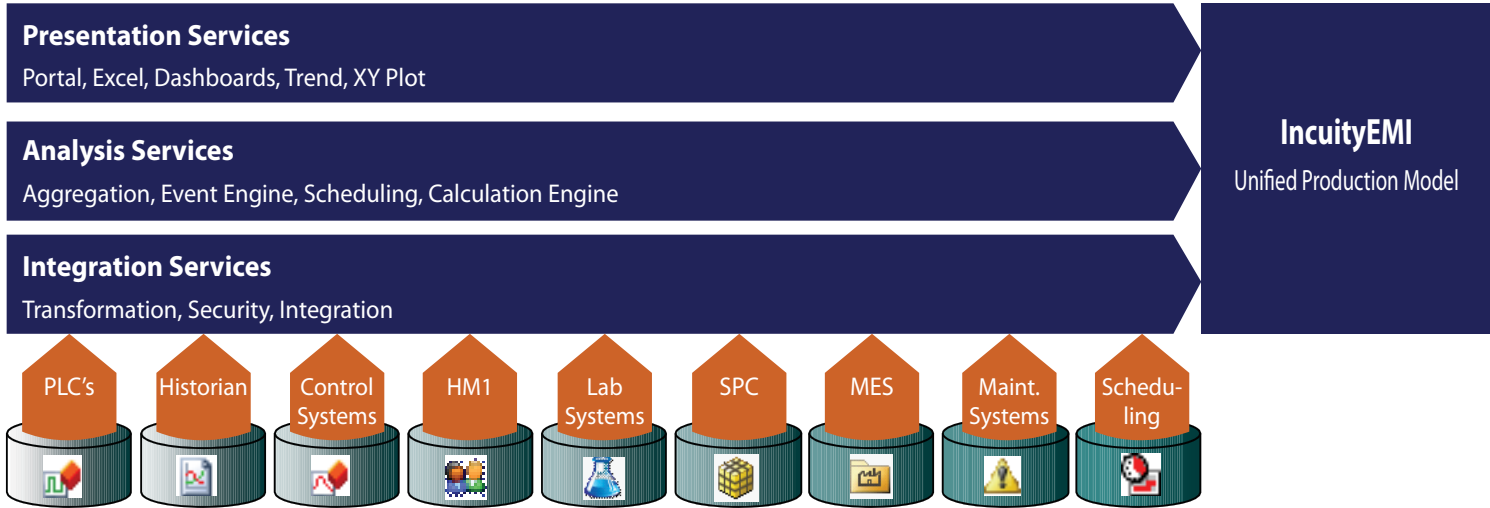
The zero-install client software, self-configuring server and pre-configured reports get you up and running quickly, providing immediate insight into the business of your manufacturing operations. Power users gain even more insight using manufacturing analytic applications and Microsoft Excel. Then they can easily publish these insights to the web as new reports, views and dynamic dashboards, providing users across the enterprise with timely and clear manufacturing information via the Incuity or SharePoint Portal, where they can drill down to expose bottlenecks

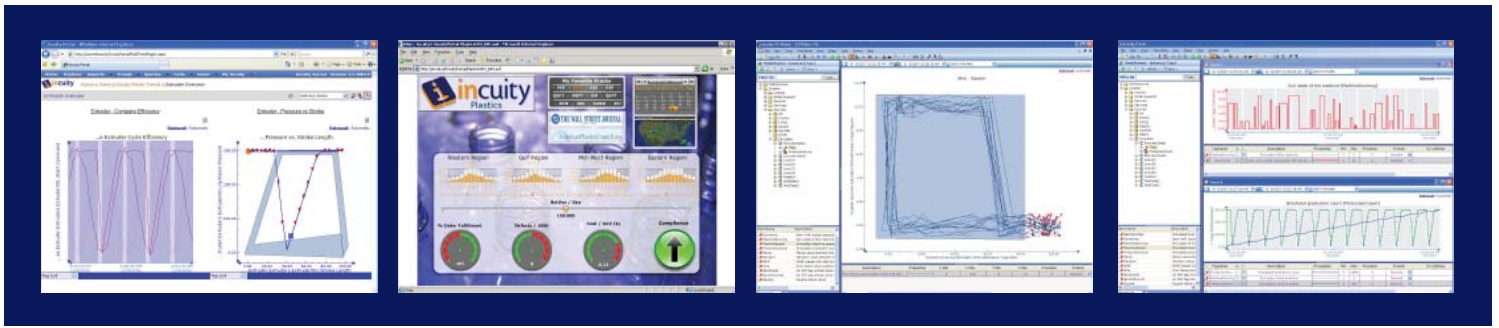
and potential production problems. All of this drives better decisions that directly impact business performance.

Unified Production Model

The Unified Production Model (UPM) is the heart of IncuityEMI. The UPM provides the data context for equipment, product, material and people relationships, and a coherent and unified view of all available data. The model is unified because it abstracts the complexities of the individual data sources, and gives you the big picture by combining and correlating real-time production data in the context of relational and transactional business data, such as business goals, supply chain requirements and compliance parameters.

The UPM models the underlying business to empower you to report on and visualize a holistic view of your production in a consistent manner. It is federated, which means that there is no opportunity for data divergence; the data remains and is always accessed at its source; IncuityEMI does not store a copy of the data. It is flexible in that it may utilize a pre-defined model (e.g. it supports the ISA S95 model), or a custom model of your creation; and the model can be extended at any time.





Integration Services

Control systems, HMI systems and historians have data about the plant and the products it produces. ERP systems and CRM systems have information about orders and inventory levels, about customers and their preferences. A variety of other applications contain information about forecast demands, production and maintenance schedules, recipes and product quality.

The IncuityEMI Integration Services include data connectors to an extensive range of applications and database formats:

- ~ Traditional automation and control systems used in manufacturing operations;
- ~ The full range of real-time data historian products;
- ~ A broad range of databases and data warehouses;
- ~ A full complement of manufacturing management applications;
- ~ Traditional MES and ERP systems, planning and scheduling applications.

Additional Integration Services include:

- ~ In-line transformation services, which clean and reformat the data as needed, and
- ~ Security services, which manage users, roles and their access to data through the model.

Analysis Services

The IncuityEMI Analysis Services manage the integrated information based on individual user's needs. Analysis Services can uniquely correlate normally incompatible relational and transactional data with time series data to reference time periods (event, batch, shift, run, etc.), dead bands or other time-series functions. They also can perform calculations (tag limits and alarms, operating regions, etc.) and transform, summarize and aggregate data for analysis in Microsoft Excel, to produce calculated variables, key performance indicators (KPIs), aggregations and more.

Presentation Services

Power users analyze the manufacturing enterprise using the Excel Add-In or one of the IncuityEMI Manufacturing Analytic Applications: Trend, XY Plot and Dashboards. They may publish reports, views and dashboards to the web, where authorized users can access and customize these reports and views via the Incuity or SharePoint Portal.

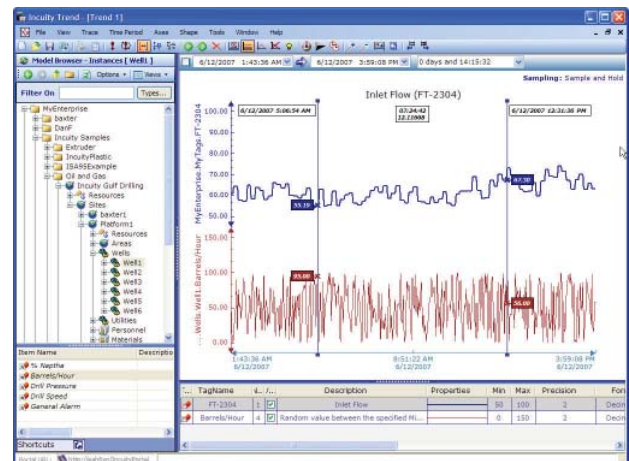
Excel Add-In makes it easy to bring historical, control system and business application data through the UPM into the familiar but powerful Excel environment. Here users can leverage Excel's analysis capabilities or use Incuity wizards designed to manipulate and present manufacturing information. Users can also publish Excel content directly to the web, and collaborate by fetching and building upon existing published reports.

The Excel Add-In provides users with:

- ~ Easy access to historian, control system and business application data
- ~ Functions for handling and analyzing specialized plant data
- ~ Tight integration with the Incuity portal to allow easy publishing
- ~ Real time reports that are automatically refreshed in Excel and in the end user's browser after publishing.

Incuity Trend graphs real-time and historical plant data on a time axis and features:

- ~ Multiple time axes for comparing episodes across time;
- ~ 'Fence-posting' capabilities for trending batches and shifts;
- ~ Display of alarm limits and alarm conditions;
- ~ Flexible zooming, panning, scaling and stacking.



XY Plotter is a client application that runs in an Internet Browser to plot relationships between tags, create shapes to define expected behavior, and plot them all against a scaled background image. With XY Plotter, users can do the following, and more:

- ~ Trace the relationship between the values of a "Tag Pair in real-time, or over a pre-set or historical period of time;

Corporate Offices

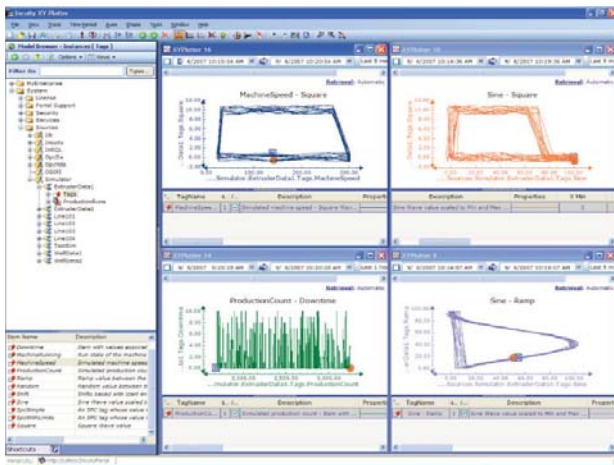
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Additional Locations

Nevada
Massachusetts
Texas

Burlington, Ontario, Canada
Duesseldorf, Germany
Johannesburg, South Africa

- ~ Easily create user-defined shapes to set boundaries that define “normal” or optimal conditions for a trace;
- ~ Display and compare multiple Tag Pairs, or traces, concurrently; and
- ~ Save traces as “Golden Batches” for comparing other traces from different time periods.
- ~ Traces can be saved as time-periods, or Golden Batches, and used to compare traces over different time periods.



Incuity Dashboard is used to create a variety of dynamic KPI charts and graphs, easily recognizable by users and management as indicators of manufacturing effectiveness. Dynamic dials, sliders, progress bars, gauges, numeric values, spinners and play buttons are easily configured through the Incuity dashboard wizards.

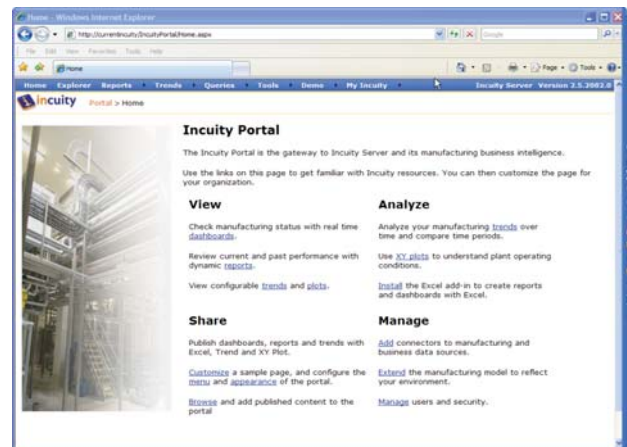


Incuity EMI Portal

The IncuityEMI Portal provides authorized people access to published views, trends, reports and dashboards via an Internet browser. People across the manufacturing enterprise can now

access the manufacturing information they need.

- ~ The Incuity portal can be deployed as a standalone portal or integrated with an existing Microsoft SharePoint or other portal.
- ~ Pre-configured reports allow users immediate access to the rich IncuityEMI manufacturing information. Portal content quickly grows as normal users of Office and of the manufacturing analytic applications publish and collaborate.
- ~ End users can customize and personalize the portal to ensure they are receiving the content they need.
- ~ Reports can be generated on-demand or on a scheduled or event driven basis, and can be distributed via Email.



Extensibility

Even though IncuityEMI was designed to be highly configurable, it's eminently extensible. The entire model may be exposed and leveraged in any of three powerful ways:

1. The UPM is accessible entirely through Web Services, making it a true Service Oriented Architecture application.
2. The UPM object model is accessible from any .NET programming environment on the server or a client
3. The model and data are accessible through SQL Queries.

For more information on IncuityEMI and how it can help you increase your company's productivity and profitability, look for your nearest Incuity Value Added Reseller at www.incuity.com/vars.