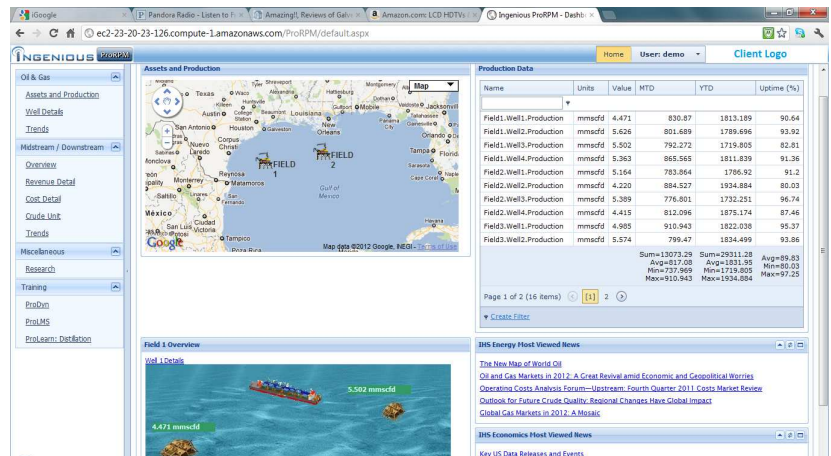


## ProRPM 2.0 Real-time Performance Monitoring Dashboards

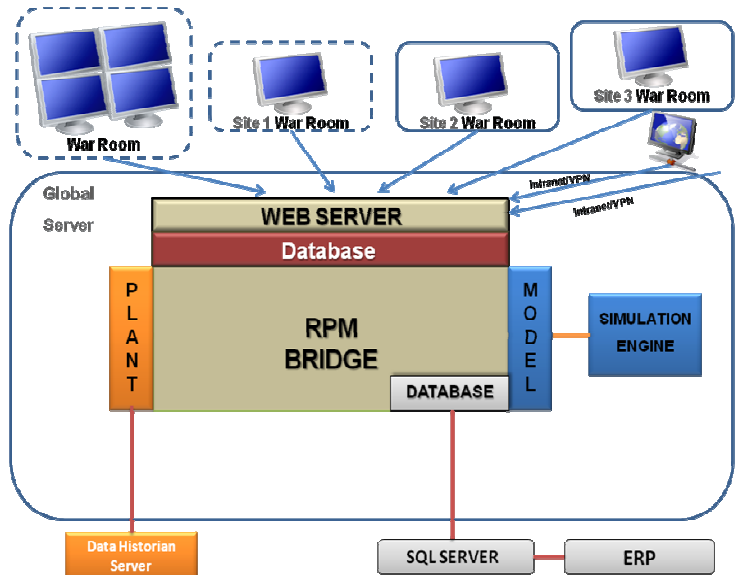
Process plants are dynamic in nature. Companies need to know not just how their assets are performing, but how they should be performing. Continuously changing feedstock, operating conditions, products and environmental factors impact the daily operation of a process plant. It's no longer good enough to monitor the plant occasionally on a static basis. With intense industrial competition, companies must track and monitor key performance indicators (KPI's) continuously including profitability, costs, as well as energy & environmental factors. Ingenious Inc offers advanced solutions and expertise in the process industries including chemical, oil & gas and energy industries.

Ingenious' ProRPM solution is a model based real-time performance monitoring (RPM) solution. ProRPM is CLOUD enabled and can be deployed on a commercial or private CLOUD. Its intuitive portal includes ability to rearrange widgets (templates) to easily customize the look and feel. ProRPM features easy data integration, data dictionary to filter through large list of tags from any data source, and a rigorous calculation engine used to calculate KPI's, Green house gas (GHG) emissions and other custom calculations, and seamless connectivity with leading modeling and process simulation engines.



### Need For RPM

- Large assets at work with plant personnel focusing on maintaining throughput and keeping units online.
- Plants need to reduce costs & energy consumption.
- Increasing demand for graphical solutions & Analytics that provide actionable items as opposed to reams of raw data.
- Resource limited industry, with need to manage safety and quality issues.
- Green House Gas (GHG) emissions monitoring & environmental reporting.



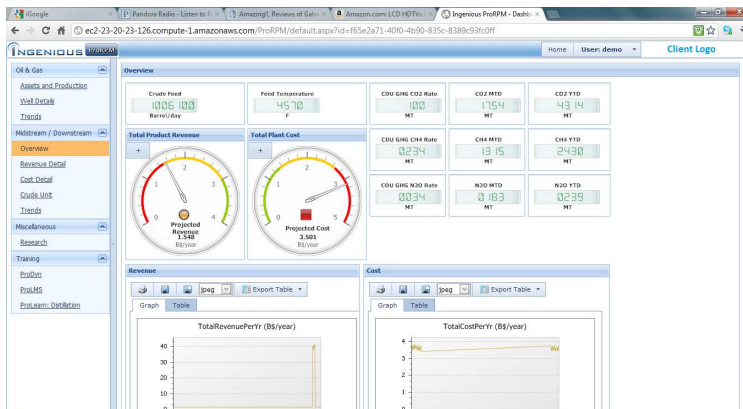
### Steps in developing RPM

1. Data collection & integration for various data sources
2. Development of models to determine optimum operation
3. Custom "knowledge" templates to predict and forecast current and future problems/improvements in the plant

4. Display dashboards and Analytics with KPI's (Key Performance Indicators)
5. Continuously monitor plant making recommendations for improvements

### ProRPM capabilities

- Continuously monitor KPI's and performance
- Perform "what-if" analysis and debottlenecking to improve product yields and quality.
- Equipment condition monitoring
- Improve resource utilization
- Google Maps (GIS) embedded
- Voice recognition for KPI's
- Accurate Material Balance and loss analysis
- Profit & Operations Analytics through dashboards



**Data Integration:** ProRPM provides custom adapters to easily integrate with leading third party applications such as Microsoft Excel, OSISoft's PI data historian, Leading simulation software, Microsoft SQL server, OPC to link to any DCS, SCADA system and Microsoft SharePoint.

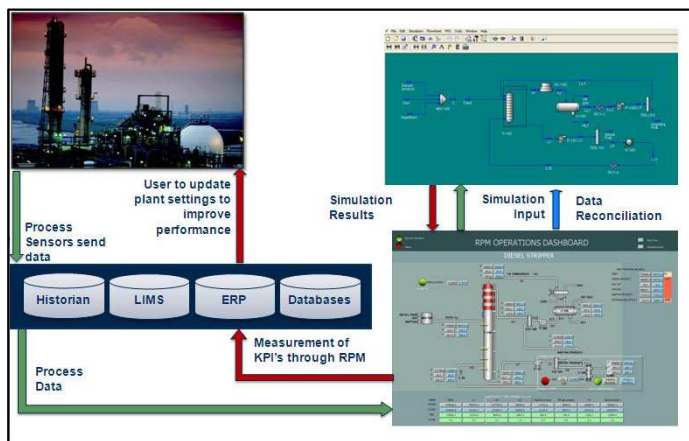
**Versions:** ProRPM comes in 2 versions: ProRPM standard and ProRPM Premium.

#### ProRPM standard version includes

- ProRPM software license (lease or perpetual)
- Calculation engine/RPM bridge
- Data dictionary
- 1,000 tag limit for creating dashboards
- Adapters for
  - Microsoft Excel & SQL server

#### ProRPM premium includes all features of ProRPM standard plus

- 10,000 tag limit for creating dashboards
- Adapters for
  - OPC (OLE for process control) DA and HDA (Data Access)
  - CHEMCAD and Petro-SIM simulation engines
  - OSI-PI data historian



**About Ingenious Inc.** Established in 2000, Ingenious Inc provides Smart Technology & Consulting for Training, Real-time Performance Monitoring (RPM), M&A Advisory, Six Sigma, Process Engineering and Safety Management. **Ingenious Inc** focuses on the chemical, oil & gas and energy industries & serves over 150 clients globally with offices in 4 countries. Please visit [www.ingeniousinc.com](http://www.ingeniousinc.com) for more information.