



# Digital Plant Solution Revolutionizes Manufacturing Operations

Enhances Shop Floor Productivity and Effectiveness  
Across Plants and Geographies

*A Decisyon App Composer™ Use Case*



# For a multinational manufacturer, improving its performance meant digitizing plants to eliminate inefficiencies across all levels of their operation.

This large manufacturer wanted to digitize its world class manufacturing operations to enhance its manufacturing performance by plant and geographic region. This meant replacing many of its existing management methods, including old style white boards and spreadsheets, and creating a single point of access to many separate data sources and systems. The company wanted a solution quickly: they realized that any disruption caused by a lengthy development cycle would erode their competitive edge. The company selected Decisyon App Composer (DAC) and built an application to:

- Digitize the manual, paper-based processes in each of its plants
- Standardize the development of its KPIs
- Visualize and analyze its local and global operation results in real time

The application aggregates and rolls up the information at different levels of the organization to provide a holistic view of the firm's overall performance. From customer order through production to delivery, the DAC Smart Manufacturing solution helps the manufacturer piece together disparate systems to streamline the full scope of its operations, increase its efficiency and speed time to market.



AWS has been used to host and deploy the overall application using the available customer VPN. In particular the architecture has leveraged the following AWS services: Lambda, Ec2, ELB, S3, RDS.

## AT-A-GLANCE

### Smart Manufacturing Use Case for Large Multinational Customer

- A global manufacturing company was plagued by inefficiencies with its manual, paper-based production operations.
- By implementing the Digital Plant Solution with DAC, the multinational was able to provide a 360-degree view of its shop floor to its staff — from production line coordinators to plant directors.
- The result: the DAC solution helped transform the firm's manufacturing operations, enhancing shop floor efficiencies with its staff across plants and geographies, and boosted its ability to define and implement targeted actions.
- The overall application has leveraged an AWS VPN infrastructure provided by the user to ensure security by design and scalability for all the plants in different continents (US, Europe Asia).



**Decisyon App Composer (DAC) is the flagship product of Decisyon, providers of the industry's only visual app-building environment with rich built-in services to accelerate the design, development, sale and deployment of IoT solutions.**

## THE CHALLENGE

# Digitizing the Shop Floor Operation for Greater Efficiency

Most manufacturing shop floors consist of different staff — shop floor operators, line coordinators, production managers, business unit managers and plant directors — with different responsibilities handling various aspects of the manufacturing process. To gain efficiencies on the shop floor, they must work together and collaborate, and require a comprehensive way to view all plant data in real time, with access to daily, weekly and monthly reports. They need a holistic view of overall performance from customer order through production to delivery.

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## THE SOLUTION

# The Digital Plant Provides 360° View of Overall Plant Systems and Workflow

Using DAC, a digital plant operation application was created that is being used on touch screen monitors across the plant floor at a number of locations.

### **This Digital Plant Solution empowered plant operators to:**

- Access the shop floor and collect all relevant data and information from people and data sources
  - Identify “hidden” errors and generate specific alerts via smart multi-touch boards
  - Rapidly track and recommend specific corrective actions using DAC’s collaborative and visual environment
  - Encapsulate and aggregate data and key information during a formal review meeting
  - Facilitate and enable the performance dialogue via visual dashboards and analytics
  - Link the outcome with the next level of review
  - Connect the right people via a collaborative network
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## LINE PRODUCTION PORTAL

# Portal Allows Operators to Analyze Business Unit Problems, Enhance Workflow Efficiency

To enhance workflow and efficiency, line operators must choose the most critical problem that occurred and was validated in each working hour during a particular shift. With the DAC solution, the operator easily selects the top problem per shift with a “drag and drop” gesture that moves the “problem” object from the “production” widget to the “top problem” widget. At the end of each shift, all of this data and any outstanding issues assigned from the production lines are stored and aggregated for viewing and analysis at the business unit level during the daily business meeting.

## DAILY BUSINESS UNIT BOARD

# Business Unit Board Summarizes Production, Safety and Compliance Data for Rapid Action

### The Daily Business Unit Board provides:

- Daily Overall Equipment Effectiveness data per business unit line to enhance efficiencies
- Confirmation report of operational control procedures for each role
- Different boxed sections where business unit (BU) managers and coordinators can get a quick look at what's going on to analyze and manage critical issues and risky production problems with the various production lines
- Environmental/health/safety and quality compliance visual indicators of all production lines
- Agenda widget to schedule and support efficient meeting time management



## WEEKLY PRODUCTION BOARD

# Production Board Highlights KPIs, Data, and Problem Resolution for Management Review

### The Weekly Production Board provides:

- Key meeting information
- Environmental/health/safety and quality compliance visual indicators for the plant
- Productivity data and a list of all risky production problems with related resolution management process
- Customer and financial visual KPI's
- Agenda widget to schedule and support efficient meeting time management



## OVERALL BENEFITS

# Innovative Approach Transforms Plant Operation and Efficiency

The DAC smart manufacturing solution has significantly transformed and enhanced the overall plant operation and its efficiency for this multinational manufacturing firm. It has improved how plant workers and operators exchange critical business information on the shop floor and among the various plants in other locations.

### This innovative approach helped:

- **Enhance Productivity:** Reduce error-prone manual data/information collection and aggregation
- **Encourage Technology Innovation:** Introduce elements of innovation to optimize and rationalize the Operational Excellence processes, resulting in zero impact on business operation for the adoption of the new digital processes
- **Target the Right Action:** Boost its ability to define and implement targeted and contextualized actions based on available resources and indicators
- **Application Scalability Worldwide:** The overall application has leveraged an AWS VPN infrastructure provided by the user to ensure security by design and scalability for all the plants in different continents (US, Europe Asia).



### ABOUT DECISYON

Decisyon enables business users to rapidly build solutions using a code-free visual software development environment. Our products accelerate your data journey from aggregation to visualization, insight, analysis and decision thru action. Decisyon offers the leading code-free visual software development environment for mission critical enterprise operations requiring real-time awareness and adaptability to their business operations and processes. Decisyon's products and software solutions, ideally suited for IIoT applications running on any PaaS, are used in over 200 companies globally. Decisyon is headquartered in San Francisco, California.

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