

CASE STUDY

Custom Reporting Dashboard Improves Insight into Manufacturing

Providing Greater Insight into Lean Manufacturing

The Client

The client is a **global pharmaceutical company**, invested in continually improving manufacturing processes.

With multiple state-of-the-art manufacturing sites, the client is continually engaged in assessing and implementing lean manufacturing improvement initiatives.

Executive Summary

After conducting an in-depth Value Stream Management (VSM) mapping exercise, the client was charged with tracking multiple new manufacturing metrics. Aspect Consulting was engaged to design a new **VSM Reporting Dashboard** with a supporting data repository.

The solution was successfully implemented within a short time frame, and the client realized the following benefits:

- ✓ **Centralizes Data:** Report data is automatically extracted from the client's ERP system, and stored in a SQL Server database. Users can add data that cannot be automated via an easy-to-use interface.
- ✓ **Streamlines Analysis Efforts:** Aspect utilized charting components that allow users to view and quickly understand key measures at glance, with drill-ins for more in-depth analysis.
- ✓ **Reduces Manual Effort:** All metric data is calculated and available from a single portal, with charts arranged logically to match manufacturing stages. No more manual checking and merging of spreadsheets, saving hours of manual effort spent gathering data and generating reports.



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The Challenge

Track Value Stream Management (VSM) Metrics

To meet new lean manufacturing initiatives, the client needed an automated way to collect real-time manufacturing data, and apply and calculate value stream metrics over time. The application had to

- **Interface** with the client's existing ERP system AND allow for end user input of non-automated data.
- **Visually display** each metric's results over time via a clean, understandable reporting dashboard, easily accessible to a select set of users.

The VSM manager turned to Aspect Consulting to design, develop, and implement a custom VSM Metric reporting dashboard to meet their needs.

The Solution

Custom Dashboard with Meaningful Charts

Aspect developers constructed a custom reporting dashboard to provide a real-time presentation of Value Stream Management metrics (Batch Yield, Cycle Time, Asset Utilization, and Inventory Time) by appropriate manufacturing stage. The application was built as a stand-alone application accessed by URL from the client's intranet site with the following features:

- **At a Glance Insight:** Aspect worked interactively with the client to determine the best presentation for each measure. Aspect chose components that provide at-a-glance understanding and arranged chart components in logical order, to ensure users can view and quickly understand key measures at glance.
- **Drill in For Analysis:** Each chart component provides drill-through capability to a grid of items that make up the value reported in the chart component. All grids have built in controls that allow the user to filter, sort, and group columns for flexibility in analyzing data. Grid components can easily be exported to Excel for further analysis or distribution to non-users.
- **Threshold Alarms and Alerts:** All graphs display target and plan threshold lines, and data points are marked with easy to read alert or alarm icons when values fall outside of a threshold. An interface allows administrators to update threshold, alarm and alert values as they change over time and manufacturing processes improve.
- **Pulls Data from Multiple Sources:** Report data is sourced via a supporting SQL Server database. Users with the appropriate access can add data that cannot be automated via a data entry user interface.

“Aspect’s can do attitude and ability to show us the best way forward led us to our ultimate goal. We now have some spectacular dashboards that the business values...”

- Pharmaceutical Client

The Benefits

Greater Insight into Value Stream

- **Eliminates Manual Effort** required to gather and calculate information, and produce reports.
- **Streamlines Analysis** Users can roll back and forward to view and assess data points over time, or drill in with one click to view data figures more granularly, without needing to check multiple spreadsheets and source data.
- **Provides Greater Insight** All metric data appears in one dashboard, with yield and cycle time metrics shown in combination with quality events for causal relationship assessment. The business can now more easily identify issues and implement lean practices.