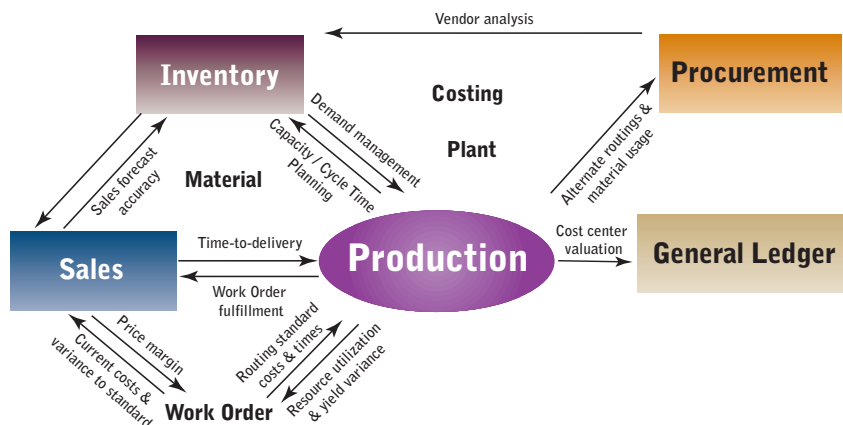




PRODUCTION ANALYSIS WITH COGNOS[®] PERFORMANCE APPLICATIONS

HIGH QUALITY, HIGH YIELD

Production efficiency is the touchstone of an efficient, high-performance supply chain. To maximize efficiency and steer critical quality improvements, managers must be able to analyze work order, material usage, and costs; manage product quality and production yield; and ensure adequate capacity and timely product delivery.



The production function operates in close conjunction with many other core functions in an organization to ensure a high-performance supply chain.

Cognos Performance Applications quickly turn your corporate data into an information asset to answer your key business questions. By packaging best-practices business requirements, Cognos Performance Applications create a rich business analysis environment for all levels in your organization.

CONFIDENT PRODUCTION MANAGEMENT

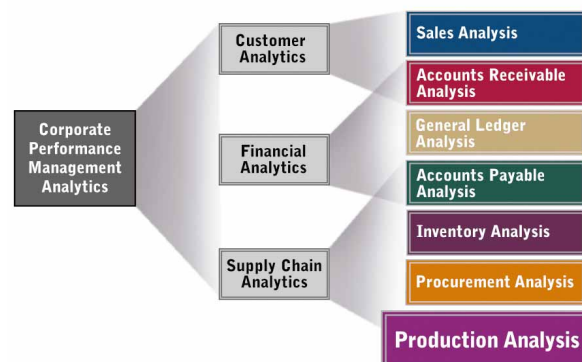
Cognos Production Analysis provides decision-makers with a detailed understanding of production capacity, production line operations, work order flow, yield, product quality, and costs. It lets you monitor, analyze, and report on issues related to scheduling, routing, forecasting, and minimizing lead-time to order fulfillment. The results? Shorter cycle times. More efficient and innovative production processes. Lower production costs for increased competitiveness. And improved product delivery for better customer relations.

With Cognos Production Analysis, four key areas of analysis answer 120-plus critical business questions, using more than 170 key performance indicators (KPIs) and over 45 reports. Real-time interaction with the reports and the 20 dimensions lets you manipulate the information and drive deeper analysis. You gain an in-depth understanding of your production process that lets you:

- Analyze yield and yield variance by plant and shift.
- Guide and monitor quality improvement programs within and across plants.
- Identify trends in product quality.
- Compare actual material costs to planned costs.

STRENGTHEN ENTERPRISE MANAGEMENT

Using Cognos Production Analysis, you can analyze scrap numbers in terms of quantity, cost, and lost profit. Correlate quality measures with respect to yield and time-to-delivery. Evaluate individual plant performance against standard costs. Compare plant-to-plant costs and cycle times for all product groups from all plants.



Production Analysis is part of the Cognos Performance Applications CPM Foundation, which tears down information silos and lets you see across all core business functions.



THE NEXT LEVEL OF PERFORMANCE[™]

Answers to the Im

This is just a sample of the many production-related questions you

Production

WORK ORDER MATERIAL USAGE AND COST ANALYSIS

Reduce costs and directly impact company profits. Perform bill-of-materials cost analysis to optimize planning and material transactions related to work orders. Leverage the frequency of use of sub-assemblies and discrete components across product groups. Make better decisions about routing, material usage, and material substitutions to reduce the cost of production.

Sample Questions

- How does cost variance break down for each product? Are variances labor-related, material-related, or scrap-related?
- What is our year-to-date total of material costs against total standard cost? How does it break down by product group, category, quarter, and period?
- What routing provides the most units at the least cost per unit?

TIME-TO-DELIVERY ANALYSIS

Optimize lead-time and order fulfillment times across build-to-order and build-to-stock strategies. Monitor and analyze product cycle time, inventory aging, effective capacity as a function of load, and mix of products and downtime.

Sample Questions

- What is our success rate at meeting schedules?
- What percentage of our products are delivered within five, ten, fifteen days greater than 20 days prior to or after the schedule date?
- What dollar value of product is likely to be lost due to aging associated with yield reduction?

QUALITY AND YIELD ANALYSIS

Improve plant or line effectiveness. Understand yield and yield losses for all plants or for specific plants or operations. Compare these to standard yield. Initiate, guide, and monitor quality improvement programs within a plant or between plants. Analyze relationships between quantity of scrap in numbers, quantity, cost and lost profit.

Sample Questions

- Which plants are performing best against standard cost/yield? How has performance changed over time?
- What are the yield variances for specific bills-of-materials or products for operations? How do these compare across plants?
- Is yield erratic at a particular plant? Is this a chronic problem or an aberration?

ORGANIZATIONAL EFFECTIVENESS

Understand time-to-delivery, quality, and cost at the plant, department, and shift level.

Sample Questions

- What are the costs for finished products by category of costs? How do they compare among plants or factories?
- Which plants or factories are performing best against our standard costs? How has this changed over the last period?
- Where can a specific product be manufactured fastest? At what cost?

Cognos Performance Applications enable a thorough analysis of the production process well beyond the questions shown here. Multidimensional analysis lets you expand on any single question in any direction you choose, deepening the knowledge you gain from your ERP data.

Important Questions

You can answer in four vital areas using Cognos Production Analysis.

Production Analysis

- What is the status of all work in progress in terms of where in the operation the work order resides, its schedule, due date, cost, and planned cost?
- What portion of work orders is complete, and what portion remains to be completed? What work must be done over the next week to ensure that work orders are completed on time?

Sample KPIs

- Costs – actual and variances – Component, Product, Product Type, Work Order
- Usage – actual, standard, and variances – Material, Component, Resource, Operations
- Alternate routing costs
- Work order status

- Which operations are most effective in completing work to schedule? Which are worst?
- What lead times are required for reliable order fulfillment?
- What is the throughput for each operation?

Sample KPIs

- Down time
- Queue and idle time
- Days to completion
- Operation cycle time
- Elapsed time
- Days off schedule
- Time to delivery
- Product aging
- Finished goods status
- Work order status
- Product type cycle time
- Plant capacity
- Operation throughput
- Throughput against schedule
- Work in progress

- What is the breakdown of scrap for each operation? Which category is the dominant cause of scrap?
- Which work orders have been subjected to high quantities of scrap? Has this impacted work order completion date or cycle time?

Sample KPIs

- Planned, actual, average yield and yield variance by product, routing, operations, plant, and shift
- Rejects – type, quantity, amount
- Rework – type, quantity, amount
- Scrap – type, quantity, amount
- Operations cumulative yield
- Product quality

- Which plants have completed and closed the highest number of work orders on time?
- Which operations consistently cost more in labor hours? How do these differences track between shifts?

Sample KPIs

- Costs – actual and variances – by plant, product group, product, and more
- Alternate routing costs
- On-time delivery – by plant, region, or other variable
- Cost vs. cycle time
- Shift labor hours
- Material usage – actual, standard, and variances

(... continued from page 1)

Of course, no function operates in isolation. An enterprise-wide implementation of Cognos Performance Applications lets you see causes and effects across functions. You can analyze how production practices affect inventory levels and procurement processes, synchronize production plans with sales expectations, and relate production performance to cost center profitability. This strategic, enterprise-wide analysis lets your organization manage with confidence.

**PRODUCTION ANALYSIS SCENARIO:
EVALUATING PRODUCTION EFFICIENCY**

Suppose that demand is driving a need for increased production, while management cost-cutting initiatives result in an edict to drive down costs. Using Cognos Production Analysis, you look at yield, quality, scrap, and cost variances to determine which products have the highest unit production costs. You quickly discover that some products in specific production lines are experiencing increasingly large cost variances. Analysis reveals that materials and scrap issues drive the variance. Further analysis narrows the problem to specific operations in a specific plant on a specific shift.

Stepping back, you use Cognos Production Analysis to analyze how production can be driven through another route for faster results and lower scrap yields. You re-route production so that products move through the production line more cost-effectively, immediately reducing the cost of goods sold. In the longer term, having identified where scrap was impacting yield and the

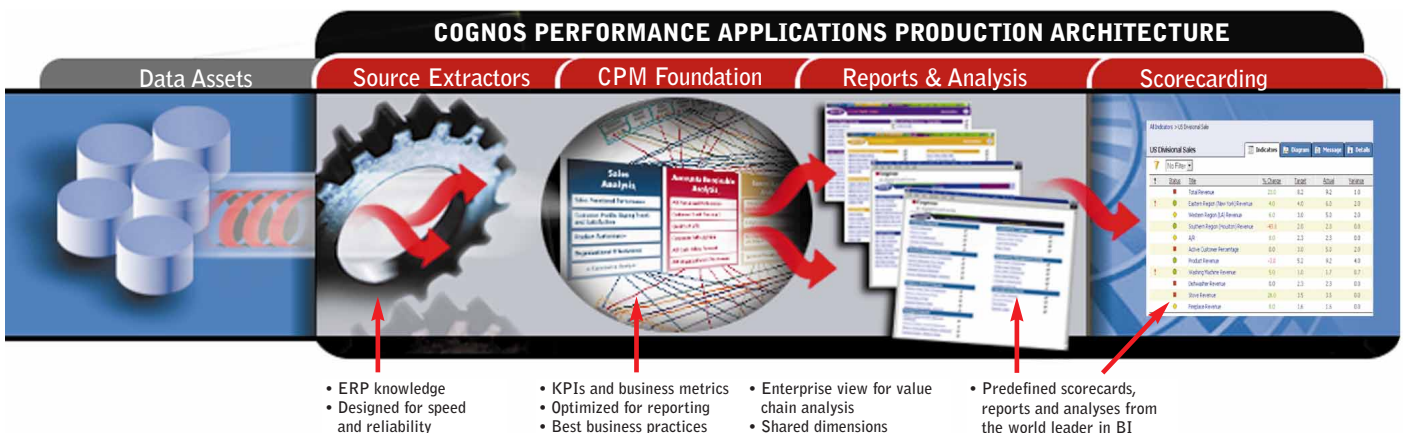
opportunity to lower costs, you focus on specific production line and shift improvements that result in greater efficiency, better quality, and more timely and cost-effective production.

FULL SOLUTION—ONE VENDOR

To build Production Analysis, Cognos has drawn on years of expertise as the market-leading provider of fully integrated business intelligence solutions. Cognos is the only vendor in the market to offer an end-to-end solution that gives everyone from executives to production managers fast, insightful, appropriate answers to critical business questions. The global coverage and world-class professional services, support, and training offered through Cognos give you a single point of contact focused on your success. When you combine these advantages with the rich business content of Cognos Performance Applications, you get a powerful business solution designed to give you that competitive edge.

WHY COGNOS?

Only Cognos delivers a complete range of integrated, scalable software for corporate performance management. Cognos products let organizations drive performance with enterprise planning and budgeting, monitor it with scorecarding, and understand it with business intelligence reporting and analysis. Founded in 1969, Cognos now serves more than 22,000 customers in over 135 countries.



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