



## Nagarro's Experience Working with Manufacturing Companies

Nagarro has a long history of designing and implementing manufacturing and supply chain solutions for our global clients, which include many Fortune 100 companies.

### What Nagarro Can Do for Your Company

- Provide deep expertise in process analysis, planning, scheduling and optimization
- Help shorten time to market for your complex product
- Design software systems that provide visibility and drive critical business decisions
- Provide all the technology and expertise required to develop and implement solutions quickly and effectively
- Integrate existing multiple third party packaged applications, including popular accounting and ERP systems as well as easily integrate with specialized custom solutions

### Supply Chain Solutions

At Nagarro, we understand that implementing supply chain optimization solutions involves broad understanding across multiple functions and across global supply chains, as well as widespread change management. Nagarro has the experience and resources to assist you in this task.

- Improve visibility and transparency across the supply chain
- Ability to share information regardless of varying technology choices used by supply chain partners
- Provide analysis, intelligence and optimization
- Increase value creation and reduction of waste

### Non-Conformance and Quality Management Systems

Nagarro has significant experience in building quality management systems for our manufacturing clients.

- Designed to support Six Sigma, Kaizan or Lean manufacturing initiatives
- Able to integrate with existing ERP systems to share data
- Feature powerful, custom workflow engines designed to meet the clients' needs
- Automate the flow of information and approvals for accurate and on-time disposition of non-conforming entities
- Allow easy archiving and analysis of quality information to meet company quality goals or compliance regulations

### Specialized Material Tracking Solutions

Our custom material requirements planning systems are developed to fit specific manufacturing processes to provide fast, effective access to material information. Nagarro has developed material handling and tracking systems that manage flow of materials and finished products at every stage of a manufacturing process, from material receiving to product shipping.

- Provide real-time, accurate access to material availability and status information
- Support order taking, planning and inventory management decisions
- Capable of talking to ERP and WMS systems

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- Provide warning and notification modules to ensure compliance with material management goals
- Manage the processing and idle time of the materials to minimize scrap
- Tack perishable materials in their different states to predict material properties, and provide optimized usage recommendations

### Advanced Planning and Scheduling

Nagarro's APS solutions conduct daily operations in several major manufacturing companies, in industries ranging from metals to pharmaceuticals.

- Provide powerful optimization driven by tailored analytical methods, including linear programming, non-linear programming, and simulation
- Able to integrate with existing manufacturing enterprise systems for inventory management, resource scheduling and material tracking, increasing ROI for these systems

### Process Analytics and Optimization Solutions

Nagarro has developed integrated systems to acquire, manage and analyze process data. These custom solutions for process analytics function as powerful decision support systems, providing summary scorecard views of entire manufacturing processes, while allowing detailed drill down capabilities for each process step and variable.

- Determine key process variables, define their specifications and take corrective action based on trends and statistical analyses
- Able to interface directly with sensors, SCADA systems or custom data acquisition hardware
- Perform complex custom statistical analyses on live or historical data to provide insight into cause and effect

relationships between key variables

- Allow users to schedule periodic analysis and set criteria to provide early warning email notification based on defined business rules and specifications
- Enable improved process stability and profitability for complex manufacturing operations

### Custom Manufacturing Resource Planning Systems

It is our belief that a manufacturing enterprise system is only effective if it is designed specifically for each implementation, due to the unique nature of each manufacturing operation. Nagarro has provided alternative options for a number of our clients, by developing fully custom enterprise systems that are designed for their operational methods, manufacturing processes and facilities.

- Use standard building blocks to create unique enterprise systems to fit business processes
- Use real time inventory data capture methods, quality management functions and efficiency monitoring tools
- Provide increased flexibility, integration options and ROI

### A True Partner to Our Clients

Nagarro has built a strong client base of manufacturing companies, which have included:

- A joint venture created by two of the world's largest aerospace companies to build high-performance, high-precision composite parts
- A recognized world leader in commercial and industrial manufacturing with revenues in excess of \$100 billion
- One of the oldest aluminum manufacturers in the US and the first general purpose aluminum mill to receive ISO 9002 certification

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