



Enhanced Business agility:
How DSP Group responds to demand variations by rapidly deploying new / changed Bills of Materials into its production planning processes

“TPM tool has dramatically improved DSP Group’s ability to manage its supply chain process. It reduces the time spent on maintaining the supply chain data (Item, BOM, Routing, Sourcing rules) & enables our operation team to focus on the business decisions.”

*Nurit Ronen
IT Applications Manager, DSP Group*



Business Challenges

As a key player in the semiconductor industry characterized by large lead times and high market volatility, DSPG faces market and competitive pressures that require it to rapidly respond to deviations from its planned business assumptions. As customer preferences and demand patterns change rapidly, exacerbated by a high rate of technological advancement, it becomes very clear that Inventory Management is a critical capability for the success of companies such as the DSPG. Consequently, members of the Production Planning & Control function within DSPG often have their hands full trying to juggle the various control parameters within their ambit in order to find new ways to meet emerging market needs. This often manifests in the following operational level challenges on a daily basis:

- Need to rapidly configure new Item / Product definitions, including Bills of Materials (BOM), Routing and Sourcing Rules and use them in production planning activities
- Change Routing and Sourcing rules for existing Items at regular intervals
- Obtain a comprehensive picture of a product’s detailed supply chain and other planning parameters, including costing data

IT Application Issues

DSPG’s Operations department that is responsible for Production Planning relies on Oracle E-Business Suite (EBS) to execute its planning and inventory management functions. While the EBS offered comprehensive functionality, there were some shortcomings in the product that caused the following issues from an IT application standpoint, including:

- Lengthy set-up times for a complete new Item configuration, including definition of Bills of Material, Sourcing Rules, Routing policies – around 2-3 hours per Item
- Usability issues with a cumbersome user interface that necessitated navigating through multiple screens (more than 20 different data entry screens) to completely configure a New Item definition. This frequently resulted in data errors during the definition stage that were only discovered later when trying to use the Item master data in business processes, resulting in costly rework and, more importantly, valuable business time mis-spent
- Absence of a comprehensive, visual picture of item definitions and their relationships hampered other users’ efforts in being able to include additional planning data such as Costing updates, other planning parameters etc. This added to the effort involved in completing the Item definition

These same usability issues continued to hamper user productivity during the operational phase of Item data management where changes / updates to data values are much more frequent and happen almost daily. It soon became apparent that low productivity and costly defect rework were hampering the company's ability to respond quickly to changing business needs.



At first, DSPG tried to work around these issues with the help of some database utilities and tools such as Excel spreadsheets, but quickly realized their limitations. The IT Team of DSPG recognized that what they needed was a solution that provides a highly user-friendly working interface that simultaneously addressed the issues of complicated data entry across multiple screens to facilitate collaborative Item definition processes while also helping to prevent data entry errors from happening in the first place. To achieve this, the solution should provide framework-level support to create & manage reusable and extensible "templates" of various Object definitions, which were then enriched by defining additional data rules, business policies and supplying default values in order to govern the quality of data being created, while simplifying data entry. With these building blocks in place, Users should be then able to quickly create multiple instances of data objects (the actual item and supplier records with data values, in this case), which were not only structurally correct, but also were logically aligned with respect to the needs of the business processes that consumed this data.

In addition, it was a pre-requisite that the solution should have the ability to easily integrate and seamlessly exchange data with the underlying Execution system (Oracle EBS), while also providing the necessary features to support User Administration tasks and security concerns. Ready integration with a backend ERP like Oracle means that once the Item master data has passed all tests and is validated, it can be straight-away used in Oracle business transactions, without the need for any additional data transformation process – a task that very often requires lots of time, costly tools and skilled resources to iteratively build, test and deploy the transformation logic. Thus, non-value adding, wasteful activities such as Extract-Transform-Load (ETL) are eliminated and this lays the foundation for the creation of a Lean information supply chain for the enterprise. In turn, the benefits of this approach ripple further in the company's IT landscape as new applications are launched and current applications are re-configured to work with the high quality item master data supplied by such as solution.

Triniti Product Modeler (TPM) from Triniti Solutions proved to be the ideal solution for their needs. Purpose-built to accelerate the deployment of Oracle EBS in Organizations, the TPM both complements and extends the capabilities of the underlying ERP system by providing users with an enabling layer of logical integrity to be applied in the management of critical application and master data.



TPM Deployment and User Adoption

After an initial phase of installation, configuration and product deployment during which user training was also provided, end users who were already familiar with the Oracle UI, soon realized that they did not have to embark on a steep learning curve with TPM. Though initial usage of the new tool was not always straight-forward and intuitive, Users got up to speed very quickly under the able training and guidance provided by Trinita Consultants in key usage aspects such as New naming conventions for Items, configuration of mandatory attributes, setting of default values etc. With the DSPG IT team taking the lead in terms of installation, configuration of templates, adding missing attributes etc, the entire implementation was smoothly executed and in production usage within about 2 months.

While the initial rollout was to users in the Operations department who were in charge of creating and maintaining Product master data, soon its usage was extended to the members of the Costing team in the Finance department, since they often needed access to product master data to complete the costing data. All these business users, who were already familiar with the Oracle UI, quickly became TPM “Expert Users” within 1-2 months.



Business Benefits

The advantages of a tool like TPM in handling their Product master data were immediately apparent to DSPG teams and benefits started to accrue almost immediately after usage started. While the Organization did not set any quantified goals or success criteria for the project, they experienced the following significant gains in their daily operations.

- **Massive reduction in new Item / Product setup cycle times:** up to 90% savings in time, from between 2-3 hours to around 15 minutes for each instance of new Item definition. This empowered Operation Planners to rapidly introduce new/changed Items and their Bills of Materials into existing production plans, verify the impacts caused by the changes across the supply chain and decide with confidence whether the regenerated production plans are executable or not. This fostered the required nimbleness and agility to cope with market-driven changes on a regular basis.
- **Large decrease in data errors reported:** since the tool helped to prevent common data entry mistakes in the first place, while also enforcing business rules and data value constraints. As a result, this significantly reduced the need for IT support to the Business users and freed up the IT staff to focus on other automation initiatives.
- **Full visibility into entire Product definition:** ability to graphically view complete BOM, Routing etc in a single screen delivered a new, value-added perspective to all the business users involved in product data management. Since all DSPG users across the length of the supply chain have access to the same comprehensive picture of product data at any time, this reduced miscommunication across functions and further fostered collaboration amongst teams.

Even without ROI-based computations, DSPG assesses that TPM has paid back its investment several times over and that the payback has been rapid, as results from enhanced user productivity and reduced time lost reflected almost immediately in their cost of operations.

Though not explicitly set forth as a project objective by DSPG, TPM helped set in place a new way of operating as per Lean principles – the popular business framework embraced by many successful organizations. By eliminating wasteful IT activities associated with fire-fighting data issues every day and instead helping to solve root causes of problems, TPM has helped IT teams gain more time to work on ideas that help run the business better. This sets in motion a transformation of IT as a true Business enabler.

Conclusion

Today, because of its ability to both save time and prevent data errors from occurring, users of TPM within DSPG unanimously endorse the view that TPM is a very effective and highly efficient tool for maintaining Product master data to be used in the business transactions of the company.

Want to know more about how DSPG discovered TPM to be their tool of choice for handling product master data in their organization? We would be delighted to share our experiences with you – please mail us at: contact@triniti.com

About DSPG

DSP Group®, Inc. (NASDAQ: DSPG) is a leading global provider of wireless chipset solutions for converged communications. At the forefront of semiconductor innovation and operational excellence for over two decades, DSP Group provides a broad portfolio of wireless chipsets. DSPG product lines include cordless phones, gateways, home automation, voice over IP and mobile. DSPG focuses on the technical design, customer support & supply chain management while all manufacturing processes are done by subcontractors.

About Triniti

Founded in 1997, Triniti provides world-class business and application consulting, along with software products specifically designed to extract the full value of Oracle's e-Business Suite. At Triniti, we understand that high quality data, which can be immediately acted upon, provides a strategic advantage in the marketplace. Triniti products and Oracle e-Business Suite implementations are designed to deliver a finely tuned, robust environment that supports consistent, fact based decision making in real time.

We provide best in class solutions for complex supply chains comprising internal and/or outsourced manufacturing. Triniti has successfully led large multi-site, multi-country "big bang" implementations of the entire e-business suite. Likewise, Triniti has also implemented for much smaller companies using techniques that compliment their business objectives.