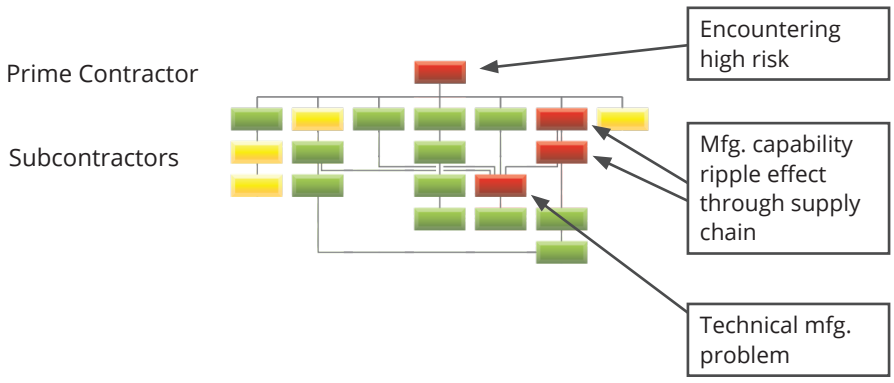
Vertical Program Management

VPM is a product for managing the risk inherent within any manufacturing program that relies on the delivery of component parts from suppliers.

Material/Supplier Network



The application is a web-based decision support system consisting of functional and operational components that provide enterprise-wide and time-critical information. VPM is hosted at DSI's corporate office and adheres to numerous security requirements. Developed under an Air Force SBIR program, VPM addresses state-of-the-art tracking (line-of-balance) and quality (statistical process control (SPC)) capability. VPM seamlessly and non-intrusively integrates with existing MRP systems (such as SAP) to create an easy-to-use application that allows analysts, engineers, and decision makers to "look-down" into the supplier network, see vendors, and visualize the production of needed components. Information is shared to authorized users for the entire multi-tiered supply chain.

VPM's foundation is a manufacturing Work Breakdown Structure (WBS) with corresponding suppliers organized into a hierarchical node-based supply chain. The WBS constitutes a deep-dive down through the myriad of parts, components, and processes that make up a complex end-item. VPM generates a visualization of the building blocks showing the interrelationships of parts and

Excerpt from an Air Force Air Armament Center Newsletter

Decision Sciences, Inc. Provides the Glue and Infrastructure

DSI's Vertical Program Management (VPM) software significantly enhances supply chain visibility at prime contractor facilities.

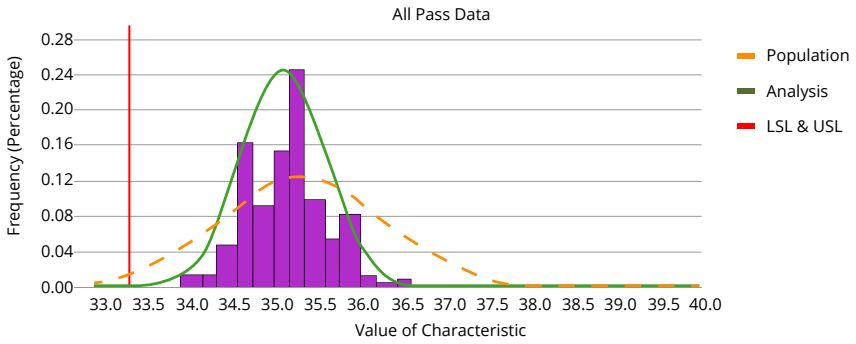
Manufacturing processes are subject to supply chain vulnerabilities which are unknown and unmanageable.

DSI's VPM software provides a comprehensive view of the entire supply chain and identifies vulnerabilities that cause manufacturing slow-downs or stoppages.

Additionally, with DSI's "Software-as-a-Service" (SaaS) approach, the hierarchy is configured into a "network" to allow any number of suppliers, at any point in the supply chain, to be an end user of the system. Tier-1, subassembly and even discrete component level suppliers all stand to gain from DSI's Vertical Program Management software.

VPM

C_{pk} Chart



assembly, from lower tier suppliers to the final product. Within the VPM application, a mouse click on an individual WBS building block at any tier level provides deliverables, quality assessments, and other pertinent information. Since the design of VPM's structure is for use with a common community of suppliers and customers, it provides a collaborative approach to real-time management of quality parts delivered on time. Thus, VPM has been coined the window to the extended supply chain.

The tracking (line-of-balance) module provides the user, at a glance, with the near real-time status of deliveries (past, present, and future). Drill-down screens are available for the user to investigate issues and find root causes.

Because the architecture allows for the seamless integration of all modules, the quality (SPC) network is only one click away. Once in the quality module, the user has numerous SPC tools readily available. These include the standard SPC charts, WECO rule flagging, Cpk indicators, and various reports.

Information visibility, key to the technology inherent within VPM, is vital to collaborative supplier and customer networks. A successful implementation of VPM will facilitate meeting the objectives within the corporate structure as well as assist in accelerating the maturity levels for manufacturing. Finally, VPM will make the factory virtually transparent to suppliers, customers, and management.

Key Attributes

- Web-based, Real-time
- Seamless Communications
- Visible to all Participants
- Stakeholder Involvement
- No Wasted Processes
- Identify Quality Issues in Sub-tiers
- Proactive Decision Support
- Identify Potential Problems
- Collaboration among Participants
- Identify Manufacturing Chokepoints

VPM+

Key Features

Interactive Display
The user is provided the ability to view and navigate among the item, component, and supplier data. A WBS / Bill-of-Material (BOM) view allows the user to view item components, and their producing suppliers. Information displayed includes program, product line, component, supplier, production, inventory, work in progress, value chain, quality control, notes, and point of contact information.

Picture and Description Section
The picture and description section allows for the display of component images and descriptive manufacturing, specification, or quality information. Users with appropriate permissions may modify the picture or descriptive information.

Ability to Attach Files
Users may upload and attach note files, descriptive information files, specifications, quality information, or other supporting documents.

ITAR Components and Suppliers
Components and suppliers may be marked as International Traffic in Arms Regulation (ITAR) restricted components or suppliers, and ITAR restricted suppliers will be prohibited from accessing ITAR sensitive components.

Unlimited End Items/Configurations
VPM is capable of handling multiple end items, or item configurations, for any given program, limited only by system hardware configuration.

Unlimited Programs
VPM may include multiple programs within any given product line, limited only by system hardware configuration.

Unlimited Suppliers and Tiers
VPM is capable of including multiple suppliers at multiple tiers within a WBS, limited only by system hardware configuration.

Current Status Tracking
VPM provides an automatically generated network of materials with a color-coded indicator for tracking the status of expected deliveries for each component within the WBS. VPM includes delivery information, drill-down capabilities that allow the user to view expected versus actual delivery dates and quantities, and a graphic time/quantity chart of delivery versus requirements (MRP, contract, other).

Visual Component/Supplier Relationship Network

VPM provides an automatically generated graphical depiction of hierarchical goes-into relationships among components for one or more items. Drill-down capabilities allow the user to view a comprehensive “Goes-into” report for a component.

Key Features (Concluded)

Charts and Graph Reports
VPM provides numerous reports in a visual chart or graph format for instant, intuitive communication of report information.

Security
VPM is a secure application and requires two-factor authentication to access the system. User access is determined by account type and by program/supplier-level permissions.

Facility Managers
VPM allows for the creation of facility managers, who may add or edit information pertinent to their specific facility. For example, a facility manager may update his facility's production rate. This reduces the workload of the VPM administrator.

Allows for Offline Suppliers
VPM provides the capability of including 'offline' suppliers. Any facility that does not have a current user account may be marked as offline, and that facility's information may be maintained by its customer or by the VPM administrator.

Data Imports
VPM allows for data imports from multiple file formats, to include spreadsheet templates, online application entry, and automated machine-to-machine data feeds.

Data Integration
VPM provides seamless data integration with existing MRP, quality control, and other systems.

Customizable System
VPM is a customizable system, with many analysis data settings configurable by the user.

For Additional Information Contact:

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