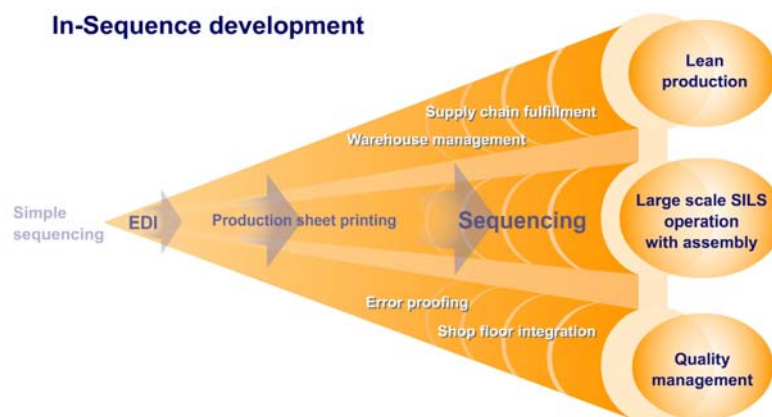


MANUFACTURING EVENT MANAGEMENT

MODULES AND FUNCTIONS DATA SHEET

The functionality

ALTA PowerB20™ is a modular Supply Chain Management solution built on the principles of Manufacturing Event Management (MEM). The MEM functionality of ALTA PowerB20™ helps you control planned events, handle exceptional events and is a flexible, event driven system that enables automation of process flows from order to delivery in an In-Sequence, Lean Manufacturing or Build-to-Order production environment.



ALTA PowerB20™ resides between the planning functionality of ERP systems and the operations management of shop-floor systems.

Some of the key features of ALTA PowerB20™ are:

Order management

- View, monitor and track orders
- Create, change or re-issue orders
- Control the sequence of orders
- Compare orders
- Check order events

Business interfaces

- Electronic reception of orders, materials and master data
- Electronic export of orders, ASNs, ERP uploads

Reports/Documents

- Design and configure production documents (production sheets, picking lists, labels, etc.).
- Setup and control printers
- Create production reports

Dispatch management

- Control delivery of goods
- Schedule transports
- Sequence delivery

Monitoring

- Monitor processing and operations

Inventory/Warehouse movements

- Receive and store incoming goods
- Receive Advance Shipping Notes (ASN)
- Material reservations
- Online Availability Check (OAC)
- Control relocation of goods between storage locations
- Material picking
- Material replenishment, electronic KANBAN
- Material lot tracing and FIFO

Shopfloor Flow Management

- Error-proofing, traceability and shopfloor integration
- Supports external devices such as barcode scanners, pick-to-light, torque guns, PLCs, etc.

Data Management

- Archiving of data
- Viewing of archived data

Handling of exceptions

- When materials in warehouse are low or even insufficient
- When materials are undefined
- When maximum time between production steps is exceeded
- When no impulses/orders are coming in
- When some processing stopped

Furthermore, ALTA PowerB2O™ is a tested, mature product with worldwide support and available in English, German, French and Spanish

The solution

The solution revolves around the Core functionalities, which are provided through a set of basic data and a series of programs dealing with process flow configuration, planning issues, security and master data management.

The Core functionalities are enhanced through a number of business modules, all containing one or more application(s). ALTA PowerB2O comprises the following business modules: Order Management, Business Interfaces, Documents & Reports, Dispatch Management, Monitoring, Inventory Management, Shopfloor Management, Data Management.

Core functionalities

The event management infrastructure of ALTA PowerB2O™ is designed and configured in a number of system configuration applications, which together provide the core functionalities of ALTA PowerB2O™. The applications are: ALTA Configurator, ALTA Plant Calendar, ALTA Security, ALTA Master Data plus a number of auxiliary programs.

ALTA Configurator is the central application. Using ALTA Configurator you can configure process flows for handling planned and exceptional events, add new production steps instantly and customize production to changing customer demands.

ALTA Plant Calendar is a planning and scheduling tool which help you plan the working process in your plant.

ALTA Security is used for assigning and maintaining the access and privileges of users and user groups. Users can only log on to the system with a valid user name and password. Users can be granted write or read access to the individual modules.

ALTA Master Data enables the management of materials - material master and BOM, products and part (commodity) families and customers, suppliers, etc.

The PowerB2O Modules

A number of modules each comprising one or more programs enhances the core functionalities:

Order Management module

The Order Management module consists of two programs:

ALTA Orders which gives you full control of an order during the entire production phase. You can monitor the order and change it in case of an exceptional event. You can also track the order, check its status and re-issue an order that for some reason needs manual attention. ALTA Orders allows you to compare orders, check which events an order cast and where it has been cast as well as to control the sequence of processed impulses and handle EDI sequence breaks.

ALTA Material Router, which provides a tool for directing an order to the right production line according to the structure of the BOM. The material router sends the order to the correct production line based upon the contents specified in the BOM and the configuration of the module. You can also use ALTA Material Router for other purposes where you wish to direct materials to various points.

Business Integrator module

This module is the host of **ALTA Business Integrator** which is a flexible generic tool, which handles both import and export of business data. With this program you can import any structured ASCII data such as XML, EDIFACT, flat file format and fixed record data, export any data in ASCII format, and configure XML-based templates to perform the import and export.



ALTA PowerB2O™

It also includes **ALTA Secure FTP**, which provides a tool for working with customer impulses stored in the database and for inspecting how they are processed by ALTA PowerB2O™. This client views and configures the FTP server.

Documents & Reports module

The Documents & Reports module holds 4 programs all dealing with producing various types of documents.

The first, **ALTA Documents**, is a design tool that enables you to design and configure production documents (production sheets, picking lists, labels, sequence sheets, etc.). Via a set of standard tools and design elements you can use ALTA Documents to customize your own documents, labels and subsequently print them. Furthermore, ALTA Documents can create and handle standard barcodes.

The second, **ALTA Reports**, is used to create and generate reports on data stored in ALTA PowerB2O™ databases. This tool provides you with a visual environment to create and browse reports, create SQL queries, etc. You can then store and subsequently execute and print these reports from other components of ALTA PowerB2O™, e.g. ALTA Material Storage, ALTA Surveyor, etc.

The third, **ALTA Printers**, enables you to control printing, such as adding and deleting printers and setting their status.

Finally, the fourth, **ALTA Reconciliation**, is used to check and compare a customer's statement of received goods with the delivery data generated by the system. Subsequently, any discrepancies between the two sets of data are automatically identified and a report is generated.

Dispatch Management module

The Dispatch Management Module consists of **ALTA Transporter** with which it is possible to plan the dispatch of a finished order from warehouse to your customer. This includes configuring, scheduling and controlling shipments or partial shipments, handling virtual shipments, configuring buggies/racks, marrying orders to be shipped together, changing delivery and printing transport documents. ALTA Transporter also offers sequence checks as part of the overall exception management strategy.

Monitoring module

The Monitoring module includes four programs:

ALTA Surveyor which is a surveillance tool that enables system operators to survey and monitor impulses and events in all queues and thus detect possible exceptional events,

ALTA Log Viewer used for viewing, logging and printing all exceptional events in the database. With this exception management functionality, you can keep an overview of all exceptional events and mark them as "handled" once the problem is solved. You can choose to see exceptional events for all orders in the database or just a segment of orders,

ALTA Monitor which enables you to monitor and visually trace an order and related order data through the entire production, from reception of the order to assembly, welding, sequence checks, quality checks, stock movement, delivery and transportation of the finished goods. ALTA Monitor locates exceptional events, but does not correct them. This must be done in ALTA Orders,

and **ALTA Lead Times**. As part of the exception management strategy, ALTA Lead Times can be used to set up a number of alarms supervising different steps or flows in the production. The duration of these steps and flows are time monitored. For example, if a certain production step is planned to last seven minutes, the ALTA Lead Times alarm function is triggered if it lasts longer than that and needs manual attention.

Inventory Management module

The Inventory Management module comprises **ALTA Material Storage**, which will help you minimize inventory, organize order parts, control inventory levels instantly (on-line availability checks) and reserve materials. If inventory levels should drop below certain pre-defined threshold levels, relevant managers will be alerted instantly as part of the overall exception management strategy. You can handle multiple warehouses and any number of storage locations, both random access and picking. ALTA Material Storage also lets you receive, store, relocate, pack and repack goods, read barcodes by means of scanners, administer master data, trace goods and prepare reports.

Furthermore, it includes **ALTA Order Storage**, which is used for preproduction and for keeping track of finished goods that have already received an order number and are awaiting final shipping date and details. ALTA Order Storage can also be used to optimize your warehouse.

Shopfloor Management module

The Shopfloor Management module consists of 2 programs. The first, **ALTA Shopfloor Workbench** which comprises ALTA Workflow Configurator and ALTA Workstation Maintenance extends the ALTA PowerB2O solution further in the area of error-proofing, traceability and shopfloor integration. With this program you can get a very configurable shopfloor workflow with reusable building blocks, support for shopfloor error proofing and a flexible configuration of the user dialog. It supports external devices such as barcode scanner, pick-to-light, torque guns; in short it offers "plug-and-produce".

The second, **ALTA Shopfloor Connector**, handles the flow of information between ALTA PowerB2O™ and your shop-floor systems, such as for example a scanner, a test bench or some kind of external system.

Data Management module

The Data Management module includes three programs: The first, **ALTA Archiver**, creates a backup of table data on the host. This is done by copying the data to a Microsoft Access database on a local workstation when orders have been produced and the data are no longer needed. The data can then be used to re-create orders as they originally appeared, whenever necessary.

The second, **ALTA Archive Viewer**, provides a tool for viewing the archived data.

The third, **ALTA PS Reprint**, allows you to retrieve and reprint a production sheet as it was during production (stored in either an ALTA PowerB2O™ database or a Microsoft Access database).

Modularity

The modularity of ALTA PowerB2O™ allows you to buy the solution in packages, ensuring that you will have exactly the functionality you need and no more. The smallest package you can buy is the Bronze template which offers the functionality to cover a basic sequencing operation. It is always possible to upgrade to a template with more functionality including In-Sequence delivery, shopfloor integration, warehouse operation, etc

Sequencing strategies and templates

Template	Bronze	Silver	Gold	Platinum	Diamond
Sequencing Strategy	Ship-to-Sequence	Verify-to-Sequence	Assemble-to-Sequence	Build-to-Sequence	Replenish-to-Sequence
Critical Issues	Reliable solution for printing labels; Flexible solution allowing for easy upgrades	Checking delivery sequence; Flexible scheduling of transports	Support of Error proofing (Poka-yoke); Proactive alerts of missing materials	Single-piece flow; Real-time materials management; High variability in product mix; Link information & material flow	Linking procurement to order fulfillment; Automation of exception handling according to business rules
PowerB2O™ programs	Core functionality ALTA Orders, incl. sequence check ALTA Business Integrator/Inbound ALTA Documents ALTA Reports ALTA Printers ALTA Surveyor ALTA Log Viewer ALTA Monitor ALTA SecureFTP Cleanup	Bronze + ALTA Business Integrator/Outbound ALTA Transporter	Silver + ALTA Material Storage/Material Mode ALTA Shopfloor Workbench ALTA Order Storage ALTA Archiver ALTA Material Router ALTA Archive Viewer	Gold + ALTA Material Storage/Container Mode ALTA Lead Times	Platinum + ALTA Reconciliation (ALTA Exception Handler)
Value Statement	On-time delivery	On-time delivery in the right sequence	Traceability and shop floor alerts for Quality Management	Reduction of Inventory Cost and Lead-time	Handling of exceptional events and creating pull to suppliers

ALTA PowerB2O™ is available for the Microsoft® Windows 2000 and HP NonStop™ platforms.

Next Steps

To learn more about ALTA PowerB2O™, visit www.ALTA.net, where you will find downloadable material including fact sheets and white papers. If you have any questions or comments about ALTA PowerB2O™, please contact us at www.ALTA.net.

