AddonSoftware: Ready, Set, Go Deploy!

Sound the trumpets! The AddonSoftware® Shop Floor Control module is now fully ported to the Barista® Application Framework from its legacy versions 6 and 7. This milestone marks the beginning of a host of modernizations and improvements now possible with AddonSoftware's new foundation in BBj® and Barista.

AddonSoftware by Barista offers largely the same features and functionality to the user as did the legacy versions, albeit with a much more modern look and feel and all the Barista-supplied benefits. This wasn't a pure port, however. The AddonSoftware team made several improvements under the hood to leverage Barista, the BBj SQL engine, etc. Improvements included unpacking all date fields, normalizing all database tables, and restructuring program code to eliminate line numbers, and make use of symbolic labels and structured syntax, etc.

In this article, we'll discuss the basics of the Shop Floor module and review the

other completed and available modules offered by AddonSoftware. For a quick look, see Shop Floor Control at a Glance and AddonSoftware Modules at a Glance on the next two pages.

Shop Floor Control

Shop Floor uses work orders to collect, store, track, and report the costs of material, labor, overhead, and outside purchases that relate to the manufacture of an item or batch of items. The module is fully integrated; users enter information only once and it flows into other application modules automatically, including Bill of Materials, Inventory Control, Purchase Order Processing, Sales Order Processing, and General Ledger. Shop Floor Control also maintains work order history for each manufactured part number, and each work order's history is available by transaction for as long as desired.

Barista Serves a More Intuitive Interface

The core functionality of the Shop Floor Control module is the same as the legacy version, so users of character-based AddonSoftware will feel at home. But, with a BBj and Barista foundation, the AddonSoftware user interface is much more intuitive and takes advantage of graphical capabilities not available in the past.

The Release Work Order window contains a built-in grid showing required and available quantities. Automatic highlighting of any component shortages facilitates quick and easy analysis (see **Figure 1**).

Item ID	Description	Required	On Hand	Committed	Available	On Order
1001	Chromoly Main Tube	25.0000	21.0000	1.0000	20.0000	0.0000
1002	Chromoly Chain Stay	25.0000	21.0000	1.0000	20.0000	0.0000

Figure 1. Release Work Order function incorporates a grid highlightng any component shortages

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Shop Floor at a Glance

- **Work Order Entry**
  - Shop Floor makes use of three work order categories:
    - *Inventory Work Orders* are for stocked, manufactured items. Inventory work orders explode/expand/launch automatically from bills when using the Bill of Materials module.
    - *Non-Inventory Work Orders* are for the manufacture of an item, job, or customer's order not normally stocked. Use a standard bill of material for a similar item as a starting point and modify as needed before issuing the work order.
    - *Recurring Work Orders* are for maintenance, repair, or capital project activities.
  - Easily enter and track planned and quoted work orders without committing materials.
    - The Release Work Order process changes work orders from planned or quoted to open status and displays component shortages for review before committing materials. Once opened, the components required are *committed* and not available for other issues or sales. The release process also records the work order finished goods items as on order. Voilà, the inventory is always under control!
    - Schedule open work orders either forward from the scheduled start date or backwards from the scheduled completion date.
    - Additional options from within Work Order Entry allow viewing and editing (if applicable) materials, operations, and subcontracts, printing a Detail Report, Transaction History, Cost Summary, and Job Status reports, assigning Lot/Serial numbers, or making a Copy of a non-stock work order.

- **Printing Work Orders**
  - The *Traveler* is a complete list of required materials, labor steps, subcontract requirements, and comments.
  - The *Pick List* prints by Operations for more efficient staging of materials.

- **Committing Material**
  - Materials are committed automatically when work orders are released, but the *Materials Commitment Entry* process facilitates commitment in situations where item substitutions are made, immediate production quantity differs from scheduled quantity, etc.

- **Inquiry Processes**
  - *Dispatch Inquiry* enables viewing of work orders for a given operation, user-specified date range, and priority. It also shows planned or quoted work orders to review their potential impact on the work center schedule.
  - *Load Balance Inquiry* displays a filtered, graphical view of an operation's scheduled labor compared to available hours.

- **Transaction Processing**
  - *Create Purchase Requisitions* generates requisitions for subcontracted services. The work order indicates whether someone has requisitioned, ordered, or received those items.
  - *Materials Issues Entry* issues from inventory items picked for their respective work orders.
  - *Time Sheet Entry* allows the entry of labor hours accumulated against an open work order and entry of the number of production items completed at that operation; parameterized to allow entry from daily time sheets (by employee), weekly time sheets (by date), or work order travelers (by work order).
  - *Cost Adjustment Entry* allows for recall and adjustment of open work order operation and subcontract transactions.
  - *Work Order Close Data Entry* closes work orders; either closed *complete*, meaning that no additional units will be produced, or *partial*, meaning that a portion of the units will be completed later.

- **Reporting**
  - *Work Order Header Report* prints all or selected work order header information. When run for all open work orders, it totals all transactions for a work in process register.
  - *Shop Floor Dispatch Report* lists all work orders with outstanding production requirements by scheduling priority. Use it to identify which jobs are to be worked on for each work center.
  - *The Production Exception Report* highlights what production is causing work orders to become overdue; determine if delays are due to labor, purchase orders, or to both.
  - *Bottleneck Analysis Report* allows entry of a percent of utilization to report any operation scheduled over that utilization. Use it to identify which scheduled jobs are creating a bottleneck.
  - *Labor Efficiency Analysis Report* reviews performance of each operation in comparison to the standards defined. Use closed work orders to get an historical perspective, open work orders to analyze the current situation, or both.
  - *Cost Variance Analysis Report* analyzes the difference between standard and actual costs in operations, materials, and subcontracts. It is useful for adjusting standard labor hours, tracking the performance of shop labor and production management, and analyzing the sources of labor variances.
  - *Date Analysis Report* analyzes work orders for estimated start or completion dates, actual start dates, or last active date.
  - *Committed Materials Report* prints a list of material committed to a work order but not issued. The report compares committed balances for each item code to on-hand, total committed, available, and on-order quantities.

Other Modules at a Glance

Accounting

- **Accounts Payable** - Provides complete payables tracking, accounting, and management of accounts payable and check writing functions. Use a flexible payment selection for improved cash flow or vendor discounts, and project future cash requirements. *Integrates with General Ledger, Purchase Order Processing, Inventory Control, Bill of Materials, Sales Analysis, and Shop Floor Control.*

- **Accounts Receivable** - An easy-to-use system for processing invoices, cash receipts, statements, and customer reports. Accurately track and control customer history information and define information regarding inventory availability, order status, prior-shipped orders, pricing, credit information, payment history, and scheduled receipts. *Integrates with General Ledger, Sales Order Processing, Bill of Materials, Shop Floor Control, and Sales Analysis.*

- **General Ledger** - Provides automatic posting of transactions with easy data access and full-featured financial report generation. *Integrates with all other AddonSoftware modules.*

Distribution

- **Sales Order Processing** - Handles quotations and orders in a simple, straightforward manner. Answer questions quickly about order status, special pricing, inventory availability, scheduled purchase order receipts, open order tracking, sales, blanket order processing, and payment history. *Integrates with General Ledger, Sales Analysis, and Shop Floor.*

- **Purchase Order Processing** - Create both requisitions and purchase orders. Identify potentially late shipments, recall a list of purchase orders for any item or vendor, and keep informed of all outstanding items by vendor or item. Maintains complete purchase and receipt histories. *Integrates with General Ledger and Shop Floor.*

- **Inventory Control** - Online updating of inventory balances gives access to current details about availability, future demand, and expected receipts. Full, perpetual tracking of finished goods, raw materials, and components. Safety stock, EOQ, and order point are automatically calculated for each inventory item. Full lot or serial number tracking maintains complete history. Integrates with Accounts Payable, Accounts Receivable, General Ledger, Sales Order Processing, Purchase Order Processing, Sales Analysis, Bill of Materials, and Shop Floor.

- **Sales Analysis** - Gain fast, accurate sales information for up to two years with this module. Analyze sales, cost of goods sold, and gross profit for customers, products, vendors, salespeople, and territories. View monthly sales information or a complete sales history for any customer or product. Rolling 12-month sales reports for customers and products are also available. *Intgegrates with Acccounts Payable, Accounts Receivable, Sales Order Processing, Inventory*

Manufacturing

- **Bill of Materials** - Designed for companies that assemble finished goods and manufacture most of the components. Provides unlimited levels of material usage and can easily develop material costs, direct costs, and overhead labor costs. *Integrates with Accounts Payable, Accounts Receivable, General Ledger, Sales Order Processing, and Shop Floor.*

- **Shop Floor Control** - Automatically schedules work orders and tracks them as they move through the shop floor. Monitor efficiency and utilization factors by reviewing the progress and current status of each job. Provides up-to-the-minute information about production activity. *Integrates with Accounts Payable, Accounts Receivable, Bill of Materials, General Ledger, Sales Order Processing, and Purchase Order Processing.*

Load Balance Inquiry uses a BBjChart control to show scheduled vs. available hours, as shown in **Figure 2**.

Figure 3 shows a sample of the the Shop Floor Calendar, which is now much easier to view and maintain with an editable grid control.
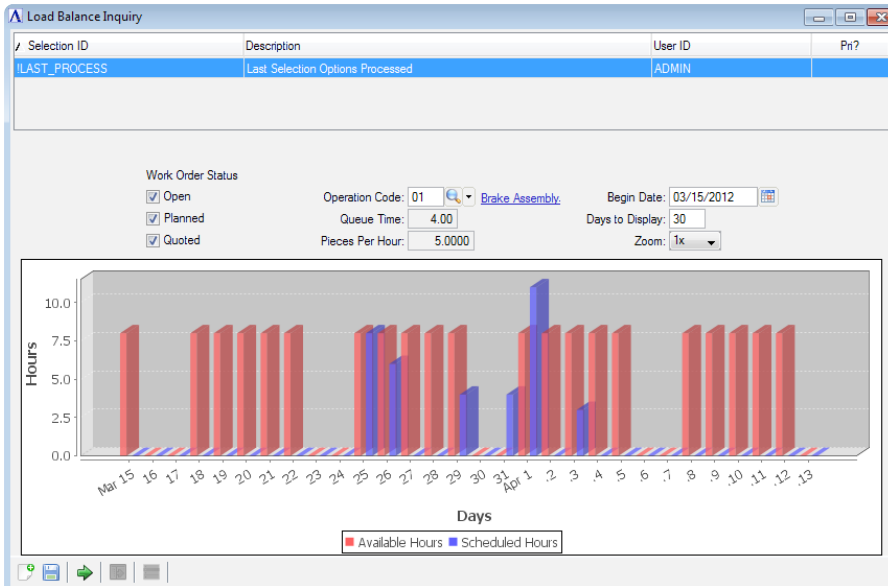

Figure 2. Load Balance Inquiry offers real-time filtering and displays results in a graphical chart control
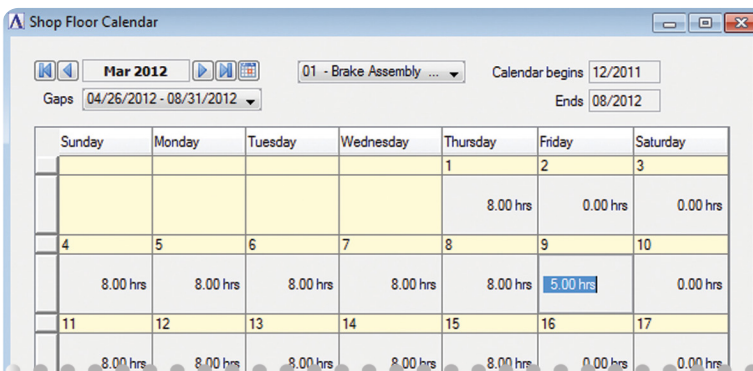

Figure 3: Shop Floor Calendar maintenance

Other AddonSoftware Modules

The AddonSoftware building blocks are bundled into Accounting, Distribution, and Manufacturing. While Payroll is not part of this suite, Payroll version 6 or 7 can run in a hybrid fashion from within Barista.

Summary

With all of the bundles and modules complete, AddonSoftware is now primed to provide the building blocks you need for your vertical-market solution. And thanks to the capabilities of Barista and Git (see the *'Git'-dy Up, Developers* at links.basis.com/12git) for allowing and managing customizations – even through upgrades – you can easily, efficiently, and confidently satisfy customer requirements without the fear of being "stuck in time."

- View a short video demonstrating AddonSoftware Shop Floor Control at youtu.be/K6NzWZs0z10
- Check out
  - Shop Floor Control at a Glance at links.basis.com/sfaag
  - AddonSoftware Modules at a Glance at links.basis.com/aonaag
- Download AddonSoftware by Barista at links.basis.com/getaddon