

QAD Enterprise Applications 2016 Enterprise Edition Release Notes

March 2016

QAD Enterprise Applications 2016 – Enterprise Edition (QAD 2016 Enterprise Edition, or QAD 2016 EE) includes product changes made between February 26, 2015 and February 25, 2016.

This release contains new features and enhancements as well as fixes that resulted from maintenance activities. For detailed information about individual fixes, see the Product Changes & Advisories area on QAD's Online Support Center:

http://support.qad.com/product_changes/

The Release Notes describe changes in the following areas:

- Financials Enhancements
- Internationalization Enhancements
- Customer Management Enhancements
- Manufacturing/Supply Chain Enhancements
- Installation and Conversion Notes
- Performance Notes

Note QAD 2016 EE is supported by the latest release of the QAD .NET User Interface. For details, see [QAD .NET UI Release Notes](#).

Because of the new product direction with the Enterprise Edition, some features that existed in earlier versions of the core application are no longer available. Others are planned for future development. See “Additional System Changes and Limitations” on page 27 for information.

Financials Enhancements

Staged Payments

You can now create a draft customer payment selection with payments generated according to the due dates of the invoice stages. To use this feature, you must enable the Create Payment per Due Date field in Customer Payment Selection Create. You can select full invoices or individual stages.

If you select the Create Payment per Due Date field, the system creates a separate payment selection for each group of invoices. For staged invoices, if you are using a payment type of Draft, the system creates separate payment records for each staged payment due date.

Example You enter selection criteria that result in two invoices for one customer displaying in the grid. Each invoice has three stages, as displayed in the table.

| Stage | Invoice 1 Amount: \$200 | Invoice 2 Amount: \$400 |
|---------|-------------------------|-------------------------|
| Stage 1 | \$100 due 1/1/16 | \$200 due 2/2/16 |
| Stage 2 | \$60 due 2/2/16 | \$120 due 3/1/16 |
| Stage 3 | \$40 due 3/1/16 | \$80 due 4/1/2016 |

This example results in one payment selection of \$600, with four separate payments that pay both invoices.

- Payment 1: \$100 on 1/1/16
- Payment 2: \$260 on 2/2/16
- Payment 3: \$160 on 3/1/16
- Payment 4: \$80 on 4/1/16

Avatax

Avatax has been merged with the core product and no longer needs to be installed separately. Avatax is described in [QAD Global Tax Management User Guide](#).

Financial Reports

55 Crystal Reports have been converted to the QAD Reporting Framework (QRF). With the exception of the Structured Reports, you can now run all reports in QRF. Financial Report Writer can produce the same type of reports that Structured Reports generate. So you can now perform all financial reporting without Crystal Reports. In new installations of QAD 2016 EE, all Financial Reports are executed with QRF by default. You can use the Financial Reports Menu Switch program to revert back to the former Crystal Reports version of a report.

Significant improvement has been made to the layout and formatting of the General GL Journal (25.15.7.5) Chinese Report.

In addition, the following reports have been retired:

- Customer List (28.17.15)
- Supplier List (27.17.13)
- Cash and Bank Receipt Journal (25.15.7.1)
- Supplier Draft Print (28.9.9.1)
- Con Report (36.97)
- Supplier Promissory Note Print (28.9.9.4)
- Customer Summary Statement Print (27.6.8.6)
- Financial Statement Pro Forma Report (25.15.5.3)
- Customer Reminder Overview (27.17.11)
- Foreign Currency Journal (25.15.7.4)
- Customer Promissory Note Print (27.6.8.3)
- Yearly Tax Listing Belgium (29.6.3.5)
- Reverse Charge Sales List Report (UK) (29.6.3.9)
- Unmarked GL Postings Validation (25.21.2.7)
- Supplier Electronic Transfer Print (28.9.9.5)

Updated Labels for Customer and Supplier Activity Dashboards

A number of label changes have been made to the Customer Activity Dashboard and the Supplier Activity Dashboard. The changes were introduced to improve the consistency of label usage.

Filtered Selection for Excel Integration

The usability of the most frequently used Excel integration functions has been enhanced to include the ability to load data from the database by filtering.

You can now use filters to select the records that you want to load, instead of loading all records and then deleting records that are not required.

Filters also improve performance when loading data from the database and speed up the Excel Integration process. The enhanced programs are:

- Business Relation Excel Integration
- Customer Excel Integration
- Supplier Excel Integration
- Supplier Bank Number Excel Integration
- End User Excel Integration

Journal Entry Archiving

With increased data volume and system performance issues, organizations face data management challenges. Keeping data in the database increases infrastructure and maintenance costs. A data archiving solution enables you to reduce database size, improve system performance, reduce costs, and meet compliance requirements. To address these requirements, Financials now includes a Journal Entry Data Archiving workflow.

A new program, Archive Configuration Maintenance (36.23.4.2), lets you define general journal entry archive settings for the database. You can specify an archive file location and batch size, and then indicate whether you want the program to create JSON archive files.

Before you perform any archive actions, use Archive Task Maintenance (36.23.4.3) to create archive task codes for operational journal entries. Then, use the task codes to archive journal entries by entity or by entity group. If you have a large corporate group with many entities in the database, you can archive by entity group across domains.

The largest volume of journal entries in a database generally includes operational transactions such as inventory control (IC) transactions, work order (WO) transactions, and sales order (SO) transactions. You can archive and summarize operational journal entries of type of IC, WO, and SO using a daybook of type Journal Entry.

The system archives journal entries from both the official and management layers automatically, and creates one archive file for both layers. Transient layers are not archived.

The system only archives data for closed years—closed-year data is generally no longer needed in daily business activities.

The system records audit trail information during execution. To view archiving statuses and detailed archiving information, run Archive Audit Trail Report (36.23.4.6).

In Data Archive (36.23.4.1), you can perform Estimate, Archive, or Summarize actions, and estimate the results of an archive operation in a report. You can then archive journal entries, and create summarized journal entry postings to retain account balances.

If you need to recover archived data, use Financial Archive File Reload (36.23.4.4). This program:

- Removes summarized journal entries
- Reloads the original journal entries

- Reloads from the latest summarized period

Supplier Invoice Approval API

In previous releases, the application contained supplier invoice approval functions, but no API to automate the approvals process. The new Supplier Invoice Approval API lets you change the invoice status code and invoice role for a supplier invoice. Using the API, you can modify a single supplier invoice or a set of supplier invoices in a single run. The API applies the invoice changes in a single transaction block.

Discounts for Cross-Company Payments

For cross-company payments, the invoicing entity is liable for taxes, and tax discounts are now accounted for in the invoicing entity rather than in the payment entity. The posting for the discount of the goods amount is posted to the payment entity and the discount of taxes is posted to the invoicing entity, regardless of the program you use to make the payment.

Process Incoming Bank Files

Enhancements have been made to Process Incoming Bank Files.

Support Deductions

When you process an incoming bank file to create a customer payment with a deduction, the system allocates the deduction amount to the GL account, if the deduction amount is within the deduction write-off limit. When the deduction amount is larger than the write-off limit, the system creates a deduction line with the Pending status. The deduction settings only apply to the Create Customer Payment action type.

Note To use a deduction category, you must specify a deduction credit term for the relevant domain in Domain Create (36.1.1.1.1) or Domain Modify (36.1.1.1.2).

Support Customer Payment with Small Payment Difference

When creating customer payments, you can also use Payment Processing Configuration Maint to specify tolerance values for assigning customer payments to outstanding invoices. The difference between the payment and the outstanding amount is then written off through an automatically created journal entry. You can specify tolerances for short payments and for over payments. When a payment is outside the tolerance levels, the system follows the settings on the Process Incoming Bank Files tab.

Note You can configure specific payment tolerance settings for each customer in Customer Modify (27.20.1.2). These settings override the settings by bank account in Payment Processing Configuration Maint.

Pay Supplier Payment Selection

You can now pay a supplier payment selection in Process Incoming Bank Files. When the bank sends a file confirming payment of a supplier payment selection, select Pay Supplier Payment Selection to pay the individual supplier payments directly within the payment selection. When the Create Banking Entry field is selected, the system can create a banking entry to allocate to the supplier payment.

In the incoming bank file, make sure that the supplier payment selection code is specified in the Payment Reference field. The system can only pay a supplier payment selection that can be allocated uniquely. The payment amount in the bank file must match the payment selection amount in the system.

Incoming Bank File Delete

Incoming Bank File Delete (31.1.14) enables you to delete old data from Process Incoming Bank Files.

Use the Input Details search criteria to filter for the records you want and click Search. The grid populates with the individual records returned by your search. In the Selected column, select the field to indicate the records to be deleted. You can then delete the records.

COA GL Account Restriction

Large corporations with many entities and with many general ledger accounts in a shared set may need to restrict an account and cost center to a particular entity. For example, a general ledger expense account is shared across a domain, but is used to record expenses incurred by one entity in that domain. Therefore, other entities should not be able to post to this account.

By default, an account applies in all entities with the same GL account shared set. GL Account Restriction Maintain (25.3.26.1) enables you to restrict an account to a single or to multiple entities. If you attempt to post to a restricted account, the system checks if the account is allowed in the corresponding entity. If not, the posting is prevented. Similarly, GL lookups only retrieve GLs that are available for the target entity. Any GL account that you manually input is also validated when you save your work to check whether the account is available in the target entity.

Note For menus at domain level, the validation checks whether the account is allowed in at least one entity in that domain. For menus at entity level, the validation checks whether the account is allowed in that entity.

Important When you enter a GL account for an operational program, the account is validated. However, for menus that generate operational transactions, such as PO Receipts, no check is performed because there are scenarios where the GL or entity is changed without user interaction.

For example, a sales order is to be shipped from Site A and validated for the entity to which Site A belongs. However, during the shipping process, the site is changed to Site B, which belongs to another entity. The shipping process does not require you to re-enter the GL account. Therefore, there is no additional validation at shipping to check whether the GL account is allowed for Site B's entity. This scenario results in an error in Operational Transaction Post (25.13.7). In this case, you can correct the unposted GL transactions or change the GL restriction by entity settings.

GL Account Restriction Maintain enables you to restrict GL accounts to certain entities by allowing or disallowing them in the grid.

COA Cost Center Restriction

You can also tie a cost center to an entity within a shared set. If you restrict the use of a cost center to only one entity in a domain, you cannot use the cost center in other entities. If you attempt to post to a restricted cost center, the system checks if the cost center is allowed and, if not, the posting is prevented.

Cost Center Restriction Maintain (25.3.26.3) enables you to restrict cost centers to certain entities by allowing or disallowing them in the grid. The functionality works in the same way as GL Account Restriction Maintain.

Analysis Limitation Enhancement

Accounts with automatic posting that have both cost center and project analysis can now be used in operational transactions. Prior to this enhancement, automatic accounts with project and cost center

analysis had to use the analysis limitation of Both Required and could not be used in operational transactions.

The application now ensures that default cost centers and projects are assigned to a GL account, according to the analysis limitation. For example, if the analysis limitation is Both Required, default cost center and project profiles must both be assigned to the GL account.

Validations on Entity GL Period Modify for Periodic Costing

The validations in Entity GL Period Modify for opening and closing periodic costing periods have changed.

Budgets in Financial Report Writer

For reporting purposes, GL accounts are typically grouped per cost type, and analysis codes are then used to group the accounts. However, accountants typically record company budgets at the GL account level. As a result, the budget functionality has been enhanced to allow you to create a Financial Report Writer (FRW) budget with detailed chart of accounts (COA) dimensions. You can now define the budget amount on the individual GL account, sub-account, cost center, project, SAF, and entity.

If a budget is defined with COA dimensions, you can link the related budget topic node to only one item; it cannot be linked to a range or a list of items. To link multiple items to the budget, you must define the budget on report analysis codes.

The system provides two ways to define an FRW-enabled budget. One method involves the use of report analysis codes; the other method involves the use of detailed, individual COA items. An FRW-enabled budget must use one method or the other; it cannot use a mixture of report analysis codes and chart of accounts dimensions.

When you run a report based on an FRW-enabled budget, Financial Report Run retrieves the budget amounts according to the report analysis code and budget definition.

Enhancements to Cross-Company Allocations

A single entity can distribute certain business costs, such as banking charges, across multiple entities within an organization. For example, a large company has several business entities, but a single entity handles finance and is responsible for distributing costs. In this release, the ability to make GL allocations to other entities has been extended to the Banking Entry and Petty Cash functions.

The GL Account lookup browse used in the creation of journal entries has also been updated for this enhancement, so that it allows the selection of cross-company control accounts. This browse has also been updated for the Banking Entry and Petty Cash programs.

Data Load Performance

The performance of data load has been improved.

Get Customer Control and Account API

The Get Customer Control and Account API returns the GL control account and information on a given customer code, invoice type, and entity (optional). The accounts to use are identified by the profile settings in the customer record.

GL Allocation Batch Enhancement

Previously, where an allocation batch run encountered a situation that led to a zero-value allocation, it issued an error and the whole batch stopped. Now, the zero-value allocations are simply skipped and the allocation batch run continues.

Payment Format in Supplier Payment Selection Confirm

The payment format name is now clearly displayed in Supplier Payment Selection Confirm (28.9.4.5), which enables you to easily see which payment method you are confirming.

Trial Balance View and Cube Trial Balance View

You can now see the net TC, BC, and SC values in Trial Balance View and Cube Trial Balance View.

Customer Payment Mass Change and Supplier Payment Mass Change

You can now see the customer payment selection code in generated GL transactions when you use Customer Payment Mass Change. This enhancement enables you to view the relationship between the GL transaction and the payment document.

The same enhancement has been made to Supplier Payment Mass Change.

BLWI Group Code

The BLWI Group Code field has been removed from the Customer menus.

Additional Currency Information

Fields for the BC exchange rate, BC scale factor, SC exchange rate, and SC scale factor are now visible in GL Transactions View Extended.

In Supplier Invoice Create, the currency of the related own bank account is now displayed when you create a supplier invoice. In addition, the invoice status description is now displayed on related invoice browses.

Balance Sheet Accounts in Deduction Categories

Beginning with the QAD 2016 EE release, you can specify accounts of any category in a deduction category. You can also use accounts of type Standard or Open Item. Before this release, you could only specify accounts with a category of Expense.

This change provides you with greater flexibility in deduction processing. When choosing the category and type of account that you want to use in a deduction category, consider whether your organization intends to expense the deduction amount immediately or wants to create an accrual to recognize the expense later.

This enhancement has been retrofitted to QAD 2015 EE.

Support for WAN Mode

QAD Financials now has the capability to react to slow server response times by switching to Wide Area Network (WAN) mode. When the response time from the server is greater than the threshold (150 milliseconds, by default), QAD Financials switches to WAN mode. When operating in WAN mode, calls

are grouped together in combined requests or responses. In normal (LAN) mode, calls are sent in separate requests or responses.

Due to a Progress defect, WAN mode is only supported for QAD Financials as of QAD 2016 EE, Financials Patch 1. If Patch 1 is not implemented and the server response time exceeds the WAN threshold, a Progress error message is displayed: ("ScException: UNABLE_TO_BIND_CONTROLS").

The workaround for this error is to increase the WAN threshold to a higher value, effectively blocking QAD Financials from activating WAN mode. Specify the WAN threshold in the `homeserver.config` file.

The file does not include a WAN threshold specification, and the value is 150 milliseconds by default. To set a higher WAN threshold, add the following lines to the `<appSettings>` section of `homeserver.config`:

```
<!-- Wan communication threshold.      ?  
    <add key="WANThreshold" value="500" />
```

QAD recommends that you implement Patch 1 of Financials as soon as it is available and then reactivate the WAN mode option by removing the `WANThreshold` section.

Internationalization Enhancements

Prepayment Tax Reconciliation

In some countries, a customer may have to make a prepayment before receiving goods. This practice is common in Eastern European countries. For example, if you receive a prepayment from a customer and do not ship goods or provide services within a certain number of days of payment, you must issue a tax invoice.

The Prepayment Tax Reconciliation process lets you add identifiers to link prepayments, tax invoices, and final invoices and then perform reconciliations for audit purposes.

AR Process

In the AR Prepayment Tax Reconciliation process, you receive customer prepayments and record them in the system using reconciliation keys to identify them. If the tax on the prepayments needs to be declared, you create a tax invoice for the prepayment tax amount and assign the same reconciliation key. Before you issue the final invoice to the customer, you can record multiple prepayments and multiple corresponding tax invoices.

When your company ships goods or provides services, you send the final invoice to the customer. At this time, you create the final invoice in QAD EE with an identifying reconciliation key. You must then reverse the tax invoice that you created previously, and then run Open Item Adjustment to link the prepayment, final invoice, tax invoice, and tax invoice reversal so that QAD EE can track the whole process using one adjustment record.

Recording AR Prepayments with Reconciliation Keys

In functions that allow you to enter prepayments and process them, you can assign a reconciliation key to the transaction, which helps you to search and find tax invoices and prepayments for reconciliation.

The Reconciliation Key field is hidden by default and you must add it using Design Mode. You can add the Reconciliation Key field in Design Mode in the following AR-related programs:

- Customer Payment Create/Modify/View
- Banking Entry Create/Modify/View
- Supplier Invoice Create/Modify/View

Note For invoices originating from the operational side, such as invoices generated using Invoice Post and Print, the system automatically populates the Reconciliation Key field with a default value.

In the following programs, Reconciliation Key is a grid column that you can make visible by right-clicking on the grid headers and choosing Columns:

- Open Item Adjustment Create/Modify/View
- Customer Opening Balance Create/Modify/View

Creating an AR Tax Invoice

If the tax on the prepayment needs to be declared, create a zero-amount customer invoice for the prepayment and only include the applicable taxes. The taxes for the zero-amount invoice are then included in your tax declarations, and the invoice does not affect your customer's AR balance.

Add the Reconciliation Key field to the Customer Invoice functions using Design Mode, and record a reconciliation key for tax invoice so that you can easily find and reconcile it later.

Before you issue a final invoice to the customer, you can record multiple prepayments and multiple corresponding tax invoices.

Creating the AR Final Invoice

When your company ships goods or provides services, you send the final invoice to the customer and record the final invoice using Customer Invoice Create. As with the tax invoice and prepayment, assign the same reconciliation key so that you can easily find the invoice later.

Because this invoice is for the whole tax amount, you must reverse the original tax invoice created for the prepayment.

Reversing Customer Invoices

When you have recorded the final invoice for the customer in Customer Invoice Create, you must then reverse the tax invoice that you created previously. A new Customer Invoice Reverse (27.1.1.6) function has been created for this purpose.

Use Customer Invoice Reverse to reverse Financials invoices. You must first choose the invoice to reverse and enter the daybook, year and period, posting date, and description information required for the reversal. You then click Reverse.

You can reverse an invoice using a credit note or an invoice correction, if invoice corrections are enabled. You must ensure that a daybook of the correct reversing type is available in the shared set. The amounts and postings on the new invoice are the reverse of the original.

When you save the reversal, the system creates a credit note or invoice correction for the same amount as the original invoice and performs an open item adjustment for the two invoices. The original invoice and the reversing invoice are then closed.

AR Prepayment Tax Reconciliation Report

The new AR Prepayment Tax Reconciliation report contains output on which you can base your prepayment tax reconciliations. The report lists all transactions that relate to prepayments and that meet the other search criteria. The data is grouped by daybook for each open item adjustment.

Linking the Invoices Using Open Item Adjustment

Use Open Item Adjustment Create to adjust the final invoice against the prepayments. To maintain the relationship between all documents involved in the reconciliation process, you must also add the closed tax invoice and the reversal invoice to the open item adjustment.

Open Item Adjustment has been enhanced to let you search for closed items using both the starting GL calendar year and GL period. In addition, you can now adjust zero-amount invoices in Open Item Adjustment Create.

In the Open Item Adjustment grid, add the Reconciliation Key field, which lets you easily identify all documents that belong to the same prepayment tax reconciliation. To track the corresponding taxes, you also need to include the closed tax invoices based on prepayments and the reversal invoices. The adjustment must include the prepayments, the tax invoices based on the prepayments, the reversed tax invoices, and the final invoice.

AP Process

The AP Prepayment Tax Reconciliation process is very similar to that for AR.

Recording AP Prepayments with Reconciliation Keys

In AP-related functions that allow you to enter prepayments and process them, you can assign a reconciliation key to the transaction.

The Reconciliation Key field is hidden by default and you must add it using Design Mode. You can add the Reconciliation Key field in Design Mode in the following AP-related programs:

- Supplier Payment Create/Modify/View
- Banking Entry Create/Modify/View
- Supplier Invoice Create/Modify/View

In the following programs, Reconciliation Key is a grid column that you can make visible by right-clicking on the grid headers and choosing Columns:

- Open Item Adjustment Create/Modify/View
- Supplier Opening Balance Create/Modify/View

Creating an AP Tax Invoice

If the tax on the prepayment needs to be declared, create a zero-amount supplier invoice for the prepayment and only include the applicable taxes. The taxes for the zero-amount invoice are then included in your tax declarations.

Add the Reconciliation Key field to the Supplier Invoice functions using Design Mode and record a reconciliation key for the tax invoice so that you can easily find and reconcile it later.

Creating the Final AP Invoice

When the supplier ships goods or provides services, the supplier sends the final invoice to the customer who records the final invoice using Supplier Invoice Create. As with the tax invoice and prepayment, assign the same reconciliation key so that you can easily find the invoice later.

Because this invoice is for the whole tax amount, you must reverse the original tax invoice created for the prepayment.

Reversing Supplier Invoices

When you have recorded the final invoice from the supplier in Supplier Invoice Create, you must then reverse the tax invoice that you created previously. QAD EE already contains a function for reversing supplier invoices, Supplier Invoice Reverse.

Linking the Invoices Using Open Item Adjustment

As with the AR process, use Open Item Adjustment Create to adjust the final invoice with the prepayments. To maintain the relationship between all documents in the reconciliation process, you must also add the closed tax invoice and the reversal invoice to the open item adjustment.

AP Prepayment Tax Reconciliation Report

The new AP Prepayment Tax Reconciliation report contains output on which you can base your prepayment tax reconciliations. The report lists all transactions that relate to prepayments and that meet the other search criteria. The data is grouped by daybook for each open item adjustment.

Using a Billing Schedule for Due Date Calculation of Invoices

In addition to Normal and Staged, which are existing payment types within the credit terms, a new payment type, Scheduled, allows you to have the invoice due date for invoices calculated based on the billing schedule logic, on both the customer and supplier sides. Set a billing schedule as the payment type in Credit Terms Create (36.1.10.1).

Customer Management Enhancements

Serialization Support

This release includes enhancements that support the shipping and receiving of serialized items with sales orders and RMA orders. These changes facilitate the tracking of serialized products.

The enhancements are as follows:

- A new field, Ship by Pack, has been added to Sales Order Maintenance, RMA Maintenance, RMA Shipments, and Material Order Shipments. This field allows you to ship the exact item or pack by specifying the serial ID.
- A new field, Receive by Pack, has been added to RMA Receipts, enabling you to receive the exact returned item or pack by specifying its original serial ID.
- Serialization information can now be printed on the packing list, pre-shipper/shipper, and invoice.
- Sales Order Shipments and RMA Receipts now support returns of the following combinations:
 - A unit pack containing items with multiple combinations of item numbers, lots, and references.
 - An assembly pack containing items not in a unit pack.

- An assembly pack containing a unit pack that holds items with multiple combinations of item numbers, lots, and references.
- The Customer Management module now provides the ability to ship, receive, and return orders with serialized items and packs that use stocking units of measure (UM), even if an alternate UM was used in the original orders.
- Pending Invoice Maintenance has been enhanced to prevent you from changing the quantity of items for which Serial Control is set to M (Mandatory) in Item Master Maintenance.

Customer Scheduled Orders

Using a setting in Configured Message Maintenance, you can specify whether to allow customer scheduled orders to be modified in Sales Order Maintenance, Pending Invoice Maintenance, and Sales Order Viewer. To prevent scheduled orders from being modified by these programs, set the severity level for the message 8210 to Error.

If the severity level is set to Warning, the system displays a warning message, but you can still modify scheduled orders in the programs. If you clear the Severity field, the system does not display a message if you modify a scheduled order using one of the programs.

Service and Support Management (SSM)

The SSM module has been enhanced to support the calculation of periodic costs against call activities. When a call invoice is posted, the labor and expense costs are posted to the GL and the system creates operational transaction records that store the invoice effective date. The system then calculates the periodic cost based on these records.

Manufacturing/Supply Chain Enhancements

Periodic Costing

The following topics discuss the Periodic Costing enhancements for this release.

PC Calculation Enhancements

QAD SSM Transactions

PC Calculation (30.5.7.1) now processes QAD SSM transactions using the same account that standard cost SSM transactions use. This approach lets the system book the transactions to SSM transaction accounts.

PC Calculation now processes SSM operation history (op_hist) Expense transactions without reversing or revaluing the transactions. The system adds the transaction value to the Periodic Costing WIP value of the work order subcontract element. The system then updates the calculation sequence number, which ensures that the transaction is included in the WIP cost using the value at which you first recorded it.

During PC calculations, Periodic Costing processes Call Activity Recording (CAR)-created work order component issue (ISS-WO) and operational transactions as normal WO transactions. When the system processes the ISS-WO transactions created by CAR, the system clears the WIP for each component.

Items returned in SSM CAR—RMAs with sales order issue transactions (ISS-SO) with a quantity greater than zero—Periodic Costing uses the service return account as the credit account and then debits the normal inventory account.

For returns to suppliers, the system uses the current period's periodic cost to process the transfer/receipt (ISS-TR/RCT-TR) and PO Receipt (RCT-PO) transactions. The RCT-PO transactions do not affect the periodic costing unit cost calculation.

Customer Consignment Transactions

PC Calculation processes Customer Consignment Inventory module transactions. PC Calculation reverses the following standard customer consignment transactions—that is, CN-XXX transactions—where the consignment account is zero:

- Physical Shipment of Consigned Inventory (ISS-TR, RCT-TR, CN-SHIP)
- Consignment Inventory Usage (ISS-SO, CN-USE)
- Consignment Inventory Qty Adjustment (CN-ADJ)
- Reduce Consignment Inventory by Cycle Count or Tag Count (CYC-RCNT, CN-CN, ISS-SO, CN-USE)
- Reduce Consignment Inventory by ISS-UNP
- Consignment Inventory Transfer (ISS-TR, RCT-TR, CN-ISSTR, CN-RCTTR)
- Consignment Inventory Cost Adjustment (CST-ADJ, CN-ADJ)

PC Processing for Customer Consignment

When processing the customer consignment inventory transactions, PC Calculation revalues the consignment inventory account to hold the value of the ending consignment inventory balance.

Logistics Expenses Tax Records Included in PC Unit Cost Calculation

The system now includes non-recoverable taxes associated with logistics expenses in the PC unit cost calculation so that the item absorbs the tax costs.

Logistics expenses (LE) and logistics charges (LC) are the same for inventory transaction and GL creation and tax handling, with the exception that the system does not create a pending voucher for logistics expenses.

Changes were made in Fiscal Receiving (5.20.1) to resolve an issue with the PO receipt calculation in PC Calculation. Previously, when a legal document had two PO lines and one logistics charge, the taxes calculated during fiscal confirmation were correct. However, during PC calculation, the tax amount was added to individual lines, and there was no direct link between transaction history and the legal document line. This issue has been resolved.

Replaced Negative Numbers in Calculated Labor/Burden Rates

When you configure PC Calculation to calculate the labor or burden rates based on the total cost value that you supply, the system totals the actual setup, run, and burden hours, and uses those actual hours to divide the cost value to obtain the rates/hours.

Now, when the system calculates labor or burden and the hourly rate for burden or labor is negative, the system sets the hour rate to zero (0) and logs the exception. Previously, when a negative backflush existed, and the total hours were negative, the system calculated the rates with a negative number, resulting in a negative rate.

PC Calculation Makes Less than Zero Costs Equal to Zero

If you use the WAVG costing method, and the unit cost element or the total received value is less than zero:

- If the receipt quantity is greater than zero, the system makes all unit cost elements equal to the prior period item cost, and then creates the PCCSTCOR record for the adjustment.
- If the total item value (opening balance inventory plus the receipt value) is less than zero, the system creates a PCCSTCOR record with a zero amount to:
 - DR inventory revaluation account
 - CR inventory account
- If the net received quantity, including the opening inventory, is less than zero and the unit cost is positive, the system does not reset the cost.

WO Close Transaction Posts Discrepancy for Co-Product with No Quantity

If you are using the WAVG method to process co-product orders and no quantity is recorded for a co-product, the system uses the work order close transaction (WO-CLOSE) to post the remaining WIP to discrepancy and then logs the exception.

If you are using the FIFO method to process co-product orders and there is no co-product receipt in the cost calculation period, the system uses the WO-CLOSE transaction to post the remaining WIP as a discrepancy and then logs the exception.

DRP Receipts Processed Before Issue Use Latest Period

If you are using the FIFO method, and the system processes a DRP receipt (positive ISS/RCT-TR, ISS-/RCT-DO, ISS-/RCT-GIT) before shipment and there is no unconsumed quantity at the issue site (site of the corresponding negative transaction), the system now refers to the latest periods with cost. If there are no periods with cost, the system now logs an entry in the exception log. Previously, in this scenario, the system referred to the unit cost of the latest period.

PCCSTCOR Transaction Resolves Negative Cost

When the unit cost calculation results in negative cost at the current level (TL) or at a lower level (LL) and the TL plus the LL is positive, the Periodic Costing (PCCSTCOR) transaction now resolves the negative cost between the TL and LL and logs the exception. This process applies to both single and grouped sites. When an element's unit cost TL plus LL is negative, the system creates a PCCSTCOR transaction to reset the unit cost to the prior period cost.

Costs from Legal Documents when Fiscal Receiving is Enabled

When you enable fiscal receiving in Purchasing Control (5.24), Periodic Costing now uses cost values from Legal Documents. The system retrieves the values for material cost, logistics charges, logistics expenses, and non-recoverable taxes from the legal document and uses these as the PO receipt values. Periodic Costing no longer considers the data in accounts payable (AP) when you enable fiscal receiving. If you do not enable fiscal receiving, Periodic Costing still uses cost values from AP.

Repetitive Transfers Get WIP from Last Closed Order

The system now transfers WIP from the last closed order to the next open order and creates GL transactions to capture the cost movement. Periodic Costing also identifies the correct pair of closing and transfer transactions.

Scrap Transactions with Prorated Cost

Scrap transactions now have prorated costs, even when the total quantity of work order receipts and scrap absorbed by the current period is zero. Consider the following example with the current and expected results at the bottom of the table for period 1 (P1) and period 2 (P2):

Table 1

Example Scrap Prorated

| Example 1 | Example 2 |
|---|---|
| P1: | P1: |
| <ul style="list-style-type: none">• RCT-WO 10• ISS-SO -10 | <ul style="list-style-type: none">• RCT-WO 10• ISS-SO -5 |
| P2: | P2: |
| <ul style="list-style-type: none">• RCT-WO -10• RCT-WO +9• RJCT-WO +1 | <ul style="list-style-type: none">• RCT-WO -10• RCT-WO +2• RJCT-WO +3 |

Result before the change: If the RCT_WO and RJCT-WO PC amounts were 0, no cost was posted to the scrap account.

Result after the change: The RJCT-WO gets the prorated unit cost so that the prorated cost is posted to the scrap account.

Adjustment Upload Enhancements

PC Total Cost Adjustment Upload (30.5.5.5) and PC Unit Cost Adjustment Upload (30.5.5.4) are more robust and now display detailed error messages when you use an XML file to upload adjustments. If a failure occurs when you are loading XML files, the system displays an error message and does not perform the transaction.

In addition, you can now use an XML file to upload adjustments for the following programs:

- WO Component Cost Adjustment (30.5.5.13)
- WO Operation Adjustment (30.5.5.14)

Additional Report, Browse, and Browse Collection Enhancements

The following topics describe enhancements to Periodic Costing reports and browses.

New PC Unit Cost Calculation Report

A new PC Unit Cost Calculation Report (30.5.17.17) was added to the Periodic Costing PC Accounting Reports Menu (30.5.17). The report shows how Periodic Costing calculated the unit cost for an item and the data used in the calculation. The new report is extensive and includes sections that mimic how the PC Calculation process works. The report has sections for the following:

- Prior period cost
- Unit cost adjustments
- PO receipts
- WO receipts and close, including all costs added to WIP
- Intersite transfer receipts
- Total cost adjustments
- Unit cost calculation summary

The PC Unit Cost Calculation report presents data in each section as it accumulates the total quantity and values received.

New PC WO Routing Cost Browse

Periodic Costing now includes a new PC WO Routing Cost Browse (30.5.15.8) that displays Periodic Costing work order routing costs for multiple periods. For any cost set, when the WO includes any operations or finished goods transactions that impact WIP, the browse displays all WO routings for the cost set.

Inventory and SF Movement Report

The Inventory and SF Movement report is now available in the character-based UI (CHUI) environment. The CHUI version of the report (30.5.19.4) presents the same information as the .NET UI version of the report.

The Inventory and SF Movement report displays all items in a period together when the transaction volumes are very high, and you can use the CHUI report when transaction volumes are too large for the .NET UI version.

The CHUI report version generates output to a file on disk and prompts for input parameters like other CHUI programs. You can specify the same selection criteria for the CHUI report as for the .NET UI report.

PC Inventory Cost and Account Reconcile Report

The PC Inv Cost and Account Reconcile Report (30.5.17.10) now indicates when the inventory cost and GL account match and indicates when the item level cost and GL match for an account and period. Use the following filters as report criteria to see the difference between GL and operational inventory transaction totals:

- Period: Single choice (cannot be blank)
- Account: Multiple choice, or leave blank to display all values
- Sub-Account: Multiple choice, or leave blank to display all values
- Cost Center: Multiple choice, or leave blank to display all values
- Display Item: Yes/No
- Drill down threshold: Show item details if the difference is greater than this amount.

PC WO Bill Cost Browse

PC Discrete WO Bill Cost (30.5.15.7) was renamed PC WO Bill Cost. A Site field was added to the browse, as well as an Operation field. The report now displays the Effective Date of Accounting Close.

The Receipt Unit Cost Actual / Prorated % field was removed from the browse, and the Actual Receipt Unit Cost This Period field was renamed Till Date.

Operation Transaction Browse Collection

Operation Transaction Browse Collection (30.5.15.27) now lets you drill down to the Op Operational GL Transaction supporting browse to view GL details for an operational transaction (labor, backflush, close, and so on). When viewing data in the Op Operational GL Transaction supporting browse, you can drill down further to the account description.

Site Deletion from Grouped Sites

You can now use PC Grouped Site Maintenance (30.5.1.13) to remove individual sites from grouped sites so that the site cost can be calculated independently. When a unit cost adjustment is made to the grouped sites and you remove a site from the group, the unit cost adjustment is still effective for the site. You can manually adjust the cost, if necessary.

For the QAD 2016 EE release, the QAD Warehousing changes include only defect fixes.

Manufacturing Dashboards

Two new days on hand operational metrics were added to manufacturing dashboards:

- Inventory Days On Hand
- Aggregated Days On Hand by Commodity

The Inventory Days On Hand operational metric shows days on hand computed for each item in inventory based on current inventory and future demand for an item-site combination. The metric is linked to the Inventory Days on Hand metric browse that displays the inventory days on hand total and less than 10, between 10 and 50, more than 50, and no demand.

The Aggregated Days On Hand by Commodity operational metric shows a system-defined aggregated value for all items with the same commodity code. The values are based on running the new Build Days On Hand Analysis menu function. The metric is linked to the Inventory Days On Hand metric browse that displays the days on hand by commodity total, less than 10, between 10 and 50, and more than 50.

The two new operational metrics display in the following manufacturing dashboards:

- Master Scheduler
- Production Material Planner
- Purchasing Material Planner

Serialization

QAD Serialization is now generally available.

Important Although Serialization is generally available, a special license code is still required to access the functionality. Request the license code through standard QAD order process channels or contact your QAD representative for information.

QAD Serialization provides material handlers with the ability to identify and handle inventory by unique License Plate Numbers (LPNs), instead of by specific inventory quantities. It also enables material handlers to track and trace each purchased, produced, or salable unit individually, independently from, but in combination with, lot numbers.

QAD Serialization increases both material handling efficiency and inventory accuracy in warehouses and on the shop floor. It helps meet specific customer requirements in delivering goods. With QAD Serialization, it is easy to determine the source of an issue and to manage recalls, customer complaints, and other reverse events. QAD Serialization also addresses the need to combat counterfeiting and fraud, and to meet industrial or regulatory compliance.

QAD Serialization is integrated with QAD Automation Solutions (QAS) to support packaging handling using hand-held devices.

Note QAD Serialization is not yet compatible with QAD Warehousing.

Significant enhancements have been added to QAD Serialization since the QAD 2015 EE release, when QAD Serialization was announced in Limited Availability status.

New Packaging Functions

New functions for packaging transactions have been added to QAD Serialization, including:

- Pack Merge
- Pack Split
- Repackage

These new functions give you more flexibility in packaging transactions, reducing effort and improving efficiency.

Multiple Items and Multiple Lots

When announced in Limited Availability status, QAD Serialization supported the following packaging structures only in SO shipping:

- A unit pack contains items of multiple combinations of item number, lot, and reference.
- An assembly pack contains items not in a unit pack.
- An assembly pack contains a unit pack that holds items of multiple combinations of item number, lot, and reference.

Now, more functions in QAD Serialization have been enhanced to support these packs. You can build, remove, decommission, transfer, and scrap special packs during packaging and inventory transactions. You can also ship the packs for SOs and DOs, and process SO returns and DO outbound corrections for the packs.

These QAD Serialization enhancements provide you with greater flexibility and convenience in packaging goods according to specific needs. The enhancements save you from the additional effort required to build new packs for items not in a unit pack or items with different combinations of item number, lot, and reference. Therefore, the enhancements increase efficiency in material handling.

For functions that do not support special packs, validations have been added to prevent you from entering invalid pack serial IDs.

The following table lists the functions that support special packaging structures and the functions to which validations were added.

Table 2
Enhanced Functions for Multiple Items and Multiple Lots

| Functions that Support Special Packaging | Functions with Validations Added |
|---|---|
| • Pack Build | • Pack Receipt Unplanned |
| • Pack Remove | • Pack Merge |
| • Pack Decommission | • Pack Split |
| • Pack Transfer | • Repackage |
| • Pack Transfer-Multi Pack | • Purchase Order Returns by Pack |
| • Rep Picklist Transfer by Pack | • Pack Receipt by WO |
| • Inventory Scrap by Pack | • WO Receipt Correction by Pack |
| • Pack Issue Unplanned | • Pack Receipt by Production Line |
| • WO Component Issue by Pack | • Rep Receipt Correction by Pack |
| • Backflush Transactions | |

Functions that Support Special Packaging Functions with Validations Added

- WO Receipt Backflush by Pack
- Pre-Shipper/Shipper Picking
- Pre-Shipper/Shipper Pack Build
- Label Print by Serial ID
- Bulk Label Print

UM Conversion for Serialization

During Serialization processing, the system now differentiates between an alternate UM and the item UM. When alternate units of measure are used in sales orders, customer scheduled orders, purchase orders, or supplier scheduled orders, the system performs UM conversions during calculations for Serialization processing.

Lot/Serial Lookup Browse Enhancement

The Lot/Serial lookup browse in Serialization has been enhanced to avoid displaying redundant data. Now, the browse only displays inventory data for specific site and location combinations. Previously, the browse displayed inventory at all locations within the specified site.

The Lot/Serial lookup browse is enhanced in the following functions:

- Pack Build
- Pack Commission
- Pack Transfer with L/S Change
- Pack Transfer-Multi Pack
- Pack Receipt Unplanned
- Pending PO Shipper Unload
- Pack Receipt by WO
- WO Receipt Backflush by Pack
- WO Receipt Correction by Pack
- Work Component Issue by Pack
- WO Component Return by Pack
- Pack Receipt by Production Line
- Pre-Shipper/Shipper Picking

Standard Function Enhancements for Serialization

You cannot use the following standard functions for serialized items. When you enter a serialized item in any of these functions, the system prompts you to use the corresponding Serialization functions:

- Item Tag Create
- Item Tag Count Entry
- Item Tag Recount Entry
- Purchase Order Receipts

New validations have been added for WOs and POs:

- You cannot close a WO that is linked with Pending serial IDs.

- You cannot delete or close a PO or PO line that is linked with Pending serial IDs.
- You cannot delete or close a PO or PO line that has a negative quantity and is also linked with Picked serial IDs.

Picklist/Pre-Shipper–Automatic now displays a suggested number of packs for you to pick in the generated picklist or pre-shipper, based on the related packaging structure.

Item Attributes and Quality Control

Electronic Signatures

E-signature functionality has been developed for quality control functions to support FDA compliance. This functionality is designed for life sciences customers with QAD ERP Quality Control to support electronic records compliance for hybrid situations. Hybrid situations include combinations of paper records (or other non-electronic media) and electronic records, paper records and electronic signatures, or handwritten signatures executed to electronic records.

Note An FDA regulation allows for the replacement of handwritten signatures with signatures executed electronically. Instead of having handwritten signatures on documentation, FDA regulations allow for the placement of signatures within the application.

Integration APIs

Integration APIs have been developed for the Quality Control and Item Attributes modules.

The APIs are for any QAD industry segment that wants to process:

- Quality record data processed through QAD Automated Solutions
- Quality record data from MES/line management systems
- Lot attribute data for receipts from advanced repetitive, work orders, and PO shippers

The integration APIs have been expanded to include:

- Lot attribute orders and quality orders
- Test records for quality orders and work-in-process operations
- Receipt processes for recording attribute values for lots received

Lot Trace Workbench

In an ideal manufacturing environment, process activities happen in the correct sequence. With previous versions of Lot Trace Workbench, if the work order component issue (ISS-WO) and work order receipt (RCT-WO) transactions were performed out of sequence, the system would give incomplete results.

LTWB provides relief to the transaction sequence limitation because it no longer requires that you perform ISS-WO and RCT-WO transactions in the correct sequence. Because other transactions may have been recorded out of sequence, it is still prudent to perform multiple forward and backward trace searches.

Note For more information regarding the transaction sequence limitations, see the troubleshooting topic in the Lot Trace Workbench section of *QAD Master Data User Guide*.

Enhanced Shop Calendar

This release includes significant enhancements in the calendars used by the manufacturing modules (sometimes called shop calendars). The changes offer improvements in flexibility, simplicity of calendar setup, and security—benefiting customers by increasing manufacturing efficiency and accuracy, improving planning and production scheduling, supporting segregation of duties, and enhancing system security.

Important The enhancements only apply to calendars used in manufacturing. Other module-specific calendars, such as those used by General Ledger, Fixed Assets, Customer Schedules, QAD Warehousing, and other functions, were not changed.

This enhanced calendar functionality provides a new mechanism for MRP to plan materials on a working day that is an exception to the normal calendar. This feature is particularly useful for companies that need the ability to:

- Plan working hours for selected production lines, work centers, supplier schedules, and kanban processes on a day that is regularly a non-working day at a site. You can now plan production on days on which you do not schedule material receipts.
- Define a regular work day at a site, but a non-work day for selected production lines, work centers, supplier schedules, and kanban processes. You can now schedule material receipts on days on which you do not plan production.
- Make a regular non-working day an exceptional working day at a site. You can now schedule material receipts on an exceptional working day.
- Schedule an exceptional non-working day on a regular working day at a site. You can now prevent material receipts from being scheduled on an exceptional non-working day.

Other benefits that derive from enhanced calendar features include:

- Better understanding of exactly where calendars apply. Instead of the former “one-size-fits-all” approach, this enhancement lets you create specific calendar entries for each area (domain, sites, production lines, work centers, supplier schedules, and kanban processes). New browses and reports also increase the visibility of calendars in all areas.
- A more straightforward way of setting up calendar exceptions. Exceptions to standard calendar entries are now defined in separate menu functions for each type of calendar. Previously, exceptions were part of the calendar maintenance program.
- Ability to use an update program to define full non-working day exceptions for one or more dates for multiple production lines, kanban processes, or work centers in a program specific to each calendar type.
- Improved menu security. Unlike the previous approach, enhanced calendar functionality does not allow global fields (that is, fields where blanks are entered to mean all instances of this field type, such as Site). Previously, for example, a user could set up a production line calendar with Site left blank—in effect, defining the calendar for all sites, even if the user did not have security access to Site Maintenance.
- Ability to directly define shifts. Previously, some types of calendars required entry of data in a day format (Mon, Tues, Wed, and so on), while others required entry in a shift (8 hours in shift 1 on Monday, 8 hours in shift 2 on Monday, and so on). Enhanced calendars now make all calendar types shift specific. If your company only has one shift, enter all hours in the shift 1 fields.

Advanced Repetitive, Repetitive, and Kanban functions now use the same shop calendar as other manufacturing processes, so you no longer are required to define shifts in a separate menu program. Shift Maintenance and Process Shift Maintenance (for Kanban) have been removed from the menu.

- One-step method of defining workdays. Logical fields are no longer used to select days of the week as workdays before assigning a number of hours. Now, if any non-zero hours are assigned for any shift on a specific day, this day is a workday.

You still define holidays at the site or domain level in Holiday Maintenance (36.2.1). The way in which the system uses holidays in determining work days has not been modified. Just as before, do not define a holiday for a site unless it is site-wide. If any of the functions within a site have a work day, define calendar exceptions instead of a holiday.

Note As before, supplier calendars do not determine holidays based on Holiday Maintenance, since individual supplier holidays may vary from your company's. Continue to define full-day exceptions for supplier holidays in the Non-Operating Days screen in Supplier Calendar Maintenance.

Programs Updated for Manufacturing Calendar Enhancements

| Menu | Label | Program |
|-----------------------|-------------------------------|----------|
| 5.5.1.1 | Supplier Calendar Maintenance | rsscmtp |
| 36.2.4.1 ^a | Domain Calendar Maintenance | mgscmt.p |

a. Previously Calendar Maintenance (36.2)

New Programs for Manufacturing Calendar Enhancements

| Menu | Label | Program |
|----------------------------|------------------------------------|-----------|
| 36.2.4 | Domain Calendar Menu | -- |
| 36.2.4.2 | Domain Calendar Browse | mgbr010.p |
| 36.2.4.4 | Domain Calendar Exceptions Maint | mgscemt.p |
| 36.2.4.5 | Domain Calendar Exceptions Brwse | mgbr011.p |
| 36.2.4.6 | Domain Calendar Inquiry By Date | mgsciq.p |
| 1.1.22 | Site Calendar Menu | -- |
| 1.1.22.1 | Site Calendar Maintenance | siscmtp |
| 1.1.22.2 | Site Calendar Browse | sibr001.p |
| 1.1.22.4 | Site Calendar Exceptions Maint | siscmtp |
| 1.1.22.5 | Site Calendar Exceptions Browse | sibr002.p |
| 1.1.22.7 | Site Calendar Inquiry By Date | sisciq.p |
| 18.1.22, 18.22.1.22 | Production Line Calendar Menu | -- |
| 18.1.22.1, 18.22.1.22.1 | Production Line Calendar Maint | rescmtp |
| 18.1.22.2, 18.22.1.22.2 | Production Line Calendar Browse | rebr008.p |
| 18.1.22.3, 18.22.1.22.3 | Production Line Cal Except Maint | rescmtp |
| 18.1.22.4, 18.22.1.22.4 | Production Line Cal Except Brwse | rebr009.p |
| 18.1.22.6, 18.22.1.22.6 | Production Line Cal Inq By Date | resciq.p |
| 18.1.22.25 | Production Line Non-Workday Update | |
| 14.18 | Work Center Calendar Menu | -- |
| 14.18.1 | Work Center Calendar Maintenance | rwscmt.p |
| 14.18.2 | Work Center Calendar Browse | rwbr007.p |

| Menu | Label | Program |
|----------|-----------------------------------|-----------|
| 14.18.4 | Work Center Calendar Excpt Maint | rwscemt.p |
| 14.18.5 | Work Center Calendar Excpt Brwse | rwbr008.p |
| 14.18.7 | Work Center Calendar Inq By Date | rwsciq.p |
| 14.18.25 | Work Center Non-Workday Update | |
| 17.1.13 | Process Calendar Maintenance | kbscmt.p |
| 17.1.14 | Process Calendar Except Maint | kbscemt.p |
| 17.1.16 | Process Calendar Inquiry By Date | kbsciq.p |
| 17.1.17 | Process Calendar Browse | kbb002.p |
| 17.1.18 | Process Calendar Exceptions Brwse | kbb003.p |
| 17.1.25 | Process Non-Workday Update | |
| 5.5.1.2 | Supplier Calendar Inquiry | rssciq.p |
| 5.5.1.3 | Supplier Calendar By Shift Browse | rsbr010.p |
| 5.5.1.4 | Supplier Calendar Except Maint | rsscemt.p |
| 5.5.1.5 | Supplier Calendar Except Brwse | rsbr011.p |
| 5.5.1.7 | Supplier Calendar Inq By Date | rssciq.p |

Programs Deleted for Manufacturing Calendar Enhancements

| Menu | Label | Program |
|------------------------|---------------------------------|----------|
| 17.1.13 | Process Shift Maintenance | kbscmt.p |
| 18.1.22, 18.22.1.22 | Shift Maintenance | rescmt.p |
| 18.1.23, 18.22.1.23 | Shift Report | rescrp.p |
| 18.1.47, 18.22.1.47 | Shift Report (enhanced version) | |

Days On Hand Inventory

A Days On Hand (DOH) field has been added to several menu functions. Additionally, DOH information is available in two other forms:

- Browse collections provide aggregate DOH data for use in such management tasks as trend analysis. Additionally, the system displays the currency value of the aggregate DOH quantity, based on standard cost.
- DOH-related operational metrics have been added.

DOH represents the total number of days (beginning with today) over which the projected quantity on hand is sufficient to meet projected demand. The calculation considers all sources of future demand (customer orders, repetitive schedules, intersite requests, safety stock demand, and so on). It uses net forecasts, rather than gross forecasts. The quantity on hand is at the time the calculation is made, both for today and projected for future days.

Note DOH cannot be calculated if no demand exists. When demand is zero, the system displays 999 as the DOH.

DOH is a useful metric for planners and materials managers. The number of days shown provides immediate insight into the inventory level of critical materials, including visibility of potential supply problems or excess inventory. For example, if the value of on-hand inventory for an excessive number of

days might have a negative impact on overall financial performance, management can adjust ordering policies.

The enhancement benefits customers by increasing manufacturing efficiency and accuracy, as well as improving planning and production scheduling.

Programs Showing Days On Hand

Days On Hand information has been added to the following programs:

- Inventory Detail Report (3.6.29, QAD Reporting Framework version only)
A new Days On Hand column has been added to the right of Qty to Order.
- Stock Availability Browse (3.6.11, icbr007.p)
A new Days On Hand column has been added to the right of QOH Non-nettable.
- MRP Summary Report (23.38, QAD Reporting Framework version only)
An additional Days On Hand row has been added below Planned Orders Released.

Aggregated Display of DOH Data in Browse Collections

A number of new browse collections have been added to display aggregated DOH data over time. For example, this allows materials managers to look for trends to help in future planning.

To make the data available in a form suitable for aggregated views, a new Build Days On Hand Analysis (3.5.3.3) menu function has been added. Use the program to extract data and to create records that can be used to calculate aggregate DOH metrics.

Available browse collections include:

- View Days On Hand By Buyer/Date
- View Days On Hand By Commodity/Date
- View Days On Hand By Date
- View Days On Hand By Site/Date
- View Days On Hand By Supplier/Date

From the top-level browse, each collection lets you drill down to days on hand by item for the selected record, and then to demand details by item. If you entered multiple Horizon Days values in Build Days On Hand Analysis, the top-level browse displays aggregated data for each Horizon Days value on a separate line. This feature allows you to easily compare the effects of different planning horizons.

You can also view unaggregated data for individual items and date ranges using the Days On Hand By Item browse.

DOH Operational Metrics

A new Inventory Days On Hand item has been added to the .NET UI Metrics menu to support Days On Hand analysis. It includes two operational metrics:

- Days On Hand By Commodity, which you use to view system-defined aggregated Days On Hand values for all items with the same commodity code
- Inventory Days On Hand, which you use to view days on hand computed for each item in inventory based on current inventory and future demand for an item-site combination

Additionally, these two metrics have been added to the following QAD-supplied default dashboards:

- Master Scheduler Dashboard
- Production Material Planner Dashboard
- Purchasing Material Planner Dashboard

Supplier Milk Run

QAD Enterprise Edition now includes support for the concept of a *milk run* approach to supplier deliveries, including the ability to optimize the efficient use of vehicle capacity. The enhancement benefits companies by potentially reducing freight costs and improving the efficiency of deliveries. It also helps control IT costs by eliminating manual processes.

In a milk run, your own vehicles or vehicles belonging to a logistics provider follow a prescribed route to one or more suppliers, which is described on a *pickup sheet*. The vehicles pick up parts or materials and deliver them to your manufacturing sites. One challenge of milk runs is to avoid sending multiple partially loaded vehicles. With planning, it should be possible to consolidate loads for multiple suppliers into fewer vehicles, or even to add requirements from subsequent days to fill a truck. However, this becomes a complex task where supplier schedules are involved.

This new functionality adds automation to a process that many companies previously did with manual spreadsheets, improving efficiency and accuracy. The load optimization feature can lead to significantly reduced logistics costs by reducing the number of delivery vehicles needed.

Customers using supplier schedules can take advantage of Supplier Milk Run features to automatically generate milk run pickup sheets for their logistics providers. This functionality supports two schedule types:

- The traditional type 4 (combined planning/shipping) supplier schedules
- Type 6 supplier shipping schedules offered by the PRO/PLUS Supplier Shipping Schedules module

In the QAD Enterprise Edition solution, two new programs on the Supplier Schedules Setup Menu let you define master records used in the milk run process:

- Define transport modes, which define the capacity characteristics of milk run vehicles.
- Set up supplier networks, which associate suppliers and vehicles with a milk run route.

After running Schedule Update from MRP, you can generate pickup sheets in two ways:

- Using an auto-create program that generates batches of draft pickup sheets for user-specified selection ranges. You can create sheets for multiple supplier networks, sites, and schedule dates. Optionally, you can confirm the sheets while they are being created. When pickup sheets are confirmed, their associated supplier schedule releases are immediately updated and can be transmitted using EDI, print, or fax.
- With a maintenance program that lets you create, modify, and confirm pickup sheets for a single date.

Both programs offer the option to run your own custom optimization program. This program includes, for example, your rules for calculating the best way to achieve full truckloads—eliminating even more of the manual process.

Regardless of the creation method you use, the same maintenance program lets you optimize the system-generated sheets by moving quantities between vehicles and bringing in requirements from later days to fill the trucks more efficiently.

Once you have confirmed the sheets either automatically or manually, the system creates new schedule releases that can immediately be transmitted to suppliers using EDI, print, or fax.

A print function lets you generate physical copies of your pickup sheets to use as routing instructions for the drivers.

Programs Added for Supplier Milk Run Enhancement

| Menu | Label | Program |
|----------|-------------------------------------|-----------------|
| 5.5.1.9 | Supplier Transport Mode Maintenance | vdmtmt.p |
| 5.5.1.10 | Supplier Transport Mode Browse | dnbr007.p |
| 5.5.1.11 | Supplier Network Maintenance | vdvnm.p |
| 5.5.1.12 | Supplier Network Browse | vdbr109.p |
| 5.5.3.19 | Pickup Sheet Auto Create | vdnbc.p |
| 5.5.3.20 | Pickup Sheet Maintenance | vdnbmt.p |
| 5.5.3.21 | Pickup Sheet Print | Enhanced Report |
| 5.5.3.22 | Pickup Sheet Delete/Archive | vdvnup.p |

Browse Collections Added for Supplier Milk Run Enhancement

The functionality includes two new browse collections:

- Use the View Pickup Sheet browse collection to see information about existing pickup sheets. Select a pickup sheet record from the top browse. You can then drill down to two subordinate browses to see pickup sheet details, as well as information about the associated supplier network. Click the Supplier Network Browse tab to access two additional lower-level browses—Supplier Network Sequence Browse and Supplier Network Transport Browse.
- Use the View Supplier Network browse collection to see details about transportation networks set up to support supplier milk runs. (This is a stand-alone version of the Supplier Network Browse information available in the View Pickup Sheet browse collection.)

Removal of Standard Requisitions Module

In earlier versions of Enterprise Edition, the traditional standard purchase requisitions were available in parallel with the more extensive Global Requisitioning System (GRS).

All standard purchase requisitions menu items have now been removed, and GRS is the recommended functionality for purchase requisitions.

This update provides the following advantages to users:

- Replaces the very limited scope of standard requisitions with the full-featured GRS tools
- Eliminates possible confusion about which kind of requisitions to use
- Provides a growth path for future enhancements

Programs Removed

| Menu | Label | Program |
|-------|-------------------------------------|--------------------|
| 5.1 | Purchase Requisition Menu | |
| 5.1.1 | Purchase Approvals Maintenance | poacmt.p |
| 5.1.2 | Purchase Approvals Inquiry/Browse | poaciq.p/pobr001.p |
| 5.1.4 | Purchase Requisition Maint | poprmt.p |
| 5.1.5 | Purchase Requisition Inquiry/Browse | popriq.p/pobr007.p |
| 5.1.6 | Purchase Requisition Report | poprrp.p |

| Menu | Label | Program |
|--------|----------------------------------|------------|
| 5.1.8 | Req. Approval Document Print | poprrp02.p |
| 5.1.16 | Requisition Approval Maintenance | poprap.p |
| 5.1.17 | Approved Requisition Print | poprrp01.p |

QAD Warehousing

QAD EE Release Notes now cover QAD Warehousing. Previously, because the products had separate installations, QAD Warehousing had separate release notes for each EE release.

Other Manufacturing/Supply Chain Enhancements

Supplier Lot Field

A Supplier Lot field is now available in multi-entry mode frames (when Multi Entry is selected) in the following functions:

- PO Container Maintenance (5.5.5.4, 5.13.13)
- PO Shipper Maintenance (5.5.5.5, 5.13.14)
- PO Fiscal Receiving (5.13.16)

The new field improves supplier lot tracking efforts by letting you update or add a supplier lot identifier on a more granular level of detail. Previously, the field was available only in single-entry mode.

Installation and Conversion Notes

QAD Enterprise Edition is now installed using the QAD YAB installer and is managed using the QAD YAB console. YAB is a deployment and management toolset that covers all products installed into an Enterprise Edition environment and is automatically installed with the installer.

The *Enterprise Edition Installation Guide*, previously known as the *Progress Database Installation Guide*, has been revised to reflect the new installer. A new guide, the *Enterprise Edition Configuration and Administration Guide*, covers a range of topics to help you achieve the best performance with your new YAB-managed environment. Add-on products now use YAB commands for installation with QAD Enterprise Edition 2016, and their installation guides have been updated to include the new process.

Performance Notes

- Performance improvements in Supplier Payment Selection Confirm

Additional System Changes and Limitations

At this point in the Enterprise Edition development cycle, differences with earlier releases as well as limitations exist in various areas:

- Not all optional modules and complementary products can be used with QAD 2016 EE. Some of these modules are planned to be available; others may be replaced by a different type of offering.
- Some limitations exist related to technical components such as databases and operating systems.

- Some specific application features that were available in previous releases of the core application are no longer available. In some cases this is intentional; in other cases, plans exist to reimplement the features for the Enterprise Edition.
- Enterprise Financials introduces many new capabilities as well as new Financial concepts. Due to differences in concepts with Standard Financials, a clear function-by-function comparison is not always possible. Certain specific functions of Standard Financials might work differently or not be supported in Enterprise Financials.

Updated Policy Regarding Source Code

Source code licenses for QAD Enterprise Applications are available on a module-by-module basis and priced separately. However, even for customers who do not purchase source code licenses, QAD has historically made a subset of source available. This includes source for frequently modified reports and inquiries, and excluded transactional programs.

The list of files supplied as part of this free subset of source has changed in the EE release. QAD is maintaining the policy of allowing modification of reports and inquiries, but is now applying a stricter criteria to qualify what programs can be modified without purchasing source. As a result of this change, customers may notice that some programs they received in previous releases are no longer available. For example, QAD previously provided *all* include (.i) files—including those not used by reports and inquiries. Delivery is now limited to .i files that are needed by reports and inquiries; for example, frame definitions.

Another change in source code involves Financial source code. The new Enterprise Financials follows a different development model, and customization of source is facilitated through a customization layer that does not require direct update to the generated source code. Therefore, source for Enterprise Financial programs is not available for purchase by customers. A small subset of traditional Financial programs that still remain in the Accounts Payable (AP), Multiple Currency (MC), and General Ledger (GL) modules have been moved to the base (OS) module and are available to customers who purchase source for that module.

Windows GUI User Interface No Longer Supported

In the Enterprise Edition of QAD Enterprise Applications, the .NET UI is the primary product user interface. GUI is no longer supported at all. Some programs can only be run in .NET UI; many operational programs can still be run in character, but the full use of the suite requires .NET UI.

Progress Results Files

In QAD Enterprise Edition, a full set of Progress Results files (.qc and .qc7 files) is not provided because customer requirements for reporting vary extensively. Instead, a sample set is provided on the media containing five valid relationships. Users can add more relationships using the Progress Results application to fit their business needs. Refer to the Progress Results documentation or contact QAD Global Services for assistance with adding relationships to the existing QC files.

Support for Optional Modules and Complementary Products

Optional Modules Not Supported in QAD 2016 EE

Project Realization Management (PRM)

PRM was removed from the Enterprise Edition. It may be restored at a later time pending product management decision regarding enhancing PRM or using another project management solution.

Centralized Order Processing (not planned)

Centralized Order Processing (COP) is not supported in Enterprise Edition, either for sales or purchase orders. Other order management features can be used with QAD EE.

This means that you cannot enter an SO or PO in one domain and process the SO shipment or PO receipt in another domain. However, you can open an SO or PO with the header site belonging to one entity and the line sites belonging to different entities in the same domain. In this scenario, the appropriate cross-company postings are registered.

You can also use Enterprise Material Transfer for cross-domain sourcing of items. Enterprise Edition features enhancements to the EMT functionality that make this method easier to use.

Complementary Products Not Supported in QAD 2016 EE

- QAD Manufacturing Execution Workbench (MEW) (unplanned)
- QAD Distributed Order Management (DOM) (unplanned)
- Trade Management (TrM) and APM Medical (unplanned)
- The Planner (unplanned)
- Multi-Level Pegging (unplanned)
- Q/LinQ and DataSync. The features of both these products are now included in QXtend.

Installation and Conversion Limitations

Installation

Service pack only media are not provided. Each release is a full install, although database upgrade utilities are provided.

Conversions

To ensure the highest level of quality and success for customers converting to the QAD 2016 EE release, the participation of QAD or certified QAD partner services is strongly recommended. As a result, the conversions are disabled on the release media to ensure conversion requirements are properly reviewed and planned by QAD prior to any conversion activities.

Operating Systems and Platforms

Support for an Oracle database is not generally available; only Progress database can be used.

Note An Oracle version is available for Early Adopters only.

Performance Tuning

Please consult with QAD prior to implementing a Wide Area Network configuration for QAD 2016 EE.

General Limitations

Multiple Databases Not Fully Supported

QDT does not currently support the installation of multiple databases. In addition, the application is limited in the support for multiple databases.

Because of the use of proxies through an App Server to update financial tables, you cannot switch databases if any activity may update financial tables. Currently, this means that a user cannot connect to another database from the UI. The only switching that is allowed is from the low-level DRP and EMT routines where it is known that the resulting updates do not affect financial data.

EMT itself works correctly in both single (cross-domain) and multiple database implementations. When using multiple databases, users must separately log in to the databases; it is not possible to switch between databases from the menu.

GL consolidation between multiple databases is not fully supported.

Some Financial Utilities Not Available

Delete/archive utilities are planned. Other utilities will be created as needed.

Handling of Euro Conversion Deferred

The programs for converting a currency to the Euro have not been updated to work with the Enterprise Financials. This will be addressed when a need for such conversion exists.

Financial Source Not Available

Since the Enterprise Financials use a new component-based methodology, they cannot be modified in the way traditional MFG/PRO programs were customized. Source code for the financial modules is no longer provided. Customization templates can be used to add business logic to existing Financial programs without making invasive code changes. Documentation of the source code required for creating APIs is supplied in HTML format. Customization features will be expanded in future releases to support additional features such as including new tables or new components.

System Cross-Reference Not Available

Earlier versions of QAD Applications provided a system cross-reference that let you see where tables, fields, and programs were referenced. This feature is no longer available, since it did not apply to the new component architecture.

Internationalization Features

Support for country-specific requirements is being addressed in each release of Enterprise Applications. Many of these features that were previously provided as localization or partner offerings are now being provided as generic features of the product.

For a complete list of internationalization features and planned country support, see the QAD Support Web site.

