

Kanban Sizing Workbenches Patch Bundle for Standard and Enterprise Editions Release Notes

June 2012

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Kanban Sizing Workbenches Version: 1.2.2

Release Date: June 2012

QAD SE/EE Compatibility: QAD Standard Edition 2012; QAD Enterprise Edition 2011.1 and 2012

This release is a patch bundle that includes performance-related feature updates to the workbenches, as well as some fixes.

Note The feature updates and most of the fixes described in this document were included in the following versions of Kanban Sizing Workbenches:

- Version 1.1 for QAD Standard Edition 2008, 2008.1, and 2009
- Version 1.2 for QAD Standard Edition 2010 and 2011, and QAD Enterprise Edition 2010, 2010.1, and 2011

The current patch bundle does not apply to those releases.

QAD .NET UI Versions: 2.9.0 and above

Related Documentation: *Kanban Sizing Workbenches Installation Guide*, provided on the installation media. For basic information on using the workbenches, see the *Kanban User Guide* (SE) or *Lean Manufacturing User Guide* (EE) for your version of QAD Enterprise Applications.

Feature Updates

Cancel Option for Initial Query

Version 1.2.2 introduces a Cancel feature to initial record selection in Kanban Sizing Workbench and Kanban Process Workbench. Previously, there was no option to cancel.

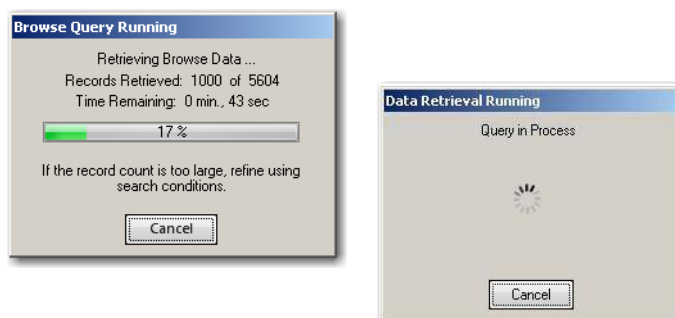
Depending on the filters you set and the amount of kanban-related records in your database, an initial workbench query can take one minute or longer.

The system displays a Cancel dialog during each part of the two-phase query:

- During the browse query, which retrieves indexes and performs a total record count. The dialog displays the percentage of records counted.
- During data retrieval. The dialog does not include status information.

If the time required seems extensive, you can click Cancel, then define additional filters to reduce the number of target records.

Fig. 1
Cancel Option

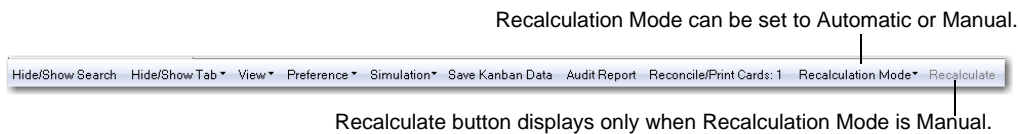


Manual Recalculation Option

A new Manual Recalculation option is now available in Kanban Process Workbench. Previously, the system always recalculated the entire workbench when you updated any field and then changed focus to a different field or pressed Enter. However, if a large number of processes are included in the workbench, automatic recalculations can be time consuming.

Two new buttons on the Kanban Process Workbench tool bar control this new feature.

Fig. 2
New Tool Bar Buttons



Set Recalculation Mode to Automatic to have the system always recalculate when any field is updated in the workbench.

To limit the fields that cause recalculations when they are modified, set Recalculation Mode to Manual. Individual loop sizes are still recalculated automatically when you change certain information. However, if the field impacts the EPEI or Variable Lead time calculations—which could cause a change in all of the loops in the process—these are not automatically recalculated in manual mode. To recalculate them, press Recalculate or save your work. (The button is only available when in Manual mode and when the workbench has been modified since the last save or manual recalculation.) Since these values can ultimately change the sizing of all loops in the process, then it is very likely that the individual loop sizing is incorrect. The system calculates the individual loop sizes automatically so that you can see some of the granular changes. For example, if you update Daily Demand, the workbench shows the impact on Total Safety Stock and Order Point. However, this field also affects the EPEI, which is *not* recalculated, so the order quantity is probably incorrect for this loop as well as all the others.

Table 1 Fields Calculated Automatically in Manual Mode

Sizing Frame	Process Item Frame
Daily Demand (Revised)	Minimum Item EPEI (Revised)
Replenishment Lead Time	EPEI Revised
Internal FIFO Time	EPEI Automatic
External FIFO Time	Yield
Safety Days	
Safety Stock	
Variability Factor	
Packs per Kanban	
Card Reporting	
Fractional Kanban	
Order Quantity Multiple in Kanbans	

In manual mode, the system provides visual clues when changes to individual fields have left workbench data in a “stale”—or non-current—state. Indicators adjacent to the following fields and on process records show that data is inaccurate until manual recalculation:

- EPEI Revised
- Variable Lead Time

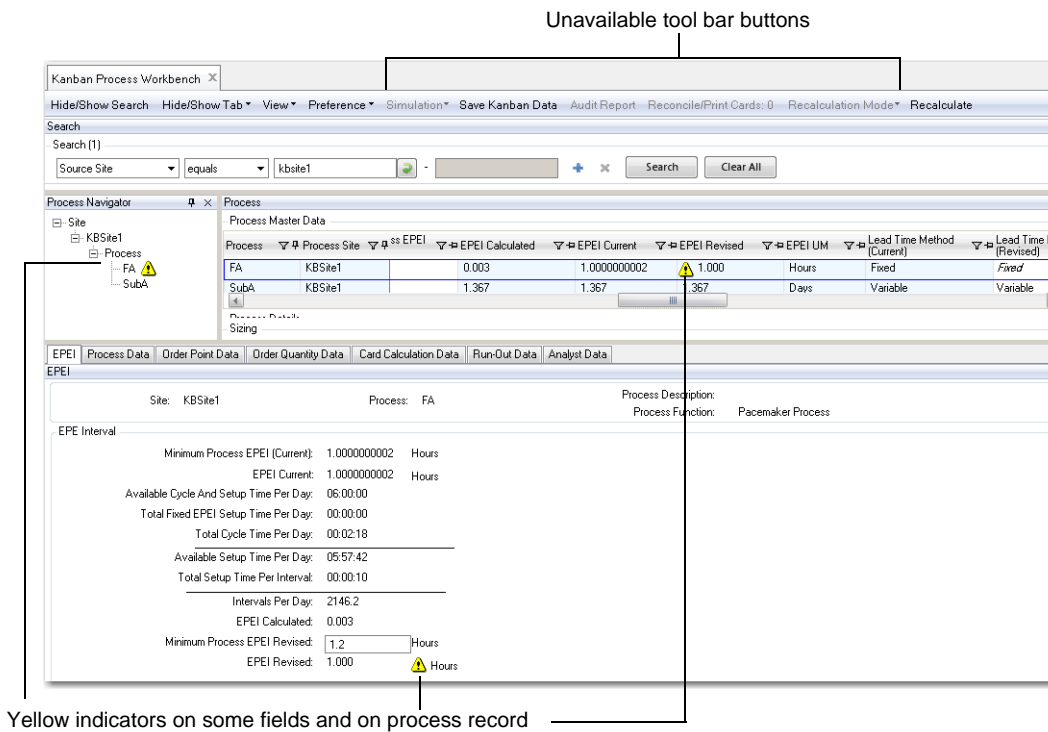
Additionally, the following tool bar buttons are unavailable because stale data would cause the results of those actions to be inaccurate:

- Simulation
- Audit Report
- Reconcile/Print Cards

Note Recalculation Mode is also disabled while the workbench contains stale data; you cannot change the setting to Automatic until the data is recalculated.

Figure 3 summarizes how the UI indicates that the workbench includes stale data.

Fig. 3
Indicators that Manual Recalculation Is Needed



Loop Calculation Method Change

The system now employs a more efficient method to resize loops when multiple fields are updated on the Kanban Sizing Workbench. Previously, the system used the same logic as the legacy Kanban Workbench, which was based on the requirement to recalculate records for multiple loops. The new method, which requires recalculating only a single loop each time a related field is updated, improves performance.

Safety Factor Calculation Change

The Safety Stock Percent calculation logic in the workbenches has been updated to provide a different calculation method for each workbench when a process loop is involved. This is required because, based on selection criteria, Kanban Sizing Workbench may or may not include all the loops associated with a process. The workbenches now use the following Safety Factor Percent formulas:

- For process loops on Kanban Sizing Workbench:

$$\text{Safety Factor Percent} = ((\text{Total Safety Stock Plus Safety Time} + \text{Container Size Safety Stock}) / (\text{Daily Demand (Revised)} * \max((\text{Fixed Interval Time} / \text{Standard Hours per Day}), \text{EPE Interval in days or 1}))) * 100$$

- For process loops on Kanban Process Workbench:

$$\text{Safety Factor Percent} = ((\text{Total Safety Stock Plus Safety Time} + \text{Container Size Safety Stock}) / (\text{EPE Interval} * \text{Daily Demand (Revised)})) + (1 - \text{Current Load Percent}) / \text{Current Load Percent} * 100$$

- For supplier and inventory loops on both workbenches:

$$\text{Safety Factor Percent} = ((\text{Total Safety Stock Plus Safety Time} + \text{Container Size Safety Stock}) / (\text{Daily Demand (Revised)} * \max((\text{Fixed Interval Time} / \text{Standard Hours per Day}), 1))) * 100$$

Fixes

The Kanban Sizing Workbenches maintenance release version 1.2.2 fixes the following defects:

Internal Defect-Tracking Number	Description
MFG-5527	Error messages and indicators have been improved in situations where Kanban Process Workbench has been populated with a process with an invalid EPEI. Messages now include site and process ID information in addition to item information. Additionally, processes with EPEI errors are identified with red icons.
MFG-5528	Kanban Process Workbench now saves data for processes where EPEI data is valid even when a single process in the selection has an invalid EPEI calculation. When you click Save in either manual or automatic mode, the system ignores the process with an invalid EPEI but continues to save valid records. Previously, an invalid EPEI for one process would prevent the process EPEI from being saved.
MFG-5589	Record selection filters have been fixed in Kanban Sizing Workbench to let you filter by Source Type; valid values are Supplier, Process, and Inventory. Previously, those values were unavailable, and the system displayed an error message if you tried to filter by source type.
MFG-5598, MFG-5599	Setup Time per Standard EPEI and Setup Time per Day in the Analyst Data frame are now calculated correctly in both the KB Sizing Workbench and the KB Process Workbench. Previously, those values always displayed as zero.
MFG-5877	In the Kanban Sizing Workbench and Kanban Process Workbench, the system now correctly manages the loop-level setting of the Reconcile Cards field based on the user-specified value. Previously, if you set Reconcile Cards to No as the workbench default in Preference Option from the tool bar, then changed the value to Yes on an individual loop, then saved the model, the system would reset the loop value to No. The number of loops to reconcile was not updated.
MFG-5992	In the Process Data tab of Kanban Sizing Workbench and Kanban Process Workbench, the Adjust Time Available Per Day (Current) field that displays under “Takt Time and Pitch Calculation” has been changed to the Adjust Time Available Per Day (Revised) field.
MFG-8186	Fixes an issue that causes the workbenches to display as a blank screen.

Additional Update

Source code in this patch bundle has been modified to conform with an updated QAD programming standard regarding the format of file headers.

