



Lean Enterprise Extensions

Enhanced capability leveraging Microsoft Dynamics AX 2012

Solution Overview

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LEAN ENTERPRISE EXTENSIONS

eBECS Lean Enterprise Extensions enhance the ability of companies to manage tightly coupled supply chains. In many industry sectors, end-to-end supply chain visibility is required from raw material suppliers, through components, finished goods and on to distributors and retailers or installers. These extensions deliver that visibility and integrated communication that supports those efforts.

Lean Enterprise Extensions provide this ability through enhancement of the already comprehensive Lean functions supplied with Microsoft Dynamics AX 2012.

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MRP ENHANCEMENTS

IGNORE SAFETY STOCK

Another addition to the coverage group is a flag to ignore safety stock. When this flag is set to yes on the coverage group, the safety stock of that item is ignored. This function provides flexibility for the user to control whether they would like to dip into the safety stock for consumption and not have recurring futures or actions messages. This is used with the CTP functionality so that dates are not pushed out to customer's based on safety stock requirements.

The screenshot shows the 'Coverage groups (1 - ceu)' window. On the left, a list of coverage groups is displayed with '10 Requirement coverage group' selected. The right pane shows configuration for this group. Under the 'General' section, the 'Coverage' sub-section includes fields for 'Coverage code' (Requirement), 'Coverage period' (0), 'Coverage time fence' (100), 'Negative days' (2), 'Positive days' (100), and 'Date Type' (Standard). The 'Ignore Safety Stock' checkbox is checked and highlighted with a red box. Below this, the 'Other' section includes 'BOM or formula version re...' (checked), 'Route version requirement' (checked), and 'Period template' (STD period). At the bottom, there are sections for 'Planned order' and 'Forecast plan'.

LONG TERM CAPACITY PLANNING

Lean in AX2012 does not allow long term capacity planning with activities. When an item is under Kanban control in AX2012, there is no longer the use of a route with operations and work centers for planning or execution. Thus, MRP does not load these requirements against a work center for capacity planning. Kanbans are loaded instead against a work cell that has a short term planning period based on throughput/hours capacity and the activities that the

Kanban goes through as part of the production flow.

This enhancement provides a view of infinite capacity loading by activity, in daily, weekly, or monthly periods. The long-term capacity planning simulation process runs the desired forecast plan, identifies activity constraints, and allows action to be made by changing the forecast/build plan to accommodate or by looking to add capacity where required (no true what-if simulations).

After running master planning, the user will generate the long-term forecast by inputting capacity period, plan, and resource group if needed.

Microsoft Dynamics AX (1)

Long term forecast generate

General | Batch

Parameters

Capacity period: Week
 Plan: 20
 From date: 28/06/2012
 To date: 01/08/2012

Resource groups

Resource group: 0001
 Work cell: Yes

Select

OK Cancel

Define the period that is related to the throughput

Then a long-term forecast can show the efficiency, effective capacity, load, and ratio of load versus capacity. Constraints are identified with a red color.

Long term forecast (1 - ceu) - Run ID: 6, 0001, Run ID: 6

File | Long term forecast

Delete | Export to Microsoft Excel
 Delete Run

Maintain | List

Run ID: 6 | Resource:

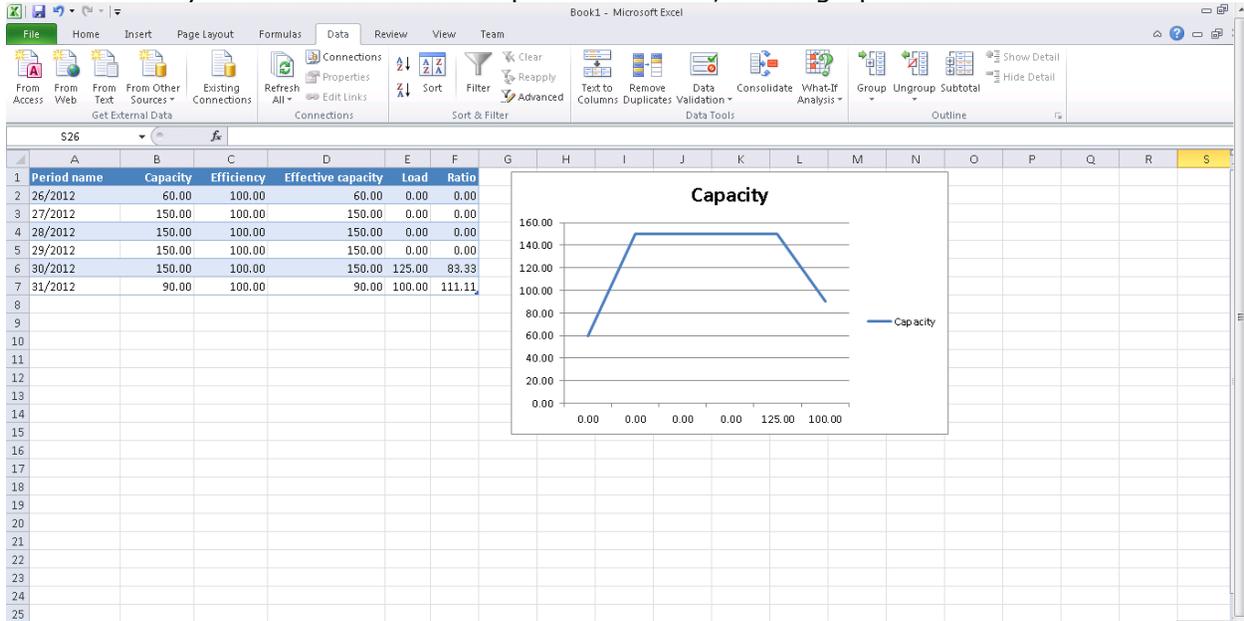
Overview | Detail | Planned order

Apply Efficiency: | Override efficiency:

Period name	Capacity	Efficiency	Effective capacity	Load	Ratio
26/2012	60.00	100.00	60.00	0.00	0.00
27/2012	150.00	100.00	150.00	0.00	0.00
28/2012	150.00	100.00	150.00	0.00	0.00
29/2012	150.00	100.00	150.00	0.00	0.00
30/2012	150.00	100.00	150.00	125.00	83.33
31/2012	90.00	100.00	90.00	100.00	111.11

Apply work cell efficiency to calculat... | (0) | USD | ceu | Close

Functionalities like exporting to excel and creating a Load vs. Capacity graph with this data exist. Below you can see this data exported to Excel, and a graph created.



LEAN KANBAN ENHANCEMENTS

LEAN NAVIGATION

Navigating between boards and pegging tree overview can waste time. This enhancement allows for ease of navigation between the different Kanban boards directly from the pegging tree that can be accessed from a number of places. It is also extended on the Kanban to navigate further if there are multiple activities or if the Kanban was viewed from the rule.

Source document line type: Kanban Source document number: 000422_1018

General

Source requirement

Event type: Kanban
 Sales order:
 Sales order line:
 Kanban: 000422_1018

Issue

Transaction time: 01/12/2013 00:00:00
 Quantity: 11.00
 Unit: Pcs
 Status: Assigned

Item

Item number: 000134_202
 Configuration:
 Size:
 Color:
 Style:

Kanban jobs

Kanban schedule board Kanban board for process...

Work cell	Job status	Type	Name	Scheduled period date	Good quantity	Error quantity
SP1	Completed	Process	SP1	12/12/2013	11.00	0.00
COAT	Completed	Process	COAT	10/02/2014	11.00	0.00
STER	Planned	Process	STERILIZATION	06/12/2013	0.00	0.00

ENHANCED PICKLIST

A modified pick list report has added information useful to users: sales order information, worker, parent Kanban information, and a section for comments.

Print picking list (1)

Options

Contoso Entertainment Systems (West)

Page 1 of 2
4/22/2014
5:23 PM

Pick list

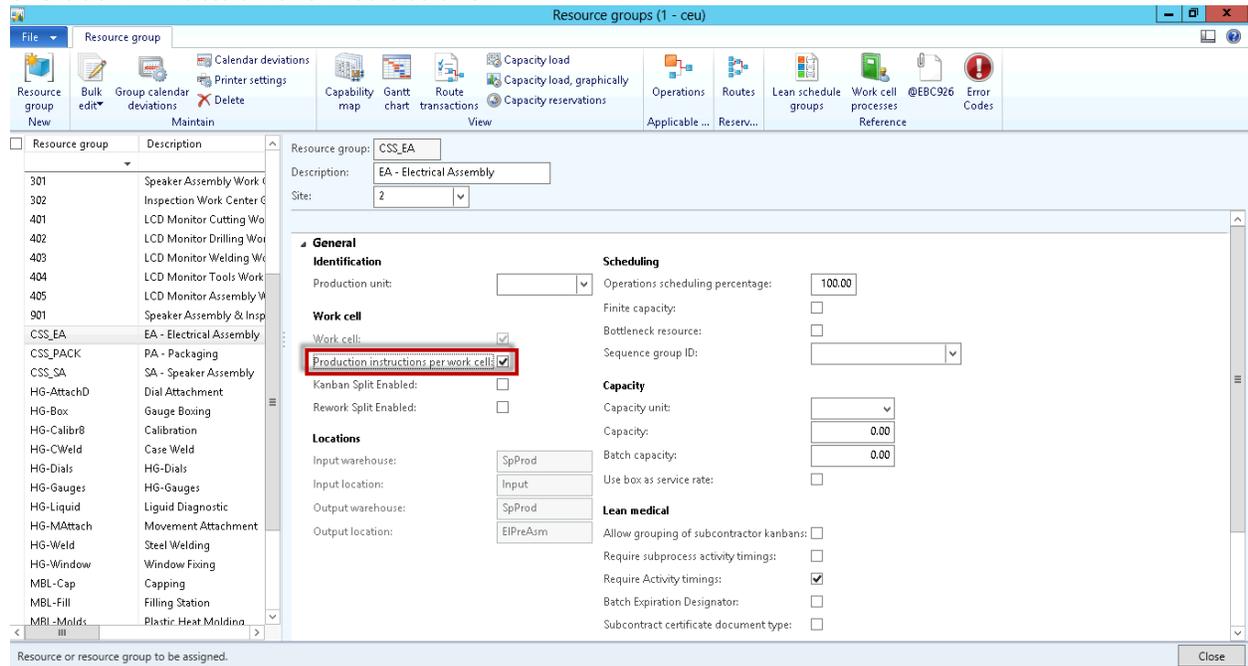
Barcode:

Sales order: Lot ID:
 Kanban: 000407_1018 Card number: PSCRRD05
 Work cell: SCPS_Cover Parent kanban: Parent Item ID
 Worker: Darren Hogg Item number: SCPS_PSCR

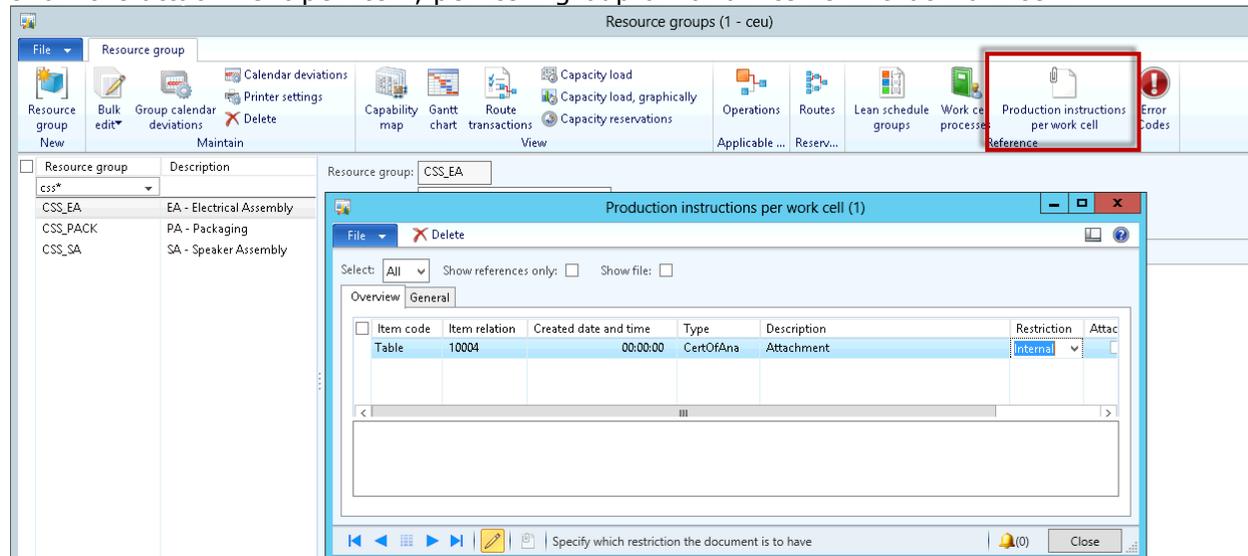
Item number	Item description.	Qty	Unit	From warehouse	From location	Position	Batch number	From kanban	Comments
SCPS_UPSCR	Un Painted Speaker covers Right	5.00	Pcs	UnPaCovers	Output				

DOCUMENT HANDLING FOR PRODUCTION INSTRUCTIONS

This enhancement adds functionality to allow the user to attach production instructions per item, group, or all via the work cell. A new parameter on the work cell must be set to yes to allow this. A new button for production instructions has been added to the action pane where the user will attach the instructions.



This parameter then allows the user to enter the attachment. The item code can be setup to show the attachment per item, per item group or for all items in that work cell.

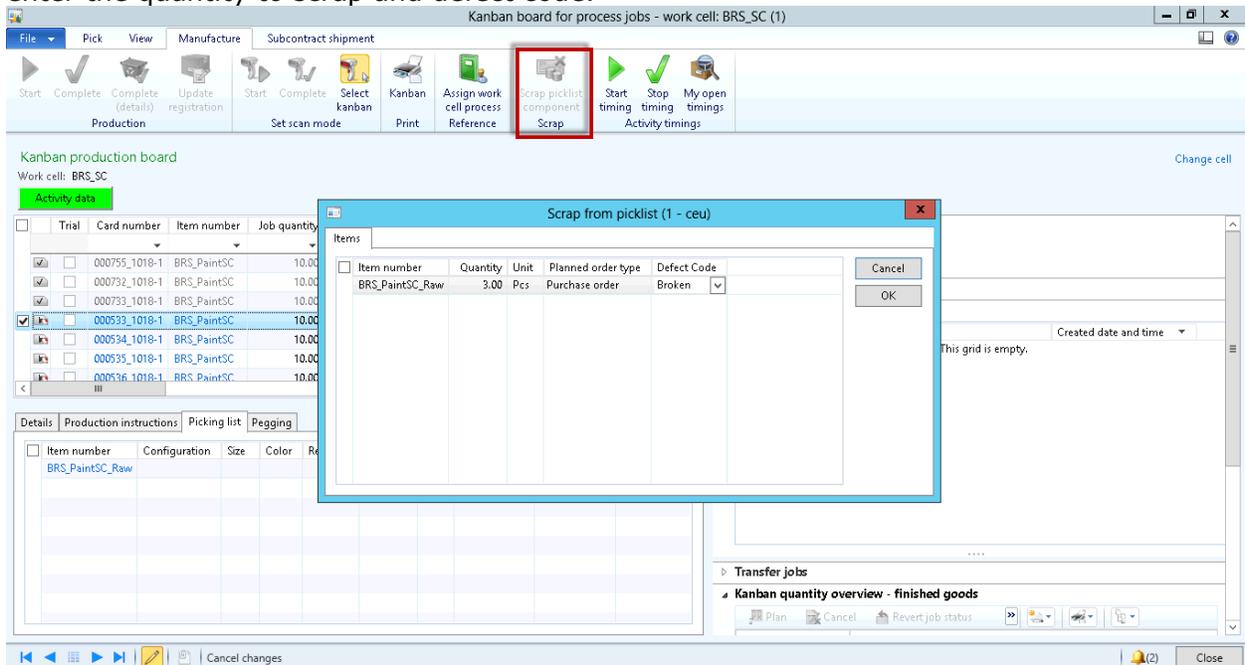


KANBAN DOCUMENT HANDLING

This enhancement is a parameter on the Engineer Fast Tab of each item details form that, when checked, enables Kanban documents to be enabled and accessible from the Kanban board for process jobs and from the Kanban details form.

SCRAP COMPONENT

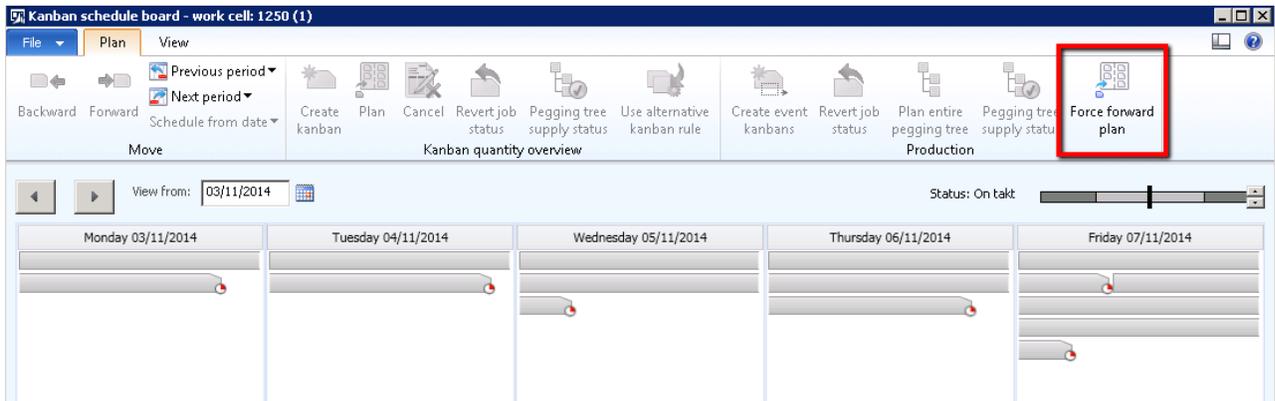
Standard AX does not allow the scrapping of both purchase and Kanban type components. This extension adds a button on the Kanban board for process jobs that will allow the user to enter the quantity to scrap and defect code.



Upon scrapping any item with planned order type of purchase order, a pick list is generated to compensate for the scrapped quantity. This would change the print status of the Kanban to "Printed with scrap"

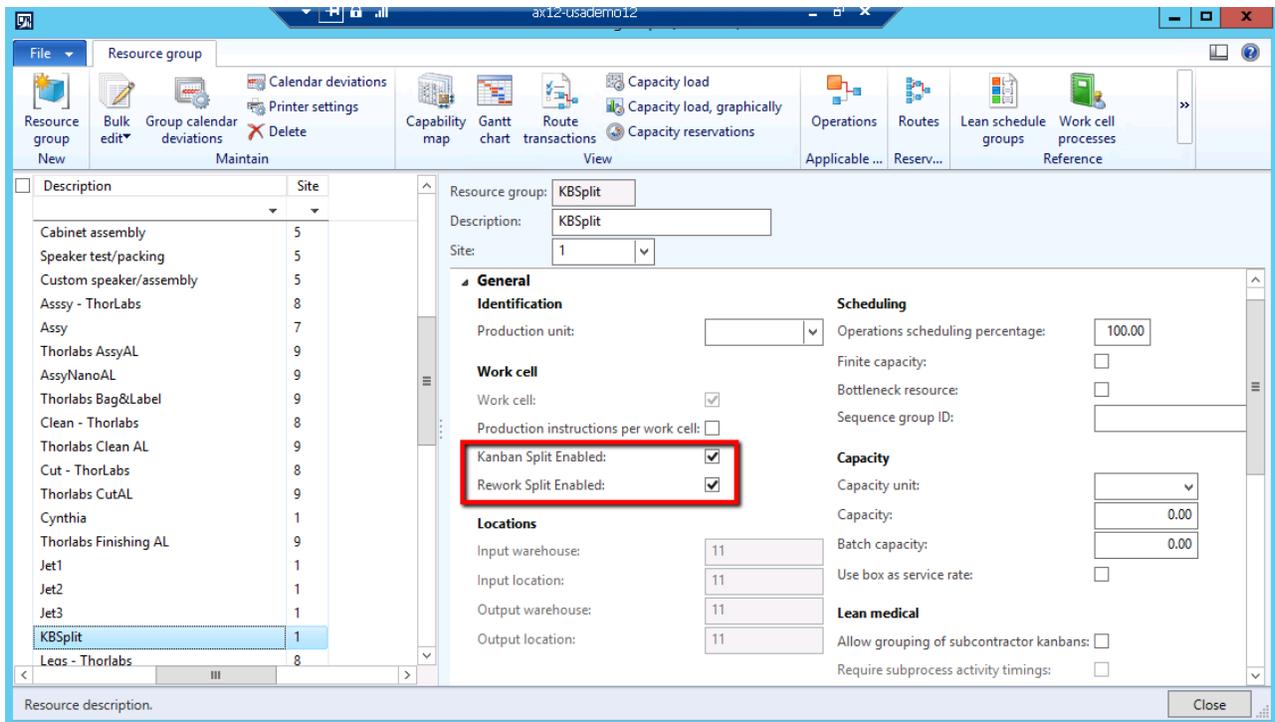
FORCE FORWARD PLAN

Standard AX plan pegging tree allows a Kanban to be planned backwards from that activity, which can be limiting if the bottleneck is in the middle of the process. The forward planning functionality allows for Kanbans to be scheduled forward from the Kanban schedule board. This plans the activities of a production flow forward starting from whichever activity or work cell this button is used from. This functionality takes into account the production flow model of subsequent activities, activity queue times, and activity relation constraints.

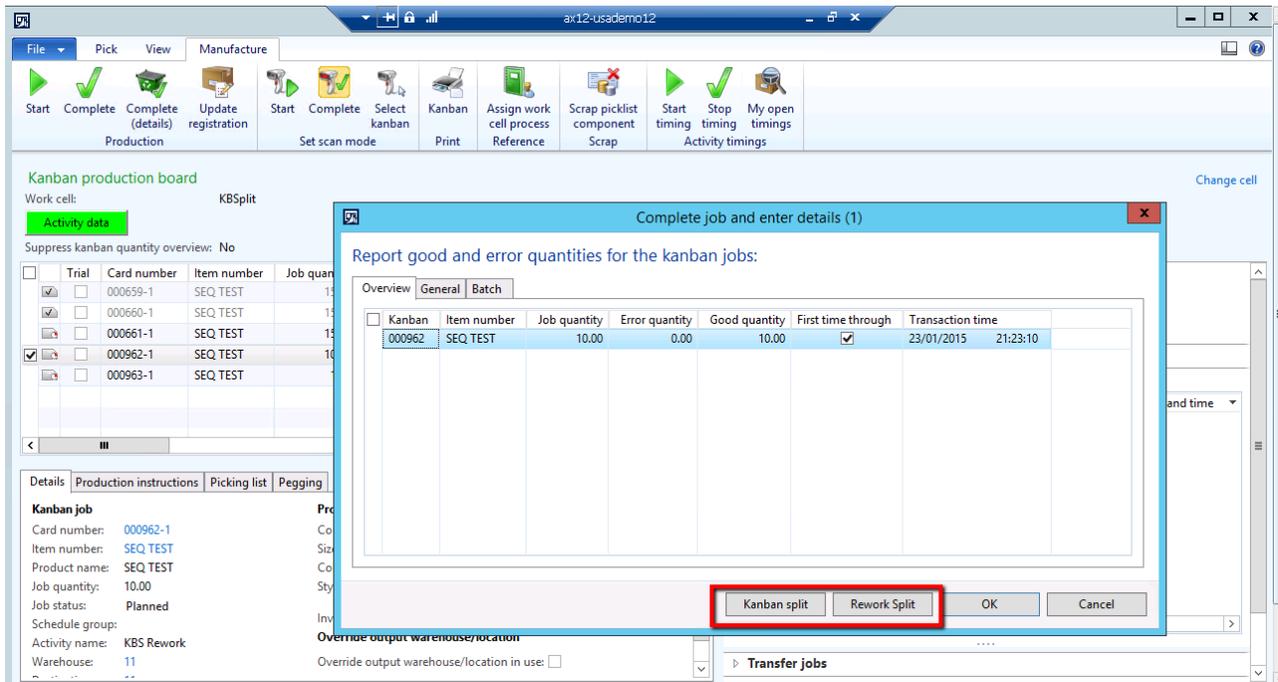


KANBAN SPLIT

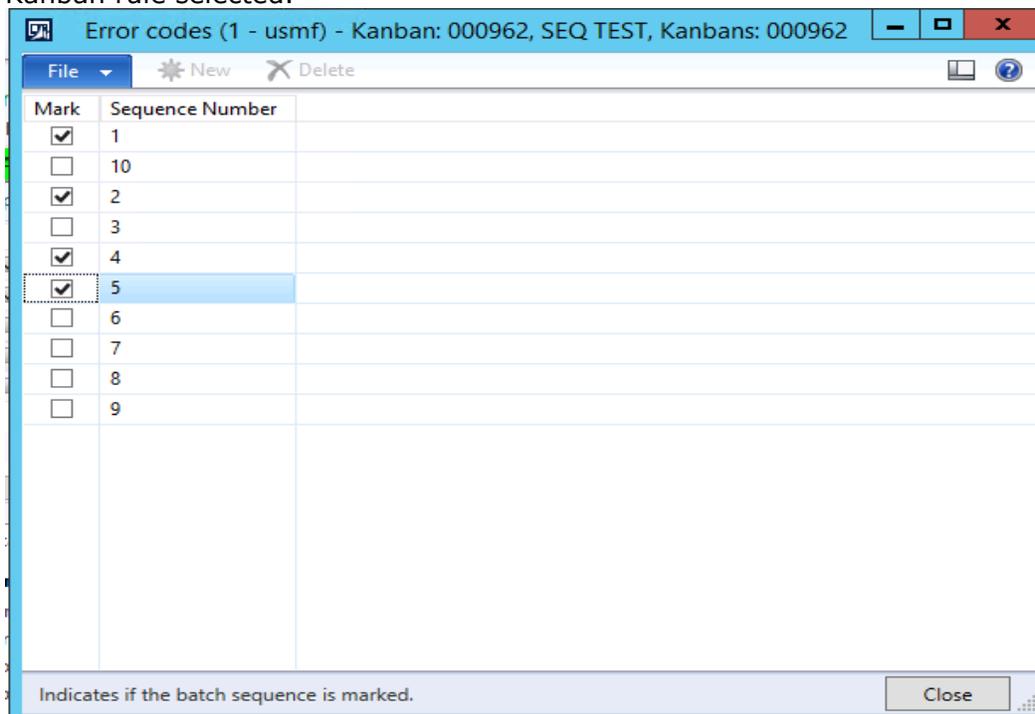
This enhancement allows Kanbans to be split via batch sequence numbers. One new parameter on the work cell will determine if split is allowed.



When this parameters are set to yes, one new buttons are enabled from the completed (details) button on the Kanban board for process jobs. Kanban split is only active if error quantity is zero. When Kanban split is selected, the user will be prompted to enter the quantity to split and the Kanban rule to follow for the split quantity.



A new field on the form will indicate which batch sequence to split. This will mean there will be two Kanban references for the same sequence. The Kanban will generate using the new Kanban rule selected.



When viewing the batch details in the Update registration, the split sequence numbers will be displayed.

Sequences (1 - usmf) - Batch number: 000061, SEQ TEST, Item number: ...

Sequence Number	Status	Error Code	Work cell
1	Split		KBSplit
10	Created		KBSplit
2	Split		KBSplit
3	Created		KBSplit
4	Split		KBSplit
5	Split		KBSplit
6	Created		KBSplit
7	Created		KBSplit
8	Created		KBSplit
9	Created		KBSplit

Batch Sequence Number Close

ACTIVATE PRODUCTION FLOW MODIFICATION

This Lean extension allows the user to edit active production flows in ways that were previously blocked while the flow is active. Now users can add and delete process activities without having to deactivate and reactivate the production flow.

Create new plan activity (1 - ecoh)

New activity
Select name and activity type

Name:

Activity type:

Feeds to downstream flow:

Process quantity:

Unit:

Operating unit:

AC #2 WINDING ACWA06 WIP Legal entity: ECOH

Option: AC #2 WINDING ACWA06 WIP Value stream: AC

Production group: DEFAULT

Financial dimensions

Active version

versions ✖

Version	Effective date	Expiration date	Plan status
1	5/2/2012	04:00:00 am 1/16/2013 09:00:00 pm	Active

Activity: 002187

Name: MAKE TO PRINT (ST) ACWA06

Activity type: Process

Predecessors

Activity	Name	Ratio	Constraint value	Unit
This grid is empty.				

KANBAN ON KANBAN CARD NUMBER

This functionality allows the number sequence on the Kanban card number to have the Kanban id as a prefix. The only exception is when the card is set as a circulating, the number would differ.

Kanban : 000522_1018

Card number: **000522_1018-1**

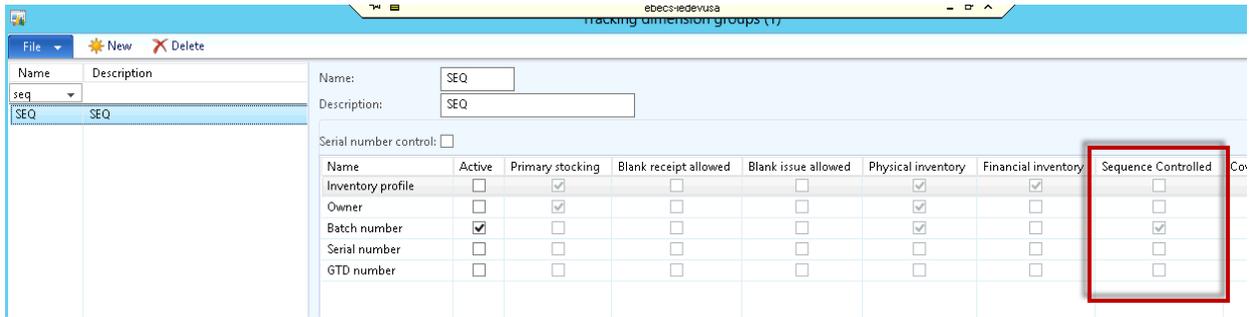
BATCH SEQUENCE NUMBERS

When information regarding specific units must be tracked, but serialization is not ideal, batch sequence is a good alternative. This enhancement allows for the creation of sequence numbers behind the batch table. These sequence numbers are created based on Kanban quantity with an auto-generated sequential number setup in your Lean enterprise parameters.

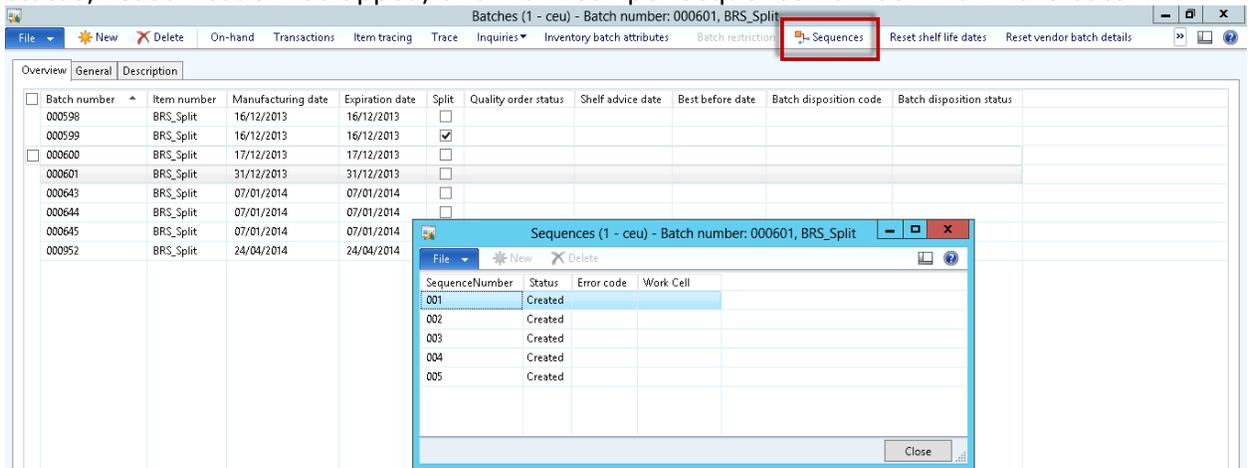
The screenshot shows the 'Lean parameters (1 - ceu)' window. The left sidebar contains a navigation menu with 'General' selected. The main area displays various settings under different sections: 'General', 'VMI', and 'Lean medical'. The 'Lean medical' section is highlighted with a red box, showing the following settings:

Section	Parameter Name	Value
Lean medical	EnableSequenceControl	<input checked="" type="checkbox"/>
	Number of Sequence Digits	2
	Enable activity data collection	<input type="checkbox"/>

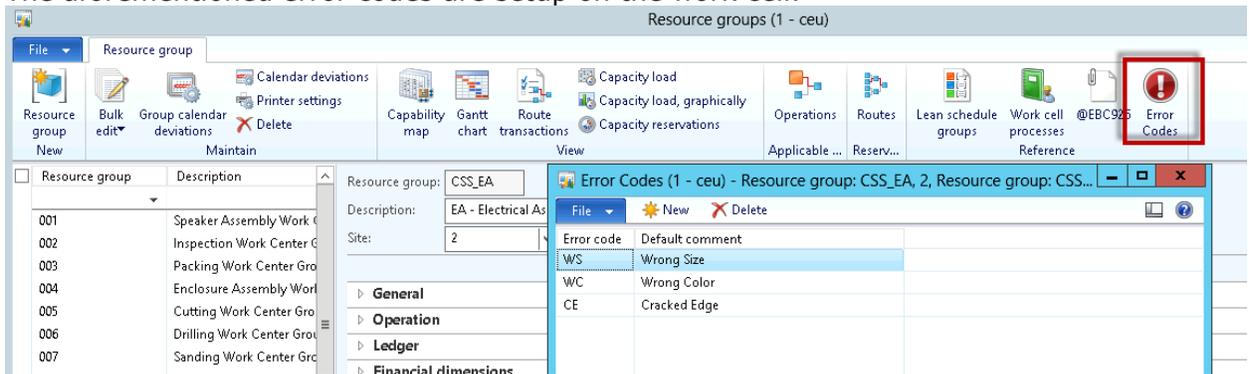
This dimension is also added to the tracking dimension group.



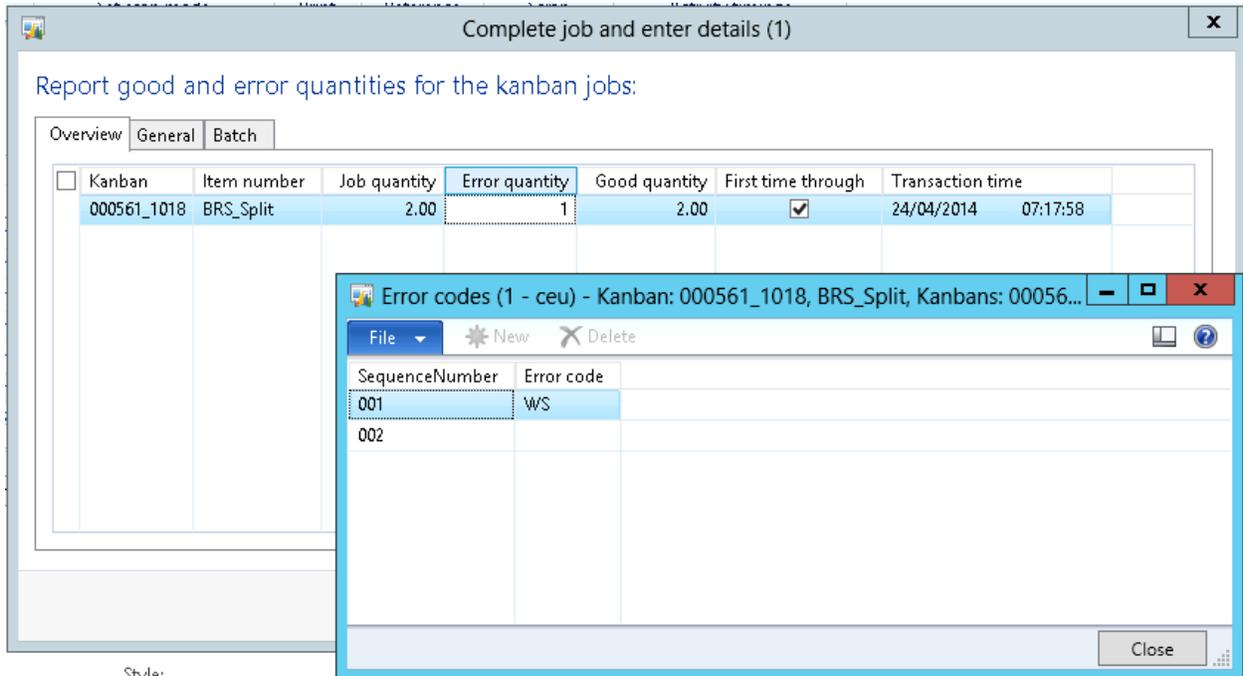
A link to the sequences has been added to the batch table. This sequence table will track the status, reason code if scrapped, and work cell per sequence number within the batch.



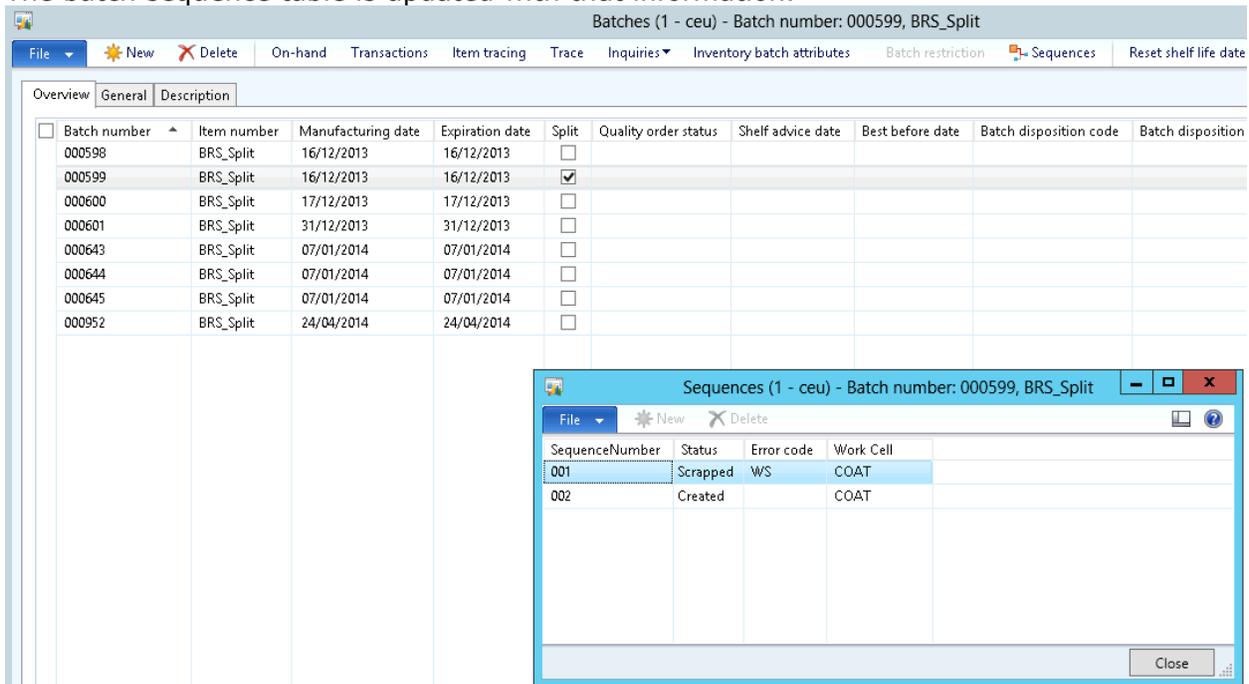
The aforementioned error codes are setup on the work cell.



When scrapping a unit via complete (details) on the Kanban board for process jobs, the user will be prompted to choose the sequence and the error code.



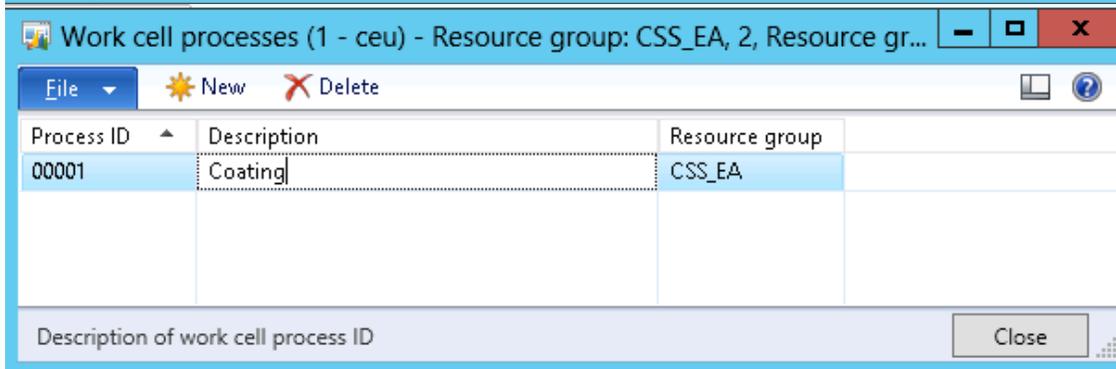
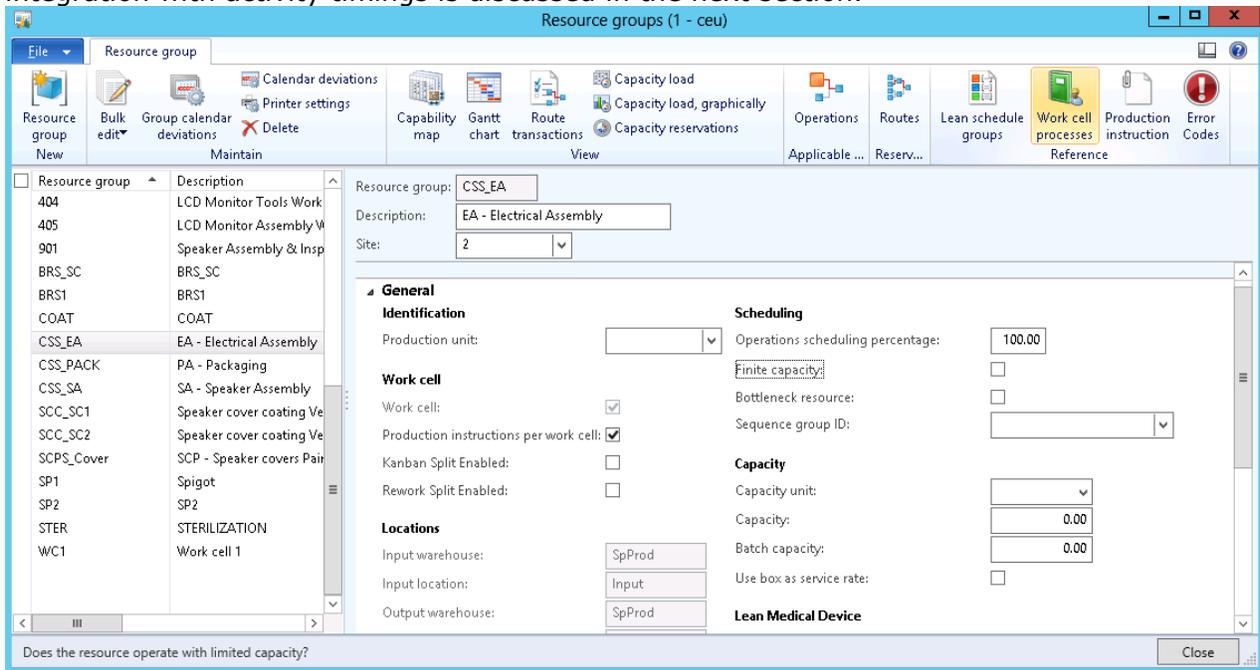
The batch sequence table is updated with that information.



PROCESS ID

In some work cells, different sub processes are performed to achieve one manufacturing process activity. In this lean extension, these sub processes can be specified per each work cell. In addition, these sub processes can be integrated with activity timings to provide a more granular view of the manufacturing process.

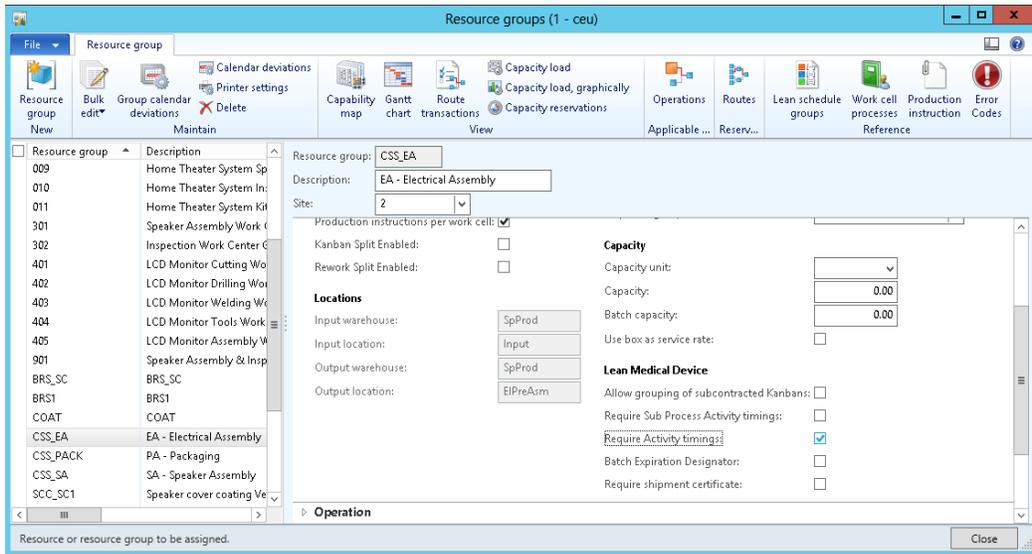
To activate the work cell processes button, the resource group must be a Lean work cell. From this new window, process ids and descriptions can be entered for the work cell. The integration with activity timings is discussed in the next section.



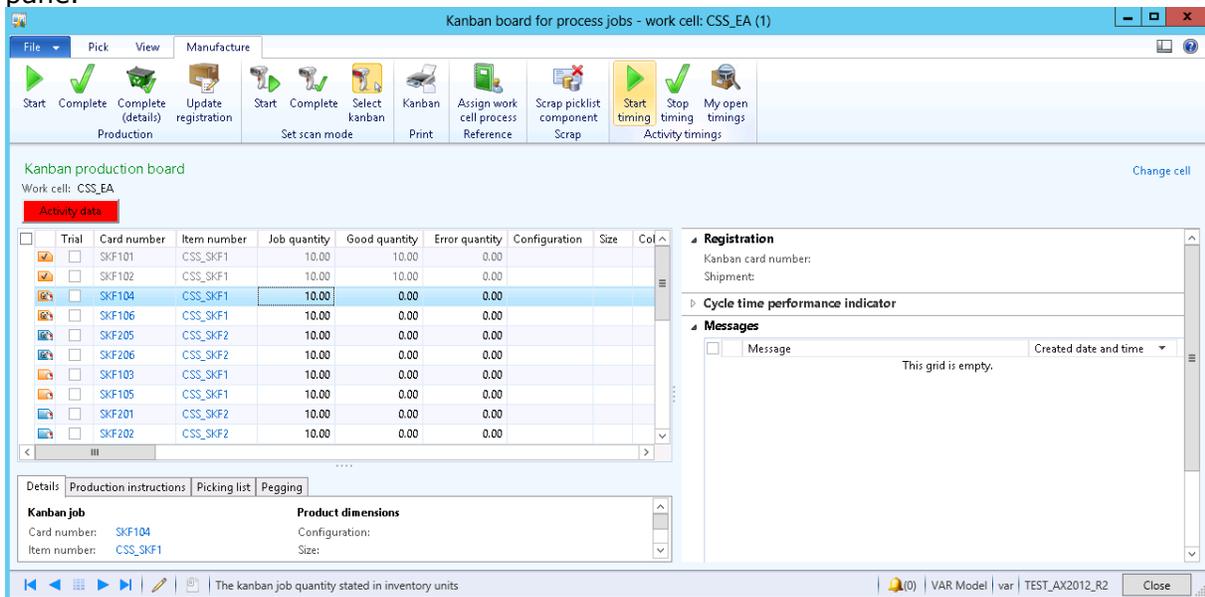
ACTIVITY TIMINGS

Shop floor control is essential for manufacturing as it gives companies a more precise and responsible overview of their production process. Activity timings for Kanban jobs allow users to record Start/clock in and Stop/clock out for each Kanban job.

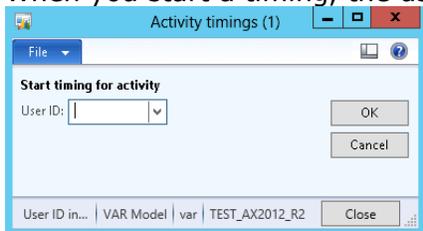
Under Lean Medical Device section, check Require Activity timings and Require Sub Process Activity timings if needed. Note that Require Sub Process Activity timings checkbox is greyed out unless Require activity timings is checked. Require Sub Process Activity timings allows user to record timings for sub processes and blocks completion of Kanban until the timing has been started and stopped.



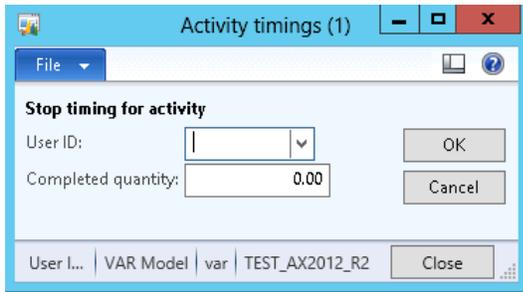
To start and stop timing, there are two new buttons on the Manufacture tab of the action pane.



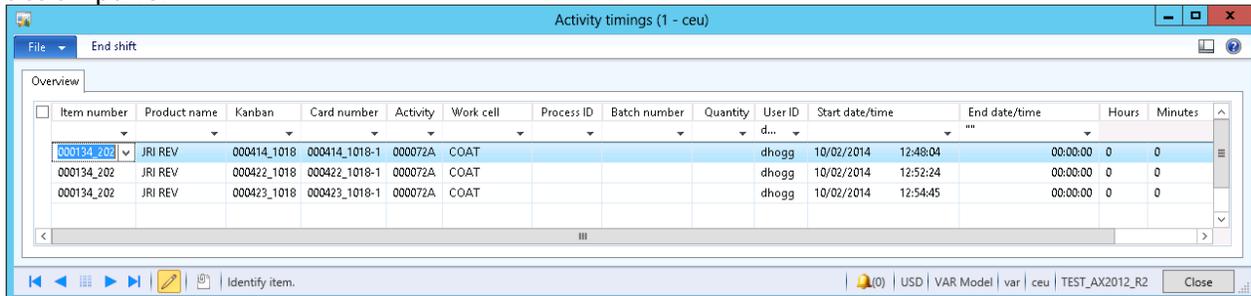
When you start a timing, the user will be prompted to enter their user ID.



When you stop a timing, again user ID is entered, as well as the quantity completed. This quantity will be tracked as part of the timing history, but is not used to transact the Kanban.



Open timings can be viewed by clicking My open timings button under Activity timings in the action pane.



ACTIVITY DATA COLLECTION

A new parameter in the Lean enterprise module will allow the use of data collection per activity on the Kanban board for process jobs.

Lean parameters (1 - ceu)

File

- Purchase schedule
- General**
- Kanban
- Sub Contracting
- Number sequences

General

Enable reason codes for date changes on sales lines:

Customer copy document type ID: ▾

Print picklist status using Picklist Print?

CTP pre check:

VMI

Enable VMI:

VMI journal name: ▾

Auto invoice VMI purchase orders:

Lean medical

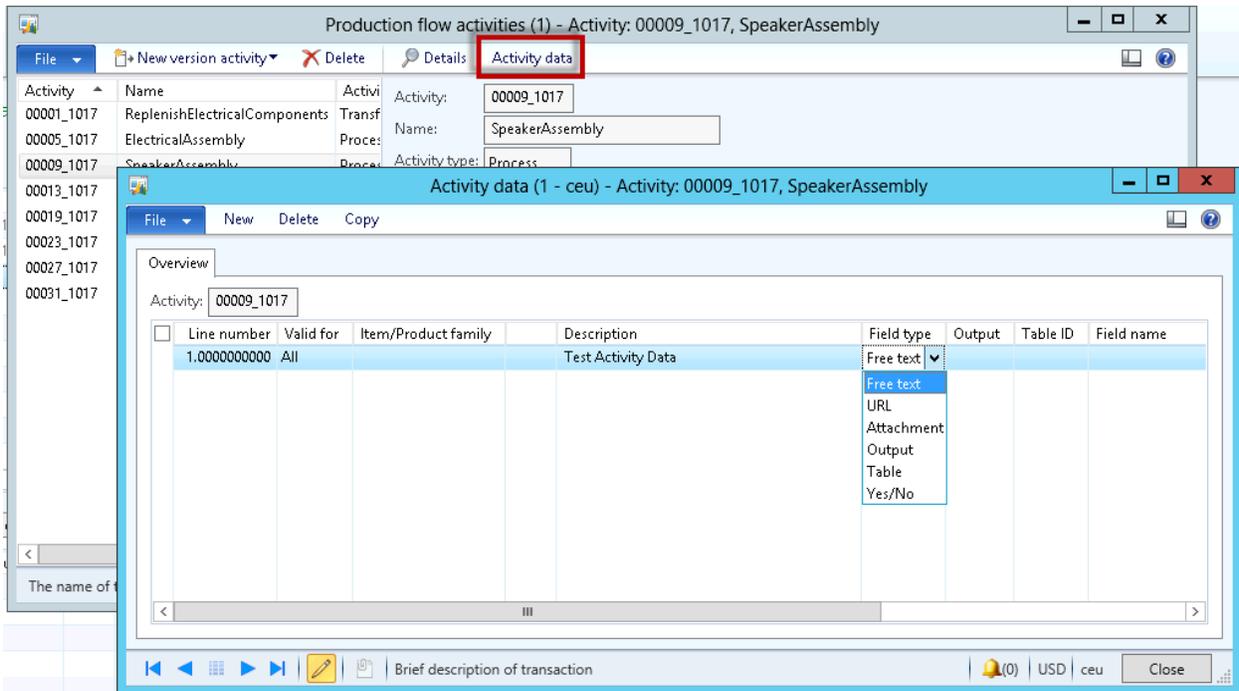
EnableSequenceControl:

Number of Sequence Digits: ▾

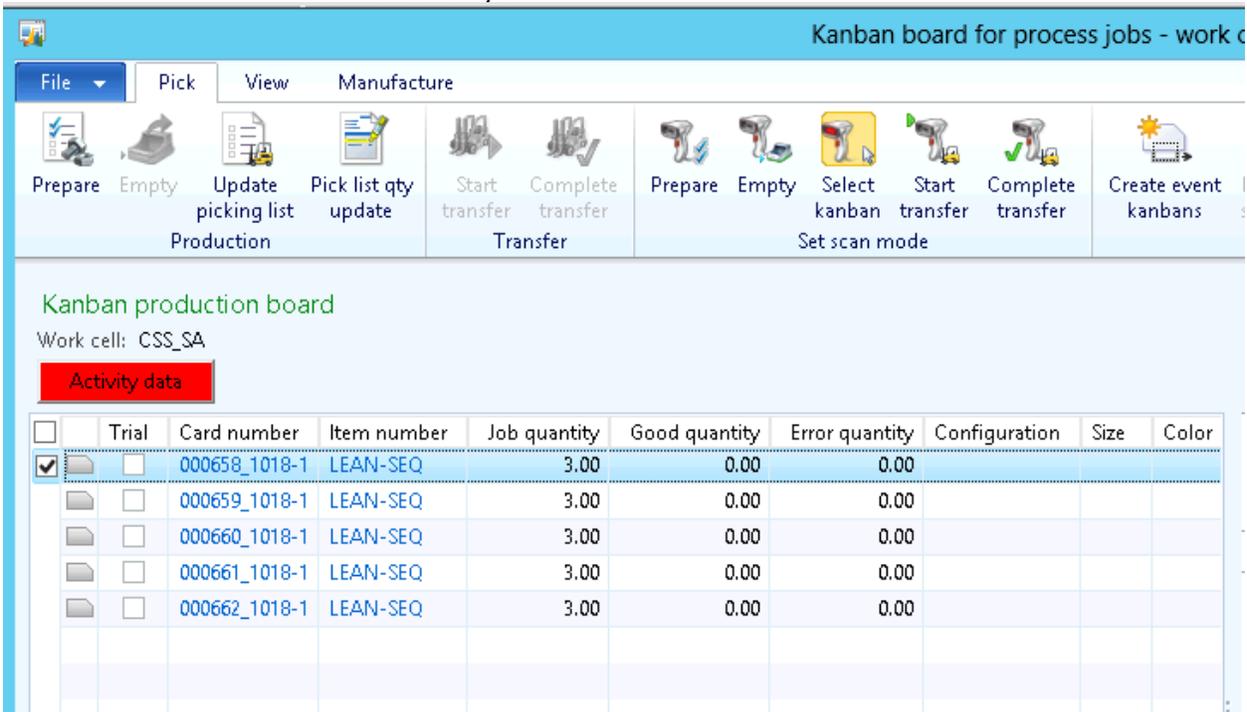
Enable activity data collection:

Number of Sequence Digits Close

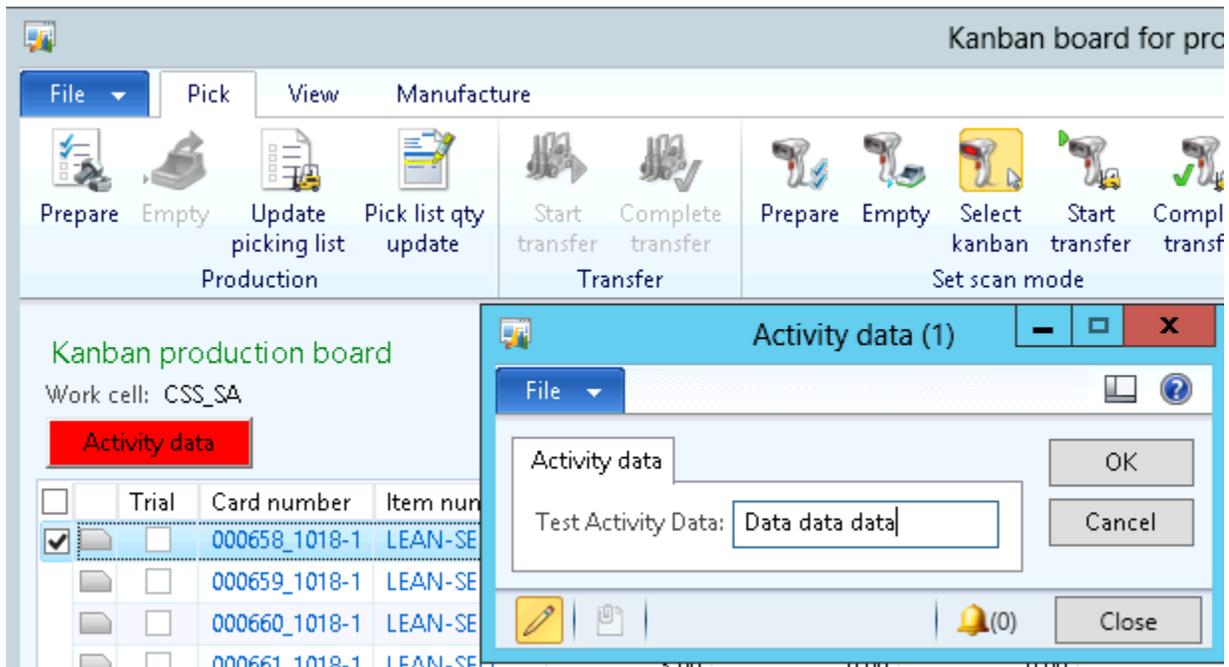
After the parameter is set to yes, the activity's data collection requirements are setup on the activity within the production flow. These requirements can be setup for all items, a specific item, or a product family. The types of data that can be collected are shown below. There is a mandatory flag to ensure the activity cannot be completed without the activity data collected.



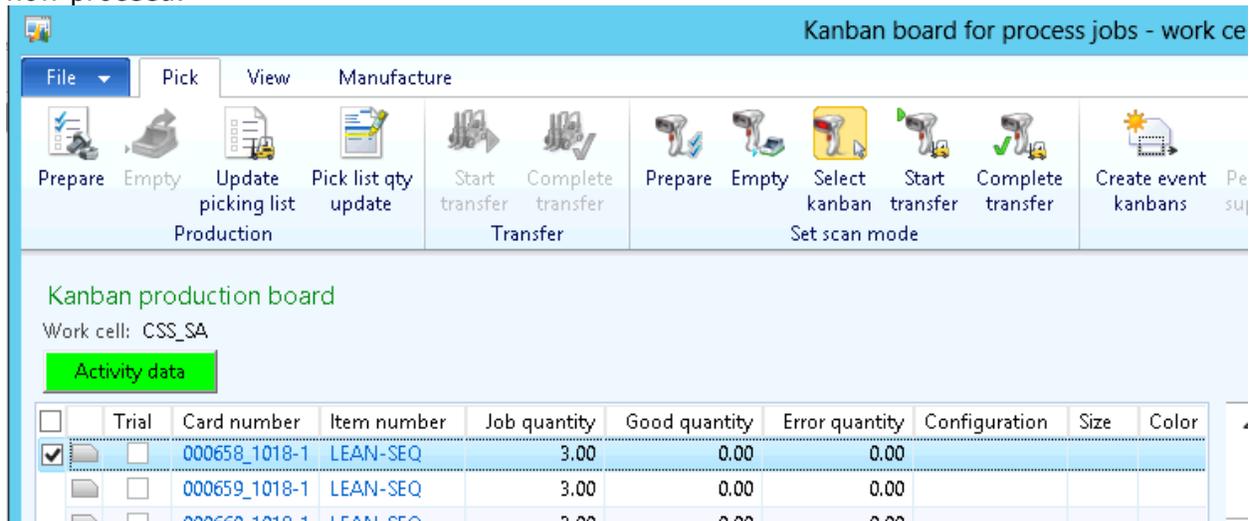
The data is collected on the Kanban board for process jobs. A red activity data button indicates no data has been entered yet.



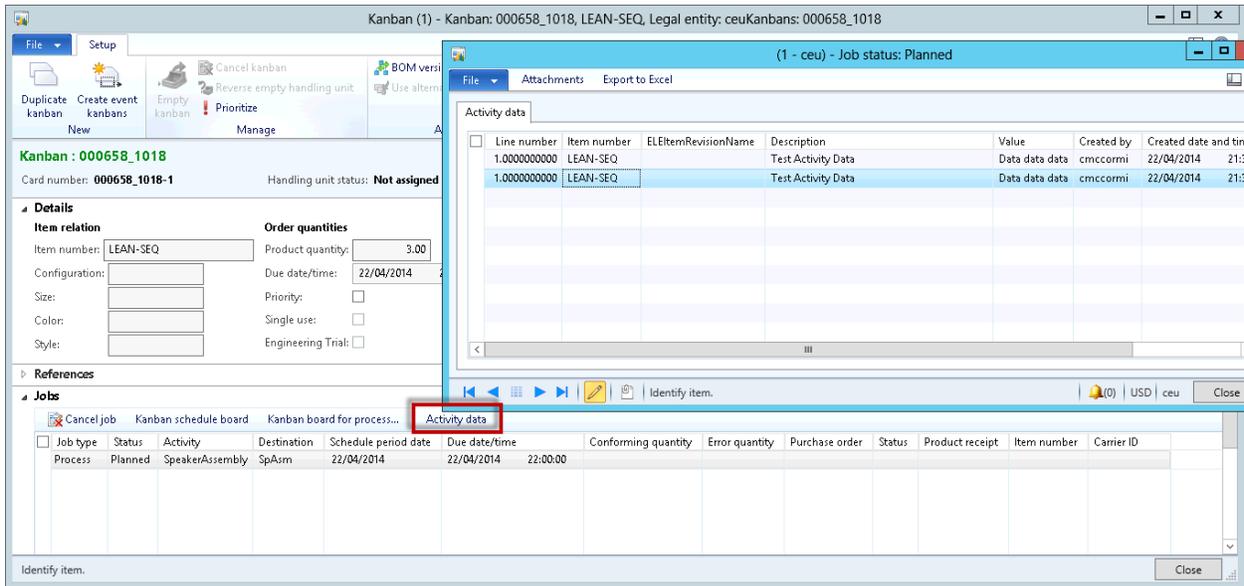
Upon selecting the activity data button, the user will be prompted to enter the data in a new window.



The color of the button will then change to green to indicate to the user that he or she can now proceed.

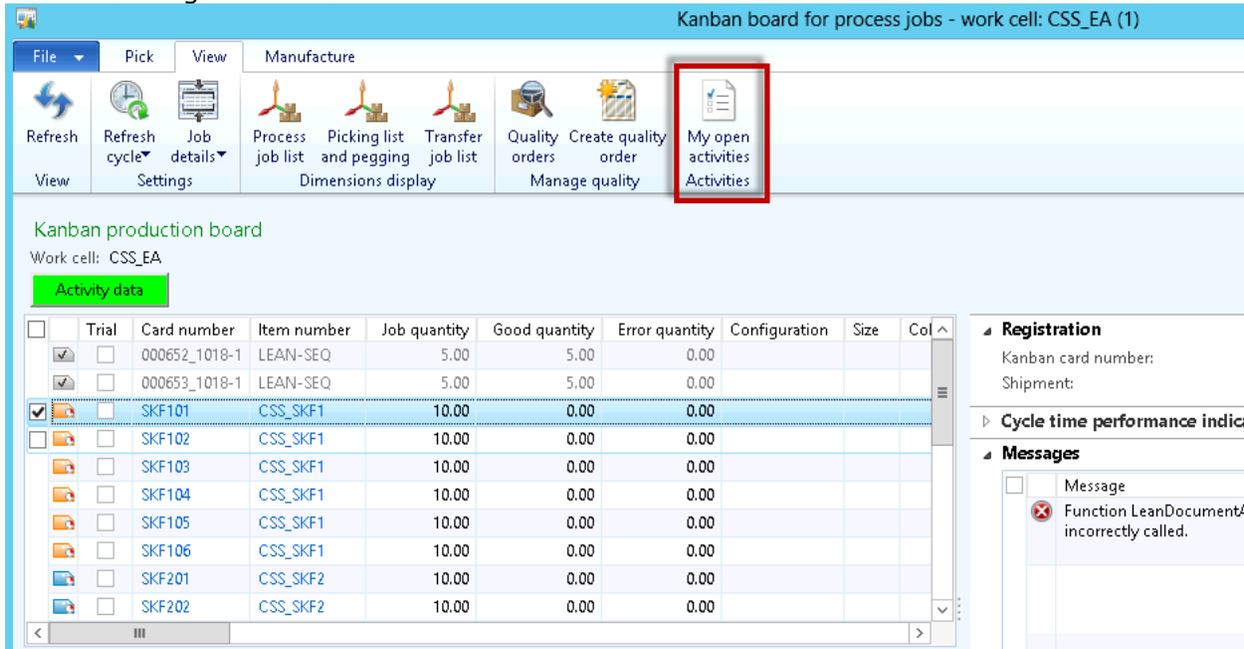


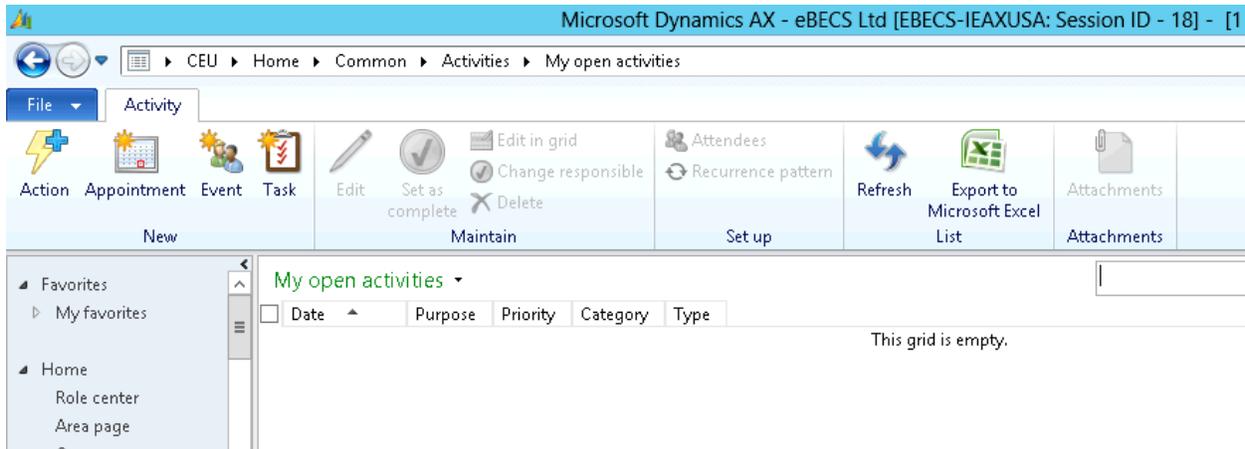
All of this data will be stored against the Kanban job and accessible from there.



SHORTCUT TO ACTIVITIES

A new button on the Kanban board for process jobs will serve as a shortcut to any open action activities assigned to that user.





ALL KANBANS REPORT

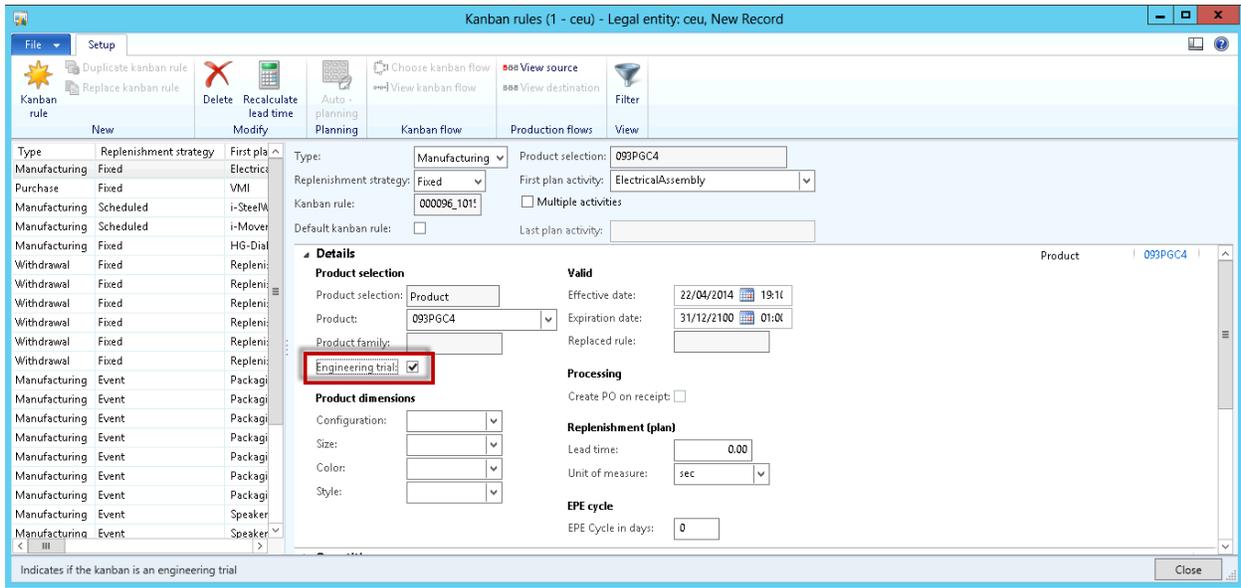
A new inquiry screen provides all the Kanbans and the jobs in the system with their statuses.

Job status	Actual end date/time	Due date/time	Type	Print status	Replenishment strategy	Trial	Card number	Kanban	Status	Item number	Job quantity	Activity name
Planned	00:00:00	15/01/2011 02:00:00	Manufacturing	New	Fixed	<input type="checkbox"/>	PSCLRD10	000402_1018	Not assigned	SCPS_PSCL	5.00	PaintSpeakerCovers
Planned	00:00:00	07/01/2011 17:00:00	Manufacturing	New	Fixed	<input type="checkbox"/>	PSCRRD01	000403_1018	Not assigned	SCPS_PSCR	5.00	PaintSpeakerCovers
Planned	00:00:00	07/01/2011 17:00:00	Manufacturing	New	Fixed	<input type="checkbox"/>	PSCRRD02	000404_1018	Not assigned	SCPS_PSCR	5.00	PaintSpeakerCovers
Planned	00:00:00	07/01/2011 17:00:00	Manufacturing	New	Fixed	<input type="checkbox"/>	PSCRRD03	000405_1018	Not assigned	SCPS_PSCR	5.00	PaintSpeakerCovers
Planned	00:00:00	07/01/2011 17:00:00	Manufacturing	New	Fixed	<input type="checkbox"/>	PSCRRD04	000406_1018	Not assigned	SCPS_PSCR	5.00	PaintSpeakerCovers
Planned	00:00:00	07/01/2011 17:00:00	Manufacturing	New	Fixed	<input type="checkbox"/>	PSCRRD05	000407_1018	Not assigned	SCPS_PSCR	5.00	PaintSpeakerCovers
Planned	00:00:00	07/01/2011 17:00:00	Manufacturing	New	Fixed	<input type="checkbox"/>	PSCRRD06	000408_1018	Not assigned	SCPS_PSCR	5.00	PaintSpeakerCovers
Planned	00:00:00	07/01/2011 17:00:00	Manufacturing	New	Fixed	<input type="checkbox"/>	PSCRRD07	000409_1018	Not assigned	SCPS_PSCR	5.00	PaintSpeakerCovers
Planned	00:00:00	07/01/2011 17:00:00	Manufacturing	New	Fixed	<input type="checkbox"/>	PSCRRD08	000410_1018	Not assigned	SCPS_PSCR	5.00	PaintSpeakerCovers
Planned	00:00:00	07/01/2011 17:00:00	Manufacturing	New	Fixed	<input type="checkbox"/>	PSCRRD09	000411_1018	Not assigned	SCPS_PSCR	5.00	PaintSpeakerCovers
Planned	00:00:00	07/01/2011 17:00:00	Manufacturing	New	Fixed	<input type="checkbox"/>	PSCRRD10	000412_1018	Not assigned	SCPS_PSCR	5.00	PaintSpeakerCovers
Completed	01/05/2013 23:06:32	01/05/2013 22:20:37	Purchase	New	Fixed	<input type="checkbox"/>	000433_1018-1	000433_1018	Emptied	BRSPK	10.00	BUY
Completed	02/05/2013 17:20:08	02/05/2013 17:03:10	Purchase	New	Fixed	<input type="checkbox"/>	000438_1018-1	000438_1018	Emptied	BRSPK	10.00	BUY
Completed	02/05/2013 20:16:28	13/05/2013 19:00:00	Manufacturing	New	Event	<input type="checkbox"/>	000448_1018-1	000448_1018	Emptied	BRS-VMI-KB	1.00	TESTVMIKBICKL...

ENGINEERING TRIAL KANBAN

Standard AX 2012 does not support engineering trials visualizations for execution or planning. Engineering trials need to be properly managed from a planning and manufacturing point of view. Engineering trials need to be seen differently while planning on the Kanban schedule board and while manufacturing on the Kanban board for process jobs. This extension also allows the user to view historical information, including when the trials were completed and how many trials were needed to qualify the product. This extension allows the attachment of documents to unique Kanbans to provide the correct manufacturing instructions, attainable from the Kanban board for process jobs. Finally, this extension will allow the exclusion of engineering trial Kanbans from the subcontracting payment process.

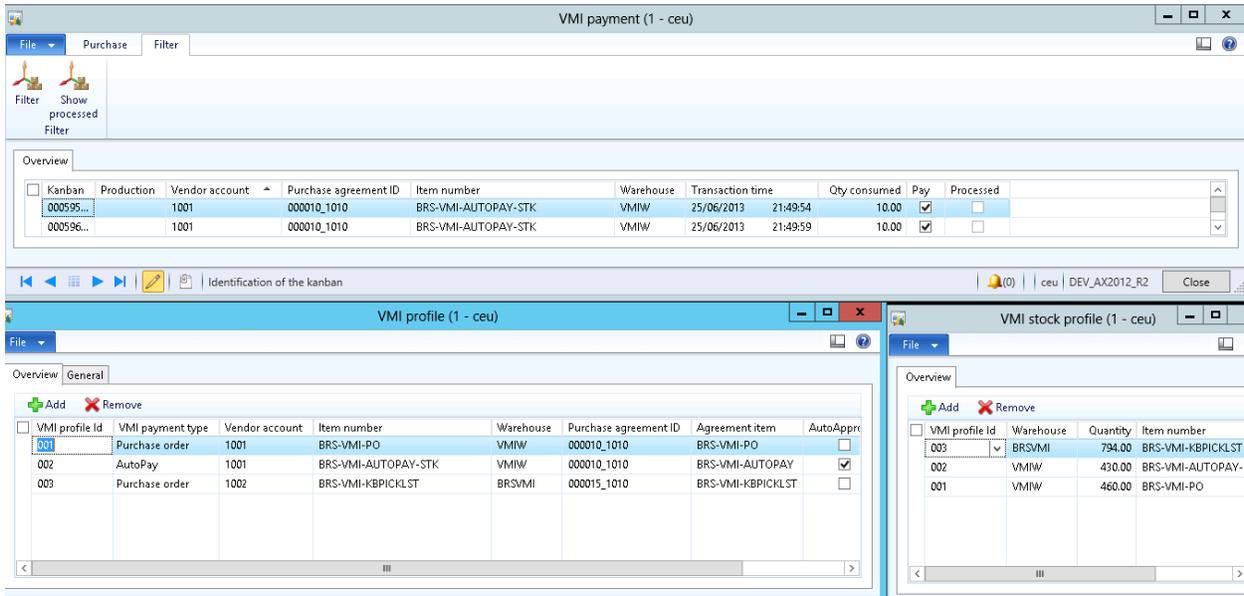
Engineering trials are defined on the Kanban rule:



LEAN SUPPLY CHAIN ENHANCEMENTS

VENDOR MANAGED INVENTORY

The entire solution for VMI through Kanbans is captured through this functionality. It also supports the enterprise portal where the vendors can update their current level of stock. The solution offers two modes, Invoice PO on receiving or bulk invoicing where when you receive it just posts into a journal.



PURCHASE KANBAN MANAGEMENT

Purchase Kanban are based upon a trade agreement between the customer and their supplier for the delivery of a specific part or material. The units, prices, destination etc. are noted in the agreement and future management of the deliveries is undertaken by the rules associated with the Kanban.

Kanban rules (1 - ceu) - Kanban rule: 000088_1015, Legal entity: ceu

File Setup

Kanban rule Duplicate kanban rule Replace kanban rule Delete Recalculate lead time Auto-planning Choose kanban flow View kanban flow View source View destination Filter

New Modify Planning Kanban flow Production flows View

Type: Purchase Product selection: SUP1
 Replenishment strategy: Fixed First plan activity: Activity-SUP2
 Kanban rule: 000088_1015 Multiple activities:
 Last plan activity:

Details Product | SUP1

Product selection
 Product selection: Product Effective date: 5/22/2012 08:21 am
 Product: SUP1 Expiration date: 12:00 am
 Product family: Replaced rule:
 Engineering Trial:

Processing
 Order controlled:

Quantities 10.00 | 3

Product quantity
 Default quantity: 10.00
 Minimum quantity:
 Maximum quantity:

Kanban quantity
 Fixed kanban quantity: 3
 Alert boundary minimum: 0
 Alert boundary maximum: 0

Product quantity variance
 Variance below:
 Variance above:

Automatic planning kanban quantity
 Automatic planning quantity: 1
 Maximum planned jobs: 0

Kanban and cards

Events Not active Not active

Production flow

Kanban quantity calculation policies

Kanbans

Add Remove Details Dimensions display Filter Print

Kanban	Item number	Product quantity	Handling unit status
<input type="checkbox"/>	000693_1018	SUP1	10.00 Not assigned
<input type="checkbox"/>	000694_1018	SUP1	10.00 Not assigned
<input type="checkbox"/>	000692_1018	SUP1	10.00 Received

Thereafter, Purchase Kanbans are managed through the Kanban Board for Purchase Jobs.

Kanban Purchase Board
Vendor: SUP2

Trial	Card number	Item number	Job quantity	Pallet ID	Activity name	Destination	Job status	Planned period
<input type="checkbox"/>	000234C	SUP1	10.00		Activity-SUP2	Out_01	Completed	5/22/2012
<input type="checkbox"/>	000476C	310724200	3.00		Activity-SUP2	Out_01	Completed	5/29/2012
<input type="checkbox"/>	000477C	310724200	3.00		Activity-SUP2	Out_01	Completed	5/29/2012
<input type="checkbox"/>	000235C	SUP1	10.00		Activity-SUP2	Out_01	Planned	5/22/2012
<input type="checkbox"/>	000236C	SUP1	10.00		Activity-SUP2	Out_01	Planned	5/22/2012
<input type="checkbox"/>	000478C	310724200	3.00		Activity-SUP2	Out_01	Planned	5/29/2012
<input type="checkbox"/>	000479C	310724200	3.00		Activity-SUP2	Out_01	Planned	5/29/2012
<input type="checkbox"/>	000480C	310724200	3.00		Activity-SUP2	Out_01	Planned	5/29/2012
<input type="checkbox"/>	000481C	310724200	3.00		Activity-SUP2	Out_01	Planned	5/29/2012
<input type="checkbox"/>	000482C	310724200	3.00		Activity-SUP2	Out_01	Planned	5/29/2012

Details | Pegging

Kanban job
 Card number: 000478C
 Item number: 310724200
 Product name: SOFTWARE CD,ME
 Job quantity: 3.00
 Job status: Planned
 Schedule group:
 Due date/time: 5/29/2012 10:40:09 am
 Activity name: Activity-SUP2
 Warehouse: 21
 Destination: Out_01

Product dimensions
 Configuration:
 Size:
 Color:
 Revision:
 Style:

Registration
 Kanban card number:

Cycle time performance indicator
 Status: Speed up

Messages

Transfer jobs

Kanban quantity overview - finished goods

Kanban quantity overview - material

Job icon legend
 Job not planned
 Job planned
 Job in progress
 Job prepared
 Handling unit received
 Job completed
 Overdue
 Priority

The kanban job quantity stated in inventory units

PURCHASE KANBAN SUPPLIER PORTAL

The Lean Extensions add Purchase Kanban (and Purchase Schedules) to the Suppliers access portal, allowing suppliers to confirm deliveries and dates online, and to print the Kanban Card for attachment to the consignment for easy goods receipt.

http://dynamicsax.contoso.com/VendorPortal/Enterprise%20Portal/EBC... Waiting Kanbans

Home Procurement Sales Compliance Project management Service management Vendor portal Customer self-service All Sites

Retail

Site Actions Browse Page Home System Account Company:CEU

Confirm Decline Edit Export to Microsoft Excel List

Vendor portal

Waiting Kanbans Card number

Card number	Warehouse	Location	Purchase kanban status	Purchase qty.	Requested Date Time
<input checked="" type="checkbox"/> 000235C	21	Out_01	Planned	10.00	5/21/2012 5:00:01 PM
<input type="checkbox"/> 000236C	21	Out_01	Planned	10.00	5/21/2012 5:00:01 PM
<input type="checkbox"/> 000478C	21	Out_01	Planned	3.00	5/29/2012 10:40:09 AM
<input type="checkbox"/> 000479C	21	Out_01	Planned	3.00	5/29/2012 10:40:09 AM
<input type="checkbox"/> 000480C	21	Out_01	Planned	3.00	5/29/2012 10:40:09 AM
<input type="checkbox"/> 000481C	21	Out_01	Planned	3.00	5/29/2012 10:40:09 AM
<input type="checkbox"/> 000482C	21	Out_01	Planned	3.00	5/29/2012 10:40:09 AM
<input type="checkbox"/> 000484C	21	Out_01	Planned	3.00	5/29/2012 10:40:09 AM
<input type="checkbox"/> 000615C	E4CS1	Out_01	Planned	10.00	6/1/2012 1:36:09 AM
<input type="checkbox"/> 000616C	E4CS1	Out_01	Planned	10.00	6/1/2012 1:36:09 AM

1 2

General	Confirmation
Card number: 000235C	Confirmed qty:
Item number: SUP1	Confirmed date:
Warehouse: 21	Packing slip Id:
Location: Out_01	
Purchase kanban status: Planned	
Purchase qty: 10.00	
Requested Date Time: 5/21/2012 5:00:01 PM	

Common

- Profile
- Contacts
- Catalogs
- User requests
- Supplied products
- Category requests
- Questionnaires
- Notifications

Orders

- Requests for quotations
- Invoiced purchase orders
- Product receipts
- Vendor invoices
- Purchase order confirmations

Reports

- Vendor reports

Purchase schedules

- Schedules to confirm
- ASN
- Schedules history

Purchase Kanbans

- Waiting Kanbans
- Confirmed Kanbans
- Despatched Kanbans

PURCHASE SCHEDULES

The Purchase Schedule enhancement is a component of the eBECS Lean Enterprise for Microsoft Dynamics AX, and has been designed to remove waste from procurement activities by web enabling the process used by enterprises to communicate with their suppliers. The Purchase Schedules module collates requirement into a time-phased schedule, which is presented to the buyer in a single view. The buyer has full control over the schedule, allowing detailed changes to be made and is then released electronically to the supplier as a series of alerts. Electronic demands are transmitted to suppliers as a schedule of dates and quantities via the web using email, EDI, XML or simple files with full support for international recognized standards e.g. Odette, VDA and X12. Using powerful two-way assured communication processes,

Suppliers have the capability to review and accept or modify demand within the overall schedule. This includes functionality giving the supplier the ability to flag their ability to supply parts of an order. Upon receipt of a supplier update, the module provides automatic notification to buyer and supply chain manager, confirming acceptance or providing notification of exception conditions which will require intervention. The Purchase Schedules module integrates with front-end customer scheduling, Kanban or flow manufacturing and internal replenishment.

The screenshot displays the 'Purchase schedule revision' window. On the left, a table lists revisions for purchase schedule ID PS000002, with statuses ranging from 'Created' to 'Confirmed'. The main area shows a 'Purchase schedule Id: PS000002' and a 'Revised' status of 'Confirmed'. Below this is a 'Periods' table with the following data:

Purchase schedule Id	Revise	Number of periods	Period types	Start date	Start time	Days in period	Requirement	Schedule	Confirmed	Transit Qty
PS000002	2	1	Overdue	4/24/2012	12:00:00 am	-28				
PS000002	2	2	Fixed	5/22/2012	12:00:00 am	7	20.00	10.00	10.00	
PS000002	2	3	Fixed	5/29/2012	12:00:00 am	7		10.00	10.00	
PS000002	2	4	Firm	6/5/2012	12:00:00 am	7				
PS000002	2	5	Firm	6/12/2012	12:00:00 am	7				
PS000002	2	6	Plan	6/19/2012	12:00:00 am	14				
PS000002	2	7	Plan	7/3/2012	12:00:00 am	14				
PS000002	2	8	Plan	7/17/2012	12:00:00 am	14				
PS000002	2	9	Plan	7/31/2012	12:00:00 am	14				
PS000002	2	10	Forecast	8/14/2012	12:00:00 am	28				
PS000002	2	11	Forecast	9/11/2012	12:00:00 am	28				
PS000002	2	12	Forecast	10/9/2012	12:00:00 am	28				
PS000002	2	13	Forecast	11/6/2012	12:00:00 am	28				
PS000002	2	14	Forecast	12/4/2012	12:00:00 am	28				
PS000002	2	15	Forecast	1/1/2013	12:00:00 am	28				
PS000002	2	16	Forecast	1/29/2013	12:00:00 am	28				
PS000002	2	17	Forecast	2/26/2013	12:00:00 am	28				

In addition, eBECS Purchase Schedules supports full Skip Lot inspection processes. In such an environment inspections will be skipped for a predetermined number of receipts provided a series of qualifying receipts have passed inspection without error.

- Transmit requirements to suppliers electronically as a schedule of dates and quantities using email, EDI, XML or simple files with support for internationally recognized standards e.g. Odette, VDA and X12.
- Control schedule receipts to automotive standards; manage the schedule and goods in transit by "last 3 deliveries" or cumulative quantities comparing incoming against current schedule.
- Collate total demand against suppliers into a demand schedule, with full control by the buyer based on planned orders, placed in firm, tentative and forecast periods.
- Automate supplier confirmation and or modification to establish capability to supply.
- Action schedule receipts electronically and process against the schedule, with exception visibility.

- Skip lot inspection capability, automating the inspection process based upon predefined sampling rules.

REASON CODE FOR SALES ORDER DATE CHANGES

Once a confirmation is generated through a journal, any changes to any of the dates on the sales line requires a reason code for making the change. This will allow tracking and Pareto analysis of the number of times a date was missed from the initial confirmation.

Modify promise date

Please enter a reason code:

Reason code:

Reason code	Default comment
ADJ	ADJUSTMENT
DUP	DUPLICATE ENTRY
FIX	FIX A MISTAKE
LOST	LOST CHECK, NEED TO REISSU
NSF	NOT SUFFICIENT FUNDS
RESCH	CUSTOMER RESCHEDULE
WO	WRITE OFF DUE TO SHORT PA
WP	WRONG PERIOD, NEED TO RE

Line details

Delivery date

Requested ship date: 8/5/2013
 Requested receipt date: 8/5/2013
 Confirmed ship date: 8/5/2013
 Confirmed receipt date: 8/5/2013
 Delivery date control: None
 Promise Date: 9/6/2013

Misc. delivery info

Overdelivery:
 Underdelivery:
 Mode of delivery:
 Delivery type:

SUBCONTRACTING SIMPLIFICATION I

There are four main additions in this Subcontracting simplification extensions:

1. **Subcontracting Document:** The subcontracting process in AX2012 does not combine the different pieces of paperwork needed for shipping a product to a subcontractor; instead it has separate documents that do not reference each other. These documents are the Kanban ticket, Pick list (for components), and purchase order (for payment). These are now combined into one sheet of paper in order to send the needed information to the vendor quickly. This document can be configured to be generated automatically, or created manually. There is a link to the subcontracting document on the Kanban board for process jobs:

Kanban board for process jobs - work cell: SCC_SC1 (1)

File Pick View Manufacture

Prepare Empty Update picking list Pick list qty update Start transfer Complete transfer Prepare Empty Select kanban Start transfer Complete transfer Create event kanbans Pegging tree supply status Pegging tree overview Pick list Kanban Print **Subcontract Order Print**

Kanban production board
Work cell: SCC_SC1

Item	Trial	Card number	Item number	Job quantity	Good quantity	Error quantity	Configuration	Size	Color
✓		000650_1018-1	SCPS_CSCR	10.00	10.00	0.00			
✗		000649_1018-1	SCPS_CSCR	10.00	0.00	0.00			
✗		000651_1018-1	SCPS_CSCR	10.00	0.00	0.00			

Registration
 Kanban card number:
 Shipment:

Cycle time performance indicator

Messages

2. **Setups for Subcontracting Document:** In order to reduce transactions and streamline the subcontracting process in AX2012, the Prepare, Start and Complete buttons on the Kanban board for process jobs are tied to the stored setups for each status such that the Kanbans highlighted automatically go through the 'Subcontracting document' form process. This also now automatically prints the subcontracting document depending on these parameter setups.

3. **Picking List:** The Subcontracting paperwork pulls the materials from the picking list behind a Kanban job that are being sent to the subcontractor. This picking list shows the original quantity of material required from the upper level subcontracting Kanban. The warehouse may replenish withdrawal Kanbans for material quantities that are over or under the original requirements and these needs to be represented on the subcontract order paperwork as these is what gets shipped to the subcontractor. The purpose of this enhancement is to display the actual quantities of materials sent to the subcontractor on the subcontract order paperwork.

Print subcontract order (1)

File

1 of 1 100% Find | Next

ELECTROCRAFT OHIO
250 MCCORMICK ROAD
GALLIPOLIS, OH 45631
USA
Tel.: 740-441-6200
Fax: 740-441-6309



Subcontract Order
106474

Vendor account	14200091	Buyer group	
Vendor name	BODYCOTE WORCESTER	Delivery mode	
Address	284 GROVE STREET WORCESTER, MA 01605 USA		
Contact person			
E-mail	Vincent.Schwartz@bodycote.com		

<u>Card number</u>	<u>Purchase Order</u>	<u>Item number</u>	<u>Revision</u>	<u>Description</u>	<u>Service</u>	<u>Description</u>	<u>Requested delivery date</u>	<u>Qty</u>
106474-1	P14009774	15861001		RoHS Unknown	HEAT TREAT		4/24/2014	1.00

Items being sent are:

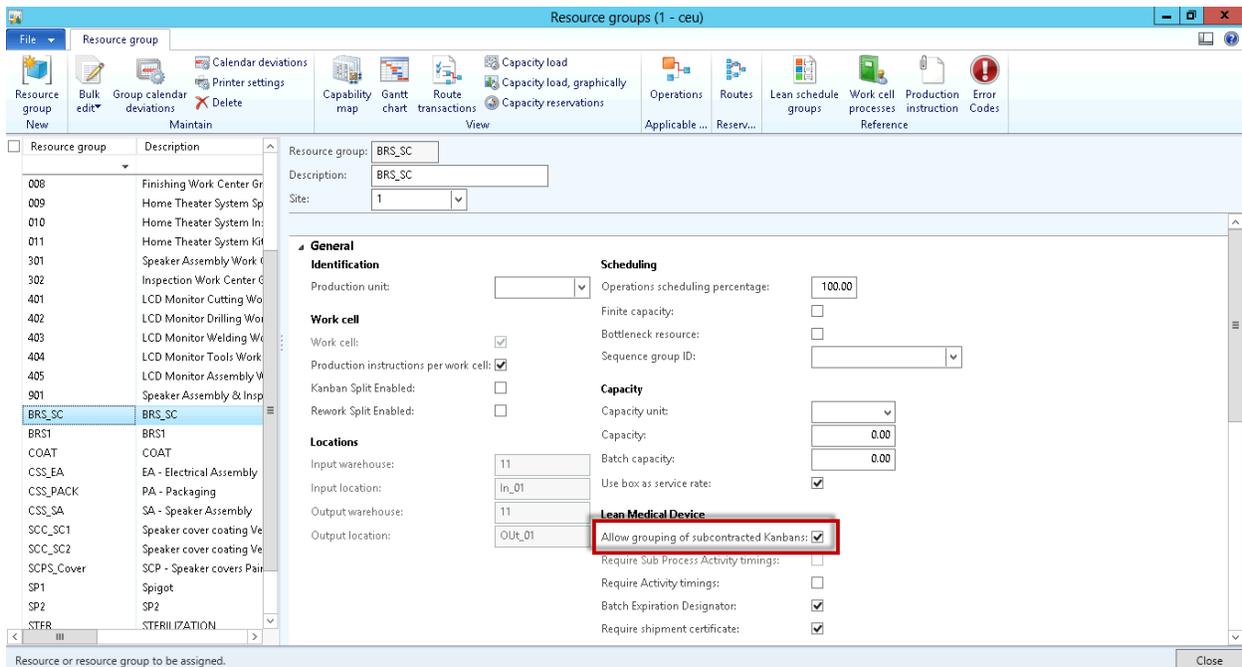
<u>Item number</u>	<u>Description</u>	<u>Revision</u>	<u>Quantity</u>	<u>Unit</u>
0002-0332-008	RoHS Unknown		10.0000	FT

Close

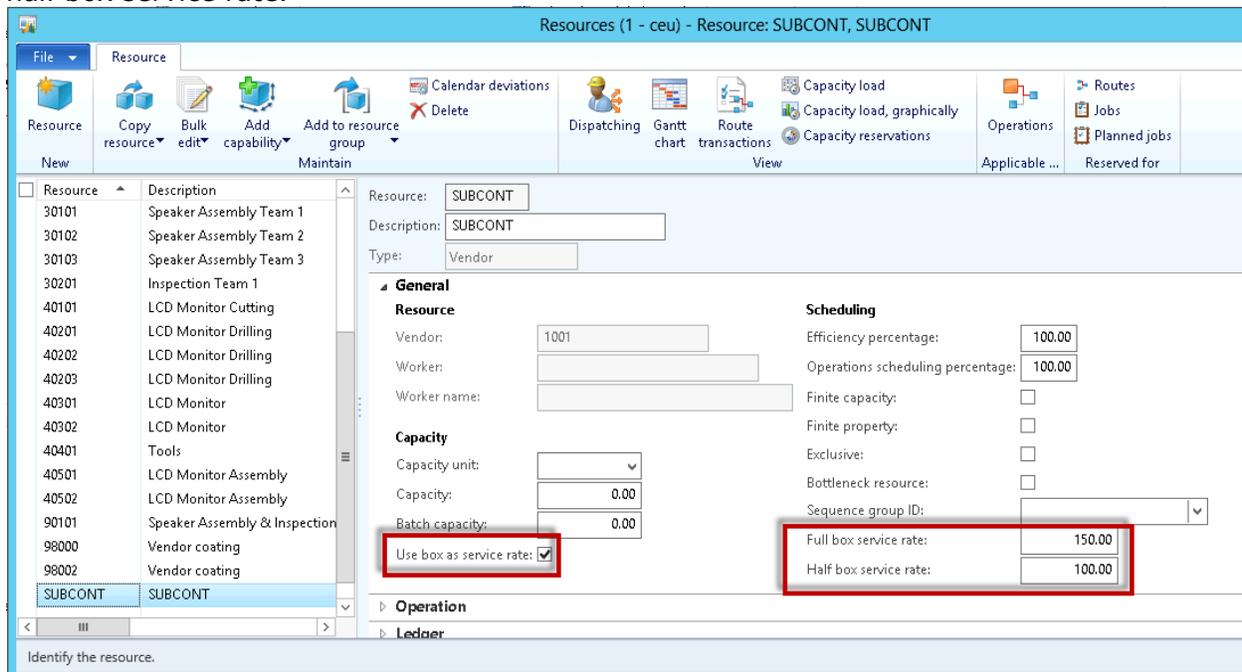
SUBCONTRACTING SIMPLIFICATION II

This modification allows for the grouping of Kanbans into a shipment that can then be transacted to prepare, start and complete Kanbans on a subcontracting work cell. It will also provide for the ability to calculate the cost per boxes instead of pieces.

A new parameter on the work cell allows for grouping of Kanbans. Although this is an option for every work cell, it should only be used for subcontracted work cells.



The resource also has new parameters that become available for resources of type vendor. When the user decides to use box as service rate, the box prices are to be used instead of the pcs equation on the service term. The user will then enter the full box service rate and the half box service rate.



These costs will be used for calculating per piece price used on the Purchase order generated for the subcontracting service. There is a validation that the service unit is set to Pcs.

Service terms

BRS-SERV-SC1

Service

Item number: BRS-SERV-SC1

Product dimensions

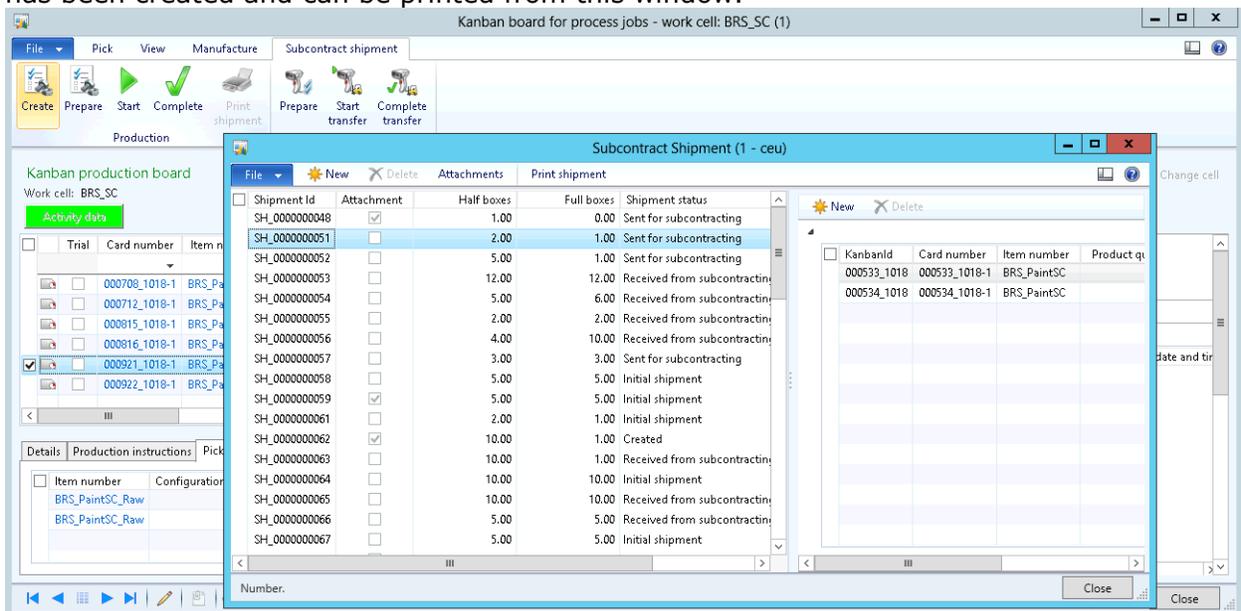
Configuration: Use output product configuration:
 Size: Use output product size:
 Color: Use output product color:
 Style: Use output product style:

Service quantity calculation

Service unit: Pcs
 Service ratio: 1.00
 Service quantity base: Product quantity conforming

Formula: Service delivery quantity(Pcs) = Output item quantity (good) * Service ratio (1.00)

The parameter on the work cell then will enable a new Shipment ribbon on the Kanban board for process jobs. From here, the user will create shipment. A shipment ID will be generated, and the user will enter the number of full boxes and/or number of half boxes. The status of the shipment will be updated based on the status of the Kanbans. From here all Kanbans in the shipment can be prepared (required), started, and completed. A new label for shipments has been created and can be printed from this window.



LEAN COSTING REPORTS

WIP REPORT

Standard AX2012 does not have a Lean WIP report, only WIP report for production orders. This enhancement will allow the user to compare WIP in and WIP out on a specific production flow.

The screenshot shows a software window titled "Production flow WIP (1)" with a menu bar (File) and an Options toolbar. The main content area displays a report for "ELECTROCRAFT OHIO" on "Page 1" dated "4/23/2014" at "8:46 PM". The report title is "Production flow WIP". Below the title, there are two radio buttons for "Detail level": "Summary" (selected) and "Summary". The report is a table with the following columns: "Production flow", "WIP in", "WIP out", and "WIP balance".

Production flow	WIP in	WIP out	WIP balance
AC #2 WINDING ACWA06 INV	348.28	0.00	348.28
AC #2 WINDING ACWA06 WIP	1,818.54	0.00	1,818.54
AC BANDSAW ACB01 WIP	2,122.08	0.00	2,122.08
AC BLANKING PRESS TO INV ACBB01	35.78	0.00	35.78
AC BLANKING PRESS TO WIP ACBB01	727.99	220.94	507.05
AC BLANKING SAW TO INV ACBS01	838.95	0.00	838.95
AC BLANKING SAW TO WIP ACBS01	467.19	0.00	467.19
AC BLOWER HOUSING ASSY ACBH01 WIP	480.32	0.00	480.32
AC END CAP CELL ACEC01 TO INV	232.76	230.73	2.03
AC END CAP CELL ACEC02 TO INV	2,371.58	1,837.35	534.23
AC END CAP CELL ACEC03	291.87	54.53	237.33
AC FINAL ASSM & TEST ACFL01	17,267.98	6,578.41	10,689.57
AC OVEN ACB001 STRESS RELIEVE WIP	33.39	0.00	33.39
AC PAINT BOOTH WIP ACPB03	926.47	0.00	926.47
AC ROTOR DIE CAST INV ACRD01	5,776.40	872.03	4,904.37
AC SHAFT ACSC01 TO INV	1,358.30	49.37	1,308.93
AC SHAFT ACSC02 TO INV	961.48	629.35	332.13
AC SHAFT ACSC02 WIP OPTIONS	1,110.58	13.87	1,096.91
AC STATOR BUILD ACB01	2,878.26	1,183.48	1,794.79
AC WASH CELL ACWC01	1,174.80	0.00	1,174.80
AC WASH CELL VALUE ADD/INV ACWC01	257.46	257.44	0.02
AC WASHER CELL ACWC01	2,384.80	0.00	2,384.80

LABOR COST REPORT

It is often cumbersome to find the labor timings for an item as multiple sources must be used to find the end result. This enhancement allows the users to see the labor time on each item so that it can be easily validated. There is an added select criteria to filter by the item number. An example of the report is shown below.

Labor cost report (1)

File

Options

Page 1 of 2
4/23/2014
9:34 PM

Lean production labor time

Contoso Entertainment Systems (West)

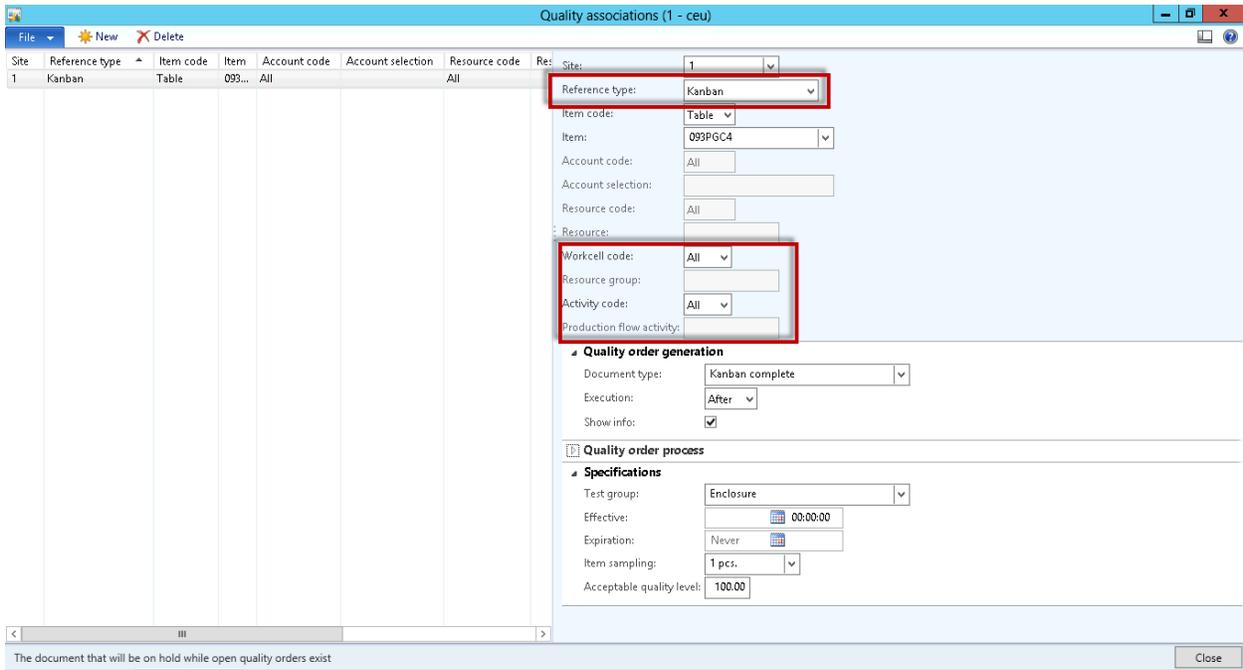
Item number	Kanban rule	Default kanban rule	Production flow name	Activity name	Resource group	Throughput ratio	Time	Total time
CSS_SKF1	000007_1015	No	ElectricalAssembly	Car speaker PF	CSS_EA	1.00	5.00	5
CSS_SKF2	000008_1015	No	ElectricalAssembly	Car speaker PF	CSS_EA	1.00	5.00	5
CSS_SKR1	000009_1015	No	ElectricalAssembly	Car speaker PF	CSS_EA	1.00	5.00	5
CSS_SKR2	000010_1015	No	ElectricalAssembly	Car speaker PF	CSS_EA	1.00	5.00	5
CSS_SKF1LB	000018_1015	No	SpeakerAssembly	Car speaker PF	CSS_SA	1.00	8.00	8
CSS_SKF2LB	000019_1015	No	SpeakerAssembly	Car speaker PF	CSS_SA	1.00	8.00	8
CSS_SKF1RB	000020_1015	No	SpeakerAssembly	Car speaker PF	CSS_SA	1.00	8.00	8
CSS_SKF2RB	000021_1015	No	SpeakerAssembly	Car speaker PF	CSS_SA	1.00	8.00	8
CSS_SKR1RB	000022_1015	No	SpeakerAssembly	Car speaker PF	CSS_SA	1.00	8.00	8
CSS_SKR2RB	000023_1015	No	SpeakerAssembly	Car speaker PF	CSS_SA	1.00	8.00	8
CSS_SKR1LB	000024_1015	No	SpeakerAssembly	Car speaker PF	CSS_SA	1.00	8.00	8
CSS_SKR2LB	000025_1015	No	SpeakerAssembly	Car speaker PF	CSS_SA	1.00	8.00	8
CSS_S51B	000026_1015	No	Packaging	Car speaker PF	CSS_PACK	1.00	0.80	0.8
CSS_S52B	000027_1015	No	Packaging	Car speaker PF	CSS_PACK	1.00	0.80	0.8
CSS_OSSKR1LB	000028_1015	No	Packaging	Car speaker PF	CSS_PACK	1.00	0.80	0.8
CSS_OSSKR2LB	000029_1015	No	Packaging	Car speaker PF	CSS_PACK	1.00	0.80	0.8
SCPS_P5CR	000030_1015	No	PaintSpeakerCovers	Speaker covers Paintshop PF	SCPS_Cover	2.50	12.00	30
SCPS_P5CL	000031_1015	No	PaintSpeakerCovers	Speaker covers Paintshop PF	SCPS_Cover	2.50	12.00	30
SCPS_P5CR	000032_1015	No	PaintSpeakerCovers	Speaker covers Paintshop PF	SCPS_Cover	2.50	12.00	30
SCPS_P5CL	000033_1015	No	PaintSpeakerCovers	Speaker covers Paintshop PF	SCPS_Cover	2.50	12.00	30
SCPS_P5CR	000034_1015	No	PaintSpeakerCovers	Speaker covers Paintshop PF	SCPS_Cover	2.50	12.00	30
SCPS_P5CL	000035_1015	No	PaintSpeakerCovers	Speaker covers Paintshop PF	SCPS_Cover	2.50	12.00	30
SCPS_P5CR	000036_1015	No	PaintSpeakerCovers	Speaker covers Paintshop PF	SCPS_Cover	1.00	12.00	12
SCPS_P5CL	000037_1015	No	PaintSpeakerCovers	Speaker covers Paintshop PF	SCPS_Cover	1.00	12.00	12
SCPS_P5CR	000038_1015	No	PaintSpeakerCovers	Speaker covers Paintshop PF	SCPS_Cover	1.00	12.00	12
SCPS_CSCL	000039_1015	No	Coating 4101	Speaker covers coating	SCC_SC1	1.00	80.00	80
SCPS_C5CR	000040_1015	Yes	Coating 4101	Speaker covers coating	SCC_SC1	1.00	80.00	80
SCPS_C5CR	000041_1015	No	Coating 4102	Speaker covers coating	SCC_SC2	1.00	60.00	60

Close

QUALITY

QUALITY INTEGRATION WITH KANBAN

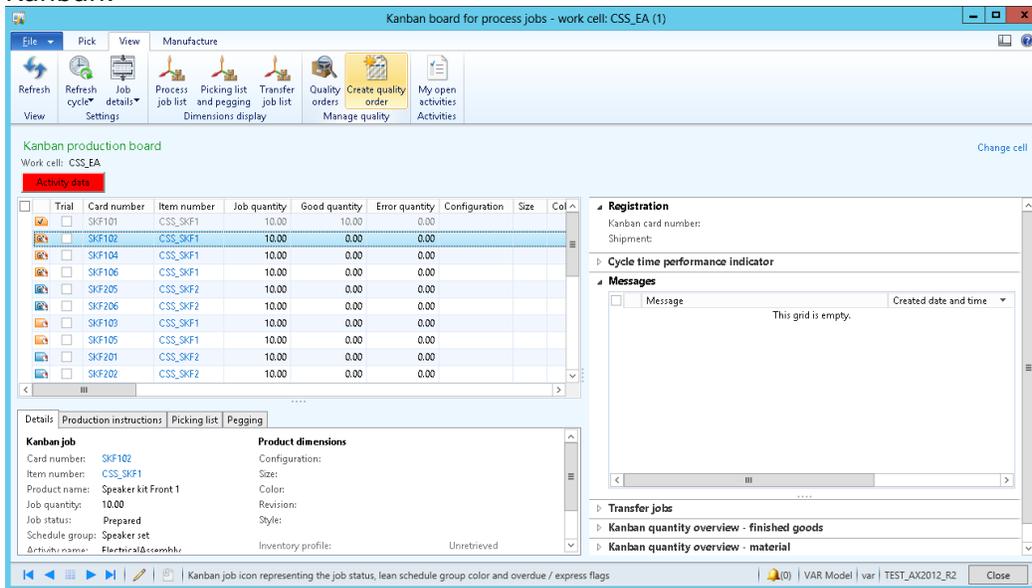
While quality should be built into the process, where it is necessary to perform inspections and capture quality information, this lean extension provides the link of Kanbans to quality orders using the standard quality association structure in AX2012. For in process quality orders, the flexibility exists to trigger the quality order automatically based on the status change of the Kanban job as well as to restrict Kanbans from continuing on in the process before the quality order has been completed. This can be done per work cell or activity. For quality inspection at the end of production, the quality order can be generated automatically and block inventory before proceeding to the next process or hitting stock.



AD HOC QUALITY CREATION FROM KANBAN

During Kanban processing, ad hoc quality orders may be required to perform inspections and capture quality information. With this lean extension, creating and viewing quality orders linked to a specific Kanban job are readily accessible from the Kanban board for process jobs. From there, quality orders can be completed through standard AX2012 functionality.

A new button on the Kanban board for process jobs has been added for ad hoc quality orders on Kanbans. Another new button will show any quality orders that are linked to the selected Kanban.



Pressing this button will open the create quality order form. Note the card number is the reference number on the quality order for traceability.

References	
Reference type:	Kanban
Account selection:	
Reference number:	SKF102
Reference lot:	
Oper. No.:	
Operation:	
Resource:	
Route number:	

Identification	
Quality order:	00000020_185
Item number:	CSS_SKF1
Product name:	Speaker kit Front 1
Test group:	Enclosure
CW qty:	
Quantity:	10.00

Inventory dimensions	
Configuration:	
Size:	
Color:	
Site:	2
Warehouse:	SpProd
Batch number:	
Location:	
Pallet ID:	
Serial number:	
Revision:	
Style:	

SKIP LOT

A customized quality assurance skip lot information table is required to enable skip lot inspection performed for all purchase orders. Skip lot functionality will determine if a quality order is generated. In cases where inspection is required, a quality order will be generated automatically. Parameters have been added to the inventory and warehouse management to enable this functionality, and to define skip lot information.

Inventory and warehouse management parameters (1 - ecoh)

File

- General
- Journals
- Bills of materials
- Locations
- Transport
- AIF
- RFID
- Quality management**
- Inventory dimensions
- Product compliance
- Commodity pricing
- Print management
- Number sequences

Select to use quality management and set up an hourly rate

Attribute management Report setup

[Update inventory batch attribute:]

Quality management

Use quality management:

Hourly rate:

Quality assurance skip lot defaults

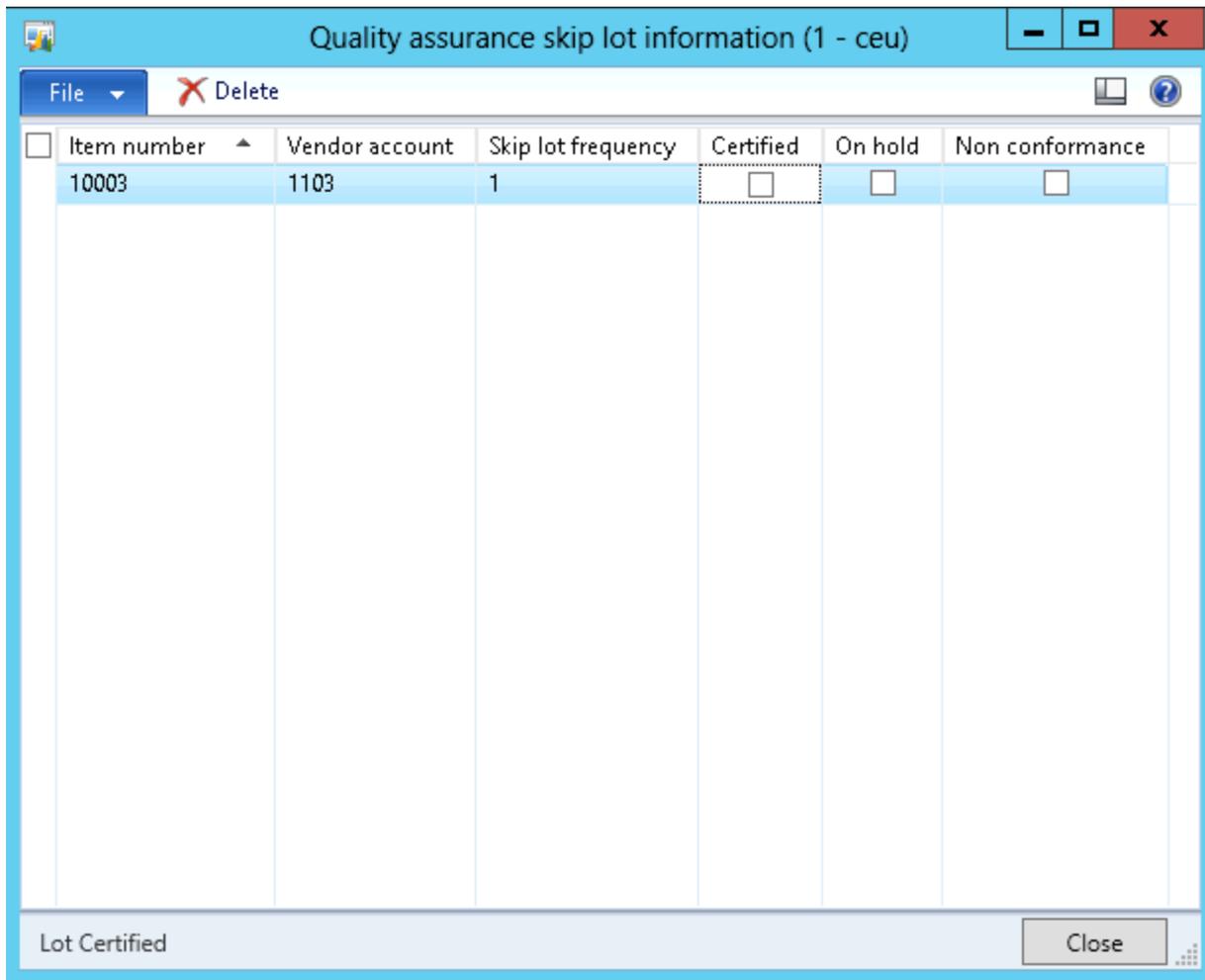
Number of receipts to be inspected on a first receipt:

Number of receipts to be inspected after a non conformance is created:

Skip lot frequency:

When checked, the inventory batch attributes shall be updated with the test result values. Close

A record is generated in the quality assurance skip lot information window. A user can then go to this window and edit the radial buttons. This will update the status from ON HOLD, CERTIFIED, and NON CONFORMING. The status of the skip lot is shown on the product receipt of a purchase order. This will indicate where the material handler needs to place the received units. Non-inspected items will have a status of STOCK and be placed directly in inventory.



After the user edits the radial fields, an inquiry provides historical data for skip lot.

Item number	Vendor account	No. of receipts until ne...	Reg. initial inspections	Reg. inspection post nonconform	Date of last receipt	Date of last non conformance	Total receipts	Receipts since last non conformance	Date Certif
10003	1103	5	1	2			0	0	

QUARANTINE MANAGEMENT

Internal quarantine management is used for various processes throughout the production process, based on the disposition of these quarantine order different outcomes are required. This enhancement enables disposition codes for all quarantine orders and expands on the functionality of these disposition codes. Additionally, the functionality enables the user to enter a reason code on the quarantine order to represent the reason for opening/creating the order. Further, the functionality adds a field on the quarantine order for hours.

The chart below shows a list of disposition codes that have been added for this enhancement, and how AX responds to the selection of each disposition code.

Action	Desired outcome upon end
None	Complete order as normal
Scrap as Co-product	Create a P&L journal writing off the good product writing on the co-product to the same stillage etc. The default co-product
Scrap Internal	Scrap product using standard mechanism
Return to Vendor	End the Quarantine order and create a PO for vendor return
Split	End the Quarantine order, write off some quantity of product, write on remaining quantity of co-product

The user can enter up to three reason codes for the quarantine reason.

Quarantine number	Item number	Quarantine reason 1	Quarantine reason 2	Quarantine reason 3	Site	Warehouse	Location	Quarantine warehouse	Quarantine location	CW quantity	Quantity
000006	1000	Quarantine			31		38				1.00
000007	Cow	Quarantine			11		18				1.00
000010	1000	Quarantine 2			13		18				100.00
000014	P0004	Quarantine 2			13	13	18	13			55.00

For the hour field, the user has the ability to modify this quantity up until the quarantine order is ended. This is just a data field so that clients are able to run "cost of quality" reports off of quarantine reasons.

Quarantine number	Item number	Site	Warehouse	Batch number	Location	Stillage ID	Serial number	Quarantine warehouse	Status	Quarantine location	Quarantine Stillage ID	Hours
000021	004A	TRM	MRB	141030-015...	In_02			QA	Reported as finished	QUA		
000022	001A	TRM	MRB	141002-013...	PICK			QA	Reported as finished	QUA		
000377	lhblanks	C5	C5_IN	abc	C5_IN	000080		QA-C5	Reported as finished	QA-PICK	000080	
000386	lhblanks	C5	C5_IN	abc	C5-PICK	000082		QA-C5	Reported as finished	QA-PICK	000082	
000387	lhblanks	C5	C5_IN	ABC	C5-PICK	000078		QA-C5	Reported as finished	QA-PICK	000082	
000404	D000024/2	TRM	TRV				vd00001	QA	Created	QUA		
000544	001B	2	24	3221			876	28	Created			
000549	CBS10A01-05	CIRC	AP&P_C	1235	RTP	000158		QA_C	Reported as finished	001	000277	
000550	CBC01308VA	COMM	DESP-COMM	023051-000...				QA-COMM	Started			
000551	CBC01308VA	COMM	DESP-COMM	023051-000...				QA-COMM	Created			

QUALITY ORDER ENHANCEMENTS

Enhancements to the quality order form to improve test results entry includes modifications to the quarantine order parameters, test setup forms, quarantine order form, and quarantine order line results form. An added unit column to the quality order form that allows the user more visibility into the quarantine order line.

The screenshot shows a window titled "Quality orders (1 - ecch) - Quality order: QL14012785". The window has a menu bar with "File", "New", "Delete", "Validate", "Functions", "Inquiries", and "Inventory". Below the menu bar are tabs for "Overview", "General", "References", "Financial dimension", and "Inventory dimensions". The main area contains a table with the following columns: Item number, Site, Warehouse, Location, Serial number, Revision, Test group, Quantity, Units, Status, Reference type, and a scroll arrow. The "Units" column is highlighted with a red border. The table contains 18 rows of data.

Item number	Site	Warehouse	Location	Serial number	Revision	Test group	Quantity	Units	Status	Reference type
0008-6831	14	MW	7H		06	General Pass Fail Inspection	1.00	pc	Pass	Quarantine
0008-6839	14	MW	REC		04	General Pass Fail Inspection	1.00	ea	Open	Quarantine
1007715131	14	MW	97G14		002	General Pass Fail Inspection	1.00	kg	Open	Quarantine
1007715119	14	MW	REC		006	General Pass Fail Inspection	1.00	kg	Open	Quarantine
1007715125	14	MW	94ZF3		003	General Pass Fail Inspection	1.00	g	Open	Quarantine
1007715122	14	MW	94ZF3		007	General Pass Fail Inspection	1.00	oz	Open	Quarantine
1007715127	14	MW	NH5		003	General Pass Fail Inspection	1.00	pack	Open	Quarantine
APPS1747A100BA40X	14	Q-MW	REC		P01	RG General Evaluation	3.00	kg	Fail	Quarantine
APPS1747A100CA40X	14	Q-MW	REC		P01	RG General Evaluation	2.00	ea	Fail	Quarantine
LD11EAM-3C1	14	Q-MW	REC		004	RG General Evaluation	1.00	lb	Open	Quarantine
APPS11M-7-030JL	14	Q-MW	REC		001	RG General Evaluation	1.00	ea	Fail	Quarantine
1007715130	14	MW	94ZF2		003	General Pass Fail Inspection	1.00	oz	Open	Quarantine
5553000750	14	FREESTOCK	94WF		05	General Pass Fail Inspection	1.00	lb	Pass	Quarantine
15329910HH	14	MW	SW2		002	General Pass Fail Inspection	1.00	g	Pass	Quarantine
0012-0300	14	MW	7LAM1		07	General Pass Fail Inspection	1.00	kg	Pass	Quarantine

Within the results of a quality order, it is often the case that the quality user could enter results per individual item. A new function has been created to explode the tests within a quality order to the number of results the user should record. In standard AX, results are also only stored per test. These have been changed to show all results per quality order within one screen to ease the transaction entry.

Quality order	Item number	Site	Warehouse	Location	Serial number	Revision	Test group	Quantity	Status	Reference type
QL14012769	0008-6831	14	MW	7H		06	General Pass Fail Inspection	1.00	Pass	Quarantine
QL14012770	0008-6839	14	MW	REC		04	General Pass Fail Inspection	1.00	Open	Quarantine
QL14012771	1007715131	14	MW	97G14		002	General Pass Fail Inspection	1.00	Pass	Quarantine
QL14012772	1007715119	14	MW	REC		006	General Pass Fail Inspection	1.00	Pass	Quarantine
QL14012773	1007715125	14	MW	94ZF3		003	General Pass Fail Inspection	1.00	Pass	Quarantine
QL14012774	1007715122	14	MW	94ZF3		007	General Pass Fail Inspection	1.00	Pass	Quarantine
QL14012775	1007715127	14	MW	NH5		003	General Pass Fail Inspection	1.00	Pass	Quarantine
QL14012776	APPS1747A...	14	Q-MW	REC		P01	RG General Evaluation	3.00	Fail	Quarantine
QL14012777	APPS1747A...	14	Q-MW	REC		P01	RG General Evaluation	2.00	Fail	Quarantine
QL14012778	LD11EAM-3C1	14	Q-MW	REC		004	RG General Evaluation	1.00	Fail	Quarantine
QL14012779	APPS11M-7...	14	Q-MW	REC		001	RG General Evaluation	1.00	Fail	Quarantine
QL14012781	1007715130	14	MW	94ZF2		003	General Pass Fail Inspection	1.00	Pass	Quarantine
QL14012782	5553000750	14	FREEST...	94WF		05	General Pass Fail Inspection	1.00	Pass	Quarantine
QL14012783	15329910HH	14	MW	SW2		002	General Pass Fail Inspection	1.00	Pass	Quarantine
QL14012784	0012-0300	14	MW	7LAM1		07	General Pass Fail Inspection	1.00	Pass	Quarantine
QL14012785	17-001549	14	MW	7BR		R	General Pass Fail Inspection	1.00	Open	Quarantine

OR

Sequence number Test Test result Results e...

Sequence number	Test	Test result	Results e...
10	Customer Problem Description (Use Note)		
20	Package Condition	✓	
30	Motor Condition	✓	
40	Performance Test	✓	
50	Warranty	✓	
60	Responsibilities (Write analysis as a NOTE)	✗	

When the user selects the Results button to view the line results or to enter test data, the test lines for all tests will be combined on one form and according the number of lines defined by the user.

Quality order line results (1 - ecol) - Quality order: QL14012776, Package Condition, Sequence number: 20Quality ...

File New Delete Validate

Overview General

Sequence Number	Test	Result quantity	Units	Outcome	Test result	Include in result	Test result
10	Hole Check	3.00	pcs			<input checked="" type="checkbox"/>	✗
20	Diameter	1.00	pcs			<input checked="" type="checkbox"/>	✗
20	Diameter	1.00	pcs			<input checked="" type="checkbox"/>	✗
20	Diameter	1.00	pcs			<input checked="" type="checkbox"/>	✗
30	Length	1.00	pcs			<input checked="" type="checkbox"/>	✗
30	Length	1.00	pcs			<input checked="" type="checkbox"/>	✗
30	Length	1.00	pcs			<input checked="" type="checkbox"/>	✗

Used symbols

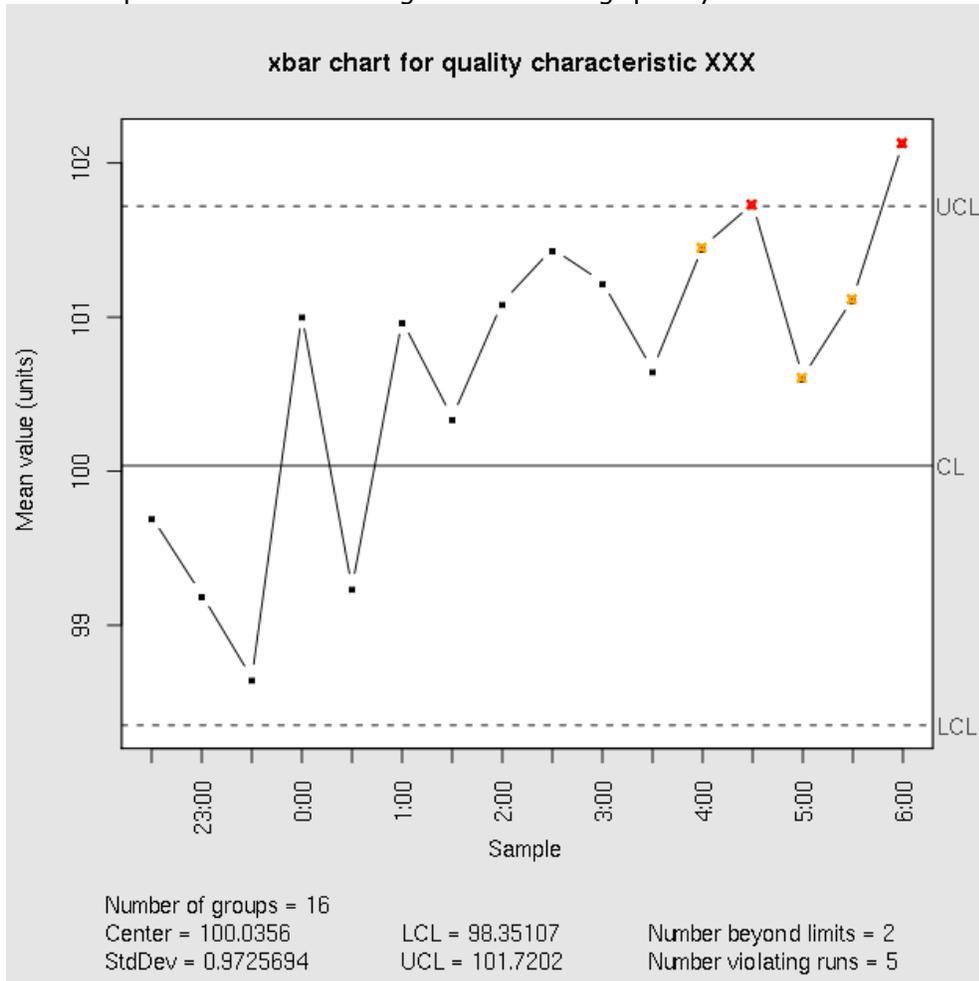
✗ Fail ✓ Pass

Quali... (0) USD usr ecol initial \$BAE1 DAX2012_TEST

SPC CHART GENERATION

An SPC Chart or Statistical Process Control chart can be generated directly from AX. This is an added functionality to the quality order enhancements. The inputs for the SPC chart are the quality order results, and the output is a graphical chart that can be generated from AX, and can be printed out for review. The upper and lower limits control limits will be defined from the test results.

An example of the SPC chart generated using quality test results.



CASE MANAGEMENT

Case management is integrated with production orders, Kanbans, quarantine orders, quality orders, resources and resource groups. This integration allows ad hoc creation of cases from the aforementioned functionalities, and the cases will be associated with the correct information accordingly. This enhancement is in the form of a new button labeled "Create Case" found on the view tab of the action pane of each of these forms, to the right of the Open cases button (if available). Depending on which form the case is created from, certain case categories will not be available. For example, if the case is created from a Kanban, only the Production and General case categories will be available.

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