INNOVA
Food Processing Software

Highlights

The Innova 5.9.4 Release Notes include new functionality, improvements to existing functionality (including bug-fixes) and upcoming enhancements.

Highlights in this release include:

Support for the A642 Process Weigher

Support for the Mettler Toledo MT570 scale

New features in Transfer Hub

Process lot tracking now available in PDS

Marine Grader improvements

A number of improvements were made to Innova Convenience Line Software for Prepared Foods, which now includes fixed UI packages.

In addition, support was added for the A640 M-Weigher.

# Improvements and newly released functionality

Base

Document viewer update

The document viewer has been updated to use a Chromium browser component to view websites.

PluginHost remote manager

A new XML data store configuration was created for PluginHost's remote manager to allow disabling statistics and queue state messages sent to clients. The XML data store record is generated for the first time when either of the two messages is triggered. The messages are used to update the **PluginMonitor** form. This was added to version 5.9.1 and later.
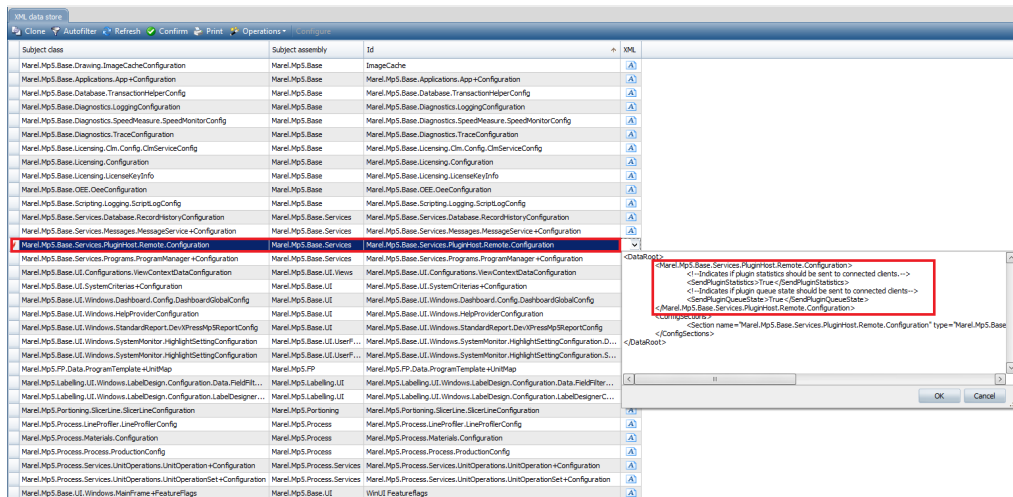
SqlLookupColumn view extension

The **SqlLookupColumn** view extension was updated to support lookup columns for detail grids. A new configuration property, **SubLevel**, was added to the configuration to specify the name of the sub-level, i.e a detail grid's table name. If the property is set, the lookup column will be applied to the detail grid represented by the given sub-level. If not set, the lookup column is applied to the main grid (as before).

Example:

Two separate **SqlLookupColumn** view extensions are applied to the form: one for the main grid and the other for a detail grid.

Virtual router version of M2400

A virtual router version of the M2400 terminal is now available with the same layout as the physical terminal.

Base bugfixes

Inactive activity was blank

When the activity standard record was set to inactive (Active=False) in an **Activity** dropdown in Innova, the activity would no longer be visible in a grid (the field would become blank). Now when an activity is inactive but still set previously as an activity, it's displayed with a strikethrough to indicate that it's inactive.

License problem on Android PDA

When a permanent license was installed and two or more Android PDAs were logged on, a license error was displayed after 30-60 seconds. Now the License check is updated when using the **ResizableSymbolMC9000** start-up parameter.

Boning Hall Management

Cut plan validation

A validation was added for the user input when creating a cut plan. The user will now be warned if something is missing or entered incorrectly.

Cut plans toolbar

In the **Cut plans** form, the view extension now has a more user- friendly toolbar for shifts and production days.

Process configuration column

A **Process configuration** column was added to **Cutting plan template** detail tab.

Production day filtering on lot lookup

The **Lots** lookup in the Boning Hall **Cut plans** form is now filtered based on the selected cut plan production day.

Lots must be valid (validfrom validto) on that same production day.

Set cut plans to Deleted

Users can now delete a cut plan on the **Cut plans** form. Deleted cut plans will be cancelled and won't be visible except as **Deleted** on the Cut plans form.

Boning Hall bugfixes

Back button not working and cut plans disappearing

Different boninghall IPC instances were sharing the same view, causing weird behaviour when using many tabs of the Boning Hall view on the same IPC. This has been fixed.

Error message when starting a cut plan

Users no longer see an error message when starting a cut plan while another cut plan is active. Users now see a warning message instead.

Inconsistent FilterPanel buttons

The hover effect was fixed on **FilterPanel** buttons on the Boning Hall IPC.

IPC crashes when there is an inactive activity

An issue was fixed where the cut plan IPC view would crash when there was an inactive activity in the active cut plan.

Checkweighing

Configure allowed product types

A new property, **Allowedproducttypes**, was added to the **Checkweigher programs** user interface configuration to set allowed product types for the Product filter in the Program Editor.
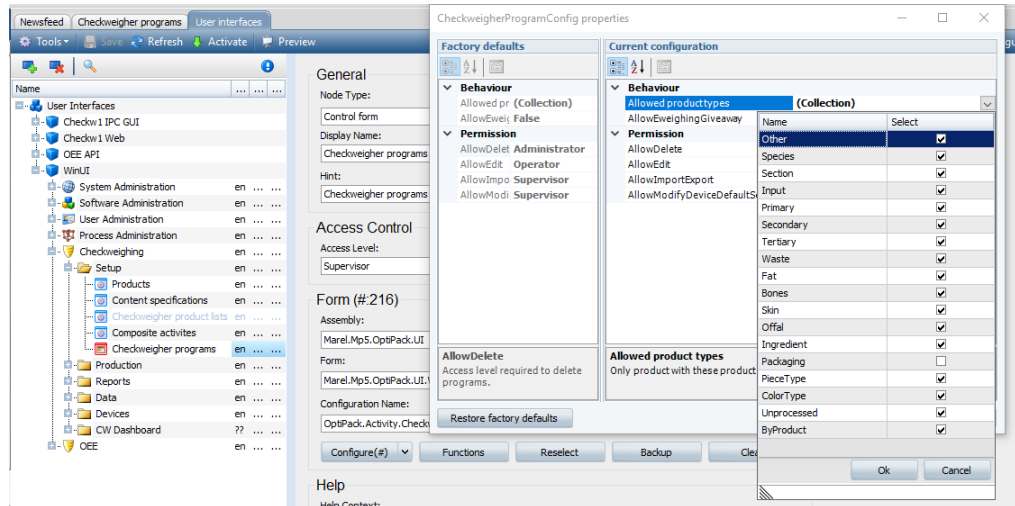
Giveaway dashboard configuration

New properties were added to the **Giveaway** dashboard component:

- **Fixed line color** - The color of the fixed line.

- **Fixed line in visible range** - If True, the y-axis will be set not only for the min/max data value, but also so that the fixed line is aways visible.

- **Fixed line Style** - The style of the line, e.g. Solid, Dash, DashDot, etc.

- **Fixed line thickness** - The thickness of the line.

Note that text in the dashboard legend can be changed by translation (**FixedLineLegendName**).

In addition, the x-axis resolution can be set to **Second** or **Minute**.

Appearance		
BackColor		Control
BackgroundImage		(none)
BackgroundImageLayout	None	
Behavior		
TabIndex	3	
ViewAccessLevel	Undefined	
Chart options		
Fixed line Color		**Green**
Fixed line in visble range	**False**	
Fixed line show	**True**	
Fixed line Style	**Dash**	
Fixed line thickness	**3**	
Fixed line value	**252**	
Show chart legend	**False**	
X-axis resolution	**Second**	
Component State		
ActiveState	Stop	
Design		
ComponentName	**GiveawayView**	

Giveaway dashboard with constant line and x-axis resolution in seconds:
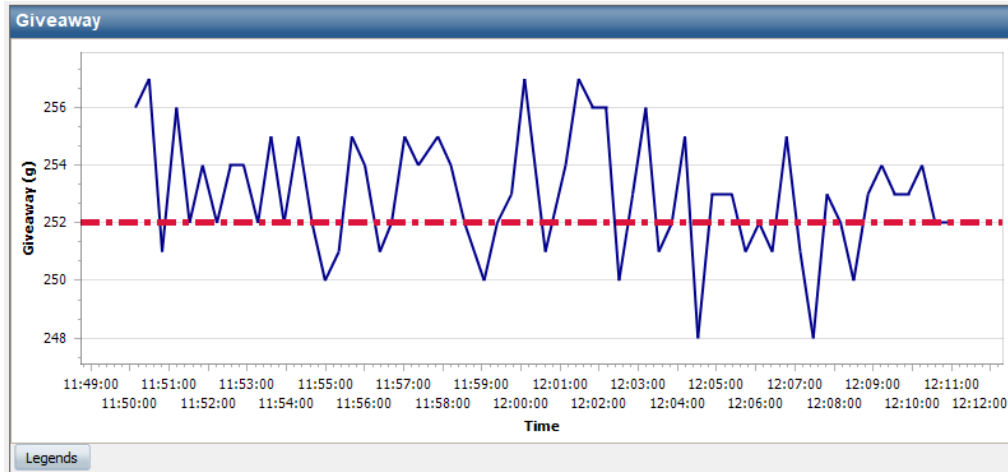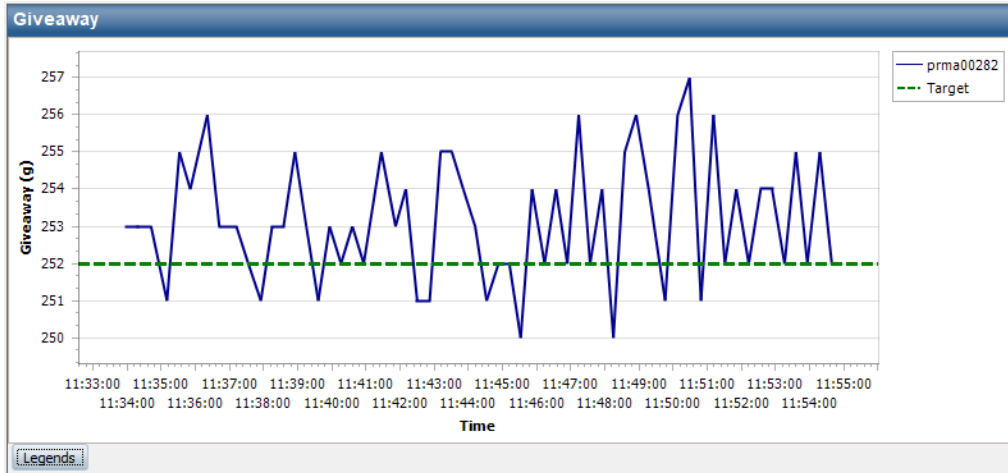
If the History Collector resolution is low, more items will be made per time period. If the Giveaway chart becomes too crowded, the number of points can be reduced by changing the time interval shown (see also "History Data Collector" on the next page).

The configuration is on the Packing controller for the dashboard view:
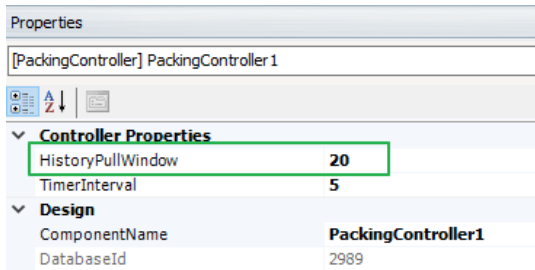
History Data Collector

A new parameter was added to MCheck 2 station setup configuration XML. **HistoryLiveDataCollectorInterVal** is the time resolution in seconds for the History Data Collector, and makes it possible to have higher granularity on data collected (summed and flushed for a shorter period). The default is 120 sec.
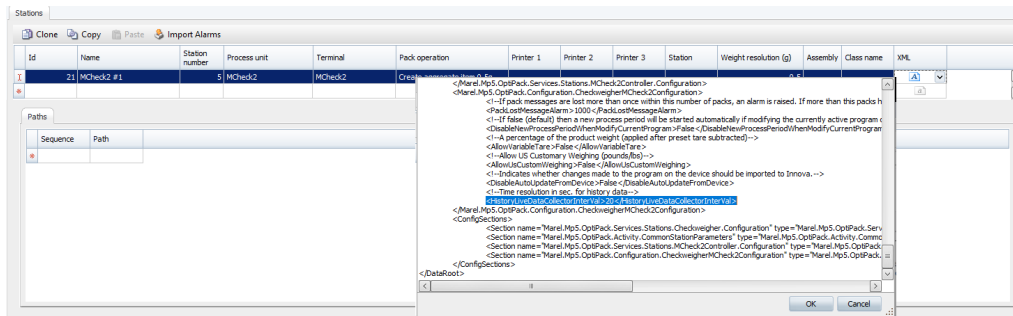
Grading

FixedRate parameter for LvGrader

The LvGrader can now send a **FixedRate** parameter with the grading program.

Marine Grader improvements

It is now possible to see the contents of a freezer containing more than one product. The operator can select a freezer and click **Contents** to view the contents.

When assigning products manually to the freezer, the first product in the grid is no longer re-selected auto-matically when the **Create pack** action has been executed. The active product remains selected.

In some scenarios, the grader gates and batch screen is not used. It is therefore now possible to set the start-up screen to be freezer overview. This is configurable through the **StartInFreezerOverview** property.

New parameters in Grading programs

Support was added for two new parameters in Grading programs for A600 Fixed Rate graders:

- **Capacity** - A non-required float variable

- **RateUnit** - A required enumerator of type **Marel.Common.Devices.FlowUnit**

SetGradeMaterialToDestinationPrunits plugin

The **SetGradeMaterialToDestinationPrunits** plugin can now handle a series of gates, for example, "1000, 1001, 1002" or "1000-1002".

Grading bugfixes

Issue with order updates using ordermanager and gsman2

An issue was fixed where the **Update products** button on the **Grading > Production > Current product set-tings** screen was not sending current order information to the grader. Instead, old information from the Grader

Program Initialization was used. Now the production order is fetched and the correct order state is pushed to the grader. This fix was applied to versions 5.9.2 and later.

Integration Services

Export inventory reports

It's now possible to export Inventory reports with the new **ExportInventory** unit operation.

Currently supported reports:

- **Marel.Mp5.Process.Reports.Inventory.PackOverview**

For more information, see the latest *Innova Integration Services Installation and Configuration Manual*.

SafetyChain integration

The SafetyChain platform is a cloud-based system that allows quality data registration and processing. Data registration is done either through a web interface or one of their mobile clients. The client can be connected to devices such as scales, thermometers, etc.

Innova users will be able to register results within the Innova system that are then sent to the SafetyChain server. The **Innova QC** module is used as an inline registration station, and SafetyChain for reporting and analysis.

The first implementation of an integration between SafetyChain and Innova will provide the following:

- A mapping for SafetyChain forms into Innova procedures.

- A mapping from Innova products and product types to SafetyChain resources.

- A mapping from Innova inspection to SafetyChain form submission.

- A way for a SafetyChain event to result in an event in Innova, for example put a lot on QC hold.

- Synchronization of users

- Simple location control

TransferHub

The following new features were added to Transfer Hub.

Exclude columns in shipment report

A new configuration property, **ExcludedColumns**, was added to the ShipmentExportConfig for a BaseExportHandler (Marel.Mp5.Integration2.Services.ExportEngine.Base.ShipmentExportConfig.ExcludedColumns). It

defines a list of columns that will be excluded in the exported data.

This is basically the same as the configuration that already exists for every other unittype: ItemExportConfig, PackExportConfig, PalletExportConfig, OrderExportConfig, etc.

Map shipment to PO

Now, shipments are transferred with all associated packs, pallets, items, etc.

Orders/Orderlines that packs, pallets and items are assigned to will also be transferred and converted POs/POlines on the receiving end.

Before transferring all the data, the orders are validated so that they all have the same customer/receiving site, otherwise the transfer will fail. If the DestinationCode script is used, the script will override the transfer destination, in which case validation is not required.

UseProcessUnitClient

A new XML configuration property, **UseProcessUnitClient**, was added to the **StandardRecordImportHandlerConfiguration** section of the XLM configuration for import handlers. This change only affects handlers that are configured to set a process context in import.

When set to **True**, this property will use a more standard method to set the process context than is currently used for import handlers.

Affected DLL: **Marel.Mp5.Integration2.Services.dll**.

Integration bugfixes
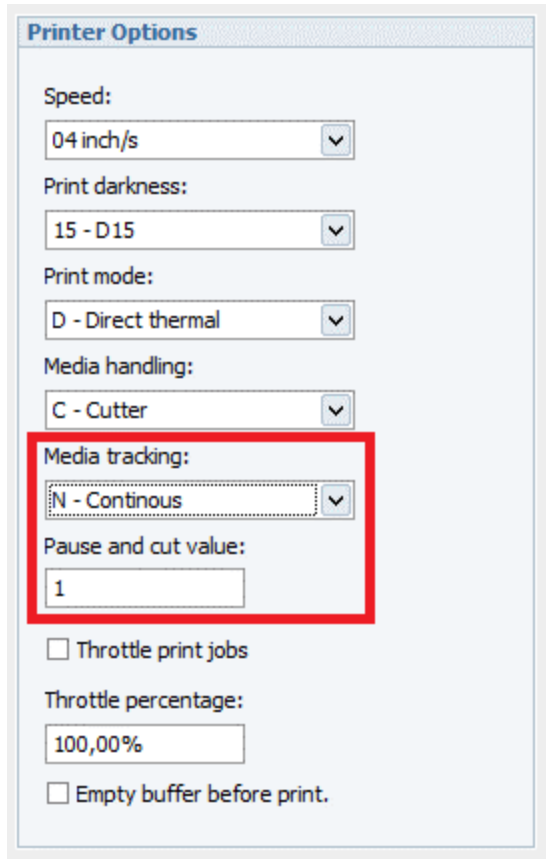
WsExportHandlerApplication timeout

A **WsExportHandlerApplication** timeout issue was fixed by ensuring Stream and Web Response objects are closed and disposed of when requests are finished. This fix was was added to versions 5.9.2 and later.

Labeling

Pause and cut value in Zebra printer settings

Pause and cut value was added to Zebra printer settings. This setting is available only when Media tracking is set to **Continuous**.

Continous media tracking allows labels of different lengths to be cut from a single roll. The printer cuts the label to the correct length, determined by the media type in Innova. When printing multiple copies of a label, the printer must be instructed to cut after each copy. This is controlled by the **Pause and cut value** setting. Setting the value to "1" cuts after each label.

Printer Options

Speed:

04 inch/s

Print darkness:

15 - D15

Print mode:

D - Direct thermal

Media handling:

C - Cutter

Media tracking:

N - Continous

Pause and cut value:

1

☐ Throttle print jobs

Throttle percentage:

100,00%

☐ Empty buffer before print.

Meat Streamline

OverridePieceIdWithControllerNumber

A new XML configuration property, **OverridePieceIdWithControllerNumber**, was added to **Marel.Mp5.Deboning.Services.Plugins.LogiFlex.LxTrimBuffers**. This property controls whether the piece ID should be overwritten with the **Buffer.ControlNumber** when discharging from the buffer.

Multihead Weigher

Program lock

The **Readonly on machine** checkbox was added to the **Program Editor**. If selected, the master product and all zone/sub-products and profiles will be Read Only on the machine.
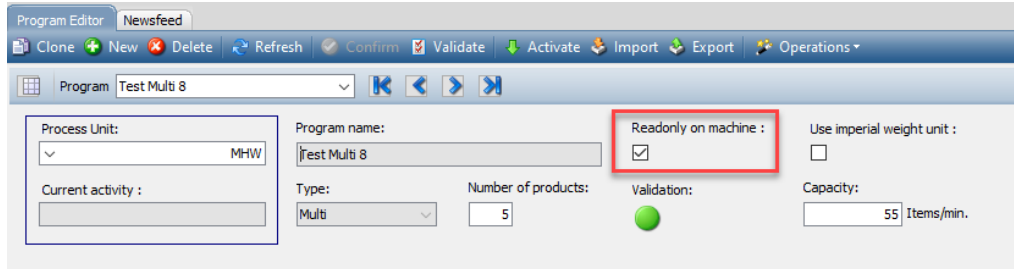
Set mandatory product selection for new programs

A new configuration property was added in **MultiHeadProgramWinCEConfig**. If **Material required** is set to **True**, then the selected Innova product will be required when creating a new program (instead of using the default Innova product).
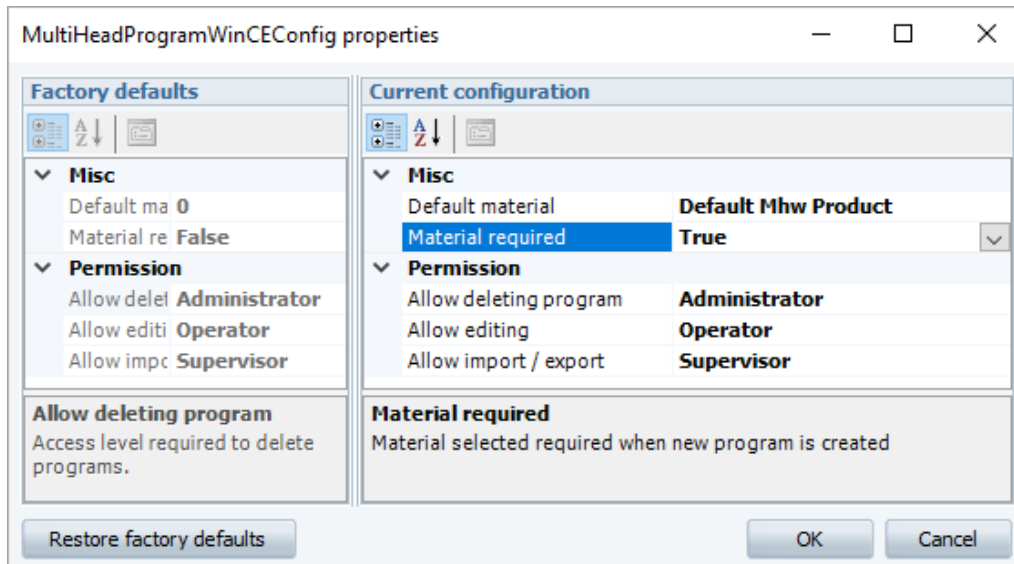
New program form shows pre-selected Innova products

On the **New Multihead program** form, the number of selection boxes will match the number of sub-products entered.

If not all sub-products have an Innova product selection, an error message is shown.
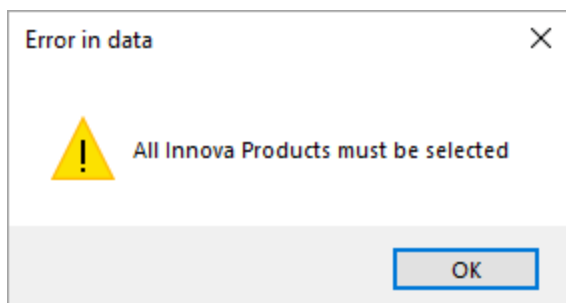
Multihead Weigher bugfixes

Exception when Cancel pressed in ImportForm

An issue was fixed where an exception occured when **Cancel** was pressed in **ImportForm** while looking for an online device.

HeaderPanel

Fix in HeaderPanel Visible eventHandler - Try-Catch.

Invalid default material

Now if the default material is invalid, it is only logged once.

New IDs created when importing a new program

An issue was fixed where new Innova IDs were created when importing a new program on a machine using existing zone/sub-products.

Program Delete

An issue was fixed that occured when deleting a program.

Redraw all data when view activated

Now after the Editor is started, all data is redrawn when the view is activated.

OEE

OEE Hangin Performance report

The **OEE Hangin Yield** report has been changed to an **OEE Hangin Performance** report.

Packing

Change pack status or gate on MaxiWeigher B112

It's now possible to change the status/gate that a pack is being sent to from the **RecordPack** unit operation. The assigned status/gate is in the context **UnitOrigin** variable and can be changed in a UO script.

Script code example:

```
context.Data.UnitOrigin = 42; # Send pack to gate 42
```

## Device driver for MT570

A device driver was added for the Mettler Toledo MT570 scale. The **SetTare** and **RequestTare** functions have been implemented for this scale driver. Note that this scale driver is only available in the capacity of an IPC terminal scale.

- **Device Driver Assembly**: Marel.Mp5.Solutions.ScaleDrivers.MT

- **Device Driver Type**: Marel.Mp5.Solutions.ScaleDrivers.MT.MettlerToledoInd570

For more information see the latest *Innova Packing Installation and Configuration Manual* and the *Innova Packing User Manual.*

## PlutoPackingControllerConfiguration

A new XML configuration property, **PlutoPackingControllerConfiguration**, was added to the PlutoPacking controller to enable support for **BarcodeReader**. This functionality was added to Innova versions 5.9.1 and later.
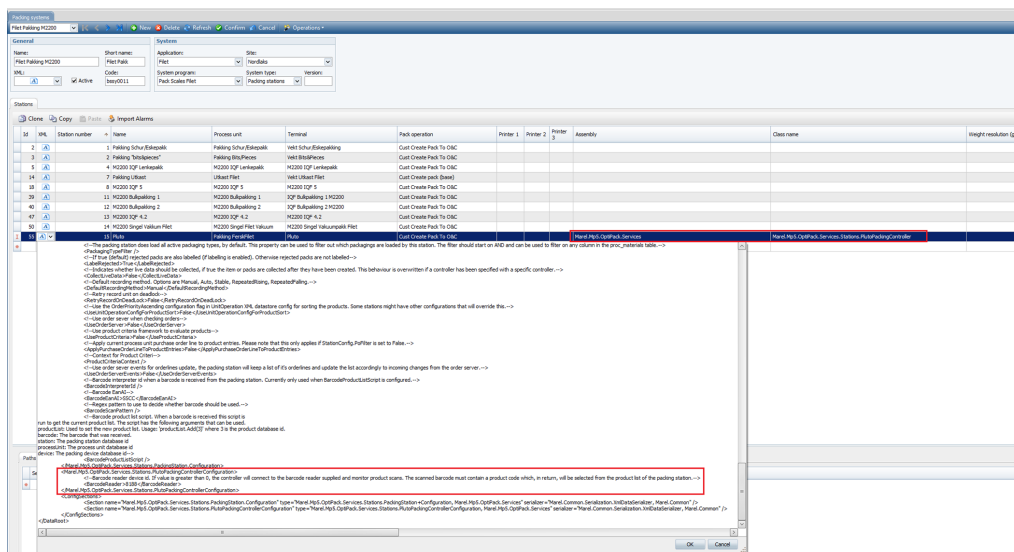


## Speedbatcher message handling for second packing station

Support was added for **RecFpPackWeight** message handling when SpeedBatcher has an additional Checkweigher connected through same terminal. For more information, see the *Innova SpeedBatcher and TargetBatcher Installation and Configuration Manual.*

This fix was added to Innova versions 5.8.1 and later.

## Support for A642 Process Weigher

Support was added for the A642 Process Weigher.

The A642 Process Weigher uses the checkweigher Program Editor to create and edit programs for the process weigher. Registrations are stored in the checkweigher module as normal, including basic OEE figures.

TheA642 supports min/max product limits and e-weighing algorithms, and includes gate number specifications for "too light", "too heavy", "in range", etc. It also supports Pluto alarms, which can be imported to Innova from the device.

Reports and dashboards are the same as for the checkweigher.

# PDS

### Process lot tracking

A new configuration property was added to Marel.Mp5.Solutions.Stork.Services.TransferNetData, **ReadProductionLotField**, which changes the lot on the prunit using the production lot field "408". The content of field 408 is **proc_lots.lot**.

The lot is read from the 408 field in the **RecTapShackle** message and used to activate the lot on the process unit. This is the lot ID.

In addition, a new plugin, **PrunitProcessLotCreator**, was added, which listens to changes on a configured process unit. It creates a process lot according to the default lot creation rule and sends the lot to a configured tap device.

# Prepared Foods

### Fixed UI packages for Prepared Foods

**Innova Convenience Line Software** is a standard solution designed to fit the varied needs of further processing customers, and software modules are bundled as standard installation packages based on the following:

- **Central Equipment Control (CEC)** - A process control layer that allows for consistent and controlled production processes, and is part of all installation packages. CEC includes a light version and a full version.

- **Product Quality and Traceability** - Allows customers to produce according to product specification.

- **Line OEE** - Allows customers to measure line effectiveness

- **Line Analytics** - Includes Statistical Process Control (SPC) to combine and analyze product, equipment and process data.

All packages except CEC light include **Line Profiler**, which allows the equipment in the line to be changed out as needed. The Line Profiler adjusts as required and influences what is shown in dashboards and reports.

For more information, see the following:

 *Innova Convenience Line Software Installation and Configuration Manual*

*Innova Convenience Line Software Configuration Manual for PF Consultant*

*Innova Convenience Line Software Dashboard Installation and Configuration Manual*

## Batch management

The list of recipe batches will now always contain batches that are in the state **InProgress**, even if that batch is not in the selected date range. This makes it easy to see the last running batches at all times, no matter how long ago they were started.

Before, it difficult to know how far back in history to look to find the most recent batch, in order to close it.

## Daily/hourly device alarm report shows alarms separately

Alarms are now shown separately in the **Daily/hourly device alarm** report.
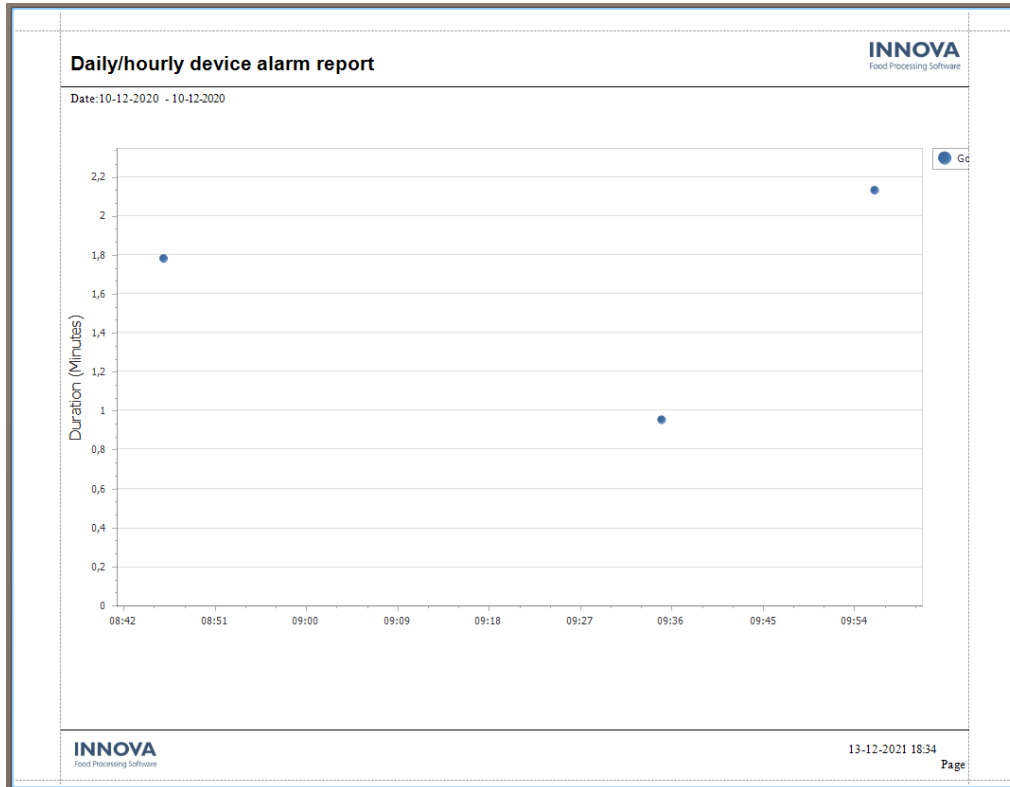
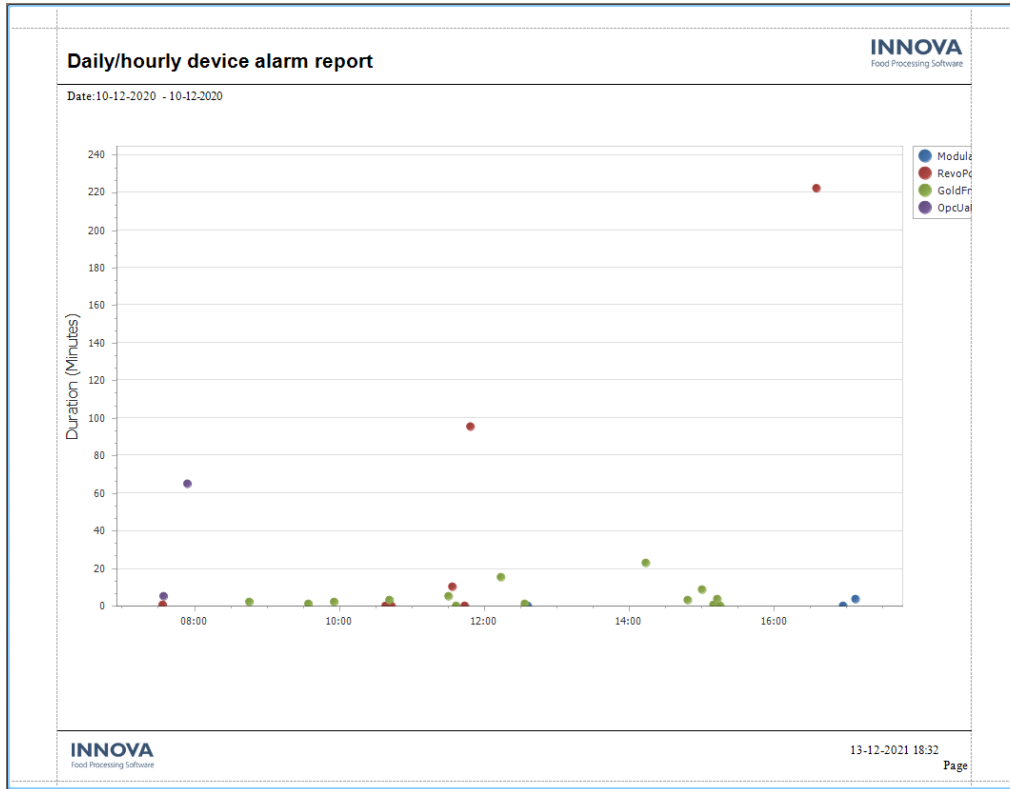When a single device is selected, the legend is per alarm type:
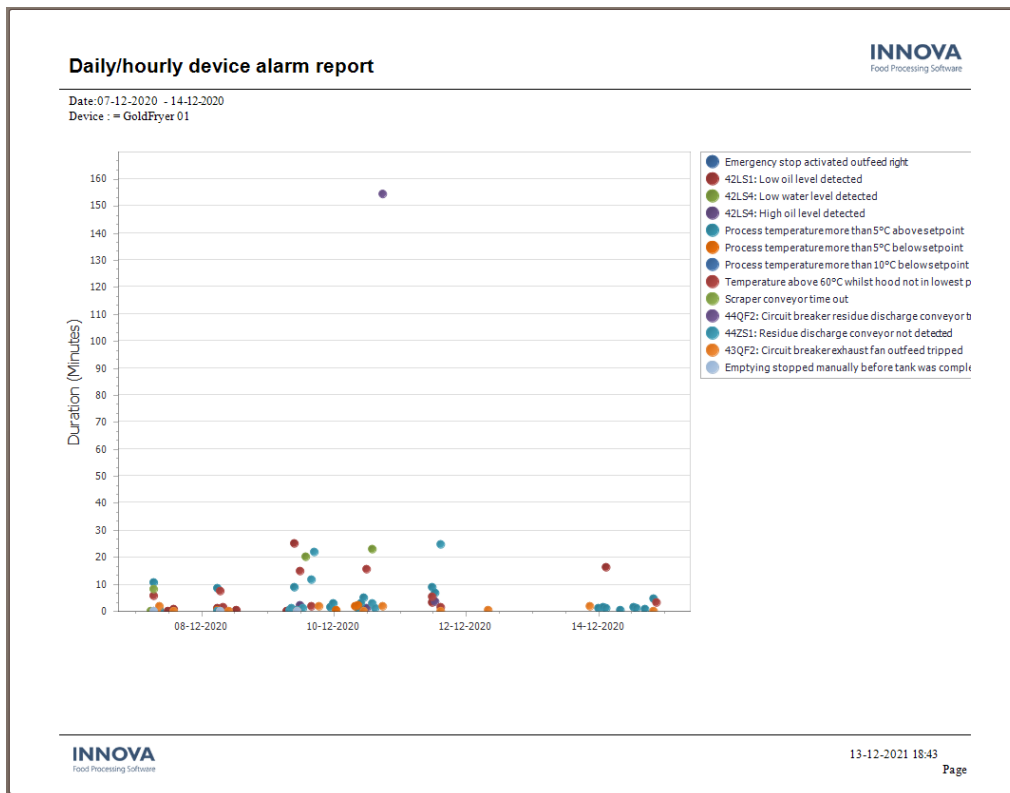


The minor tick scaling has been changed to recalculate to a sane number, based on all thinkable time ranges.

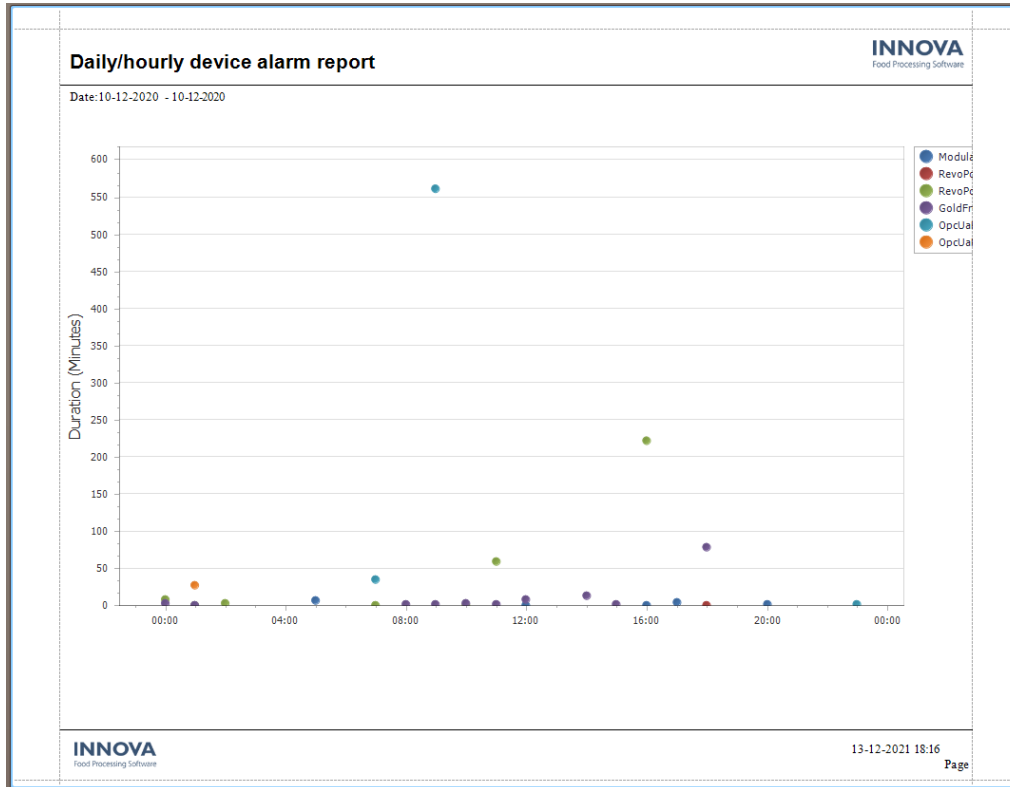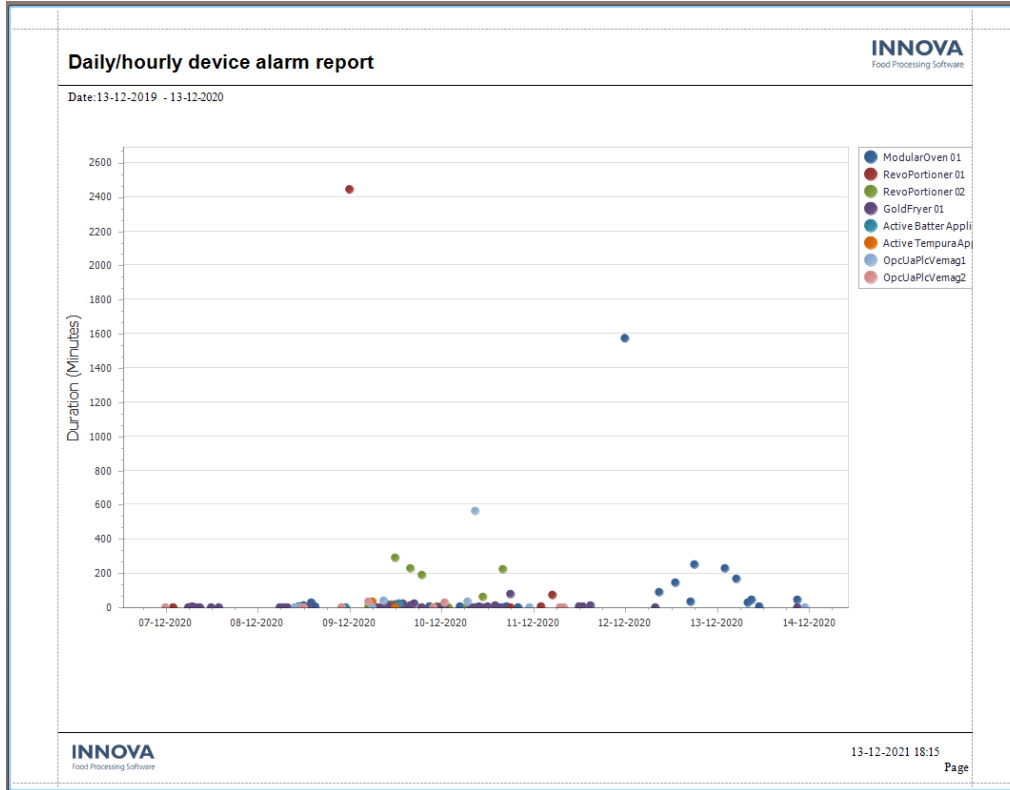The following examples show the scaling works for various time ranges:
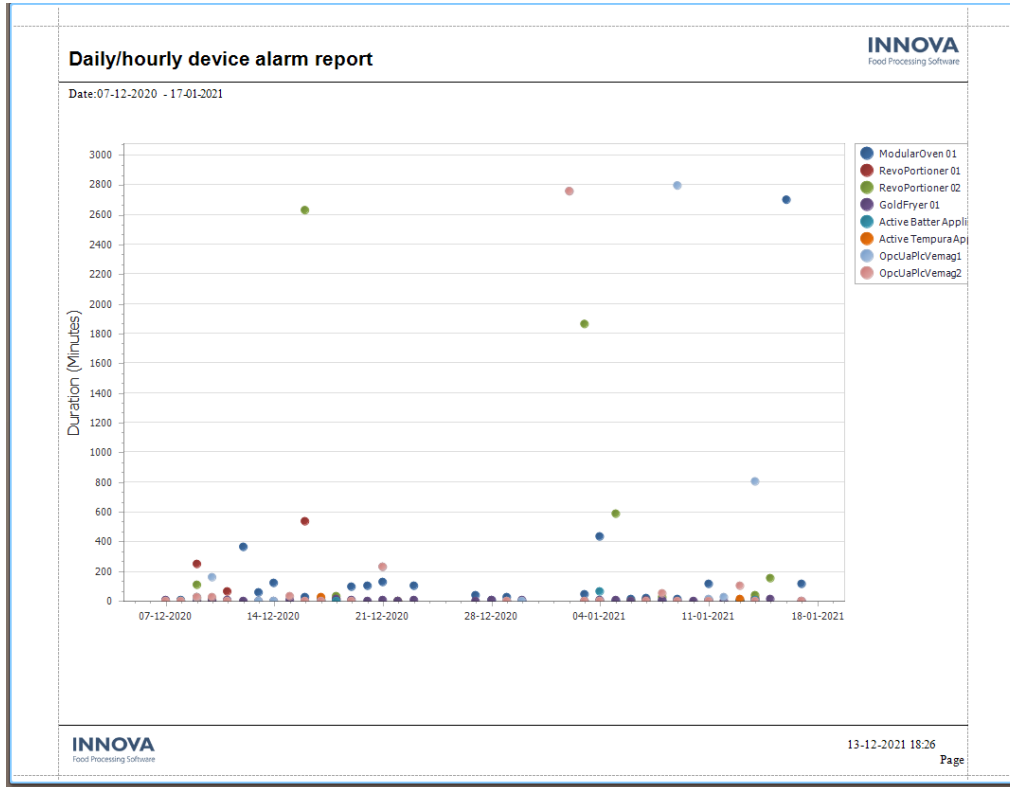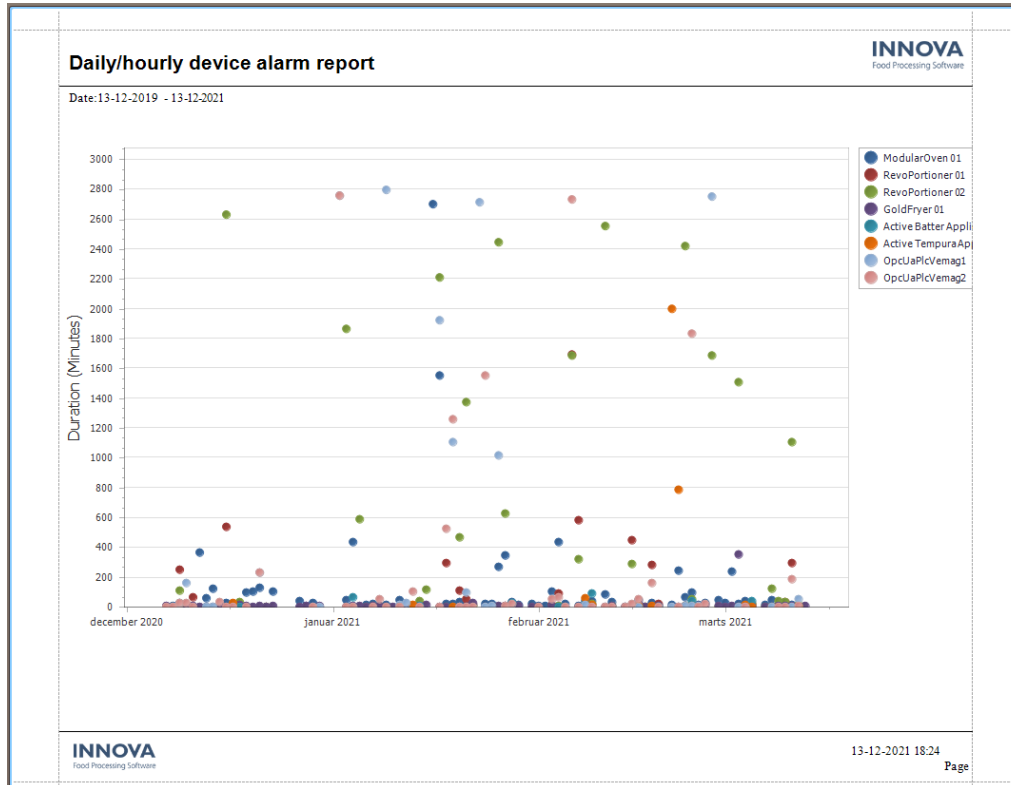
3 min:

2 hours:

4 hours:

1 day:

1 week:

1 month:



**Note**: It's not possible to show examples of a plot over years, but years are separated in the same way as hours, for example.

## Effective status removed

The **Effective** status was removed from **Recipes** because it has never been used.

## Goldfryer oil level indicator

A new dasboard component, **LedIndicatorLabel**, was added to the Goldfryer device dashboard.

The component is a Control with static text and an LED indicator that changes color when receiving specific data from a connected device.

Available colors are Gray, Green, Yellow, and Red. The value that triggers each color can be configured and "-1" disconnects the color. In addition, a default color can be selected.

Five different sizes can be selected for the LED indicator and it can be on the left or right side of the text.
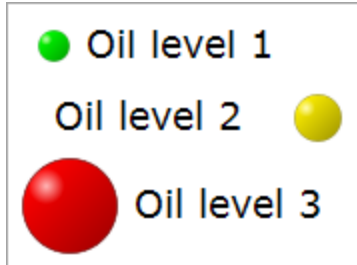
## License checks

License checks were added to the PF module and SPC module. Innova Service will be notified of updated license codes.

## Offset based on program editor

A configuration option was added to Prepared Foods Ovens that uses the **Dwelltime** from the oven program to adjust the offset of a context-scheduled QC procedure.

When a program is loaded on the oven, all configured procedures are updated to use the offset based on the dwell time. This is configured in the FP System setup grid by adding all needed procedures to the **DwellTimeControlledQCSchedules** property list.

The example below shows the system setup using dwell time to control the context schedule offset of the "Efter ångdel kontroll" QC procedure.
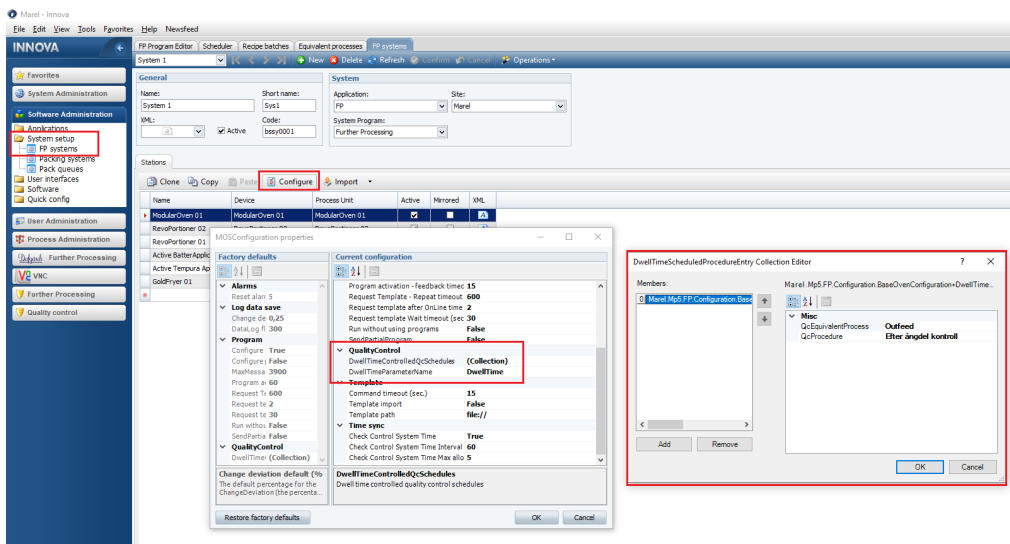


Below, the Context schedule for "Efter ångdel kontroll" has been updated to 18 minutes as specified in the **DwellTime** of the program.

## QC sequence scheduled on IPC

QC contexts are now ordered by the sequence number (with no sequence numbers last) on IPC screens.

## Select production day when creating a recipe batch

When starting a recipe batch, it's no longer possible to select a start date that is earlier than 24 hours from now. It's not possible to disable dates based on the exact time the PR-Day changes, because the time for the PR-Day change is not known at this time.
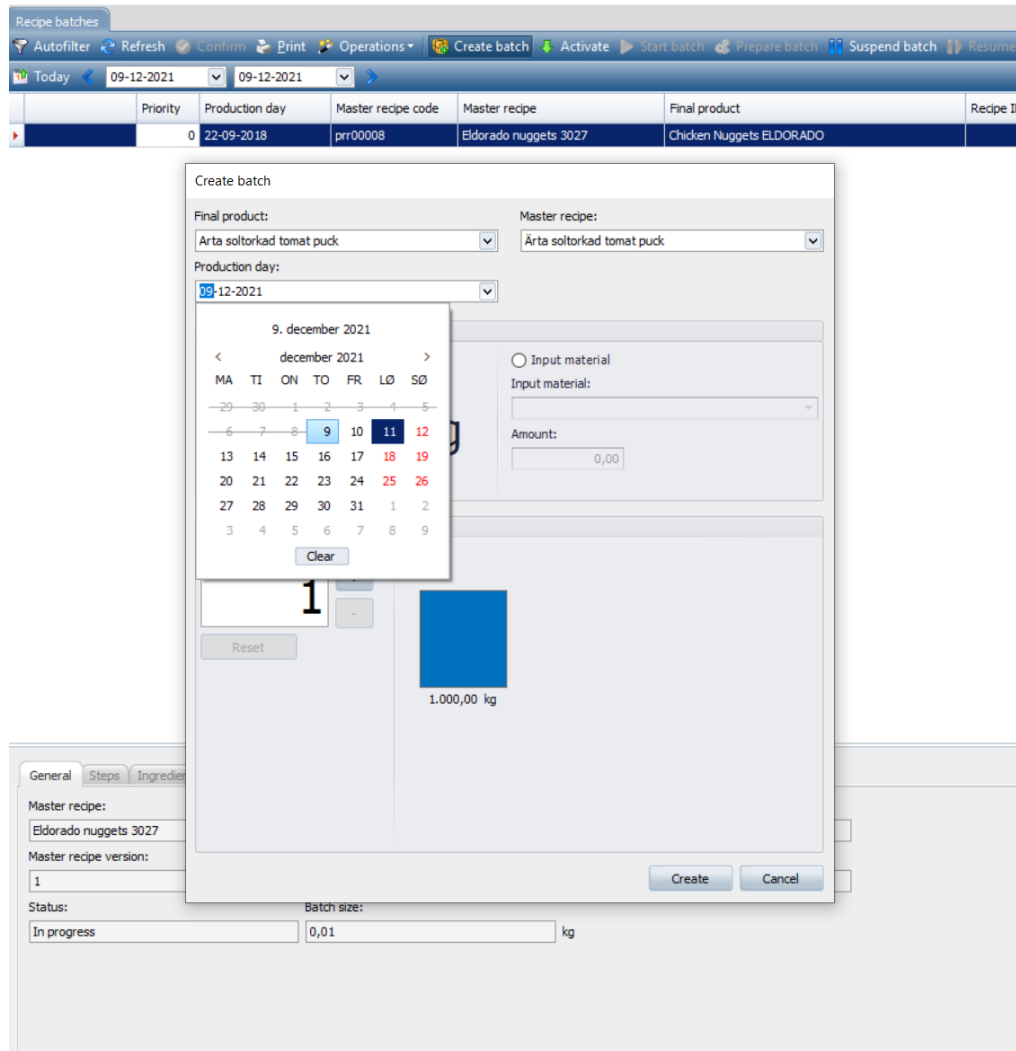
## Use comma or dot as decimal separator

In the **SPC Viewer**, it's now possible to use either a comma or dot as a decimal separator when entering numbers on the **SPC accuracy** form.

## Prepared Foods bugfixes

### SPC Viewer

The following issues were fixed in the SPC Viewer:

- Suppressed zeros on the **Capability** form.

- Fixed text overlap on targets.

- Fixed text overlap when there were multiple operators.

**Missing program details**

An issue was fixed where program details were missing when the first program was created for a device.

# Process

### M2400 scale controlled by RailHandler

When the M2400 is used as a checkweigher controlled by RailHandler, the pack weight acceptance or rejection is performed via a script, which needs to set the message that should be displayed on the screen into the **context.Data.OperationDescription** parameter. This parameter is then read from the UnitOp context in RailHandler and sent to terminal screen.

### New flag for ConsumePack and ConsumeItem unit operations

A new flag, which defaults to **False**, has been added to the unit operations **ConsumePack** and **ConsumeItem** to indicate whether **Supplymethod** can be set at the same time as **SetContext** is set to **Lot**.

### PackUOExec supports multiple sites

An optional parameter was added that can set the site used by the **PackUOExec** system program. If "-s 1" is set, the program will use site 1. Note that the site must be active. If skipped, it will select the active and hosted site.

### PLCRecLuaPlugin improvements

Better tracing/logging when parsing fields was implemented in **PLCRecLuaPlugin**.

### RailHandler.V2 configuration

A new configuration flag was added to RailHandler.V2, **FetchWeightBeforeFindingUnit**, which indicates that a scale record should be fetched before finding a unit. This is useful to get the weight in the railevent if a unit is not found.

### Stocktake criteria

Four new criteria were added to stocktaking. Users can now filter inventories by the following:

- Customer (Material.Customer)

- Production Order (pack/item.porder)

- Purchase Order (pack/item.po)

- Lot (pack/item.lot)

To enable these, set the config flags for the GUI node in User Interfaces. The settings are in the **Allow stocktake on Criteria** category, and all start with "AllowStockTakeByX", where "X" is the criteria.

### Process bugfixes

**itempacker.exe does not register "Recorded by"**

When registering a pack, the **Employee** and **Recorded by** fields were not filled out. To fix this, options to log off (if the login screen is enabled) and exit the program (if exit is allowed) have been added to the base menu in the **itempacker.exe** application.

## QC

### Coordinates column

A new column, **Coordinates**, was added to the **Inspection items** form. This column can be used to register a string on the format [x,y,w:z] (Without the brackets) where x is the location on the x-axis of the employee heat-map picture, y is the location on the y-axis, w is the weight (size) of the point drawn and z is 0, 1 or 2 depending on whether the defect applies to left filet, right filet or both.

If coordinates exist on the inspection item, these are used instead of the SValue on the **Inspection item detail** tab to draw the point on heatmap.

For more information, see the latest *Innova QC User Manual* and *Innova Trimming Installation and Configuration Manual*.

### SelectStationUnitCeConfig

Three new parameters were added to **SelectStationUnitCeConfig** in order to show packs but not items and pallets:
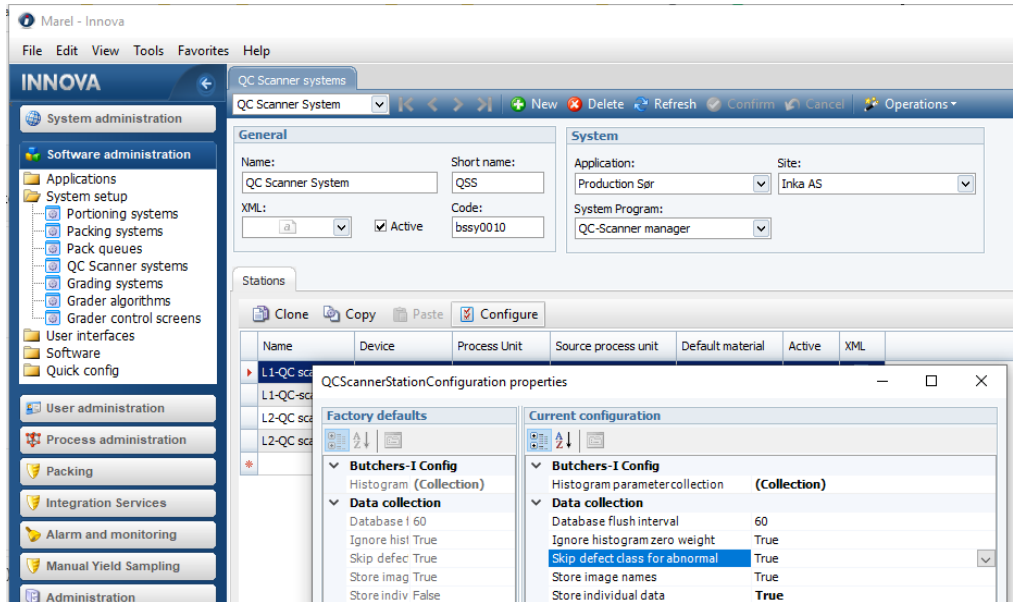
- **ShowPacks** (default true)

- **ShowItems** (default false)

- **ShowPallets** (default false)

Affected DLL: Marel.Mp5.QC.UI.dll

## QC Scanner

### Exclude defect classification for abnormal fillets

An option to exclude defect classification for abnormal fillets was added in the System Setup configuration for QC Scanner. The option is default set to exclude defect classification.
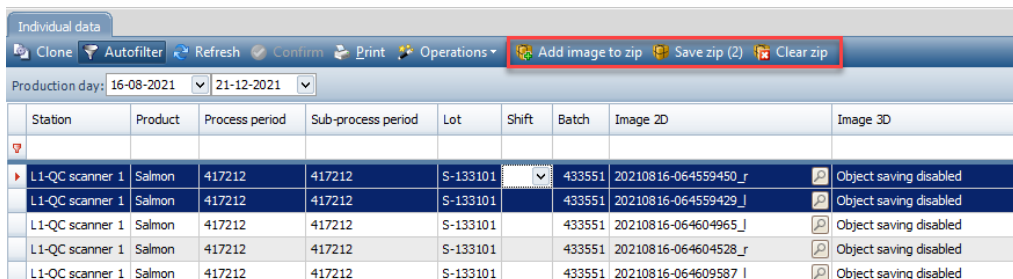
## Export images to zip

Three buttons were added to the QC Scanner data forms:

- Add image to zip

- Save zip

- Clear zip

When an image folder location has been configured, users can now add multiple images to a collection and save them to a single zip file on the drive.



## Shortcut to image location

Improvements were added to the Salmon QC Scanner data form for individual fillets to make it easier for customers to locate an image of a fillet.

Note that this requires the customer to manually retrieve images from the QC Scanner hardware and store them on a network drive that is accessible from the Innova client.

The location of the image can be configured in the system setup of the QC Scanner.

Here the file location can be dynamically constructed with the following variables:

- **[Date:Format]** - Use the date from the image file name with an option to provide custom output format

- **[Time10Min:Format]** - The time of the image from the file name rounded down to 10 minutes with option of providing a custom output format

- **[FileName]**



When this has been configured, a button is displayed in the **Image 2D** column in the data form. When clicked, this open a file explorer to the location of the image with the image preselected.



# Recipe

## Recipe Manager (BatMan.exe) now shows customized error messages

Now when executing unit operations on IPC Recipe terminals, the content of the **UnitException** message is shown to the user. This was added to Innova versions 5.9.2 and later.

## Recipe bugfixes

### Final products with no released master recipe

Final products with no released master recipe are no longer shown on the **Create batch** form.

## Solutions

### Connect grading probe

**Marel.Mp5.Solutions.RfIdDrivers.General.Fuchs.FuchsRfIdReader** was implemented in the **ThirdPartyBarcodeReader** framework.

### Lightman improvements

Lightman now supports **BatchChanging** and **BatchChanged** process unit event types.

Lightman now also supports flashing lights.

### CL by time report

The **CL by time** report is now available for TrimBlend.

### Input IPC registration history

Two new configuration settings were added for the Input IPC **Registration history** view to show registration history for more than the current day:

- **MaxHistoryDays** - Maximum number of days to go back for registration history. 1=current day only (default), 0=disable date filter (all packs recorded)

- **MaxHistoryItems** - Maximum number of items to show per input buffer. 0=show all registrations (default)

## Trimming

### EmployeeHeatmap custom filters

A new item was added to **Trimming.UI.WebSocket.Applications.EmployeeHeatmap.Windows.EmployeeHeatmapCE Configuration Class**. These items are lists that are nested within a list of custom filters.

**Example:**

The custom filter "Bones" contains the inspection items that have the coordinates used to register bone locations during manual filet inspection. If this configuration item contains a list (member), the **Employee heatmap** screen displays a new dropdown where the user can select a filter. The selected filter is applied to the result set, i.e. it only selects points from inspection items of that type.

For more information, see the latest *Innova Trimming Installation and Configuration Manual* and *Innova QC User Manual*.

# WeighBridge

## Add constraint when assigning order type to shipment content type

New configuration properties were added to **Marel.Mp5.Solutions.WeighBridge.UI.Windows.MultipleShipmentsSupport.ShipmentConfig.OrderAssignmentConstraints** for WeighBridge (multiple shipment support) to configure constraints when assigning orders to a shipment with a certain shipment content type:

- **OrderAssignmentConstraints.OrderType** = Order type to configure constraints for

- **OrderAssignmentConstraints.AllowedShipmentContentTypes** = List of allowed shipment content types to assign the order type to

If there is no configuration defined for an order type, then every shipment content type is allowed for that order-type (No configuration => no constraints).

## Country column on Sales orders and Purchase orders tabs

A **Country** column was added to the **Sales orders** and **Purchase orders** tabs.

The country column is joined through the customer column already in place.

**Important change:**

In the **shipmenconfig** (Marel.Mp5.Solutions.WeighBridge.UI.Windows.MultipleShipmentsSupport.ShipmentConfig), there are two configuration flag: **SalesOrdersFilter** and **PurchaseOrdersFilter**.

These filters are custom filters for unassigned sales orders and purchase orders. The filters must be edited to use "unassigned_orders" (for sales orders) and "unassigned_pos" (for purchase orders) as a table name when accessing SQL column names with the filter.

For example:

unassigned_orders.[order]

and

unassigned_pos.[po]

If these filters are not edited in this way, they will stop working.

### Set access level for deleting shipments

Previously, the access level for deleting shipments was included in the **LevelForCreatingAndEditingShipmentHeader** config.

Now, a new configuration property, **LevelForDeletingShipments**, was added in Weighbridge (Marel.Mp5.Solutions.WeighBridge.UI.Windows.MultipleShipmentsSupport.ShipmentConfig) to set the access level for deleting shipments. The default value is **Operator**.

## WPL

### Record weight of bad packs

If a bad pack is encountered, then the weight is now recorded in the WPL performance log table in the Innova database.

Not all bad packs record the weight, because the weight is only provided for bad packs that have a useful weight, such as over weight, under weight, out of bands and labeler faults.

By default, bad packs of the same type are accumulated in the WPL performance table during a process period.

If the WPL System setting **AccumulateBadPacks** is set to **False**, then all bad packs are recorded in the WPL performance log table.

<!--Accumulate all bad packs for a process period in the WPL performance log table. Default is true.-->

<AccumulateBadPacks>False</AccumulateBadPacks>

Bad packs can also occur when faults occur late in the process, such as labeler faults and stopped conveyer belts. These packs may have a valid label attached.

Until now, all bad packs were treated as bad and were not registered in Innova. A box could have a valid label, although WPL/OCM sent the bad pack when it was weighed and labeled. This can cause problems when the box is placed on a pallet and scanned to an order. Because the box hasn't been registered, it is not known in Innova, and the scanning to a pallet will fail.

A new setting, **UseWeightMessages**, was added to the WPL System XML. If this setting is set to **True**, then Innova will try to recover the weight and price from earlier in the process. This will cause the scanning of box to pallet to succeed, but will also allow boxes without a label to be registered.

<!--Use weight messages to register a pack in case of a bad pack message. Default is false.-->

<UseWeightMessages>True</UseWeightMessages>

If the property **RecoveredProduceItemOp** is set in the WPL System XML, then this unit operation is called when the recovered item is registered. This makes it possible to mark the box with a status, indicating that it is a

recovered box. When the box is scanned, the status can be changed to "Regular". This way, it is possible find the registered boxes without a label at the end of the day.

For the OCM there are similar unit operations: **CreatePackOpRestored** and **UpdatePackOpRestored**.

<!--ID of unit operation called when the WPL is registering a recovered bad item.-->

<RecoveredProduceItemOp>218</RecoveredProduceItemOp>

It's also possible to define the bad pack error codes that should cause the pack to be recovered. The setting is available both in the WPL System XML and in the OCM XML.

<!--Error codes that should be handled as good packs, if **UseWeightMessages** is enabled. Default is 'U', 'V','W', 'Y'-->

<IgnoreErrorCodes>

<String>U</String>

<String>V</String>

<String>W</String>

<String>Y</String>

</IgnoreErrorCodes>

This update was added to Innova version 593.2021.916.1 Release.

## WPL bugfixes

### M360 multi Conformant issues

An issue with multi Comformats involving the M360 (labeller 2) as the master and the Top Labeller (labellers 0 or 1) applying a secondary label was fixed. This was possibly due to the printer number in a group Conformant being wrong for the slave Conformant and was corrected in Innova versions 5.9.2 and 5.9.3.

### Support for additional criteria

Support was added for additional criteria for **RmArea** and/or **Shifts** selection in **ManagePrunitControllerExtension**. The criteria were added for both the M6000 and the WPL9000 control extension.

## Change weights in multi Conformants

Previously, the weighing unit for multi Comformats were System Weighing Units. Now, If the underlying products has the Nominal Unit set in the content specification, then this unit is used. This enables systems to have a multi Comformat that uses kilograms as the weighing unit, and other multi Comformats that use pounds.

If a multi comformat contains multiple weighing units, then an error message is shown during download. There are no changes to the configuration.
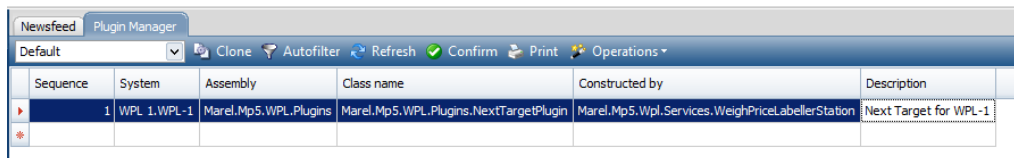
## "Next target" support

If an order line had a remaining amount of more than 999 kg (or 999999 items), Innova would stop after 999 kg because this is a limit in the target system on the WPL.

The target system on the WPL has an option to set the target for the next job while the current is running. Using this option, it is now possible to produce more than 999 kg without pausing.

There will be a small delay when the target changes. The length of the delay depends on the length from the weighing table to the last print head on the conveyer.

To enable "NextTarget", a WPL plugin must be installed.



- **Assembly**: Marel.Mp5.WPL.Plugins

- **Class name**: Marel.Mp5.WPL.Plugins.NextTargetPlugin

- **Constructed by**: Marel.Mp5.Wpl.Services.WeighPriceLabellerStation

- **Description**: A description must be entered

When the plug-in has been defined and **WplMan** is restarted, you can see if the plug-in loads correctly.

If it is possible to see the trace switch "WPL Next Target Plug-in" under **WPL packing station**, then the plug-in has loaded correctly.

In the WPL station configuration XML there is a section called **Marel.Mp5.WPL.Plu-gins.NextTargetConfiguration** where it is possible to set the default batch sizes. This is mostly for testing purposes.

The change is implemented in Innova version 581.2021.1123.1, 593.2021.1123.1 and later.

# Yield Control

## Manual yield sampling improvements

The following features were added to Manual Yield Sampling to help ensure that sampling is done correctly:

**Change the active product list between samples**

The **ManualYieldSamplingCE** terminal for IPC now includes a configuration parameter, **ShowChangeActiv-ityOnNewSample**. When activated, an operator can press **Add sample** on the IPC, which opens a screen to either select a new product list for the sample or skip the selection and continue with the existing product list.
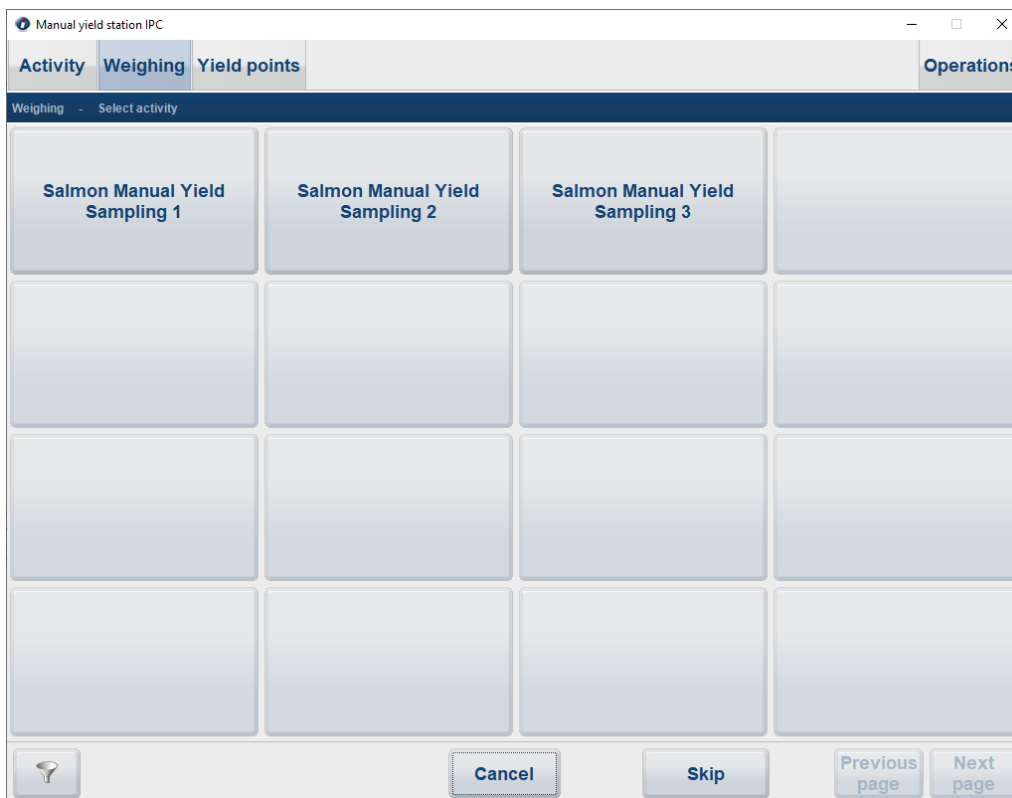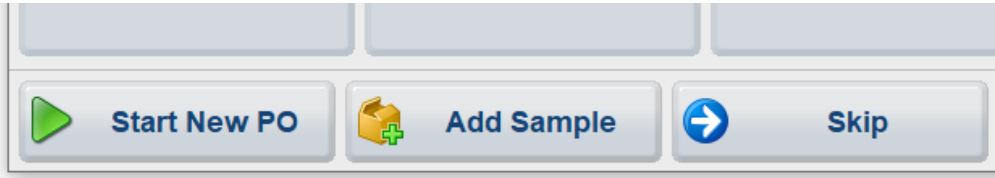


**Controlled sequence of products to be weighed**

The ManualYieldSamplingCE terminal for IPC now includes a configuration parameter, **UsePro-ducListSequenceForSamplingSequence**. When activated, the operator is restricted to weighing products in the same order as the sequence numbers defined in the product list steps.

If products in the product lists are optional, an **Allow skip** setting has been added to the list, allows the operator to skip weighing the specific product and continue with the next product in the list.

**Set weight tolerances**

To help ensure that the correct product is being weighed, tolerance settings were added to the Products list where the minimum and maximum allowed weight tolerance % can be defined. These can be based on either the input weight (InputProduct) or the last recorded weight (LastWeighing).

**Note**: When using the **LastWeighing** option, the tolerance is based on the primary weight of the last weighing step. This means that if the last weighing step registers and offcut weight, then the tolerances are based on the primary weight instead.



**Undo incorrect weighings**

If an operator makes an error in weighing, the terminal now allows the last weighing step to undone by pressing **Undo**.
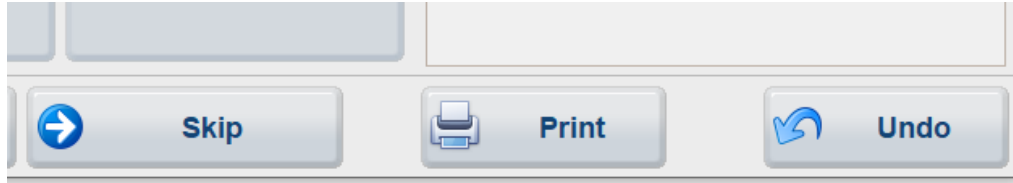
Two new configuration options on the IPC terminal control the behavior of the undo function:

- **DeleteLastPackAccessLevel** - Controls the User access level required to perform the Undo operation

- **DeleteLastPackUnitOperation** - Allows a custom unit operation option to clean the last recorded pack.



**Show custom error messages**

If the unit operation that was executed when recording packs returns a Custom Error message (usually done when unit operation uses custom scripts), the terminal will show the custom error message in the log window.

## Support for A640 M-Weigher

Support was added for the A640 M-Weigher as a yield device in Innova.

For more information, see the *Innova Yield Control Installation and Configuration Manual* and *Innova Yield Control User Manual*.