# Release Notes

## Manufacturing Execution

Version: 6.2.1

Publication Date: 13 March 2025

# Highlights

This release contains selected products and modules available for new installations. This version delivers bug fixes, feature improvements and newly available modules and products. See New in this release.

**NOTE**: This version requires the **Installation Manager version 2.0.3** to install properly. Older versions of the Installation Manager will wrongly report compatibility issues with some modules.

## Introducing Manufacturing and Logistics Integration (M&LI)

AXIN Software Manufacturing Execution introduces the **Manufacturing and Logistics Integration (M&LI)** framework to enable standard AXIN Software Process Solutions that use *workflows* to perform a a series of manufacturing & logistic integration activities in a standardized and simplified way.

Process Solutions simplify operations and improve decision-making, yield and efficiency across the food production process. Currently, Manufacturing Execution processes utilize unit operations to configure a system to specific customer needs. As Marel shifts from delivering individual Manufacturing Execution products to offering Process Solutions that cover multiple steps in a food production process, M&LI workflows will replace these unit operations.

In this release, the first implementation of the M&LI framework is a set of workflows that implement standard packing stations for packs, retail items and pallets, including:

- A **Workflow editor** application to import, configure, deploy workflows on the different stations
- A **Business rules editor** to configure the behavior of the business logic of the work-flows
- A runtime environment to execute workflows on the production floor

The packing stations work on an IPC (M6415, windows 10+) and (except for Pallet packing) an M2200/M2400 system.

To install M&LI, you must install the **Bpl** module and the following supporting modules: **Process.Bpl** and **Integration.Bpl**.

For more information, see the available M&LI manuals.

## Box strapping in BMS

Now third-party **box strapping** machines can be installed as part of **Box Management System (BMS)** setups. BMS is a standard solution for the automatic packing and labeling of boxes, and requires the OptiPack module. With this new feature, BMS can control the box strapping devices and determine how many straps a box should have when it exits the strapping location on the line. See OptiPack.

## Windows Server 2025 now supported

AXIN Software Manufacturing Execution now supports Windows Server 2025.

## Included in this release

The following AXIN Software Manufacturing Execution modules and products are included in this release from version 6.2.0:

| Manufacturing Execution module | Module version | Product name | Disclaimer |
|---|---|---|---|
| Base | 7.2.2 | Not a sold product | |
| Data Visualization | 4.2.0 | Not a sold product | |
| Process | 6.3.1 | Final Goods Manager | |
| | | Inventory | |
| | | Labeling | |
| | | Line Profiler | |
| | | Order Manager | |
| | | Time Registration | |
| Web UI | 4.1.0 | Not a sold product | |
| Carrier View | 5.0.3 | Not a sold product | Included to support the CLS and SIS (IPPS) modules |
| CLS | 4.1.0 | Chiller Logistics System | |
| Deboning | 4.0.2 | Meat StreamLine | |
| | | StreamLine Trimming | |
| Decision Matrix | 3.0.2 | Not a sold product | |
| FLS | 3.0.1 | Crate and Box Distribution Solution | |
| Grading | 4.0.6 | RoboBatcher | |
| | | Accuro | |
| | | Grader | |
| | | Compact Grader | |
| | | Dynamic Order Control (see SPacker) | |
| | | FleXisort | |
| | | SmartSort | |

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|---|---|---|---|
| | | Takeaway with Integrated Checkweigher | |
| | | Takeaway with Terminal | |
| IMPAQT | 4.0.2 | IMPAQT | Not available without first contacting Engineering |
| Integration | 4.1.0 | Integration Services | |
| IRIS | 4.0.2 | Intelligent Reporting, Inspection and Selection (IRIS) | Not available without first contacting Engineering |
| Monitoring | 4.0.2 | Equipment Monitoring | Not available without first contacting Engineering |
| MU1 | 2.0.0 | | New utility module, separated from Base for simplicity in maintainance and updates |
| OEE | 5.1.0 | OEE | Full release of the module and product.<br><br>**NOTE**: OEE supports a few devices in WPL, Grading and Checkweighing |
| OptiPack | 4.3.0 | Packing | |
| | | Box Management System (BMS) | Solution not sold as a standard product |
| | | Mcheck2 | |
| | | Multihead Weigher | |
| | | Packing Scale License | |
| | | SpeedBatcher | |
| | | TargetBatcher | |
| PDC | 4.0.3 | | Not available without first contacting Engineering |
| PDS | 5.0.1 | PDS | Not available without first contacting Engineering |

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|---|---|---|---|
| Portioning | 3.0.1 | FleXicut | |
| | | I-Cut (dual lane) | |
| | | I-Cut (single lane) | |
| Prepared Foods | 2.0.1 | Convenience Line Software Central Equipment Control | Not available without first contacting Engineering |
| QC | 3.1.1 | Quality Control | |
| QC Scanner | 2.0.3 | QC Scanner | |
| SensorX | 4.0.1 | SensorX Poultry | |
| SIS | 4.0.4 | Primary Processing Software (IPPS) - Beef | |
| | | Primary Processing Software (IPPS) - Pork | |
| SmartWeigher | 4.0.2 | SmartWeigher | Not available without first contacting Engineering |
| Sol.BoxSorter | 3.0.2 | Not a sold product | |
| Sol.Fish | 4.0.1 | Purchase Order Reweighing (not a formal product) | |
| Sol.Hopper Distribution | 2.0.0 | | |
| Sol.WFExport | 3.0.0 | Not a sold product | |
| Sol.SPacker | 3.1.0 | | |
| Stork Solution | 2.0.2 | Not a sold product | |
| Recipe | 4.0.1 | | |
| Trimming | 5.1.0 | Trimming | |
| | | Manual Trimming | |
| | | Fish Streamline 900 | |
| | | Poultry Streamline 900 | |
| | | Poultry Streamline 1100 | |
| Unit Operations | 4.0.1 | Unit Operation Station | |
| VID | 4.0.1 | Fillet Distribution | Not available without first contacting Engineering |

| | | | |
|---|---|---|---|
| Web | 4.0.1 | Web | Included to support other modules |
| Weighbridge | 4.0.2 | Not a sold product | |
| WPL | 3.1.8 | Weigh Price Labeler | |
| | | Inline OCM 9500 | |
| Yield Control | 4.0.1 | Yield Control | |
| | | Flowscale | |
| | | Yield Registration Device | |

## New in this release

The following application modules were also added as part of AXIN Software Manufacturing Execution in version 6.2.1:

| Manufacturing Execution module | Module version | Product name | Disclaimer |
|---|---|---|---|
| Bpl | 3.2.0 | Manufacturing and Logistics Integration (M&LI) | Execution engine for M&LI workflows and the M&LI Workflow Editor |
| Integration.Bpl | 3.0.1 | | Module required to connect M&LI workflows to the Integration module |
| Process.Bpl | 3.2.0 | | Module that provides Process-related functionality for M&LI workflows |
| ProcessAPI | 4.1.0 | | |
| Bonus Solution | 1.1.0 | Bonus Solution | |

# Base

Module: 7.2.2

Changes in this release are from module version 7.1.3 to 7.2.2.

## New features and improvements

The following new features and improvements to functionality were added:

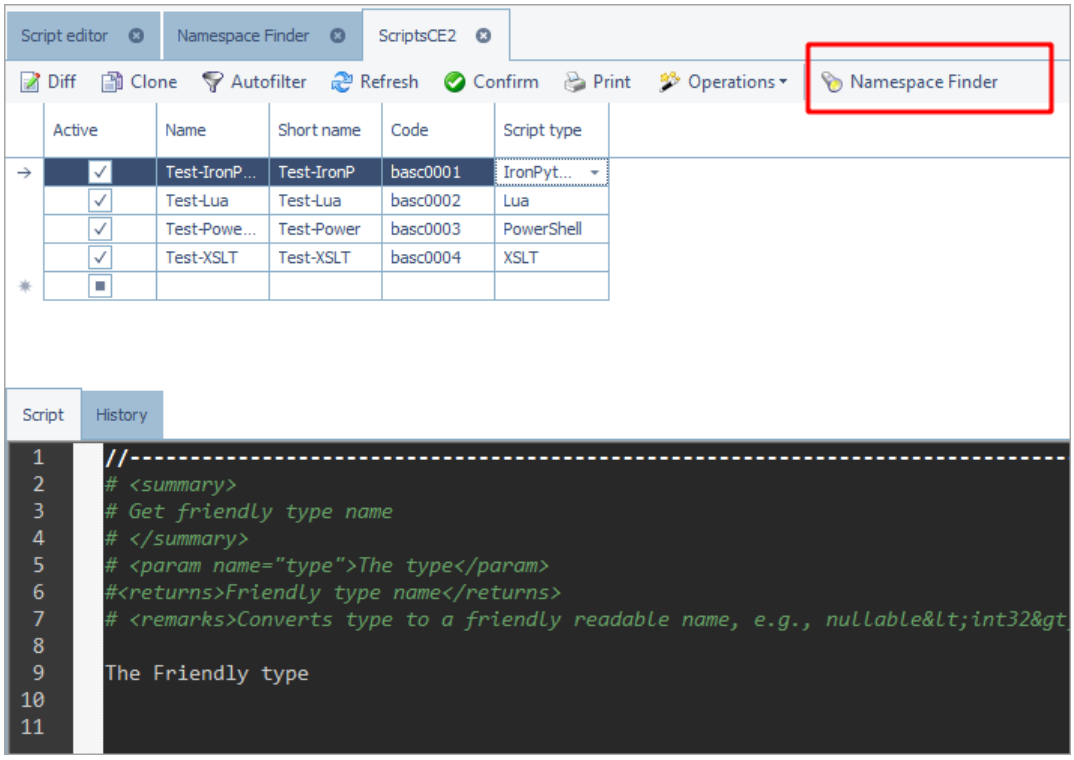
### Mp6Trace now allows tracing on trace name

The **-n** option was added to **Mp6Trace.exe** trace switches so that you can now trace based on trace name instead of ID. Support for wildcards was also added.

In addition, the length of SysProgram Parameters to was increased to 4000.

### Introducing Namespace Finder for script assistance and Dark Mode theme with monospaced font in Script Editor2

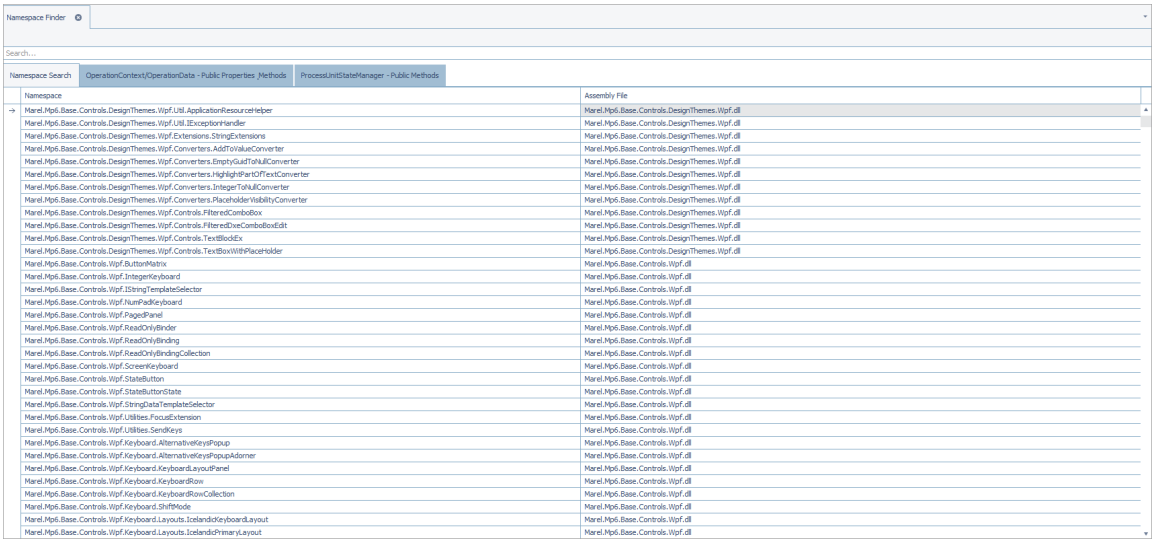
A **Namespace Finder** button was added to the **ScriptsCE2** view (*Marel.Mp6.Base.UI.UserForms.Scripting.Scripting2.ScriptsCE2*).




Selecting the button opens a new tab called **Namespace Finder**. There can be more than one Namespace Finder tab.

In the Namespace Finder, you can:

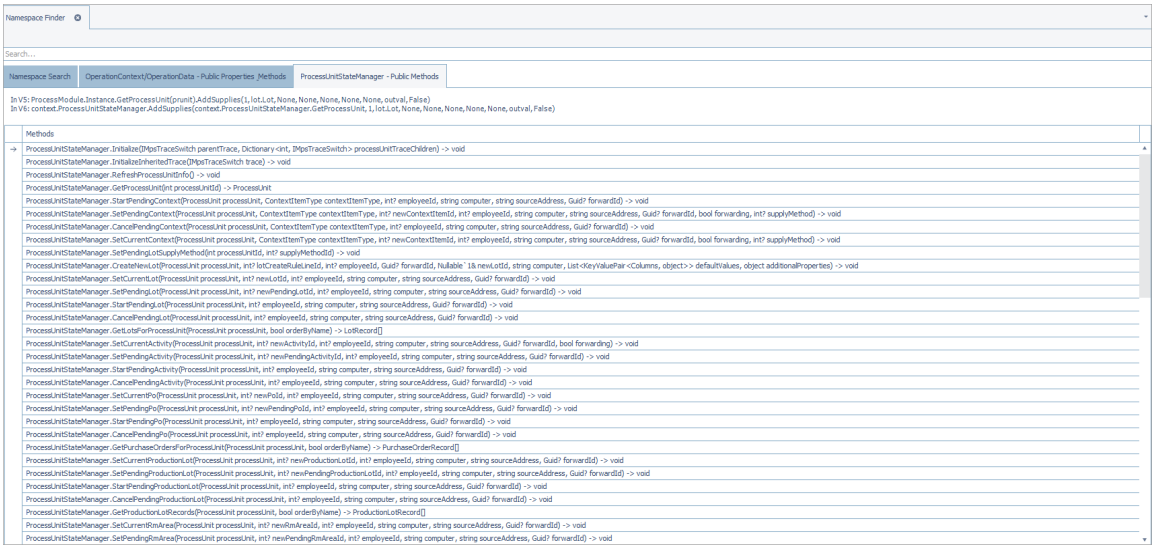
- Search for available namespaces and assemblies in Script Editor2.




- Search public methods and properties *OperationContext* and *OperationData*.


- Search public methods for *ProcessUnitStateManager* (this example shows the change

from V5 to V6 change for the *AddSupplies* method).




In addition, you can search partial text, select only one row at time and copy text from grid rows. When going from one tab to the next, the search is cleared.

When using IronPython and PowerShell as the **Script type**, the script editor can be set to **Dark Mode**.

# Bug fixes

The following bugs were fixed:

**HTTPS redirection seems to cause initial connection delay for M&LI workflow**
An HTTPS redirection that sometimes caused delays was removed from servers.

**Clear database drop-down in Toolbox when creating new config for existing database**
Previously, when you created an *innova.config* entry in **Toolbox** for an existing database and then clicked **Refresh**, the database was added to the list and the list got longer. Now the database drop-down is cleared when creating a new *innova.config* for an existing database before a refresh.

**Fix ProductionDay dashboard in Data Visualizaton**
Previously, when *ProcessSystemEntities.ProductionDay* was requested in a dashboard in Data

Visualization, a period of 1 minute was requested instead of the expected current (production) day. This was fixed.

**Update driver for MU1 scales**
Previously, the unit price was not forwarded from the MU1 driver to, for example, the *UltimateStation*. Now the unit price from the scale is forwarded correctly if it is received from the scale.

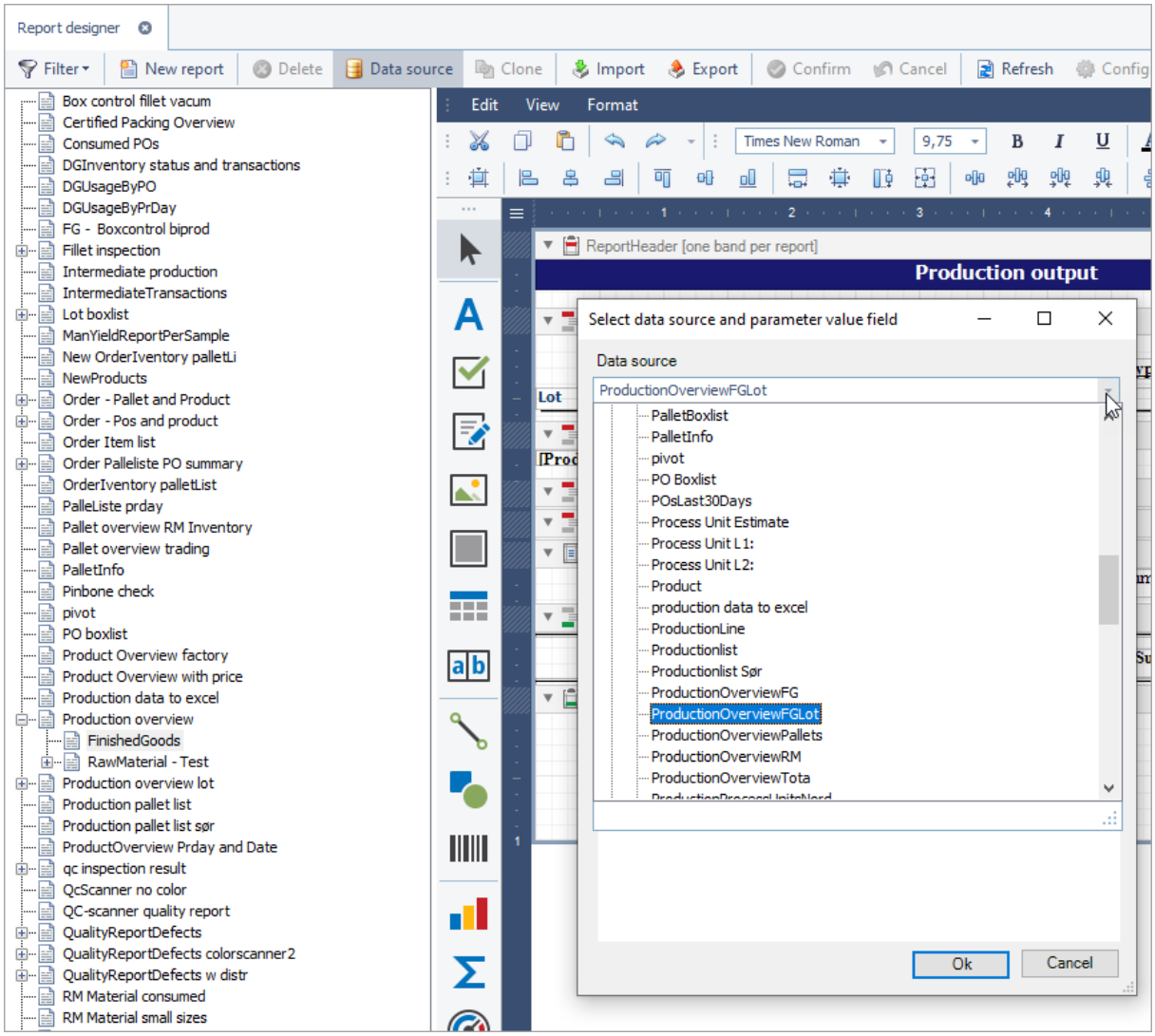
**Stop using version in Base assemblies**
Using a specific version of a Base assembly instead of the assembly name caused errors after updating Process. *Progman.exe* automatically started after a module was updated in the **Installation Manager** and before **Toolbox** had updated the version information. This caused the routers to use the wrong device driver version. Now it checks for the name and fetches the available assembly, which is the newest one.

**Access to a view now includes access to the Default view configuration**
Previously, if you had access to a specific view, you did not also get access to the Default view configuration. This was fixed.

**Add logout button for WinUI on Windows platform**
The **Logout** button was missing from the WinUI on the Windows platform. This was fixed.

**Hide unused status bar in dashboard viewer**
Previously, the status bar at the bottom of the dashboard viewer could not be removed or hidden if not used. This was fixed.

**Reports and data sources are now sorted by name in the Report Designer**
Previously if you had many custom reports, it was hard to find a specific report because there was no way to filter by name or sort the list in the **Report Designer**. This was fixed.




**Buttons enabled when they should not be in the Report Designer**

When opening the **Report Designer**, several buttons were enabled that should not have been and some caused exceptions when clicked. This was fixed and the buttons are no longer enabled.

**Fix range parameters for sub reports**

When there was a range parameter with dates in master data and the same for sub reports, the data parameter bindings only showed a single parameter for the sub reports. This was fixed.

**Fix Devices view**
The **Devices** view did not work after entering a Device. This was due to issues with how translations affected database collation and has been fixed.

**Device Settings (dctexec.exe) - Logiflex message values formatting improved**
A Boolean value type was added to device settings, and values are now formatted based on type. Numbers and Boolean values are without quotes and parameter names can now be used in the message topic in the settings template, for example, *msg.Logiflex.Test.Line.{Line}* with a parameter **Line value** of "1" will result in the topic *msg.Logiflex.Test.Line.1*
**NOTE**: The new formatting requires the use of the **-p** command line parameter on *dctexec.exe*.

**Add missing fieldtype for PDS**
The status **Left/right leg missing new** was not registered in the database. This was fixed.

# CLS

Module version: 4.1.0

Changes in this release are from module version 4.0.2 to 4.1.0.

## New features and improvements

The following new features and improvements to functionality were added:

### New Grading terminal

A new **Grading** terminal was added where operators can select a classification and yield group as an item's grade. If configured, a destination for the item can also be selected.

In addition, the new terminal can be used as a rehanging terminal by receiving a CHIP message from the PLC and searching for the correct item, which is used to rehang the item to the given RFID (and carrier).

**Features**

- Shows information for the hook that is passing the trigger location.
- Operator can select classification and yield group (configurable).
- Operator must press **Release** to finalize the data
- If an item already has a classification and/or yield group, the item is pre-selected
- Operator can search for an item by kill number if the current item is unknown or incorrect. In this case, the terminal will rehang (correct the data) when finalizing the data.
- A confirmation dialog can be configured to be shown before finalizing the data.
- A label can be printed if a label printer is configured for the terminal.

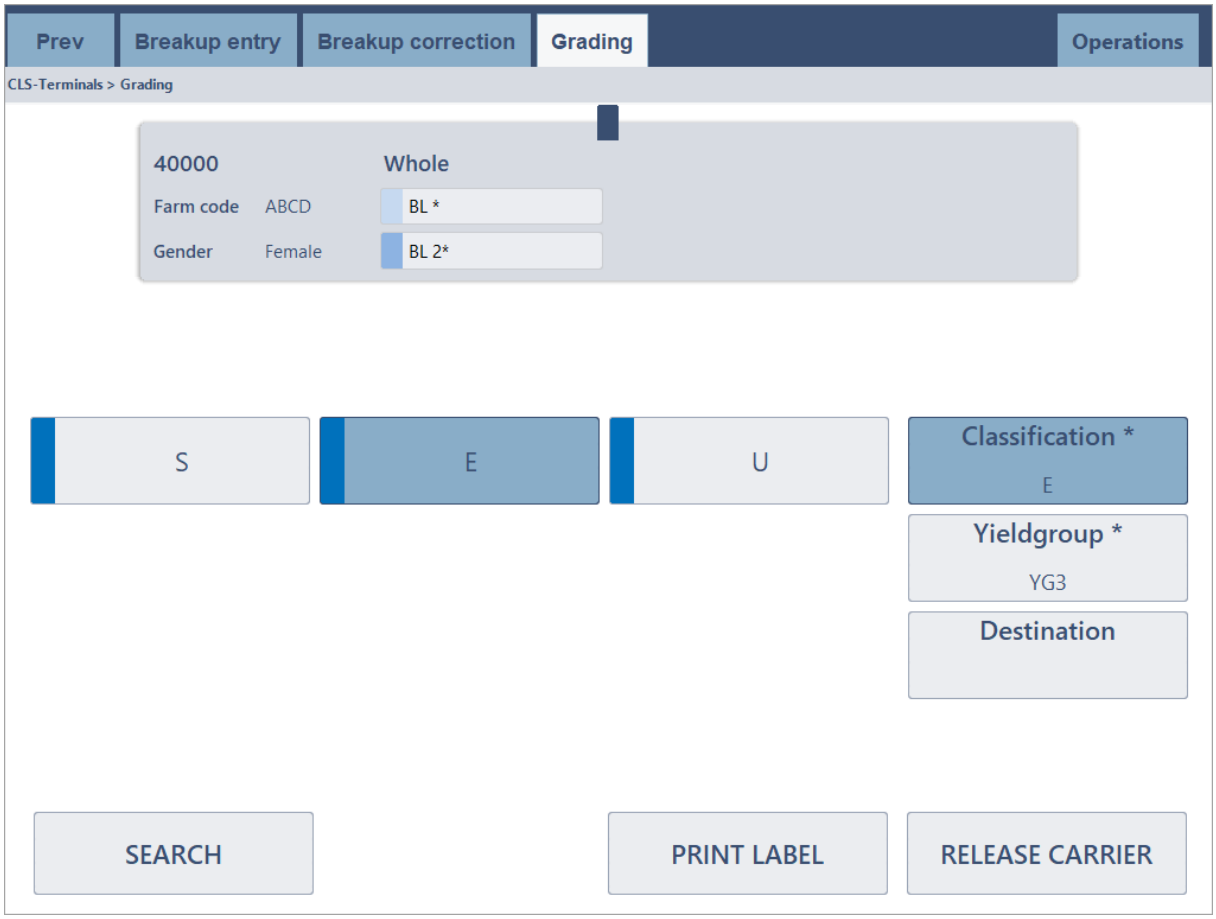



**Figure 1 Grading an animal in the Grading terminal**

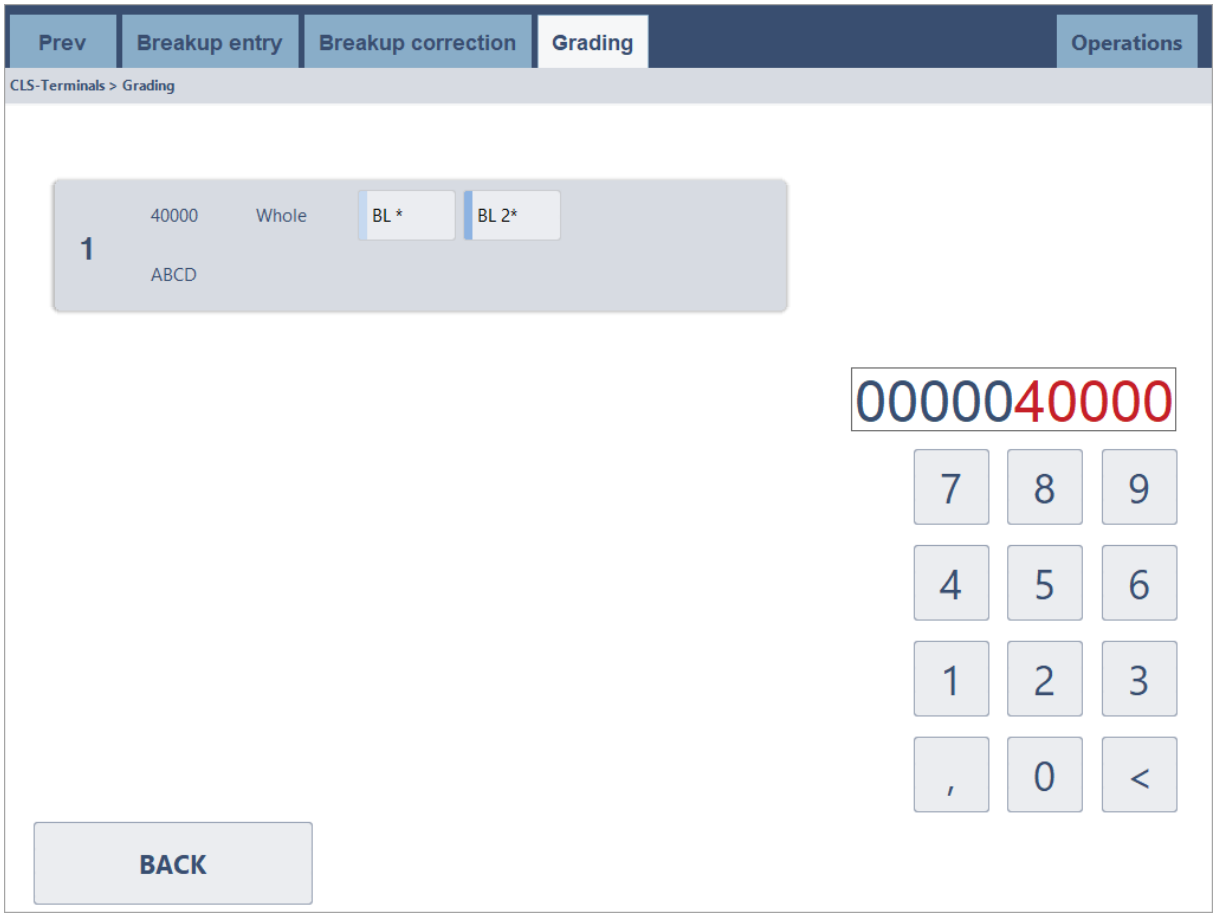



**Figure 2 Searching for an animal in the Grading terminal**

## Configuration

### Assembly:

| Assembly name | Class name |
|---|---|
| Marel.Mp6.CLS.UI | Marel.Mp6.CLS.UI.M6000.GradingTerminal.GradingTerminalCE |

### XML configuration properties:

| Property | Description |
|---|---|
| CarrierViewPanel | The carrier view panel configuration to use in the terminal. |
| Terminal | Location terminal configured in the CLS system setup. Includes a station. |

| | |
|---|---|
| TriggerType | The message the terminal listens to:<br>• **CarrierIdentificationTrigger** - CHIP message with hook id based lookup<br>• **Trigger** - TRIG message with carrier id based lookup |
| OverrideConfirmationEnabled | Enables the override confirmation dialog when finalizing the data with a search result. |
| SearchButtonVisible | Operator can use search function. |
| SearchConfiguration | Search configuration properties for the search function. A *CarrierView* panel must be provided if the search function is used. |
| InputFieldsConfig | Configure the *KeepSelection* option for the input fields. |
| Classification | *Classification* input field configuration. |
| Yieldgroup | *Yieldgroup* input field configuration. |
| Destination | *Destination* input field configuration |

For more information, see the *Chiller Logistics System Installation and Configuration Manual* and/or the *Chiller Logistics System User Manual*.

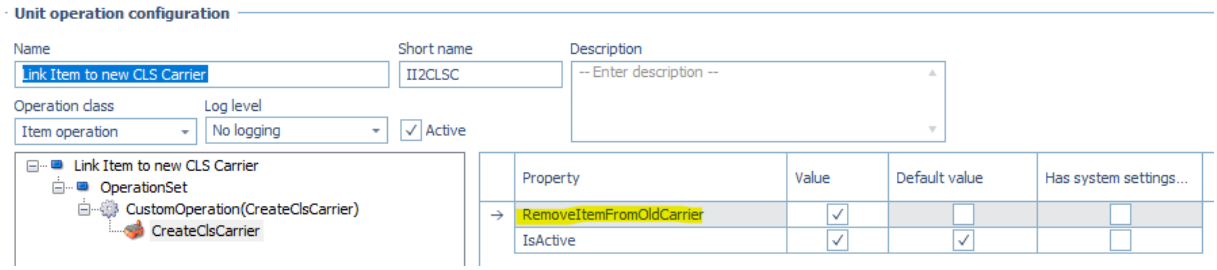
## Keep sides together even if they have different sorting groups

When left and right sides are sorted into chillers, CLS makes sure to sort on sorting groups. This means that left and right sides are not kept together if they have different sorting groups.

An option was added to turn this behavior on or off in the handler configuration.

## New unit operation to link an item to an RFID or Carrier

A new default unit operation set, **Link Item to new CLS Carrier**, was added to CLS loader data to link an item to a new RFID or Carrier.




The *RemoveItemFromOldCarrier* option removes the item reference from any CLS carrier that has the item referenced.

## Bug fixes

The following bugs were fixed:

**Default Slaughter day filter in Carcass information view does not work**
In the **Carcass information** view in SIS, the view was filtered on **Registration day**, even though the filter setting was shown as **Slaughter day**. This was fixed.

**System setup reloading fails**
When a scale handler existed without a configured scale, reloading failed. This was fixed.

**CLS Terminal dead lock problem**
Information retrieval on carriers could result in a deadlock for high performance CLS environments. A database query was adapted to prevent this deadlock.

# Data Visualization

Module version: 4.2.0

Changes in this release are from module version 4.0.1 to 4.2.0.

## New features and improvements

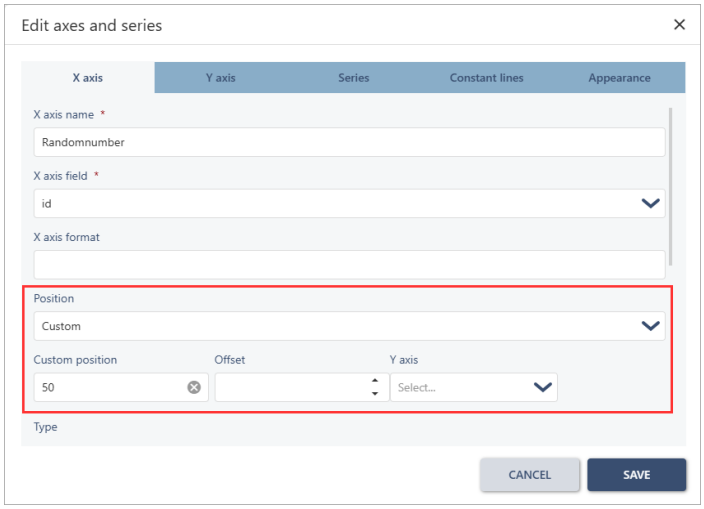
The following new features and improvements to functionality were added:

### Customize the position of axes in charts

New chart properties were added to customize the position of the axes. By setting the **Postion** property of an axis to **Custom**, you can set a custom position and an offset.

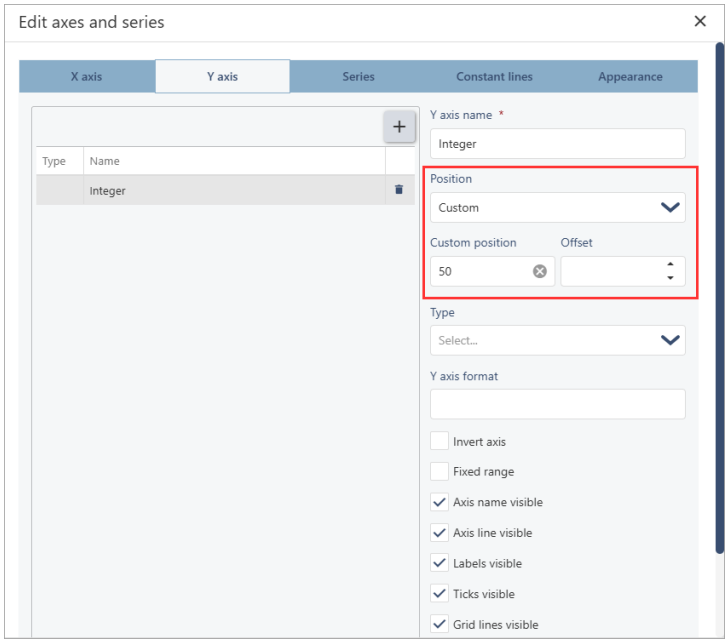
For example:

## Set X-axis custom properties:




| Property | Description |
|---|---|
| Custom position | The position of the X-axis on the Y-axis. |
| Offset | A negative or positive number to shift the axis from the custom position. |
| Y- axis | Select a Y-axis name in case of multiple Y-axes for the custom position. |

## Set Y-axis custom properties:



| Property | Description |
|---|---|
| Custom position | The position of the Y-axis on the X-axis. |
| Offset | A negative or positive number to shift the axis from the custom position. |

For more information about editing chart properties, see the *Data Visualization User Manual*.

## Enforce a dashboard refresh even if a sequence contains only one dashboard

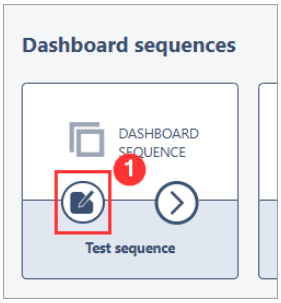
Previously, if a dashboard sequence contained only one dashboard with a display time, the dashboard wasn't refreshed after the display time. Now the dashboard will be refreshed after the display time so that the data on the dashboard is also refreshed, regardless of the number of dashboards in the sequence.

## New properties for dashboard sequences

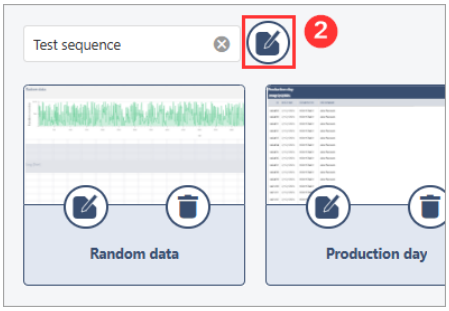
New properties were added for editing dashboard sequences and dashboards.

### Edit a dashboard sequence

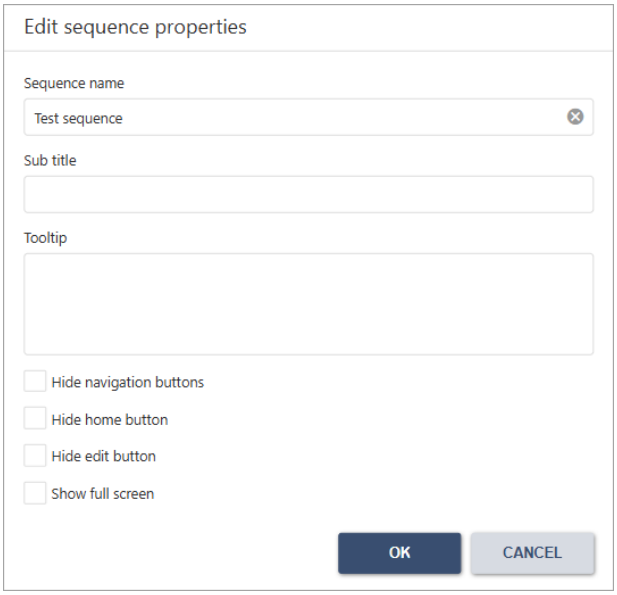
1. On the **Dashboard sequences** view, choose a dashboard sequence to edit and select the **Edit** button on the card.




2. In the selected sequence, select the **Edit** button next to the sequence name field.




3. In the **Edit sequence properties** dialog, edit properties.



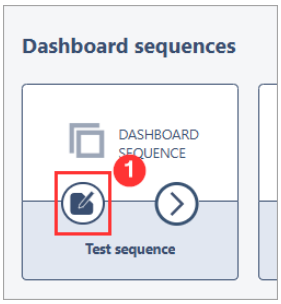

Dashboard sequence properties include:

| Property | Description |
|---|---|
| Sequence name | The name of the sequence |
| Sub title | Enter a subtitle to show on the card for the dashboard sequence. |
| Tooltip | Enter a tooltip to show when users hover over the card with the mouse. To add a new line, use the HTML tag *<br />*. |
| Hide navigation buttons | Select to hide the navigation buttons. Use this only in combination with a display time. |

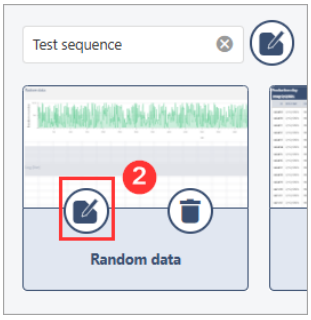
| | |
|---|---|
| Hide home button | Select to hide the **Home** button. |
| Hide edit button | Select to hide the **Edit** button. |
| Show full screen | Set the browser to automatically open the sequence in full screen mode (F11) when the sequence is started. The WebUI header will also be hidden. |

### Edit a dashboard

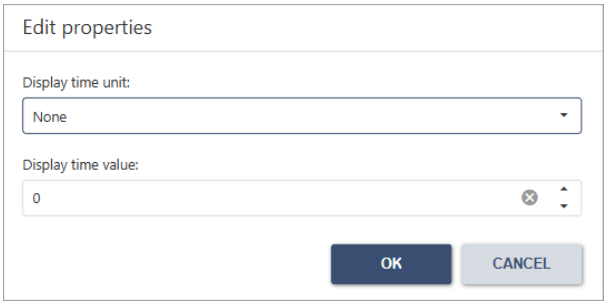
1. On the **Dashboard sequences** view, choose a dashboard sequence to edit and select the **Edit** button on the card.




2. Choose the dashboard you want to edit and select the **Edit** button on the card.




3. In the **Edit properties** dialog, edit the properties.




Dashboard properties include:

| **Property** | **Description** |
|---|---|
| Display time unit | Select the unit of time in which to display the dashboard.<br><br>**Option** / **Description**<br>None — No display time. The dashboard displays until a navigation button is selected.<br>Seconds — The dashboard is displayed for <*display time value*> seconds until the next dashboard is loaded.<br>Minutes — The dashboard is displayed for <*display time value*> minutes until the next dashboard is loaded.<br>Hours — The dashboard is displayed for <*display time value*> hours until the next dashboard is loaded.<br>On second — The dashboard is displayed until the <*display time value*>seconds are reached on the clock and then proceeds to the next dashboard.<br><br>To display a dashboard until 00 seconds is reached on the clock, enter the value "0".<br><br>To display a dashboard until 30 seconds is reached on the clock, enter the value "30".<br>On — The dashboard is displayed until the <*display* |

| | | |
|---|---|---|
| | minute | *time value*> minutes are reached on the clock and then proceeds to the next dashboard.<br><br>To display a dashboard every hour, enter the value "0".<br><br>To display a dashboard every half-hour, enter the value "30". |
| | On hour | The dashboard is displayed until the <display time value> hour is reached on the clock and then proceeds to the next dashboard.<br><br>To display a dashboard until twelve o'clock is reached on the clock, enter the value "0". You can also use this if you want to refresh a dashboard every day at midnight.<br><br>To display a dashboard until six o'clock is reached on the clock, enter the value "6". |
| Display time value | Select the value for the selected **Display time unit**. | |

For more information about editin dashboard sequences, see the *Data Visualization User Manual*.

## Bug fixes

The following bugs were fixed:

**Web reporting not working**
An issue was fixed where **Web reporting** stopped working due to maximum pool size being reached.

**Deleted data source criterion visible until dashboard saved**
After deleting a data source criterion, the criterion was still displayed in the component header until the dashboard was saved. This was fixed and now deleted criteria no longer show in the header.

**Adding a script to Custom DevExpress report makes it unavailable in the WebUI**
An issue was fixed where Custom DevExpress reports didn't work in the WebUI after adding a script, even though they worked in the WinUI.

**Fixed issue with single production day criterion**
When selecting a single **Production day** in a dashboard, a 1-minute period was requested instead of the current production day. This was fixed.

- **NOTE**: ***Base 7.2.0 is required for this fix!*** *After updating to Base 7.2.0, you must edit the dashboards that were affected by this bug and save them again to correct the error.*

# Grading

Module version: 4.0.6

Changes in this release are from module version 4.0.3 to 4.0.6.

## New features and improvements

There are no new features or improvements to functionality to report in this release.

## Bug fixes

The following bugs were fixed:

**Several issues with the Graders control view were fixed**:

- The Graders control view did not allow terminating batches on either **Grader** or **Gate** level, and the activities list was empty.
- The Graders control view did not refresh
- The Graders control view did not always update gate information

**Order update on A600 not working**
An issue was fixed where order updates were not working as expected on the A600 Grader.

**Batch terminate on new activity not working**
By default, when switching the active program for a grader, the currently active batches are terminated by the Manufacturing Execution system before changing the program. A bug was introduced in Grading 4.0.0 where this automatic termination functionality no longer worked. This was fixed.

**Stops receiving data from Robobatcher after restarting device**
An issue was fixed where all batch and piece registrations were dropped after a reboot of the RoboBatcher Flex. This happened because the internal program state in the Grading process unit was not correctly reset when a grading program was stopped and then started again on the RoboBatcher Flex.

# Integration Services

Module version: 4.1.0

Changes in this release are from module version 4.0.2 to 4.1.0.

## New features and improvements

The following new features and improvements to functionality were added:

### WsExportHandlerApplication now supports exporting staging records for each export type on a separate thread

This update ensures that records that require longer transfer and processing times do not clog the system. A separate trace switch was added to monitor the export process for each export type.

To enable using separate threads for each export type, set *SplitExportTypesToSeparateThreads* to "True" in the *WsExportHandlerApplication* system program XML configuration.

The **Resend staging data** and **Reschedule staging data** buttons in the *WebServiceStagingData* view are now enabled only when one or more rows are selected.

### Find and replace added to URL string manipulation in the Export Engine

Find and replace capability was added to URL string manipulation in the Export Engine. It's now possible to update parts of a string instead of just appending a query string.

If the URL contains the name of a parameter wrapped with curly brackets, it will be replaced with the value.

## Bug fixes

The following bugs were fixed:

**Transfer Hub - Fix missing pack lots**
An issue was fixed where Transfer Hub did not automatically creating lots on the receiving site.

**Error in Base log when signal handler ExportPack is configured**
When *ExportPack* was configured, an error message was entered in the Base log every time a pack was created. This was fixed.

**WSExport handler sends records again after successful export**
Sometimes the system would retry to send a record that had already been successfully exported. A dedicated *ServiceInvoker* was added for each export type when using threaded export. Now records are also marked for export until a response is received from the export process.

**Fix MDM changeset generation error**
An error occurred when trying to generate changesets for some tables. This was caused by issues with certain translations when setting the culture and has been fixed.

# OEE

Module version: 5.1.0

Changes in this release are from module version 5.0.4 to 5.1.0.

## New features and improvements

The following new features and improvements to functionality were added:

### New data table in reports

A new data table was added to several reports. The new **details table** shows all the data points within the report.

To show the table, select **Show details table** in the report criteria dialog.

When you open the report, a table that shows all the data series is displayed below the chart.

#### Loss history report

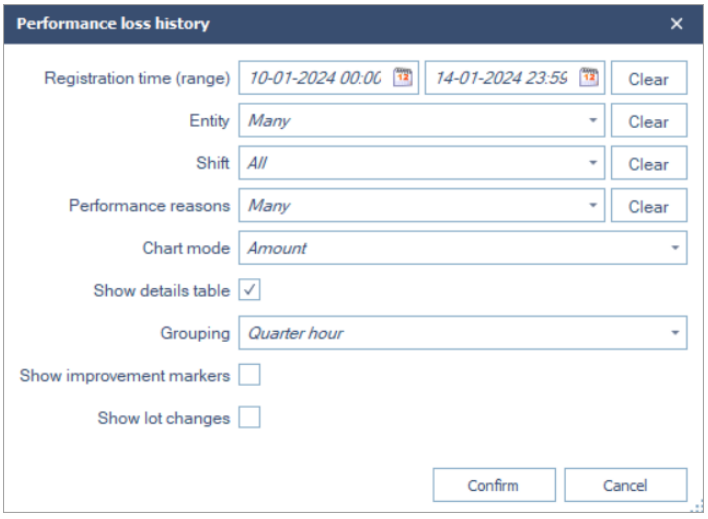



**Figure 3 Show details table option in Loss history criteria dialog**

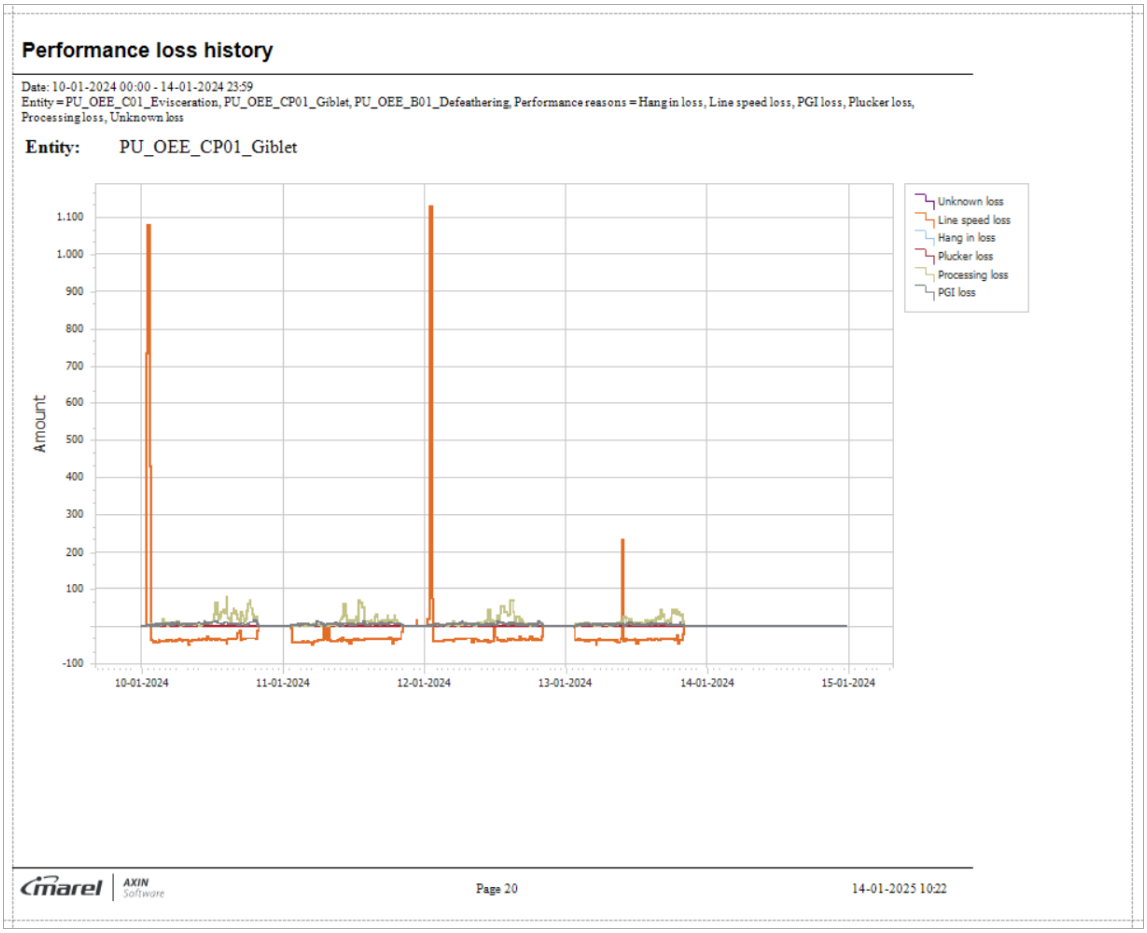



**Figure 4 Details table displayed in the Loss history report**

## OEE figures history report

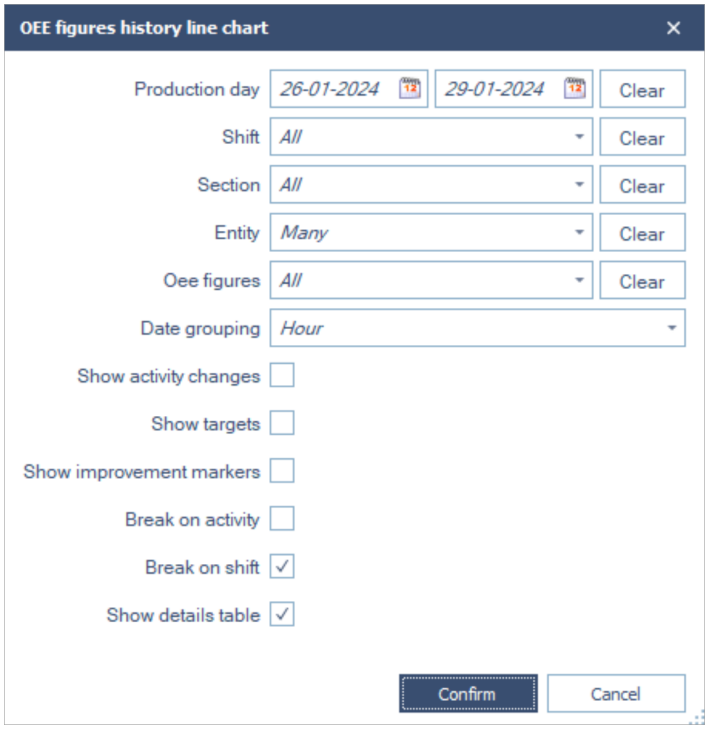



**Figure 5 Show details table option in OEE figures history report criteria dialog**

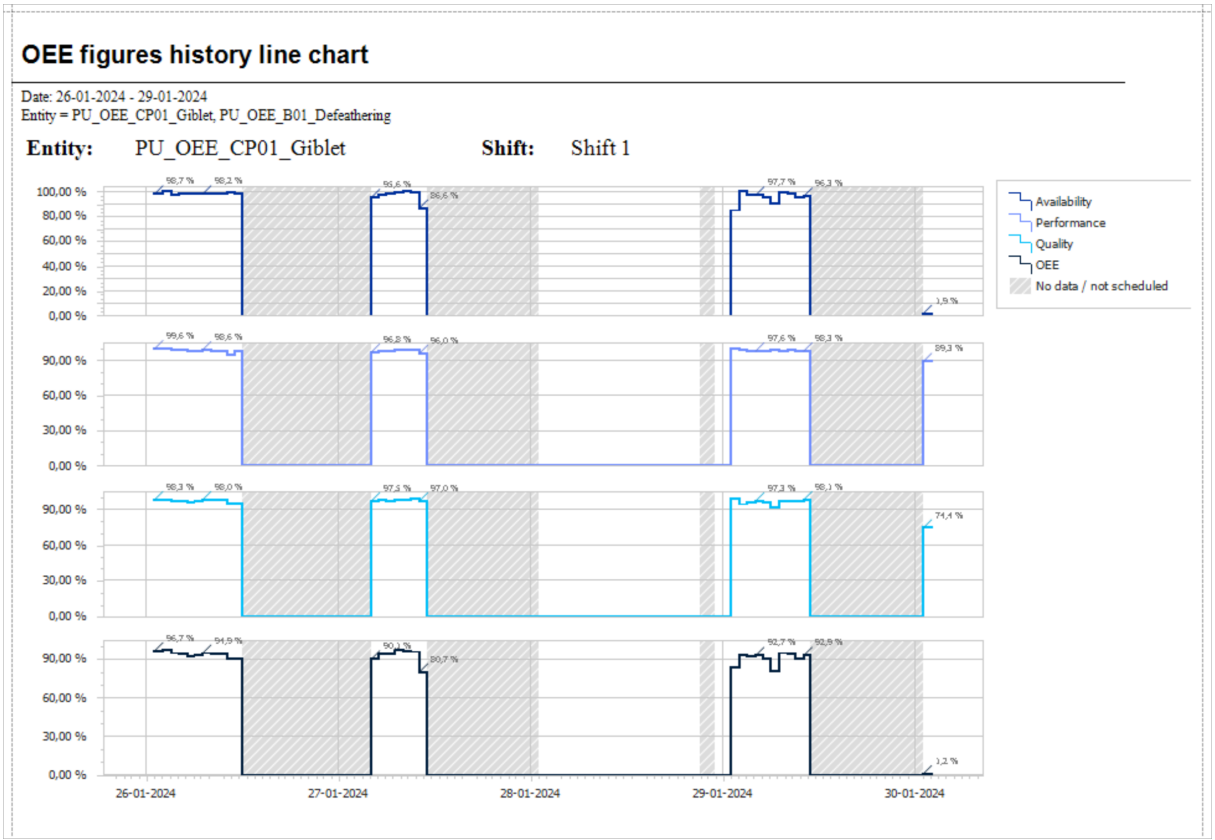
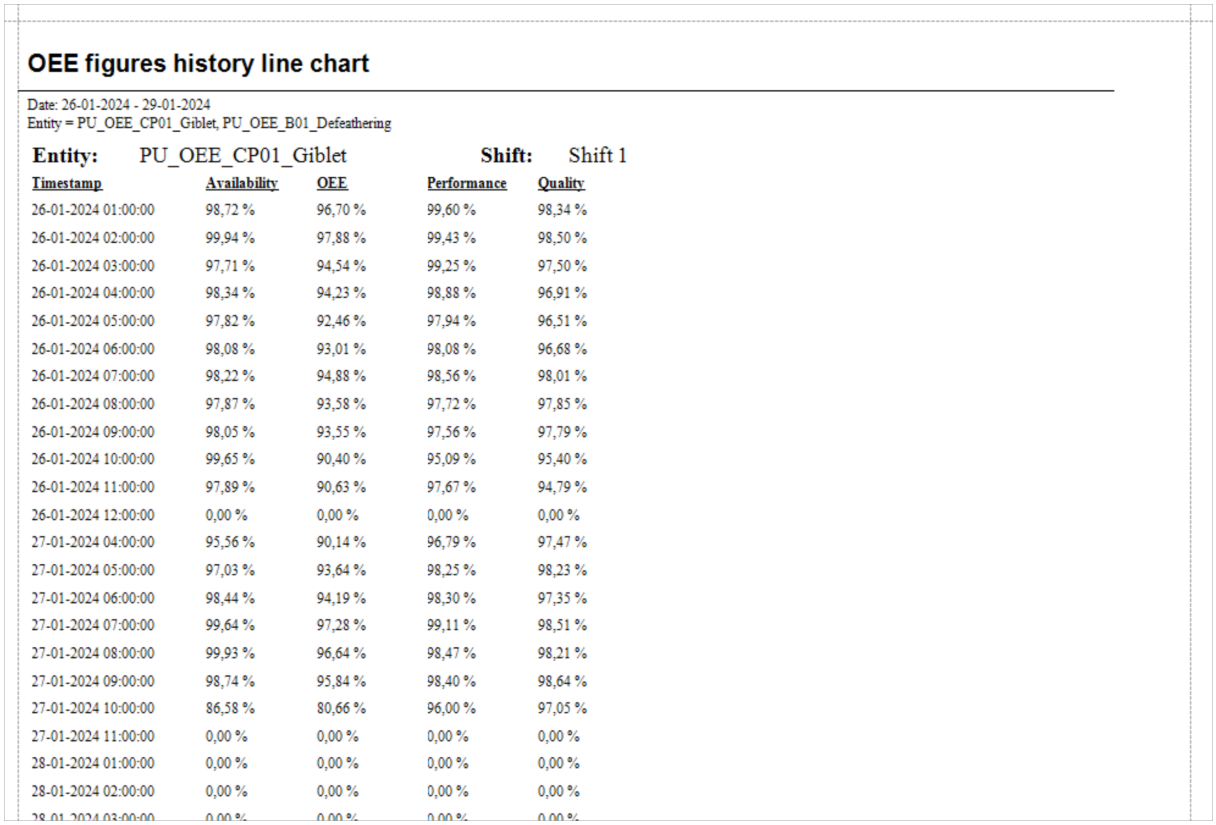



**Figure 6 OEE figures history line chart**



**OEE figures history line chart**

Date: 26-01-2024 - 29-01-2024
Entity = PU_OEE_CP01_Giblet, PU_OEE_B01_Defeathering

**Entity:** PU_OEE_CP01_Giblet **Shift:** Shift 1

| Timestamp | Availability | OEE | Performance | Quality |
|---|---|---|---|---|
| 26-01-2024 01:00:00 | 98,72 % | 96,70 % | 99,60 % | 98,34 % |
| 26-01-2024 02:00:00 | 99,94 % | 97,88 % | 99,43 % | 98,50 % |
| 26-01-2024 03:00:00 | 97,71 % | 94,54 % | 99,25 % | 97,50 % |
| 26-01-2024 04:00:00 | 98,34 % | 94,23 % | 98,88 % | 96,91 % |
| 26-01-2024 05:00:00 | 97,82 % | 92,46 % | 97,94 % | 96,51 % |
| 26-01-2024 06:00:00 | 98,08 % | 93,01 % | 98,08 % | 96,68 % |
| 26-01-2024 07:00:00 | 98,22 % | 94,88 % | 98,56 % | 98,01 % |
| 26-01-2024 08:00:00 | 97,87 % | 93,58 % | 97,72 % | 97,85 % |
| 26-01-2024 09:00:00 | 98,05 % | 93,55 % | 97,56 % | 97,79 % |
| 26-01-2024 10:00:00 | 99,65 % | 90,40 % | 95,09 % | 95,40 % |
| 26-01-2024 11:00:00 | 97,89 % | 90,63 % | 97,67 % | 94,79 % |
| 26-01-2024 12:00:00 | 0,00 % | 0,00 % | 0,00 % | 0,00 % |
| 27-01-2024 04:00:00 | 95,56 % | 90,14 % | 96,79 % | 97,47 % |
| 27-01-2024 05:00:00 | 97,03 % | 93,64 % | 98,25 % | 98,23 % |
| 27-01-2024 06:00:00 | 98,44 % | 94,19 % | 98,30 % | 97,35 % |
| 27-01-2024 07:00:00 | 99,64 % | 97,28 % | 99,11 % | 98,51 % |
| 27-01-2024 08:00:00 | 99,93 % | 96,64 % | 98,47 % | 98,21 % |
| 27-01-2024 09:00:00 | 98,74 % | 95,84 % | 98,40 % | 98,64 % |
| 27-01-2024 10:00:00 | 86,58 % | 80,66 % | 96,00 % | 97,05 % |
| 27-01-2024 11:00:00 | 0,00 % | 0,00 % | 0,00 % | 0,00 % |
| 28-01-2024 01:00:00 | 0,00 % | 0,00 % | 0,00 % | 0,00 % |
| 28-01-2024 02:00:00 | 0,00 % | 0,00 % | 0,00 % | 0,00 % |
| 28-01-2024 03:00:00 | 0,00 % | 0,00 % | 0,00 % | 0,00 % |

**Figure 7 OEE figures history line chart details table**

## OEE figures history trend report

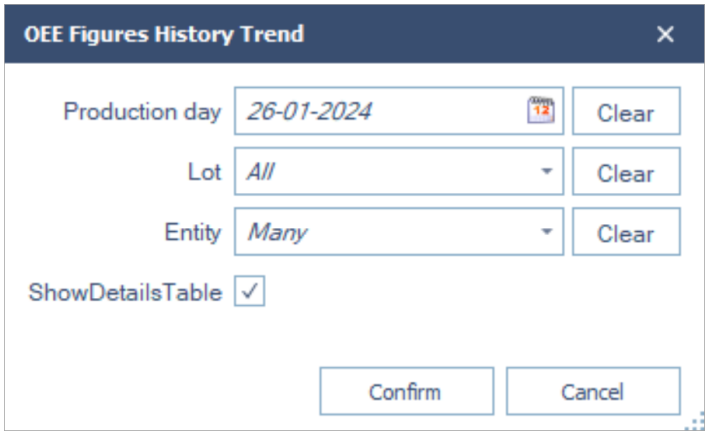



**Figure 8 Show details table option in OEE figures history trend report criteria dialog**

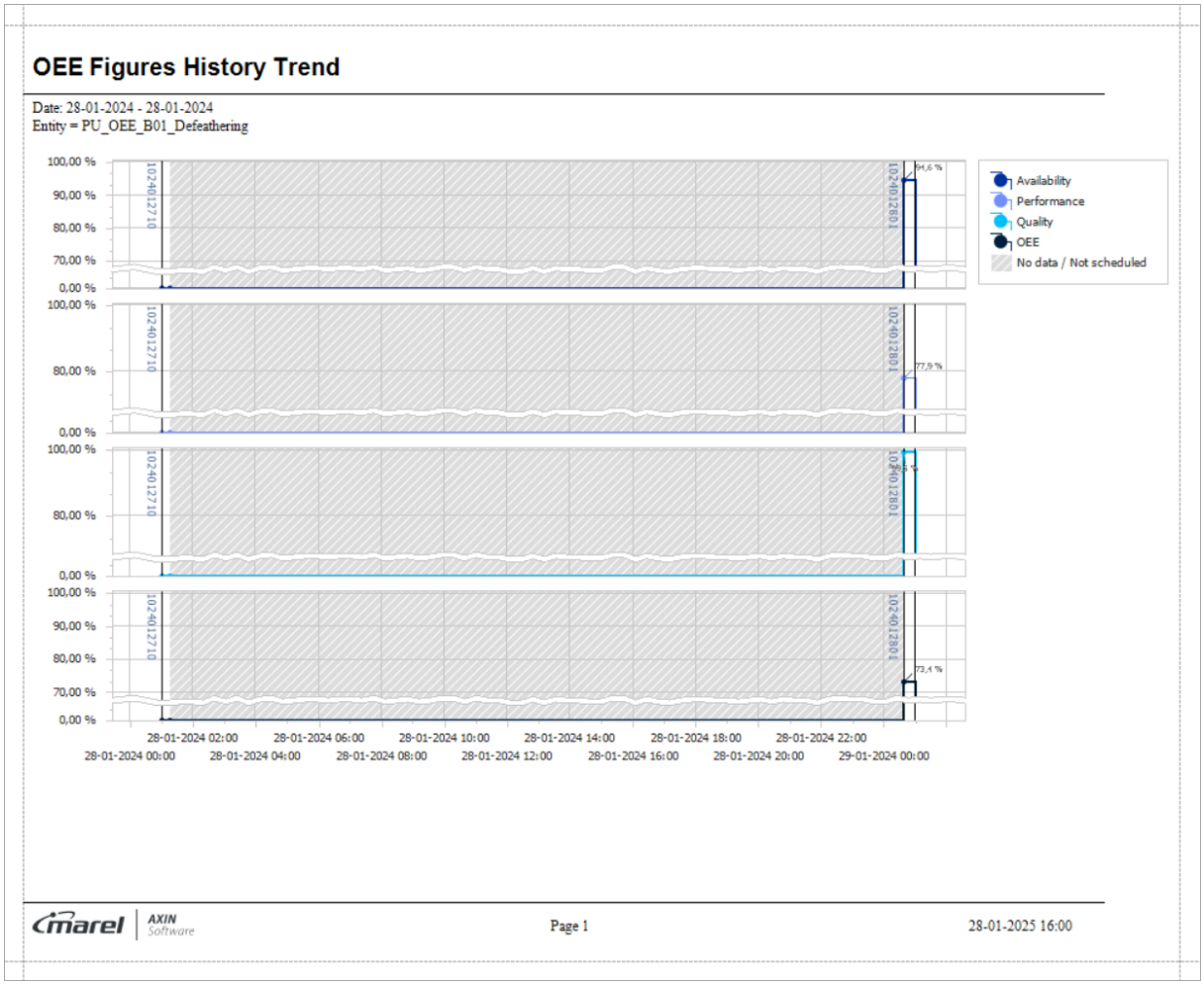
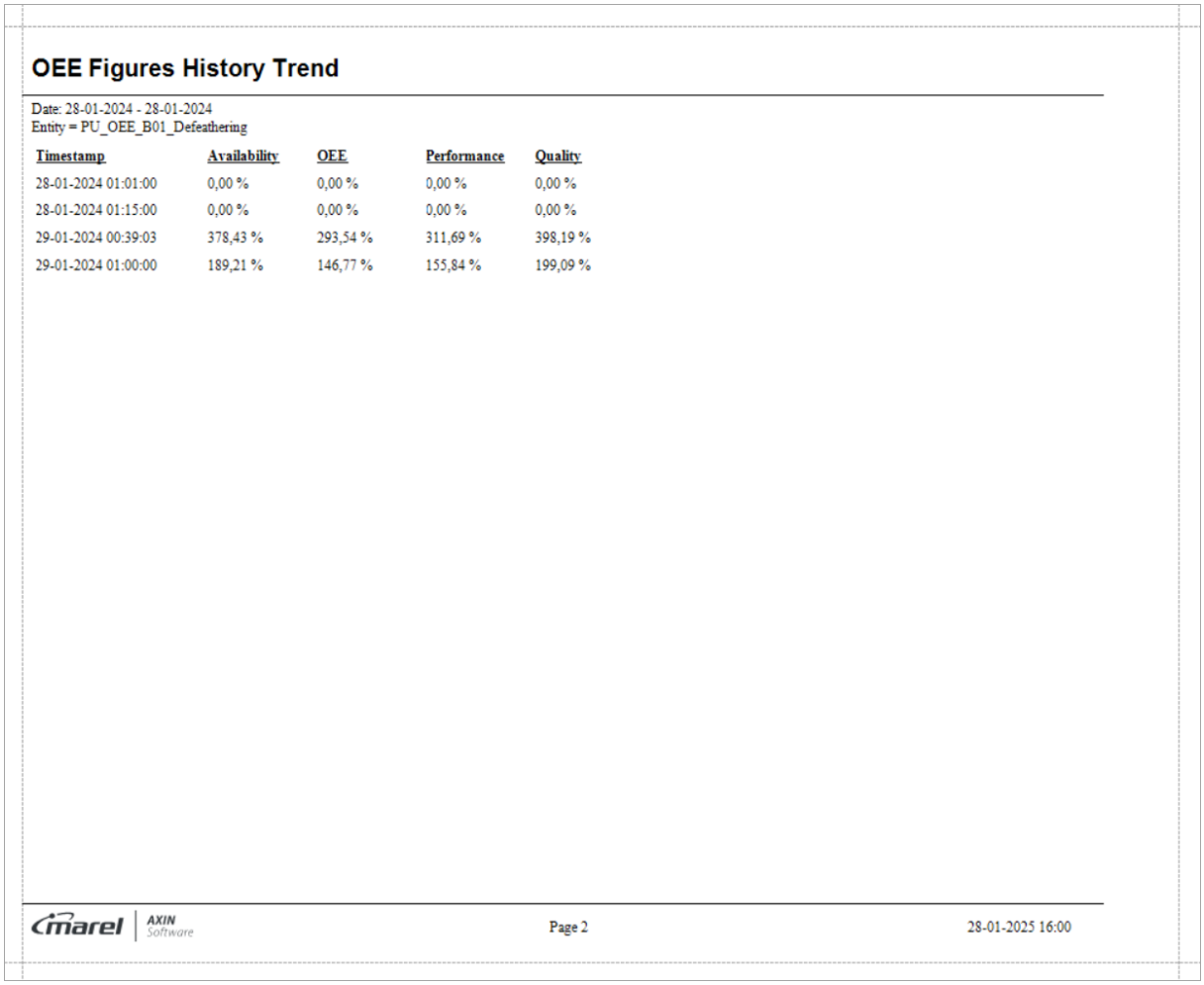



**Figure 9 OEE figures history trend report**



## OEE Figures History Trend

Date: 28-01-2024 - 28-01-2024
Entity = PU_OEE_B01_Defeathering

| Timestamp | Availability | OEE | Performance | Quality |
|---|---|---|---|---|
| 28-01-2024 01:01:00 | 0,00 % | 0,00 % | 0,00 % | 0,00 % |
| 28-01-2024 01:15:00 | 0,00 % | 0,00 % | 0,00 % | 0,00 % |
| 29-01-2024 00:39:03 | 378,43 % | 293,54 % | 311,69 % | 398,19 % |
| 29-01-2024 01:00:00 | 189,21 % | 146,77 % | 155,84 % | 199,09 % |

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28-01-2025 16:00

**Figure 10 OEE figures history trend details table**

## Stop reason history report

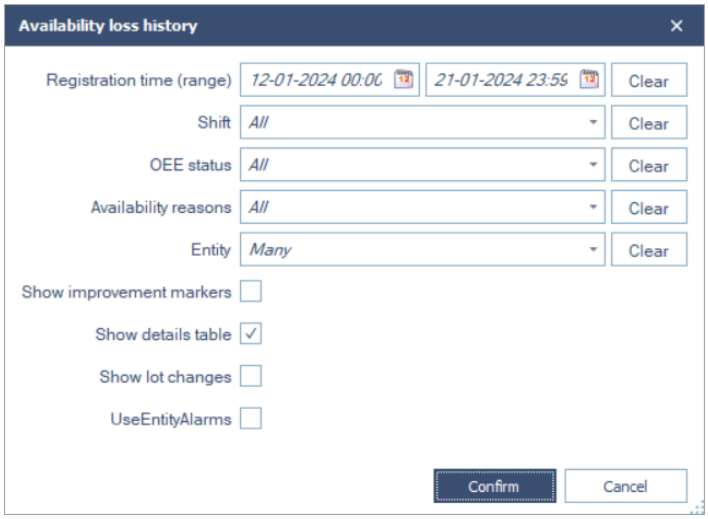



**Figure 11 Show details table option in the Stop reason history report criteria dialog**

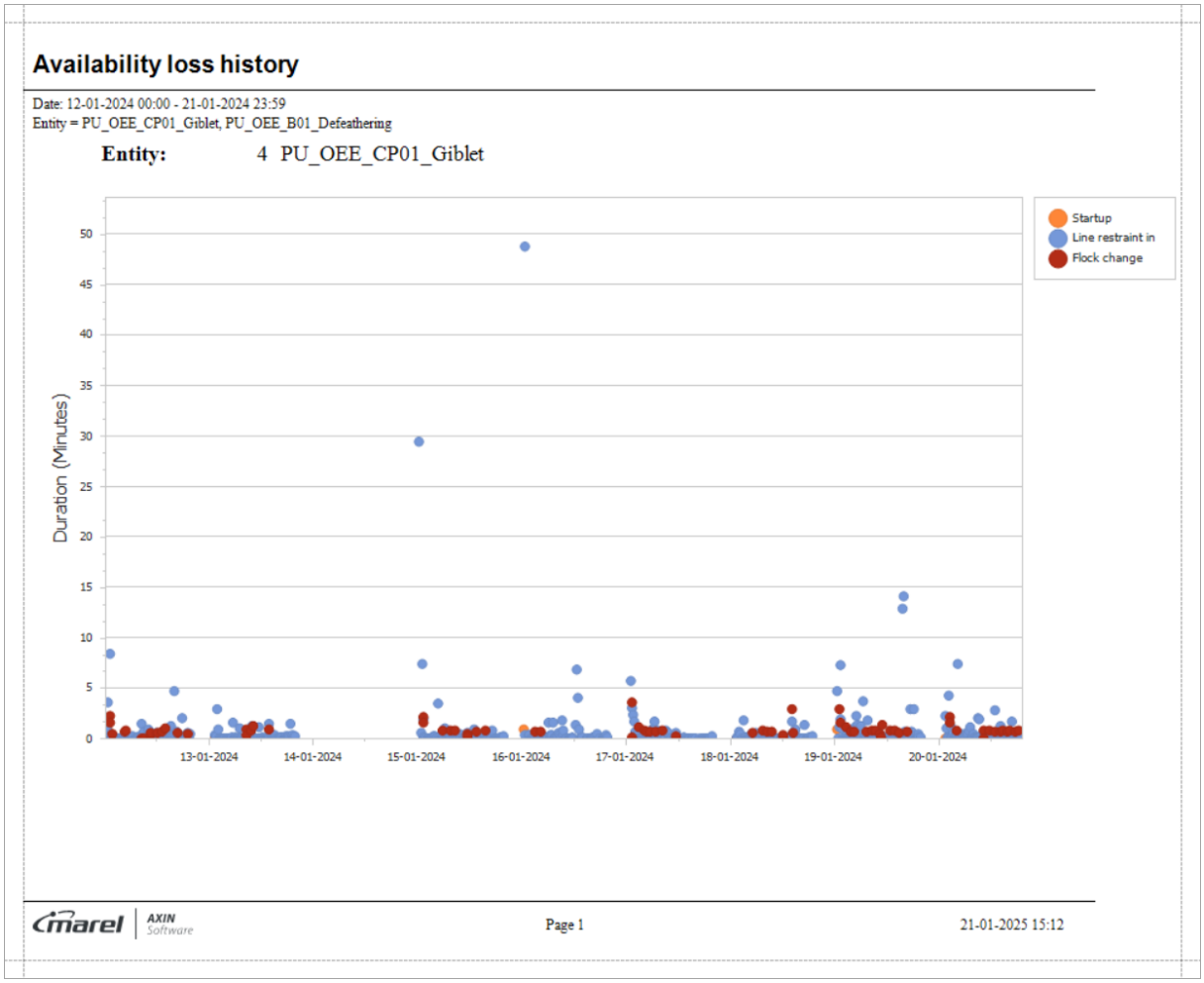
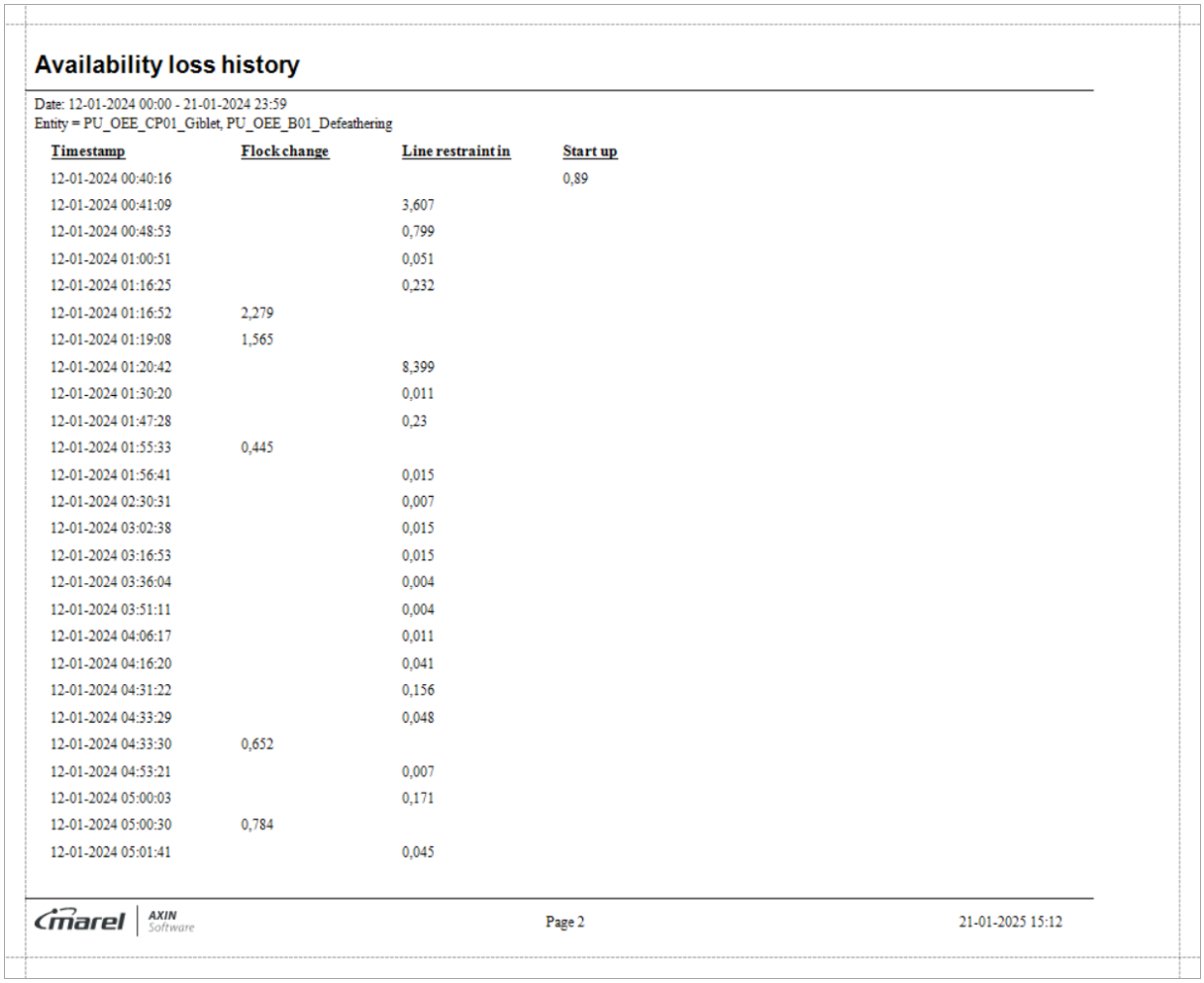



**Figure 12 Stop reason history report**



**Availability loss history**

Date: 12-01-2024 00:00 - 21-01-2024 23:59
Entity = PU_OEE_CP01_Giblet, PU_OEE_B01_Defeathering

| Timestamp | Flock change | Line restraint in | Start up |
|---|---|---|---|
| 12-01-2024 00:40:16 | | | 0,89 |
| 12-01-2024 00:41:09 | | 3,607 | |
| 12-01-2024 00:48:53 | | 0,799 | |
| 12-01-2024 01:00:51 | | 0,051 | |
| 12-01-2024 01:16:25 | | 0,232 | |
| 12-01-2024 01:16:52 | 2,279 | | |
| 12-01-2024 01:19:08 | 1,565 | | |
| 12-01-2024 01:20:42 | | 8,399 | |
| 12-01-2024 01:30:20 | | 0,011 | |
| 12-01-2024 01:47:28 | | 0,23 | |
| 12-01-2024 01:55:33 | 0,445 | | |
| 12-01-2024 01:56:41 | | 0,015 | |
| 12-01-2024 02:30:31 | | 0,007 | |
| 12-01-2024 03:02:38 | | 0,015 | |
| 12-01-2024 03:16:53 | | 0,015 | |
| 12-01-2024 03:36:04 | | 0,004 | |
| 12-01-2024 03:51:11 | | 0,004 | |
| 12-01-2024 04:06:17 | | 0,011 | |
| 12-01-2024 04:16:20 | | 0,041 | |
| 12-01-2024 04:31:22 | | 0,156 | |
| 12-01-2024 04:33:29 | | 0,048 | |
| 12-01-2024 04:33:30 | 0,652 | | |
| 12-01-2024 04:53:21 | | 0,007 | |
| 12-01-2024 05:00:03 | | 0,171 | |
| 12-01-2024 05:00:30 | 0,784 | | |
| 12-01-2024 05:01:41 | | 0,045 | |



**Figure 13 Stop reason history details table**

## Duration scaling added to OEE availability trend report

Scaling was added to the **Y-axis** (Duration axis) in the **OEE availablity trend** report in order to scale between seconds, minutes, and hours.

To enable scaling, select **Auto scale sec/min/hour** in the report criteria dialog.

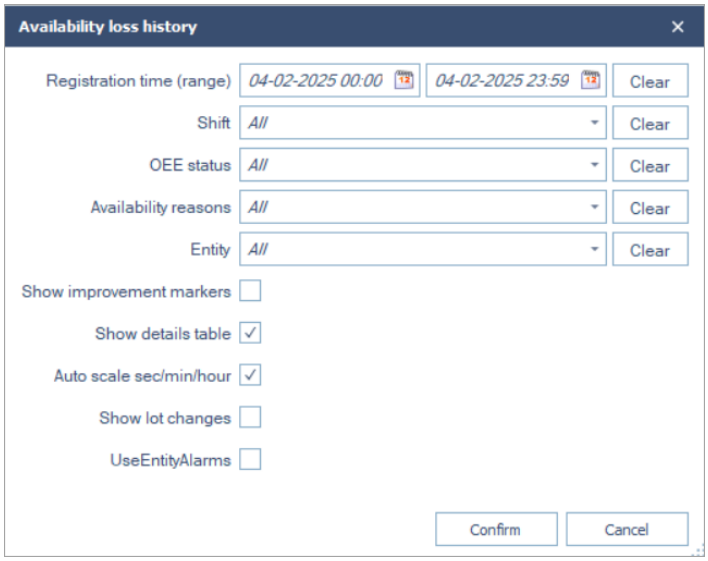



**Figure 14 Auto scale option in the Availablity trend report criteria dialog**

When the max duration shown in the chart is less than 2 minutes, the duration will scale to **seconds**.

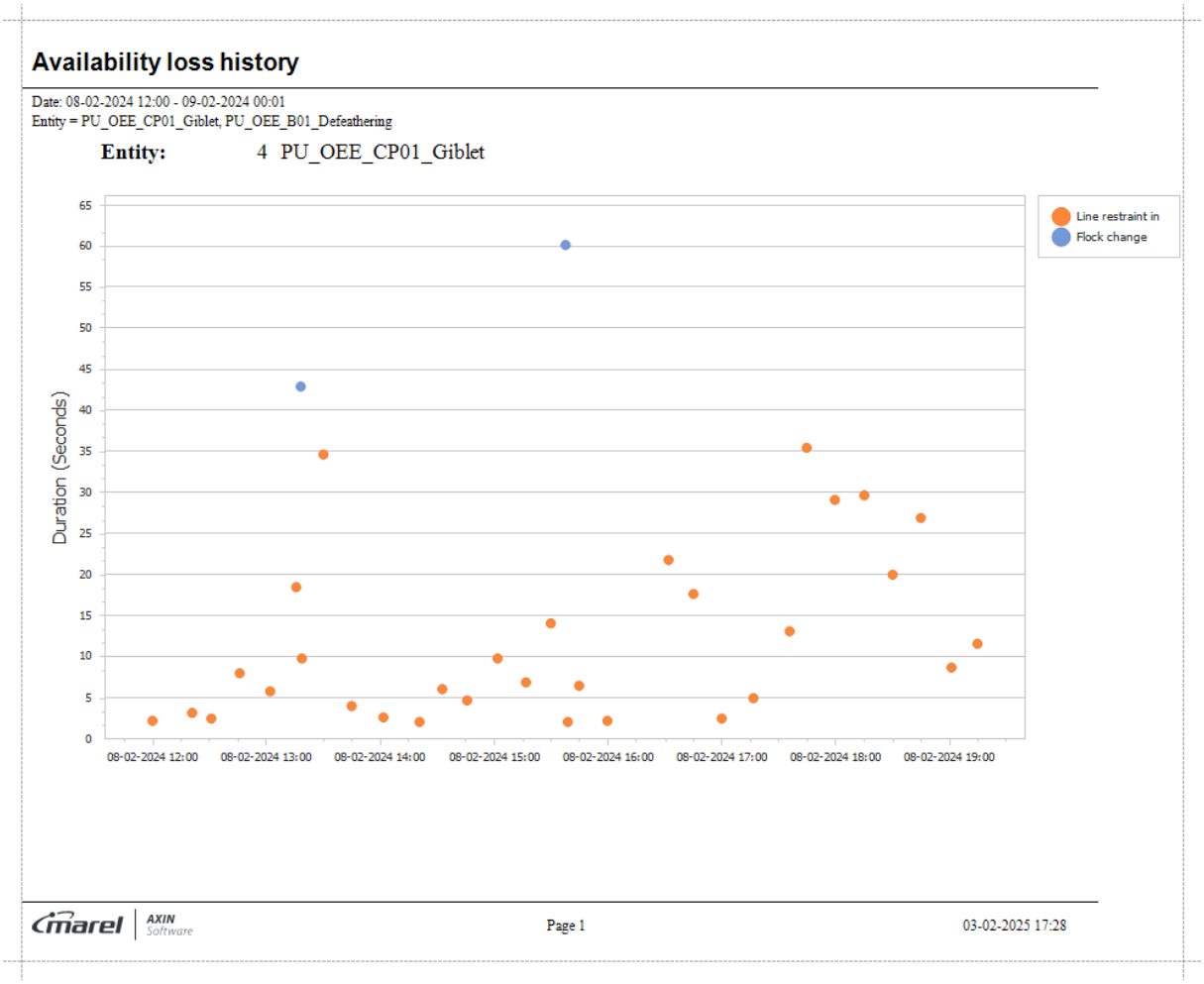



**Figure 15 Duration scaled to seconds**

When the max duration shown in the chart is less than 2 hours, the duration will scale to **minutes**.

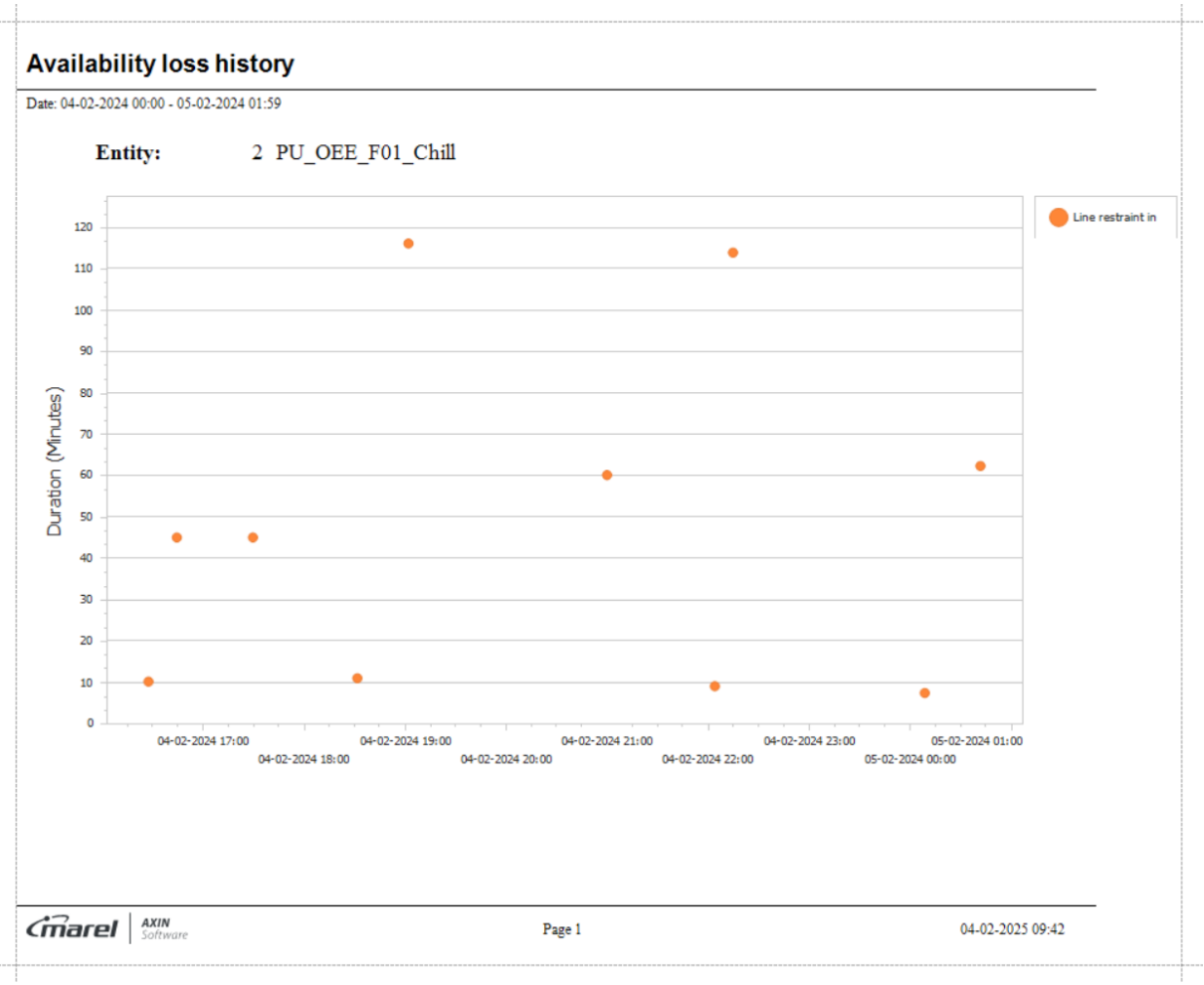



**Figure 16 Duration scaled to minutes**

When the max duration shown in the chart is more than 2 hours, the duration will scale to **hours**.

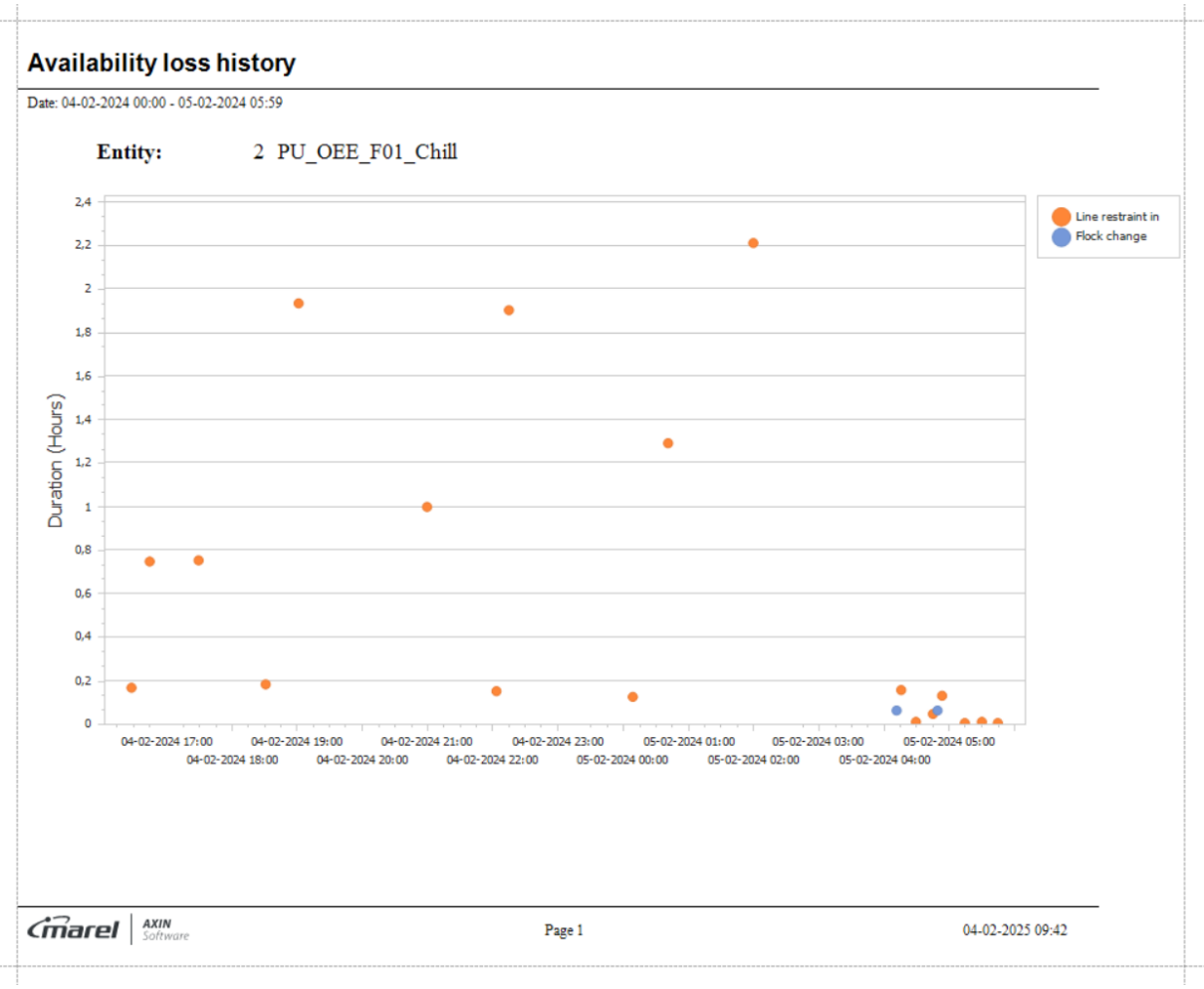



**Figure 17 Duration scaled to hours**

If the **details table** is shown, then the max duration remains in minutes and any exports to Microsoft Excel will also remain in minutes.

If a fixed Y-axis range is set using the **Manual scale range** configuration, then the duration always scales to the configured range, regardless of the data points. For example, if the max visible duration is 4 hours on the chart, then data points are always scaled to hours, even if the data points are near zero.

## Alarm translations now shown in OEE reports

Alarms were previously not shown, but are now available.

If the **Monitoring** module is loaded, then alarms will be translated in the following reports:

- OEE losses histograms report
- OEE details report

If the Monitoring module cannot be loaded, then alarms will be shown as if no translations exist.

## Bug fixes

The following bugs were fixed:

**Y-axis split in OEE Stop reason history**
After selecting "All" loss reasons or multiple loss reasons in the **OEE Stop reason** report criteria dialog, the report header became too large and the graph was split over two pages.

Now the header text is reduced to "Many" if **four or more** Availability reasons are selected. If **three or fewer** are selected, then all selected Availability reasons are displayed in the header.

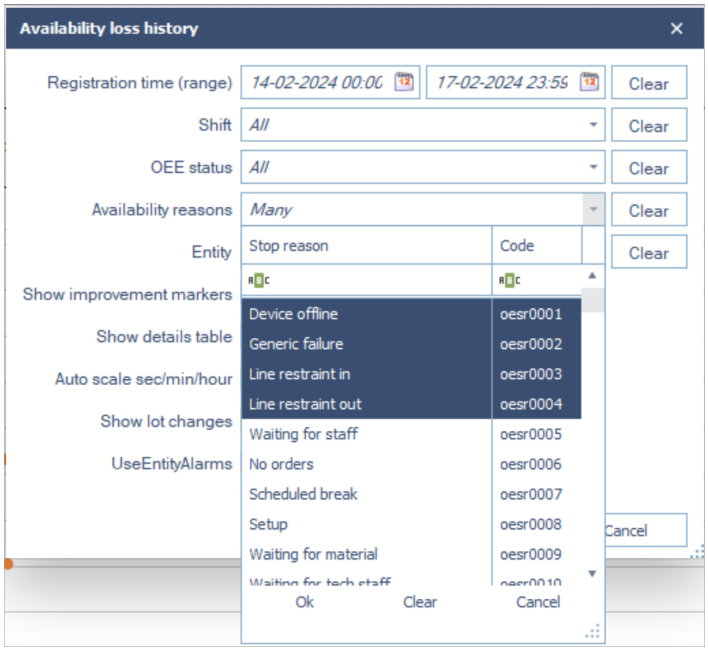



**Figure 18 Selecting four or more Availability reasons**


**Figure 19 Availability reasons displayed as "Many" in the report header**

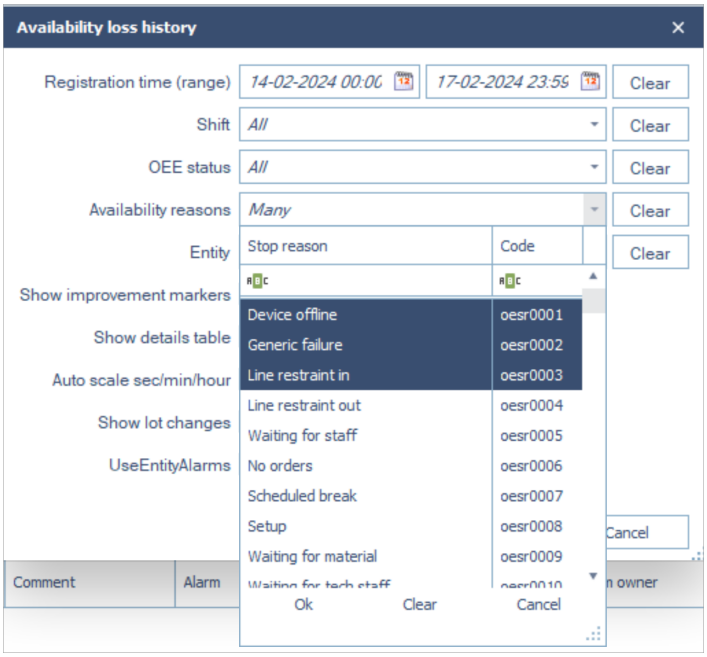



**Figure 20 Selecting three or fewer Availability reasons**

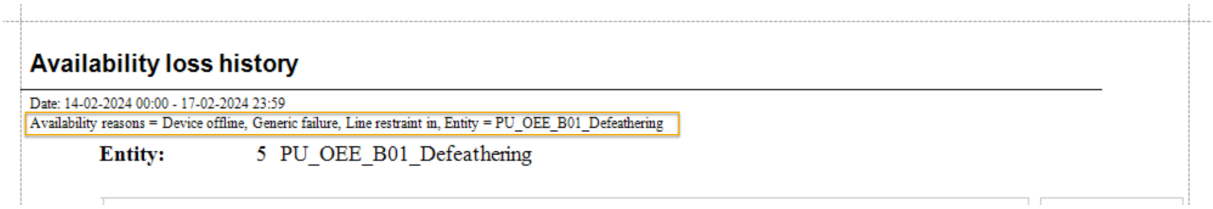



**Figure 21 All selected Availability reasons displayed in the report header**

## Improve Event Editor view performance

Several improvements were made to the **OEE Event Editor** to increase loading performance.

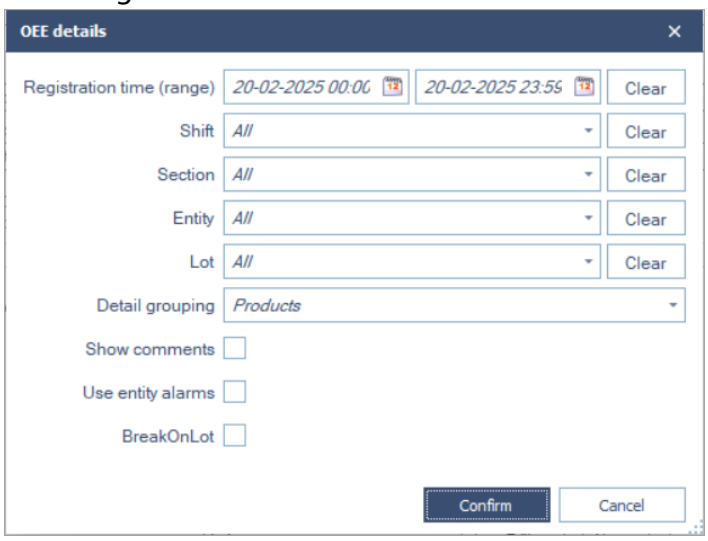
## Stop reason history report doesn't work with "All" entities selected

The **Stop reason history** report did not work when "All" was selected in the **Entity** field of

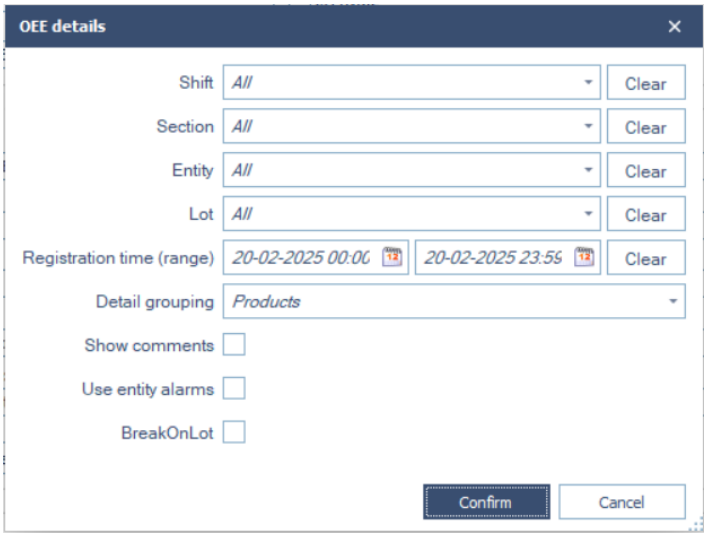
the criteria dialog, but did work when "Many" was selected. This was fixed and now all active, initialized and visible enties are added to the criteria selection.

**Same stop reason is shown multiple times in OEE Details report**
When a stop reason was manually changed in the OEE Event Editor and **Use Entity Alarms** was selected in the **OEE detailst** report critera, the same stop reason appeared multiple times in the report. This was fixed and now when User Entity Alarms is selected, the OEE details report will split the reasons into multiple lines, each with the corresponding alarm text. Note that it's still possible to get duplicate lines in the report even when the alarm name is present, but that is due to different alarm IDs with the same text, such as "Emergency Stop", for example.

**Cannot select production day range in OEE details report**
In the **OEE details** report criteria, it was not possible to select a range in the **Production day** field. The field was changed to **Registration time (range)** and it's now possible to select a date range.




**Note**: You may need to reload the criteria for the menu item in the Menu Editor, otherwise it might look like this:


OEE details
Shift
All
Clear
Section
All
Clear
Entity
All
Clear
Lot
All
Clear
Registration time (range)
20-02-2025 00:00
20-02-2025 23:59
Clear
Detail grouping
Products
Show comments
Use entity alarms
BreakOnLot
Confirm
Cancel

# OptiPack

Module version: 4.3.0

Changes in this release are from module version 4.2.2 to 4.3.0.

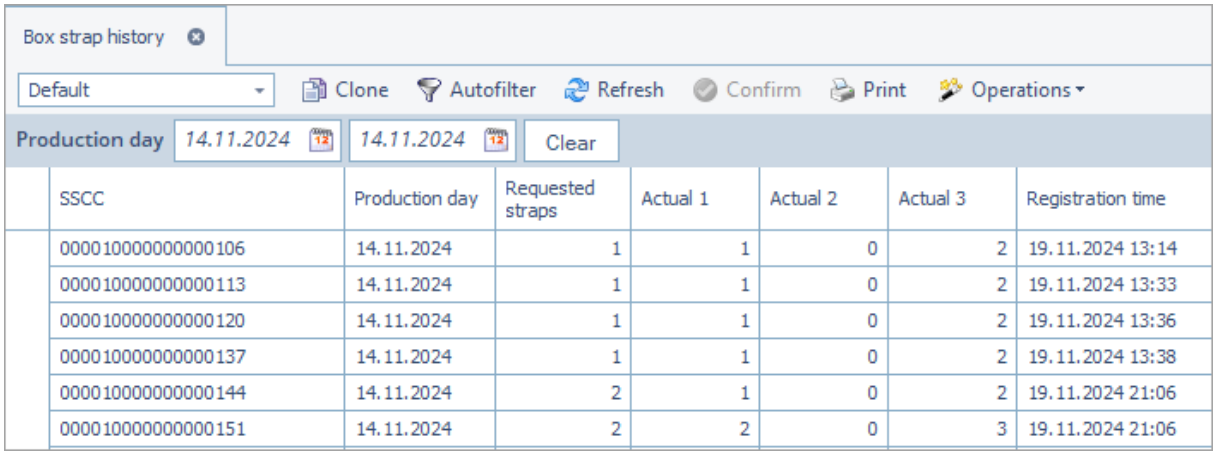
## New features and improvements

The following new features and improvements to functionality were added:

### Introducing box strapping in BMS

Now third-party **box strapping** machines can be installed as part of **Box Management System (BMS)** setups. BMS is a standard solution for the automatic packing and labeling of boxes. With this new feature, BMS can control the box strapping devices and determine how many straps a box should have when it exits the strapping location on the line.

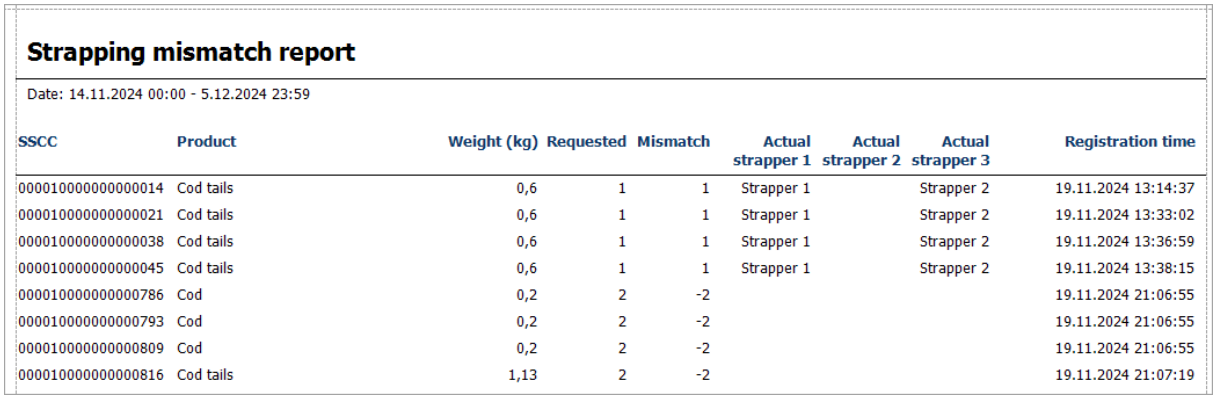
The new **Box strap history** view contains a list of packs that have been processed on the strapping stations. It shows basic details about the packs and how the straps were applied.




| SSCC | Production day | Requested straps | Actual 1 | Actual 2 | Actual 3 | Registration time |
|---|---|---|---|---|---|---|
| 000010000000000106 | 14.11.2024 | 1 | 1 | 0 | 2 | 19.11.2024 13:14 |
| 000010000000000113 | 14.11.2024 | 1 | 1 | 0 | 2 | 19.11.2024 13:33 |
| 000010000000000120 | 14.11.2024 | 1 | 1 | 0 | 2 | 19.11.2024 13:36 |
| 000010000000000137 | 14.11.2024 | 1 | 1 | 0 | 2 | 19.11.2024 13:38 |
| 000010000000000144 | 14.11.2024 | 2 | 1 | 0 | 2 | 19.11.2024 21:06 |
| 000010000000000151 | 14.11.2024 | 2 | 2 | 0 | 3 | 19.11.2024 21:06 |

**Figure 22 Box strap history view in Manufacturing Execution**

In addition, the **Strapping mismatch report** was added to display the list of boxes that have a mismatch between the requested and applied straps.



**Strapping mismatch report**

Date: 14.11.2024 00:00 - 5.12.2024 23:59

| SSCC | Product | Weight (kg) | Requested | Mismatch | Actual strapper 1 | Actual strapper 2 | Actual strapper 3 | Registration time |
|---|---|---|---|---|---|---|---|---|
| 000010000000000014 | Cod tails | 0,6 | 1 | 1 | Strapper 1 | | Strapper 2 | 19.11.2024 13:14:37 |
| 000010000000000021 | Cod tails | 0,6 | 1 | 1 | Strapper 1 | | Strapper 2 | 19.11.2024 13:33:02 |
| 000010000000000038 | Cod tails | 0,6 | 1 | 1 | Strapper 1 | | Strapper 2 | 19.11.2024 13:36:59 |
| 000010000000000045 | Cod tails | 0,6 | 1 | 1 | Strapper 1 | | Strapper 2 | 19.11.2024 13:38:15 |
| 000010000000000786 | Cod | 0,2 | 2 | -2 | | | | 19.11.2024 21:06:55 |
| 000010000000000793 | Cod | 0,2 | 2 | -2 | | | | 19.11.2024 21:06:55 |
| 000010000000000809 | Cod | 0,2 | 2 | -2 | | | | 19.11.2024 21:06:55 |
| 000010000000000816 | Cod tails | 1,13 | 2 | -2 | | | | 19.11.2024 21:07:19 |

**Figure 23 Box strapping mismatch report**

For information about how to configure box strapping, see the *Packing Station Installation and Configuration Manual*.

For information about using box strapping and the Strapping mismatch report, see the *Packing User Manual*.

## Box status in BMS

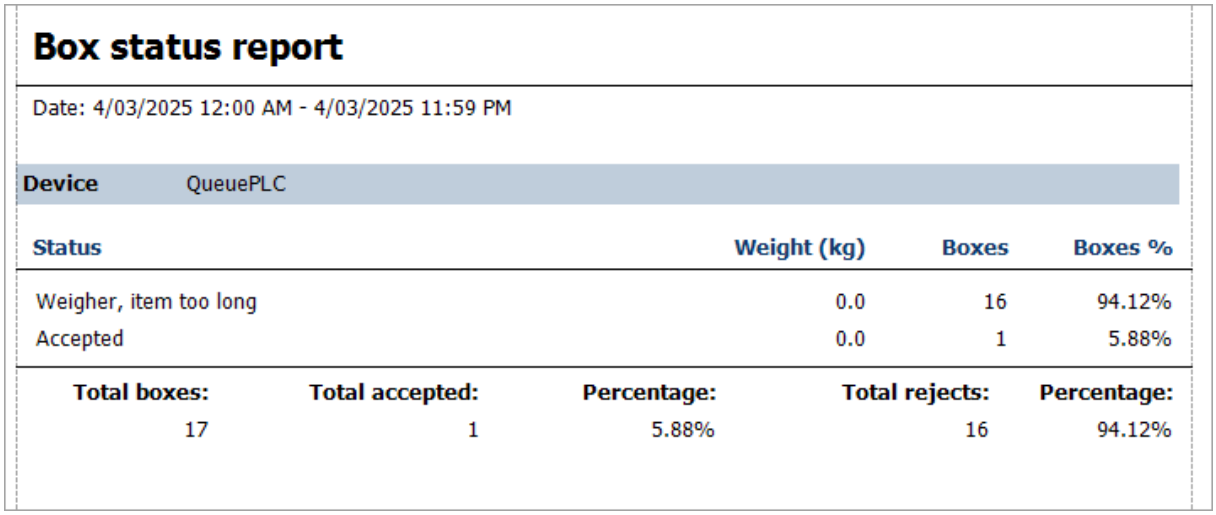
A new **Box status** feature was introduced to collect more comprehensive details about pack rejections and rejection reasons. This functionality is seamlessly integrated into the **Box Management System (BMS)** and executed through the *queueplc* program.

When the latest version of the OptiPack module is installed, collecting box statuses is enabled by default. Each status is recorded the first time it is reported from the device. The feature can be disabled in the **Pack Queues** view, in the XML configuration for the queue associated with the line or device.

Box status data is stored in two new tables:

| Table | Description |
|---|---|
| *pack_boxstatuses* | Stores various statuses, including accepted statuses and different reject reasons. |
| *pack_boxstatuslog* | Maintains a record of each box detailing its status, the source device, a timestamp, and the box ID (pack ID) where applicable, allowing a link to a specific pack. |

To view the data, open the newly added **Box status** report or **Box status log** view.



**Box status report**

Date: 4/03/2025 12:00 AM - 4/03/2025 11:59 PM

**Device** QueuePLC

| Status | Weight (kg) | Boxes | Boxes % |
|---|---|---|---|
| Weigher, item too long | 0.0 | 16 | 94.12% |
| Accepted | 0.0 | 1 | 5.88% |

| Total boxes: | Total accepted: | Percentage: | Total rejects: | Percentage: |
|---|---|---|---|---|
| 17 | 1 | 5.88% | 16 | 94.12% |

**Figure 24 Box status report**

To view the packs that are being processed and the status records generated, trace the *QueuePLC* system program:

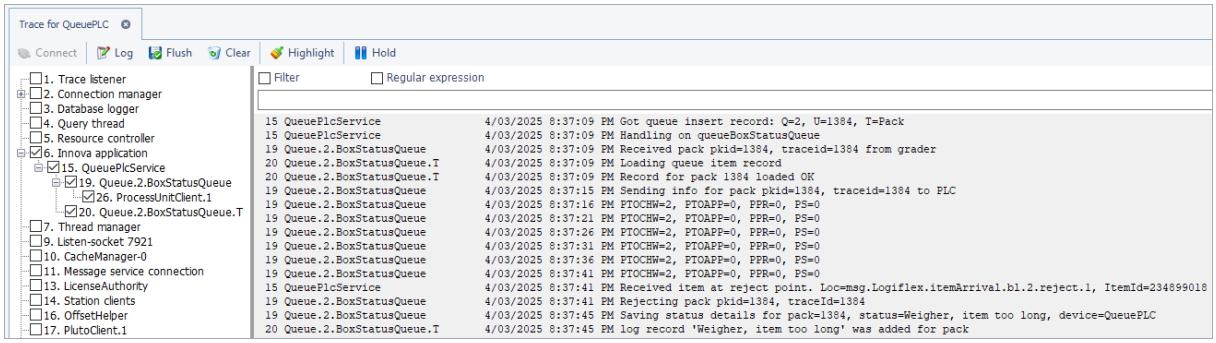



**Figure 25 Trace for QueuePLC**

For more information about box statuses, see the *Packing Station Installation and Configuration Manual* or the *Packing User Manual*.

## Control which device parameters are sent to an A642 device

You can now control which device parameters are sent to the A642 device from the **Checkweigher** program editor.

For more information, see the *Checkweigher User Manual*.

## Bug fixes

The following bugs were fixed:

**Wrong product being selected on M2400 because of screen layout**
The M2400 Packing terminal had a shortcut "down arrow" to change products during packing. This feature was removed in 2022. Those changes have now been reverted.

To remove the arrow functionality, use the following configuration:
*M2200StandardTerminal.Configuration.DownArrowDisabled = True*

**TargetBatcher Program manager shows Dead and can't construct a controller for packing system device**
To fix this issue, controller initialization to *PackScales* was added for the following M3000 devices:

- G200 SpeedBatcher
- G300 TargetBatcher
- Sp20 SpeedPacker

# Process

Module version: 6.3.1

Changes in this release are from module version 6.2.3 to 6.3.1.

## New features and improvements

The following new features and improvements to functionality were added:

### Individual EndOfSlaughter updated from Side section Items in Primary Processing

The slaughter status *PartiallyRejected* was added for individuals who have part (item) of the carcass rejected in **Primary Processing**.

### Improved support for order line external columns in Order Manager

Order manager now notifies when an order line external column is changed.

### UpdatePackContents can now complete order line when pending amount is zero

By default, the *UpdatePackContents* unit operation will complete an order line that has reached *MaxAmount*. If using pending packs, it can be useful to complete the order line only when the pending amount has reached zero. Two new configuration options were added to support this:

- *UpdateOrderLineAmountAfterPendingUpdate* - Performs the completion evaluation after updating the pending amount. The default value is "False".
- *AllowCompleteOrdersWithPendingAmount* - Allows control of whether an order line can be completed if it has a pending amount.

The default values maintain original functionality.

## Bug fixes

The following bugs were fixed:

**LoaderData - Automatic inventory snapshot should only be inserted as scheduled program if missing, not updated**
When upgrading a system, the **Scheduled Programs** "Scheduled at" time defaulted to 8:00 AM. This was fixed.

**Report exporter crashes when menu item is opened from WinUI**
An issue was fixed where the **Report Exporter** system program would crash if it was unable to get installed printers on the computer.

**Throughput Reports not working in Web Reporting**
An HTTPS redirection that sometimes caused delays was removed from servers. See Base.

**Fix ProcUnitOps ConfirmScreenWithWeight exception with M2400**
When changing a terminal for an M2400, ProcUnitOps threw an exception and did not start. This was fixed.

**Fix so that packs and collections with no prunit are visible in their grids**
After running an ML&I workflow where pallets and packs were created, pallets did not appear in the Manufacturing Execution grid because they had no process unit. This was fixed and now packs and collections with no process unit are visible in their respective views.

**Bug in Rich Text fields and formatting when creating a label in WPL**
Two issues were fixed that occurred when working with RTF text:

- If a paragraph contained a text attribute (bold, italic, underline) and there wasn't any text in the paragraph, then the rendering would fail with a red cross in the label preview.
- If the RTF text contained document information like author, version, creation time, etc. then the rendering would fail and show the author as text in the label preview.

**Error with criteria Gender in Matrix configuration**
By default there is only one system entity for **Gender**. Therefore the *IsDefault* property should be set to "True" when installing.

**Fix orderman error when serializing order line record with no row version**
Currently for accept-all orders with no order lines, orderman creates dummy order line records with product "0" and sends them to clients. The dummy order line is not from the database, so it does not have a row version. This throws an error when an object is serialized

to JSON. Now dummy order lines will get a dummy row version so that the order line record can be serialized.

**Order being closed even when an order line is on hold**
When executing an **Item** or **Pack to Order** unit operation, the order would be completed if it contained no *Open* or *Closed* order lines. If an order line had the status "On Hold", then the order would be completed. Now all three statuses are used when checking whether an order can be completed.

# Recipe

Module version: 4.0.1

Changes in this release are from module version 4.0.0 to 4.0.1.

## New features and improvements

There are no new features or improvements to functionality to report in this release.

## Bug fixes

The following bugs were fixed:

**Recipe step Refresh bug**
An issue was fixed where recipe steps were not started or completed correctly in sub recipes and remained available for operators to select even when the step was completed.

**Lot create not using Valid from**
An issue was fixed where the lot record was not getting the batch production day as the "valid from" value.

**Fix alternative input feature**
An issue was fixed where **Alternative inputs** was not working correctly.

# SIS

Module version: 4.0.4

Changes in this release are from module version 4.0.2 to 4.0.4.

## New features and improvements

The following new features and improvements to functionality were added:

### Disable the "Farmer Ready" button on the Sequencing Batch terminal

On the Sequencing Batch terminal, an option was added to make the **Farmer Ready** button unavailable.

Hiding this button will prevent an operator from selecting an incorrect **Slaughter plan** or **Farm code** that shouldn't receive more animals.

### QC inspections for emergency and sick animals on the Stable terminal

It is now possible to do QC inspections for emergency and sick animals animals from the group and individual ROLA Stable terminal.

If this option is configured in the ROLA setup view, then the QC inspection view appears when an individual or group of animals is sent to Sick or Emergency.

### Location criteria added to Search

A new configuration parameter for **Allowed Locations** was added to the Search configuration.

## Bug fixes

The following bugs were fixed:

**Dashboards still read "SIS"**
In standard dashboards for the module, "SIS" was changed to "IPPS".

**Matrix value path issue**
It was not possible to select the **Owner** from *sis.IndividualWrapper.Individual.Po* for the

Matrices variables value path. The problem was resolved, and the **Owner** property is now also accessible from the PO.

**Rehanging Code is not updated well in StaticCarrierIdentificationTerminal**
When rehanging a carcass in the CarrierIdentification Terminal, the new (RFID) code was sometimes not updated correctly. Instead it was updated with an empty string. This problem was resolved and now the RFID code is always correctly updated after rehanging.

**Default slaughter day filter does not work in the Carcass information view**
In the **Carcass information** view, the view did not filter on "Slaughter day". Instead it filtered on "Registration day" even when "Slaughter day" was selected. This was fixed and the filter now works correctly.

**SendIndividualsToSlaughter does not properly send animals to slaughter in ROLA**
Sending animals from pen to slaughter in SIS-ROLA sometimes resulted in error messages when empty groups were involved. This was fixed.

**InLineInspection Terminal exception when removing finding in Basic SIS**
In Basic SIS, if a Section with a Finding is moved to the Retain queue, then the finding can be removed again after lookup in the Retain queue. However, in some instances, the removal of the finding would lead to an error. This was fixed.

**Exception on RolaGroupIndividuals Terminal**
After completing a purchase order on the RolaGroupIndividualsTerminal and then starting a new PO from the terminal, assigning additional animals to a stable would lead to an exception in the software. This was fixed.

**SIS logs gives error when opening**
Since the introduction of Workstations, the **SIS Logs** view gave an exception when the view was opened. This was fixed and now the log entries appear as before.

**Station shows country in Carcass information view**
In the **Carcass information** view, the *Station* column on the **Classifications** detail tab referenced the country, not the workstation. This was fixed.

**No QA marks when emergency on ROLA (Batch) Receival terminal**
When an emergency slaughter was recorded on the SIS-ROLA (Batch) Receival Terminal, the QA marks were not saved on the slaughter plan. This was fixed.

**Classification Data on Carcass Label not working**
Classification and meat quality data for Quarters and Sides was not accessible when printing from SIS. This was fixed.

**Group Return list not being updated in Group Stables Management**
On the Stables Management Terminal, an issue with the Group List shown on the Return process caused the group to still be displayed on the Return process even when the group status on the slaughter plan was "Done". This allowed an operator to create a new "Returned" group to stables and assign it back to slaughter, which created issues in the process because values on the slaughter plan were wrong and contained misinformation. This was fixed.

**Sick Pen shows up to 16 compartments on StablesIndividualsTerminal**
When there were more than 16 **Sick** compartments on the StablesIndividualsTerminal, only the first 16 were displayed and there were no buttons to navigate through the rest. Navigation was added and now all compartments are accessible.

SIS Handle Scale Handler - No Tare sent
The tare was not sent to the scale when the item tare was different than the scale tare. This was fixed and the following functionality was added:

- Send tare when scale comes on-line
- Send tare to scale on startup IPPS

# Sol.SPacker

Module version: 3.1.0

Changes in this release are from module version 3.0.2 to 3.1.0.

## New features and improvements

The following new features and improvements to functionality were added:

### Plugin interface extended

The SPacker plugin interface was extended to allow a Hoseth Tank plugin to influence orders downloaded to the grader.

## Bug fixes

There are no bug fixes to report in this release.

# Trimming

Module version: 5.1.0

Changes in this release are from module version 5.0.2 to 5.1.0.

## New features and improvements

The following new features and improvements to functionality were added:

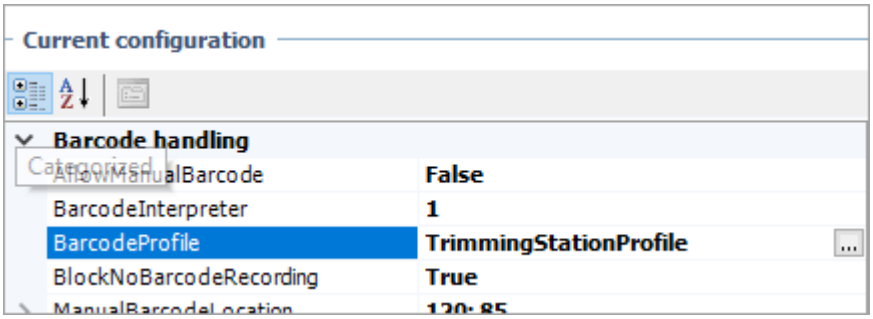
### Output station improvements

The Manual Trimming Output station (*Marel.Mp6.Trimming.UI.M6000.Output.CE*) now loads the product list based on the selected employee. This means that if the Trimming system has multiple input process units, the station can now reflect those input products and output products.

### Barcode Input station improvements

The following changes were made to *Marel.Mp6.Trimming.UI.M6000.Output.BarcodeInputCE*:

- The barcode scan now searches ID containers (*proc_rcid*) instead of packs, and only accepts ID containers that contain a pack.
- The barcode scan can now select an employee/station from the available list. You can set a *BarcodeProfile* and add a non-SSCC interpreter, which is used to parse the station ID from a barcode.




    - Filtering the Employee/station selection is based on the product of the scanned ID container. The filter is the input product of the process unit to

which the available stations are configured.
- If the scanned ID container has an employee assigned to it, then it selects an employee/station from the available list.

## Bug fixes

The following bugs were fixed:

**Dashboard refresh issue**
An issue was fixed where dashboard components in the **Gauge bars** dashboard did not refresh properly.

**RecM2200Trim not registered**
An issue was fixed where messages from the M2200 device were not registered and received by Manufacturing Execution.

# Weighbridge

Module version: 4.0.2

Changes in this release are from module version 4.0.1 to 4.0.2.

## New features and improvements

The following new features and improvements to functionality were added:

### Performance improvements

Weighbridge views were updated to improve performance and reduce database locks, resulting in fewer deadlocks all around. In addition, two new database migrations were included.

## Bug fixes

The following bugs were fixed:

**Error in Shipment view**
An error that occurred whenever the **Shipment** view was opened was fixed.

# WPL

Module version: 3.1.8

Changes in this release are from module version 3.1.3 to 3.1.8.

## New features and improvements

There are no new features or improvements to functionality to report in this release.

## Bug fixes

The following bugs were fixed:

**MultiComformatCE WebUI Lane selection not working**
An issue was fixed where **Lane selection** buttons were disabled due to an error in the state machine. This was only an issue in the WPL WebUI.

**IPC shows order lines with both Item and Pack unit types**
A check was made to ensure that the order lines displayed on the WPL IPC have the expected unit type. The expected unit type is *Pack* if the WPL is configured as a box weigher, otherwise the expected unit type is *Item*.

**Default dashboard does not work**
A bug was fixed that caused WPL dashboard components to show incomplete data.

Fix issue when order type is pack and the WPL is running items