MacromatiX Release

2025.4

Released November 2025

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Introduction

This document communicates the major new features and changes in the 2025.4 MacromatiX Release. It also references issues that were addressed during this release. MacromatiX is a cloud-based operating system that provides operational efficiency, cost controls and real-time visibility into restaurant operations that keep the manager in front of customers and focused on their experience, rather than stuck in the back-office staring at spreadsheets. Get instant insight into inventory and financials with in-depth, down-to-the item reporting. Gain access to sales data, gross profit, cost of goods sold, loss prevention and exception management with the ability to report down the item level at individual stores. With MacromatiX, food is fresher, waste is reduced, and gross profits are increased.

About This Release

The 2025.4 release includes substantive changes to improve the MacromatiX user experience. A few of the release highlights for MacromatiX Desktop and MxConnect (Mobile) are detailed below:

Release Highlights

- ★ Cloud Point-of-Sale Integrations
- ★ Hub and Spoke Capabilities
- ★ Mobile Usability Improvements in Ordering and Cash Management
- ★ MX/RME Inventory Administration Improvements
- ❁ 73 Defects Resolved

Desktop (MMS)		
	Features	**Defects**
Core	1	
Financial		
Forecasting		
Inventory	1	
Production		
Reporting	1	
Workforce	1	
Total	**4**	

Mobile (MxConnect)		
	Features	**Defects**
Core	1	
Financial	4	
Forecasting		
Inventory	7	
Production		
Reporting		
Workforce		
Total	**12**	

Additional Applications	
	Features
CloudLink	4
LiveLink	1
RDS	
Server Manager	
Total	**5**

MacromatiX Desktop (MMS)

Allow Order Class to Be Added to Order Calendar [F27224]

Summary

This release introduces several enhancements to the **MRMS ordering module** to support the use of **order classes** in the Store Order Calendar and improve the overall order creation experience.

1. Store Order Calendar – Support for Order Classes

- A new **"Order Class" field** is added to the **Store Order Calendar (MMS_Stores_Calendar.aspx)**.
- When creating a new scheduled order, users can manually select an order class from a predefined list.
- The assigned order class is stored with the schedule details and used by the **advanced suggested ordering algorithm**.
- When editing:
    - A **single instance** of a scheduled order → the field is **read-only**.
    - A **series** of scheduled orders → the field is **editable**, and the change applies to all future scheduled orders in the series.

2. Vendor Item Import – Default Order Class Handling

- The **vendor item import process** now includes an **XSLT transformation** step.
- If a vendor item does not include an order class, the system will automatically assign a default value (All).
- This ensures all vendor items have a valid order class, even if the vendor integration does not provide one.

3. Order Creation UI – Improved Recent Orders Display

- In the **Mobile Order Creation UI**, the system now displays **only recent orders where quantity > 0**.
- Past orders with zero quantities are excluded to improve clarity and usability.

Reason for the Change

- Enable advanced suggested ordering algorithms that rely on order classes defined in both vendor item data and order schedules.
- Reduce manual data entry and ensure data completeness for vendor items missing order class information.
- Improve store user experience by filtering out zero-quantity historical orders during order creation, keeping the interface clean and relevant.

These updates help stores generate more accurate suggested order quantities and streamline the manual ordering process when vendor integrations are limited.

Configuration Settings

The feature only introduces UI enhancements and backend processing logic changes; no new roles, permissions, or access controls are required.

No additional configuration or setup changes are required.

MX/RME Inventory Administration Improvements [F26910]

Summary

The integration of Inventory and Sales Item details from RME to MacromatiX is improved to ensure items are properly referenced between the system with common unique identifiers. Additionally, a default Stocktake Group can be configured and automatically assigned to Inventory Items imported from RME when this attribute is not provided.

- New Configuration Settings “Show RME Item ID” for Sales Item and Inventory Item Management
- Ability to configure a default stocktake group to be assigned to inventory items imported from RME
- Capture and display unique “ExternalID” identifiers for Sales Items and Inventory Items imported from RME

Reason for the Change

These changes improve the supportability of the integration and reduce manual effort for inventory item administration.

Configuration Settings

Two new configuration settings are available in the Configuration Manager to show/hide the RME Item ID fields:

- Inventory -> Inventory Items: Show RME Item ID
- Inventory -> Sales Items: Show RME Item ID

These should be enabled to display the RME Item ID on the applicable screens (read-only).

Workstream Payroll Export [F27026]

Summary

A new **Workstream Payroll Export** has been added to the **Payroll Export** options within the **Attendance Manager** page in MacromatiX.

This enhancement allows franchisees to seamlessly export payroll data from MRMS into **Workstream's Payroll** system, reducing manual data entry and ensuring consistency across payroll records.

Key Functional Enhancements

1. **New Export Type – Workstream**
    - A new export option labeled **"Workstream"** is available under the **Payroll Export tab** in Attendance Manager (MMS_Ops_AttendanceManager.aspx).
    - When selected, users can specify a **date range** and generate a **comma-delimited CSV file** for download.
    - The generated file:
        - Is **not stored** in the Download Center.
        - Is **immediately available** for download from the page.
        - Follows the naming format: workstream_{StoreNumber}_{Date}.CSV.
2. **Export File Structure**
   The CSV file includes a header row and the following columns:
    - FirstName – Employee's first name
    - LastName – Employee's last name
    - JobName – Job title (e.g., "Driver", "In Shop")
    - StoreNumber – Restaurant store number
    - RegularHours – Regular worked hours
    - OverTimeHours – Overtime worked hours
    - RegularPay – Calculated pay for regular hours
    - OverTimePay – Calculated pay for overtime hours

- Tips – Total tip amount, including tip credits
- DMR – Driver Mileage Reimbursement amount

Each record represents a single employee/job combination.
If an employee has **Tips** or **DMR**, a separate record is created containing only those fields.

Reason for the Change

Franchisees previously had to **manually enter timesheet data** into Workstream's Payroll platform, creating inefficiencies and potential errors.

This enhancement:

- **Automates** the payroll export process from MacromatiX.
- **Eliminates manual data re-entry**, saving time and improving accuracy.
- **Ensures data consistency** between Attendance, DMR, and Payroll records.
- **Streamlines payroll preparation**, reducing administrative effort for franchisees and improving overall payroll workflow efficiency.

Configuration Settings

The feature leverages existing permissions for access to the **Attendance Manager** and **Payroll Export** functionality. No new roles or permissions are required.

The Workstream Payroll Export is available as a new selectable export option under Payroll Export; no additional configuration or system setup is required.

Employee and Job Assignment Integration to HotSchedules [F27388]

Summary

New Stored Procedures are available for extracting employee information and employee job assignments.

These stored procedures are utilized by Fourth Connect to extract the needed information from MacromatiX and push to the HotSchedules API.

Reason for the Change

To aid in the migration of store locations from using MacromatiX Labor to using HotSchedules, these new stored procedures are utilized by an integration process through Fourth Connect to transmit Employees and their Job Assignments to HotSchedules.

Configuration Settings

No new configurations were added as part of this feature, however:

- Existing pre-requisites for sharing data between MacromatiX and HotSchedules are needed, such as assigning the relevant identifiers in Entity Manager for the store locations:
    - Client ID
    - Concept Code
    - HotSchedules Store Number
- Coordination with members of the Fourth Connect team is needed to:
    - Ensure appropriate access to the MacromatiX environment's database
    - All needed HotSchedules API credentials are provided

MacromatiX Mobile (MxConnect)

Enhance Security with Identity Management & Two-Factor Authorization [F27259]

Summary

To strengthen data security and comply with customer internal identity management policies, the MRMS system has been enhanced to integrate with **a specific customer's Identity Management (IDM) services** and support **Two-Factor Authorization (2FA)**.

This enhancement introduces new authentication options, configuration settings, and user management controls.

1. New Login Method Options

- The **Core → System Setup** section now includes two new login method options:
    - **External Identity Authorization Only** – authenticates user credentials through the customer's Simple Authorization API.
    - **External Identity Authorization and 2FA** – authenticates users via both the Simple Authorization API and Two-Factor Authorization (2FA) API.
- An additional **"Force Standard Login"** option allows administrators to revert to MRMS's default credential-based login if IDM services are unavailable.
- The **mobile manager authorization process** remains unchanged and continues to rely on MRMS-stored credentials.

2. Integration with Customer IDM APIs

- The authentication flow now communicates securely with a specific customer's IDM APIs:
    - **Access Token API** – obtains OAuth2 access tokens for authentication.
    - **Simple Authorization API** – validates user ID and password.
    - **2FA Code API** – verifies 6-digit two-factor authentication codes when required. All communications occur through secure HTTPS server-to-server API calls using token-based authentication.

3. Employee Management – Bypass IDM Handling

- A new **“Bypass IDM Authorization”** setting has been added in **Employee Management** to allow select users (e.g., system administrators) to log in using standard MRMS credentials, bypassing IDM validation.
- Database update: a new field BypassIDM (boolean) is added to tbUser:
    - Defaults to **False** for all users except SystemAdmin, where it is always **True** and cannot be modified.
- A new **security permission**, **“Can Change Bypass IDM Authorization”**, controls access to this setting and is assigned only to SystemAdmin by default.

4. Two-Factor Authorization (2FA) Interface

- When 2FA is enabled, users are prompted to enter a **6-digit verification code** during login.
- **MMS platform:** 2FA prompt appears on the right side of the login screen.
- **Mobile platform:** 2FA prompt appears as a separate step after entering credentials.
- All 2FA screen messages and labels are **localizable** to support multiple languages.

5. Technical Enhancements

- A new **membership provider** inherits from MxMembershipProvider and handles IDM-based authentication.
- A new **authenticator component** manages communication with IDM APIs.
- MRMS authentication logic dynamically determines whether to use local or IDM validation based on the BypassIDM flag.

Reason for the Change

The customer required enhanced security measures to:

- Protect sensitive operational and financial data stored in MRMS.
- Comply with the customer's internal identity management and two-factor authentication policies.
- Strengthen access control without disrupting the existing login experience for store and mobile users.
- Maintain system availability through fallback to MRMS login during IDM outages.

This feature balances **enterprise-grade authentication security** and **operational continuity**.

Configuration Settings

The following new configuration keys are added to **Mx.config** to support IDM and 2FA integration:

Configuration Key	Description
IDMAPIAccessTokenEndpointAddress	Endpoint for retrieving OAuth2 access tokens.
IDMAPISimpleAuthEndpointAddress	Endpoint for Simple User Authorization API.
IDMAPI2FACodeAuthEndpointAddress	Endpoint for Two-Factor Authorization API.
IDMAPIAuthenticationCode	Basic authentication code for OAuth2 token requests.
IDMAPIAuthenticationDetail	Details for OAuth2 token requests (e.g., scope).
IDMAPIAccessTokenCacheInterval	Token cache duration in minutes (default: 2 minutes).

All configurations are required for proper IDM and 2FA operation. The system automatically refreshes tokens when expired or when API calls fail.

Hub and Spoke (Part A: Entity Management) [F26817]

Summary

This release introduces **Entity Management enhancements** to support a specific customer's new **Hub and Spoke operational model**.

The update enables users to define and manage relationships between **hub shops (production sites)** and **spoke shops (sales outlets)**, laying the foundation for integrated forecasting, production, and inventory management across interconnected stores.

1. New Hub and Spoke Relationship Management

- Stores can now be designated as **Hub Shops** and linked to multiple **Spoke Shops** within the Entity Manager page (MMS_Admin_Entity.aspx).
- Two new data fields are added in the system:
    - **IsHubShop (bit)** – Indicates whether a store can act as a hub.
    - **HubEntityID (bigint)** – Stores the hub store's unique EntityID for each spoke store.
- **Is Hub Store** Checkbox:
    - Available only for entities of type *Store*.
    - When checked, the store becomes eligible for assignment as a hub.
    - When unchecked:
        - All linked spoke stores are de-linked.
        - The system triggers forecast aggregation reset for both the hub and affected spokes.
- **Hub Store Selector**:
    - Available for spoke stores only.
    - Dropdown list shows stores where:
        - Status = Open, and
        - IsHubShop = true.

2. Forecast Aggregation Triggers

- The system automatically recalculates and resets forecasts when hub/spoke relationships change:
  - **Linking a store to a hub** → Aggregates spoke forecasts into the hub's forecast.
  - **Unlinking a store from a hub** → Resets aggregated forecast for the affected hub.
  - **Changing hub assignment** → Re-aggregates forecasts for both the old and new hubs.
  - **Unchecking IsHubShop** → Clears spoke links and resets all aggregated hub forecasts.

3. Enhanced Entity Import Functionality

- Entity import files now support **two new fields**:
  - IsHubShop (True/False) – Whether the store is designated as a hub.
  - HubStoreNumber – Store number of the linked hub.
- Import validations match those in the UI:
  - The hub store must exist, be open, and have IsHubShop = True.
  - A store cannot be assigned as its own hub.
  - Hubs cannot have hubs themselves.
- Import operations trigger the same **forecast aggregation/reset logic** as manual UI updates.
- Recommended import order:
  a. Import all hub stores first (with IsHubShop = True).
  b. Then import spoke stores with their HubStoreNumber specified.

4. RDS (Reporting Data Store) Enhancements

- The **Store table** in the Reporting Data Store (RDS) now includes:
  - IsHubShop – Flag indicating whether the store is a hub.
  - HubStoreID – Reference to the HubEntityID from tbEntity, allowing reporting on hub-spoke relationships.
- These enhancements enable future analytical and operational reporting for hub production and spoke demand visibility.

Reason for the Change

The customer is implementing a Hub and Spoke operating model to optimize production and distribution.

Under this model:

- **Hub stores** act as centralized kitchens, producing food for multiple **spoke stores**, which focus on retail operations.
- The existing MacromatiX system only supports **independent store forecasting and inventory control**, which limits the ability to plan production or manage transfers across linked locations.

This enhancement enables:

- **Definition and management of hub–spoke relationships** within Entity Management.
- **Accurate forecast aggregation** to drive hub-level production planning.
- **Seamless data integration** between store management, forecasting, and inventory modules.

Ultimately, these updates provide the foundation for **multi-site production planning**, ensuring improved forecast accuracy, visibility, and scalability.

Configuration Settings

No new configuration settings were introduced as part of this feature. The following attributes have been added to the database table tbEntity and RDS table Store:

Field	Table	Description
IsHubShop (bit)	tbEntity	Indicates whether a store is designated as a hub.
HubEntityID (bigint)	tbEntity	Stores the EntityID of the hub assigned to each spoke store.
IsHubShop (bit)	RDS.Store	Mirrors tbEntity.IsHubShop for reporting.
HubStoreID (bigint)	RDS.Store	Mirrors HubEntityID for reporting relationships.

Hub and Spoke (Part B: Forecast Management) [F26818]

Summary

This release enhances **Forecast Management** in MacromatiX to support a customer's **Hub and Spoke operational model**.

The update enables aggregated forecasting from spoke stores to hub stores, improved production planning, and automated forecast export to the customer's **Edify Production System**.

1. Forecast Aggregation

- Introduced **forecast aggregation logic** that consolidates spoke-store demand into the respective hub-store forecasts.
- This ensures hub stores have complete production demand visibility driven by linked spoke store sales forecasts.
- Key behaviors:
    - Forecast aggregation is automatically triggered when:
        - A spoke store's forecast is fully generated or imported
        - A manager forecast adjustment is made
        - Catering sales are entered for a spoke store
    - For each hub store, a new **aggregated forecast version** is created and flagged as IsAggregated in the forecasting.forecast table.
    - Aggregation occurs at multiple levels:
        - **Top Forecast Level**
        - **Forecast Metric Detail**
        - **Sales Item Metric Detail**
        - **Inventory Item Metric Detail** – Copies local hub inventory forecasts; adds ingredient forecasts from Production BOM items.
    - If a new aggregated version is generated, prior manager adjustments are automatically carried forward.
    - Forecast aggregation excludes ingredient-level depletion at spoke stores (applies only to Production BOM items).
    - Once aggregation completes, a **Forecast Modified event** is triggered for downstream processing (e.g., export).

2. Aggregation Processing and Performance

- A new **Forecast Aggregation Event Handler** has been added to the forecast engine.
- Optimized with **message queue management**:
  - Delayed message handling avoids redundant processing when multiple spokes update forecasts simultaneously.
  - Only one aggregation task per hub/date executes at a time.
  - Duplicate queued messages are replaced with the most recent forecast version.
- All aggregation activities are fully **audit logged** for traceability and troubleshooting.

3. Suggested Ordering Enhancement

- The **Suggested Ordering process** now uses:
  - **Aggregated inventory forecasts** at hub stores for production-related order suggestions.
  - **Local sales forecasts** at spoke and standalone stores for retail order suggestions.
- This ensures hub purchase orders are based on total spoke demand while preserving accuracy for UPT (unit-per-transaction) items.

4. Forecast Export to Edify Production System

- A new **automated forecast export** sends forecast data for Production BOM items to the customer's **Edify Production System** via REST API.
- **Key Details:**
  - Triggered automatically.
  - Exports **local forecasts** (not aggregated ones) for all stores (hubs, spokes, and standalones).
  - Includes forecasts up to **42 business days** ahead, with 15-minute time intervals.
  - Supports JSON-based payload (versioned as "1.0") compliant with Edify's schema.
  - Uses **HTTP POST** with Bearer Token authentication.
  - Automatically retries failed transmissions; archived JSON files are stored for fallback delivery via secure email.

- **Sample Structure:**

```
{
 "version": "1.0",
 "origin": "Fourth/v1.0 MacromatiX",
 "forecast": [
  {
   "shopId": "860371",
   "timestamp": "2025-06-26T08:00:00Z",
   "date": "2025-06-27",
   "interval": 15,
   "sales": [
    { "pid": "PROD-12345",
     "time": "08:00",
     "qty": "5",
     "uom": "Each" }
   ]
  }
 ]
}
```

- The export process:
  - Runs automatically and logs all successes and failures.
  - Skips duplicates and adheres to Edify rate limits.
  - Archives all JSON payloads for audit and manual resend if needed.

5. RDS (Reporting Data Store) Enhancements

- RDS forecasting tables have been updated to:
  - Include new fields (e.g., IsAggregated).
  - Synchronize any missing columns across tables for complete reporting coverage.

Reason for the Change

The customer's new **hub and spoke production model** requires forecasting and ordering processes that reflect the operational hierarchy between hub and spoke stores. Previously, forecasting was store-specific, preventing hub stores from planning ingredient purchasing and production efficiently.

These enhancements were made to:

- **Aggregate demand** from spoke stores into hub forecasts to drive production planning.
- **Enable automated and scalable forecast sharing** with the customer's external Edify Production System.
- **Improve operational accuracy** in inventory management, suggested ordering, and production scheduling.
- **Ensure data consistency** between MacromatiX, Fourth AI Forecast, and the Edify ecosystem.

This update represents a critical step toward full digital integration of the customer's hub and spoke operating model.

Configuration Settings

The following configurations are applicable to Hub and Spoke Forecast Management:

Configuration / Setting	Description	Default / Notes
IsAggregated (forecast flag)	Indicates if the forecast version is an aggregated hub forecast.	New field added to forecasting.forecast table.
Forecast Aggregation Event Handler	New event-driven process that aggregates spoke forecasts into hub forecasts.	Configurable task; runs automatically when triggered.
Forecast Export Task – Edify	New export task using REST API (JSON over HTTPS).	Automatically triggered post Day Close.
Forecast Export Authentication	Uses Bearer Token in HTTP header.	Token managed through secure configuration.
RDS Forecast Fields	Updated to include new and missing forecast data columns.	Enables hub-spoke reporting.

Hub and Spoke (Part C: Production BOM Make API) [F26819]

Summary

To support a customer's **Hub and Spoke operational model**, this release introduces a new **Production BOM Make API** as part of a unified **Inventory WebHook API** framework. This enhancement enables the **Edify Kitchen system** to directly post production, waste, and transfer events to MacromatiX in real time, automating inventory updates for hub stores and reducing manual data entry.

1. New Unified WebHook API Endpoint

- A new **secured WebHook API endpoint** is introduced to handle inventory events:
  - ProductionBOMMake – records production activities at hub stores.
  - Waste – records kitchen waste quantities.
  - Transfer – records inter-store transfers.
- The endpoint supports **authenticated POST requests** from external systems (e.g., Edify Kitchen).
- Each event type in the request payload triggers its corresponding processing logic and system callback.

2. Production BOM Make API Functionality

- The **ProductionBOMMake** event records production data for one or more batches in a single request.
- Each batch must include:
  - **StoreNumber** – valid store in the system.
  - **TransactionTime** – UTC timestamp (converted automatically to local store time).
  - **ItemCode** – valid Production BOM item.
  - **Quantity** – positive numeric value.
  - **UOM** – optional (defaults to base inventory unit).
  - **ExternalReference** – optional; used for duplicate prevention.
- **Duplicate Handling:**
  - If ExternalReference is included, the API checks for previously processed records with the same reference and skips duplicates.
- **Partial Success:**
  - If a request includes both valid and invalid batches, valid batches are processed, and detailed error messages are returned for invalid ones.
- **Response Details:**
  - Includes processing status (success/failure) and validation results for each batch.

- **Validation Rules:**
    - Invalid store, item, quantity, or permission will return descriptive error messages.
    - Batches during locked inventory periods are rejected.

3. New Mobile Page – Prep Adjustment History

- A new **Prep Adjustment History** page is added to **Mobile Inventory** (#/Inventory/Production/PrepAdjustHistory).
- The layout mirrors the existing **Waste History** page.
- Allows users to:
    - Select a date and view all **Production BOM Make** records for that day.
    - Review production history by batch, quantity, and time.
- All Production BOM Make transactions processed via API are automatically recorded and visible in this page.

4. API Authentication and Authorization

- The new WebHook API supports **Basic Authentication (User ID + Password)**.
- Only authorized system users can access the endpoint.
- Unauthorized or invalid credentials will return:
    - 401 Unauthorized or
    - 403 Forbidden (if credentials valid but user lacks permission).

Reason for the Change

The customer's **hub and spoke kitchen model** centralizes food production at hub stores, which prepare items for multiple spoke locations.

The existing **manual Prep Adjustment process** in MacromatiX was time-consuming, error-prone, and lacked real-time integration with the customer's **Edify Kitchen system**.

The new **Production BOM Make API** was developed to:

- **Automate production tracking** and eliminate manual data entry.
- **Ensure real-time synchronization** between MacromatiX and Edify Kitchen.
- **Improve data accuracy** by enforcing item validation and duplicate prevention.
- **Provide audit visibility** through a new Prep Adjustment History page in Mobile Inventory.

Together, these updates enable **efficient, accurate, and scalable production management** within the customer's Hub and Spoke operations.

Configuration Settings

A new security permission is available to grant users access to the Webhook API:

Permission	Description	Default / Notes
Inventory – WebHook API Access *(new)*	Allows external systems to post inventory events (Production BOM Make, Waste, Transfer) through the secured WebHook API.	Disabled by default; must be granted to integration users only.

The following configurations are applicable to Hub and Spoke Production BOM Make activities and integration:

Configuration / Setting	Description	Default / Notes
Unified WebHook API Endpoint	New secured endpoint for processing multiple inventory event types.	New endpoint. Basic Authentication required.
ExternalReference (field)	Optional field to prevent duplicate batch processing.	Optional; when used, system validates uniqueness.
Prep Adjustment History (Mobile)	New mobile page to display Production BOM Make activity.	Enabled by default for stores using Mobile Inventory.
Authentication Configuration	Basic Authentication with user ID and password.	Must be configured for integration accounts.

Hub and Spoke (Part D: Transfer Management) [F26820]

Summary

This release introduces major enhancements to **Transfer Management** in MacromatiX to support the **Hub and Spoke operational model**.

The changes include the addition of a **unified WebHook API for real-time transfer creation** and **enhancements to transfer receiving** to handle shortages and waste transactions efficiently.

1. Unified WebHook API for Transfers

A new **secure WebHook endpoint** is introduced to allow the **Edify Kitchen system** to automatically send transfer data to MacromatiX in real time.
This API forms part of the **unified inventory transaction framework** that also supports **Production BOM Make** and **Waste** events (refer to Part C).

Key Features

- **Endpoint Behavior:**
  - Accepts POST requests with event payloads where EventType = "Transfer".
  - Uses Basic Authentication (User ID + Password) for security.
  - Supports both **Transfer Sent** and **Transfer Request** events.
  - Validates that:
    - Both FromStoreNumber and ToStoreNumber are active and valid.
    - TransferDate is not within a locked inventory period.
    - Payload includes at least one valid item with non-negative quantity.
- **Payload Fields:**
  - TransferType: “Sent” or “Request”
  - FromStoreNumber, ToStoreNumber
  - TransferDate (UTC)
  - FromStoreFreshTemperature, FromStoreFrozenTemperature (optional)
  - Comment (optional)

- Items[]: Each item includes ItemCode, BoxQty, InnerQty, InventoryUnitQty.

- **Duplicate Handling:**
  - If an ExternalReference value is provided, the system checks for duplicates and prevents reprocessing of the same transfer.
- **Validation and Response:**
  - If all validations pass, a new **Transfer Send** record is created and logged.
  - Returns structured response with success status and transaction ID, or detailed validation errors.
- **Audit Logging:**
  - Every successfully processed transfer is recorded in the audit trail, including ExternalReference, store numbers, and item details.

Integration Benefits

- Streamlines real-time integration between the kitchen production system and MacromatiX.
- Reduces manual data entry by automating transfer creation.
- Enhances reliability through duplicate prevention and transaction-level validation.

2. Transfer Receive – Shortage and Waste Handling

Enhancements to **Transfer Receive** now allow store users to adjust received quantities, record shortage reasons, and automatically trigger appropriate system actions.

Key Functional Updates

- **Enable Quantity Adjustment:**
  - If the configuration Transfers – Enable Shortage in Transfer Receive is ON, users can reduce received quantities during transfer receipt.
- **Mandatory Shortage Reason:**
  - When received quantity < sent quantity, users must select a **Shortage Reason**.
  - The reason determines the system's follow-up action.
- **Shortage Actions (Configurable per Reason):**

Action	System Behavior
Waste at Sending	Logs waste at the sending store for the difference.
Waste at Receiving	Logs waste at the receiving store for the difference.
New Transfer to Sending	Auto-creates a reverse transfer from receiving → sending store for the difference.

- **Transfer Shortage Reason Administration:**
    - Admins can manage shortage reasons under:
      Mobile → Administration Settings → Transfer Receive Shortage Reasons
    - Each reason includes:
        - Reason Code and Description
        - Applicable Action Code
        - Scope (Send / Receive / Both)
- **Audit and Reporting:**
    - All adjusted quantities, shortage reasons, and resulting system actions are logged.
    - Waste, adjustment, and transfer transactions are reflected in:
        - Inventory Activity Logs
        - Waste Reports
        - Transfer Reports

Reason for the Change

The **hub and spoke kitchen model** requires a seamless and automated way to track transfers between production hubs and spoke stores.

Previously, transfers were manually entered, and shortage handling lacked integration with waste and return processes.

These enhancements were introduced to:

- **Automate transfer creation** via the Edify Kitchen integration using a unified API.
- **Improve accuracy and auditability** in transfer receiving and shortage management.
- **Ensure real-time synchronization** between production, waste, and inventory records.
- **Reduce operational workload** while enforcing food safety and traceability standards through temperature capture and action-driven shortage logging.

Together, these updates deliver a unified and automated transfer workflow across all hub and spoke stores.

Configuration Settings

A new security permission is available to grant users access to the Webhook API:

Permission	Description	Default / Notes
Inventory – WebHook API Access *(new)*	Allows external systems to post inventory events (Production BOM Make, Waste, Transfer) through the secured WebHook API.	Disabled by default; must be granted to integration users only.

The following configurations are applicable to Hub and Spoke Transfer activities and integration:

Configuration / Setting	Description	Default / Notes
Transfers – Enable Shortage in Transfer Receive	Enables users to adjust received quantities and record shortage reasons during transfer receipt.	Default: Off
Transfer Receive Shortage Reasons (Admin Page)	New administration page to define shortage reasons and assign corresponding system actions.	Configurable via Mobile Admin Settings
Unified WebHook API Endpoint	Secure endpoint for “Transfer”, “ProductionMake”, and “Waste” events.	Requires Basic Authentication (integration credentials).
FromStoreFreshTemperature / FromStoreFrozenTemperature	Optional transfer API fields to capture sending store temperatures for compliance reporting.	Optional fields

Hub and Spoke (Part E: Waste Management API) [F26821]

Summary

As part of a customer's **Hub and Spoke initiative**, this release introduces a new **Waste Management API** under a **unified WebHook endpoint** framework.

The enhancement enables the **Edify Kitchen System** to automatically submit waste data to MacromatiX, ensuring real-time and accurate waste tracking for both **inventory items** and **finished goods (Production BOMs)**.

1. Unified WebHook Endpoint for Waste Management

- A new **secured WebHook API endpoint** is implemented to handle waste-related payloads as part of the broader **Inventory WebHook framework**, which also supports Production BOM Make and Transfer events.
- **Endpoint Capabilities:**
  - Accepts multiple waste entries per request.
  - Uses **Basic Authentication (User ID + Password)** for security.
  - Supports differentiated routing logic based on payload EventType:
    - Waste → handled by *HandleWasteEvent* function.
    - Other event types (e.g., ProductionMake, Transfer) routed accordingly.
  - Performs validation for:
    - Valid store number (must be active and open).
    - Valid item codes for each waste type.
    - Valid waste reasons (active in system configuration).
  - Logs validation errors per record but continues to process valid entries (partial success model).
  - Prevents duplicate waste submissions when an ExternalReference is included.

2. Waste Data Submission (Batch Entry Support)

Each payload can contain multiple waste transactions (“batches”) within a single request. Each batch entry requires:

Field	Required	Description
StoreNumber	Yes	Store where waste occurred.
TransactionTime	Yes	UTC timestamp (converted to local time).
ItemCode	Yes	Item wasted (Inventory or Finished good).
Quantity	Yes	Positive number representing waste quantity.
WasteType	Yes	Either InventoryWaste or FinishedWaste.
WasteReason	Yes	Valid waste reason from system configuration.
UOM	Optional	Unit of Measure (defaults to base unit).
ExternalReference	Optional	Used for duplicate prevention.
ProductionBOMWasteMethod	Optional	Defines processing behavior for Production BOM items.

3. Production BOM Waste Processing Logic

A new field ProductionBOMWasteMethod has been added to define how **Production BOM waste** is handled when the item being wasted is a recipe item.

Option	Behavior
MakeAndWaste	The system first creates a **production make transaction**, then a **waste transaction** for the finished item. Ingredient usage is recorded from the make process, and waste is applied to the finished BOM.
WasteAsIngredients	Skips the BOM item entirely. Instead, the system directly records **ingredient-level waste transactions** based on the BOM recipe.
WasteOnly (default)	Only the BOM item is wasted; no production make or ingredient waste is created.

This configuration ensures that waste can be managed consistently across kitchen environments with different production reporting needs.

4. Audit and History Visibility

- All processed waste transactions—whether created manually or via API—are logged and displayed in the existing **Waste History page**.
- Each record includes:
    - Store and user identifiers.
    - Transaction timestamp (converted to store local time).
    - Waste type, item code, reason, and quantity.
    - Audit references for external submissions (if provided).

5. Validation and Error Handling

- The API supports **partial success**:
    - Valid records are processed immediately.
    - Invalid records are rejected with detailed error messages returned in the API response.
- Duplicate detection ensures no repeated waste entries based on matching ExternalReference.
- Requests from unauthorized users or invalid credentials return:
    - 401 Unauthorized (invalid credentials)
    - 403 Forbidden (user lacks permission)

Reason for the Change

Hub and spoke kitchen operations require accurate, real-time waste tracking across production hubs and retail spokes.

The existing manual waste entry process in MacromatiX is **time-consuming** and **error-prone**, especially for high-volume kitchen environments.

This enhancement was introduced to:

- **Automate waste data entry** through integration with the Edify Kitchen System.
- **Ensure consistency and accuracy** in inventory depletion and waste reporting.
- **Support production-level waste tracking**, including finished goods and ingredient-level waste for Production BOMs.
- **Provide a scalable and auditable API interface** for all inventory-related event types.

Together with the Production BOM Make and Transfer APIs, this feature delivers a complete, automated inventory update workflow for Hub and Spoke operations.

Configuration Settings

A new security permission is available to grant users access to the Webhook API:

Permission	Description	Default / Notes
Inventory – WebHook API Access *(new)*	Allows external systems to post inventory events (Production BOM Make, Waste, Transfer) through the secured WebHook API.	Disabled by default; must be granted to integration users only.

The following configurations are applicable to Hub and Spoke Transfer activities and integration:

Configuration / Setting	Description	Default / Notes
Unified WebHook Endpoint	A single secured API endpoint for handling Waste, ProductionMake, and Transfer events.	Requires Basic Authentication.
ProductionBOMWasteMethod	Determines how Production BOM waste is processed (MakeAndWaste, WasteAsIngredients, WasteOnly).	Default: WasteOnly
ExternalReference	Used for detecting duplicate waste submissions.	Optional field; validated if present.

Mobile – Purchase Order Enhancements [F24888]

Summary

As part of a customer's *Move to Mobile* initiative, several key enhancements have been made to the **Mobile Inventory – Ordering** module to achieve functional parity with the legacy MMS system and improve store-level usability.

The changes include **new order cancellation capability**, **usage data visibility**, **PDF report generation**, **store-level reporting**, and **ERP export improvements**.

1. Cancel Order in Mobile Ordering

- A new **"Cancel Order"** action is now available on the **Order Detail** page (for both *Order Place* and *Order Schedule* pages).
- This action allows users to cancel *open orders* (Placed, Order Confirmed, or Shipping Confirmed).
- **Authorization Process:**
    - When clicked, an authorization window prompts for credentials and a cancellation reason.
    - The current user is set as the default authorizing user.
    - If configuration Inventory_Purchasing_OnlineOrderRequireCancellationReason is enabled, the cancellation reason is mandatory.
    - The system validates credentials and the permission **"Inventory - Ordering - Can Cancel Order"** before proceeding.
- **Scheduled Orders:**
    - The system enforces a cutoff time based on the configuration ScheduledOrders_CancellationCuttOffHours.
    - Orders older than the cutoff cannot be canceled ("Cannot cancel order – too late").
- Upon successful cancellation:
    - The order status updates to **"Canceled"** with the reason displayed.
    - The canceled order appears in order history.

- On-order and back-order quantities are updated accordingly.
- A **“PurchaseOrderCancelled”** audit log entry is created, triggering relevant ERP or event-driven exports.

2. Display Previous Week Ending and Usage

- The **Item Detail panel** on the Order Detail page now includes two new informational rows:
  - **Previous Week Ending** – Displays the end date of the previous fiscal week (from tbItemBalance.EndDate).
  - **Previous Week Usage** – Displays theoretical usage in purchase units (from tbItemBalance.Sales_qty), with up to two decimal places.
- Both values match the data shown in MMS and are fully **localizable**.

3. Generate Order Reports (PDF)

- A new **“Generate Report”** action has been added to the **Order Detail** page for:
  - **Placed/Scheduled Orders:** Generates the default Purchase Order report (/Service/Reports/MxReportSupplyOnlineOrderRS08).
  - **Received Orders:** Generates the Purchase Order report with version “OrderReceive”.
  - **Order History:** Generates the Order Receipts report (/Service/Reports/ReceiptsByOrder).
- Each can be replaced with a **custom SSRS report** via mappings in tbCustomReport.
- **Crystal Reports are no longer supported.** If specified, an error message appears.
- SSRS reports support parameters TransactionNumber or OrderID.

4. Store-Level Reports Added

Two SSRS reports are available for store users in Mobile:

- **Store Orders Not Received:**
    - Based on existing report /SQL/Reports/MxReportUnReceivedOrders (Report ID: 330).
    - Parameters: Store, Date Range.
- **Store Receive Detail by Vendor:**
    - Based on existing report /SQL/Reports/MxReportReceiveDetailByVendor (Report ID: 1075).
    - Parameters: Store, Date Range, Vendor.
- Both reports are accessible from **MMS and Mobile**, maintaining identical formats and data accuracy as their head-office versions.

5. VMI Project Integration (ERP Export Fix)

- Resolved issues with the **ERP PO Export XSLT** where quantity changes made in Mobile Ordering were not consistently reflected in exported files.
- Enhancements ensure that:
    - All updated item quantities are captured in the ERP export.
    - Repeated order edits no longer cause export failures or errors.
    - ERP files are complete, accurate, and consistently generated.

Reason for the Change

These enhancements ensure:

- Functional parity with MMS for smooth adoption of Mobile Ordering.
- Operational efficiency, by enabling stores to cancel, review, and print orders directly from mobile devices.
- Data visibility, with usage and historical information helping managers make informed ordering decisions.
- Process continuity, by providing essential reports and ensuring reliable ERP integrations.

Collectively, these updates make Mobile Ordering a comprehensive and intuitive replacement for the legacy system, supporting both corporate and franchise restaurant operations.

Configuration Settings

A new security permission is available to grant users permission to authorize or perform order cancellations:

Permission	Description	Default / Notes
Inventory – Ordering – Can Cancel Order	Grants the ability to cancel purchase orders from Mobile Ordering.	Disabled by default

The following configurations relating to this feature are available:

Configuration / Setting	Description	Default / Notes
Inventory -> Purchasing -> Online Order Require Cancellation Reason	Requires a cancellation reason when canceling a purchase order.	Default: Disabled (optional)
Scheduled Orders -> Cancellation Cut-Off Hours	Defines the cutoff window (in hours) for canceling scheduled orders. Orders created before this cutoff cannot be canceled.	Configurable
(Existing) tbCustomReport mappings	Supports overriding default SSRS reports for “Generate Report” actions.	Optional per implementation

Mobile – Credit Memo Enhancements [F24926]

Summary

Enhancements have been made to the **Mobile Inventory – Credit Memo** functionality as part of a customer's *Move to Mobile* initiative.

These changes align the Mobile Credit Memo process with the legacy MMS system, improving usability, consistency, and ERP integration.

1. Credit Memo Submission Process

- Users can now **submit Credit Memos without removing unreturned items** from the linked invoice.
- During submission:
  - Only items with **claim quantities** are validated and stored.
  - Items without claim quantities are automatically excluded.
- When a Credit Memo is created with a linked invoice, **all items** from that invoice load initially, but only claimed items will appear later in review or history screens.
- This streamlines workflow for large orders where only a subset of items need to be returned.

2. Credit Memo Reason Alignment

- The list of **Credit Memo reasons** (for claim type = "Credit") is now **synchronized** with MMS.
- Any reason with an **inventory affect type = "Waste"** is hidden from the selection list to avoid confusion.
- This ensures consistent reason options between MMS and Mobile.

3. Credit Memo Auto Return Configuration

- A new **"Credit Memo Auto Return"** configuration has been added to **Vendor Management**.
  - **Default:** Disabled.
  - When enabled for a vendor:
    - Upon submission, the Credit Memo status changes directly from **Open → Pending** (bypassing sub-status transitions like "Requested" or "Vendor Confirmed").
    - The system raises the **CreditMemoSubmitted** event only (skipping **CreditMemoRequested**).
  - This makes the Mobile process identical to MMS and allows different configurations per vendor.

- To support ERP integration, a new **XSLT export task** is created:
  - Duplicates existing "**ERP – Credit Note Export**" functionality.
  - Handles the **CreditMemoSubmitted** event for automatic ERP processing.

4. Credit Memo Communication Logs

- A new **Communication Log** feature has been added to the Credit Memo detail pages.
- The system now logs communication entries automatically for the following actions:
  - Credit Memo Creation
  - Request
  - Submission
  - Confirmation (from import)
  - Return/Pickup
  - Approval
  - Changes made in Mobile or imported from ERP (item-level details included)
- Each entry captures:
  - Local store date/time
  - User's name
  - Event type
  - Notes and vendor contact (if applicable)
- A new **information icon (ℹ️)** appears on the Credit Memo detail page:
  - Clicking it opens a **popup window** displaying all communication logs in a table with columns:
    Date/Time, **User's Name**, **Type**, **Notes**
  - Users can also **add manual communication entries** directly from the popup.

5. Credit Memo Report Generation

- A new **"Generate Report"** action item is added to the Credit Memo **Create**, **Return**, and **History** pages.
- When clicked, the system generates the report:
  "Claim Against Delivery"
  (/Service/Reports/CreditMemoClaimAgainstDelivery:1300)
- This enables stores to produce a printable report for **bookkeeping** and **vendor communication** directly from Mobile.

Reason for the Change

During the transition from MMS to Mobile, several usability and integration differences were identified that impacted store efficiency:

- Mobile required removing all unreturned items before submission, unlike MMS.
- Reason lists and status logic differed between systems, causing confusion.
- The lack of communication logs and report generation limited traceability and documentation.
- ERP integration events in Mobile did not align with the customer's current Credit Note export process.

These enhancements were implemented to:

- Simplify the **credit memo workflow** for store users.
- Ensure **functional parity with MMS** for seamless migration.
- Provide **auditability** through communication logs.
- Support **consistent ERP integration** for credit and return processing.

Overall, the update improves accuracy, transparency, and operational efficiency in credit memo management.

Configuration Settings

Configuration / Setting	Description	Default / Notes
Credit Memo Auto Return (Vendor-level setting)	Allows the system to automatically update a Credit Memo status from *Open → Pending* upon submission, skipping intermediate statuses.	Off (False)
ERP – Credit Note Export (New XSLT Task)	Handles CreditMemoSubmitted events for ERP integration.	N/A

Mobile – Cashier Close Enhancements [F24894]

Summary

As part of a customer's *Move to Mobile* initiative, this release introduces an enhancement to the **Mobile Cash Reconciliation authorization process**. The change simplifies cashier settlement by **automatically pre-filling usernames** in authorization popups, reducing manual entry errors and improving efficiency for store managers and team members.

Username Pre-Fill in Authorization Popups

- When authorizing or releasing a cashier reconciliation in **Mobile Cash Reconciliation** (#/CashManagement/CashReconciliation), the system now automatically populates usernames in the authorization popup.
- **Manager Username:**
  - Automatically pre-filled with the **currently logged-in user's username** in both:
    - *Authorize Reconciliation* popup
    - *Release Reconciliation* popup
- **Team Member Username:**
  - If the following conditions are met:
    - CashupSetting.ShowTeamMember = **true**, and
    - New configuration **"Cash Recon – Team Member Look up"** = **enabled**
  - Then:
    - The system looks up the team member's username using the **cashier ID** from the POS data.
    - The **POS ID** is matched against the **Employee Management – POS ID** field for the same store.
    - If a match is found, the team member username field is **automatically pre-filled**.
    - If no match is found, the field remains blank for manual entry.
- Users can still **manually re-enter or override** the pre-filled username for authorization if needed.

Reason for the Change

In the previous Mobile EBO workflow, both the store manager and the team member had to **manually enter their usernames** when authorizing cashier settlements. This caused inefficiencies, particularly when:

- Team members forgot their usernames, or
- Managers needed to repeatedly input credentials for multiple reconciliations.

This enhancement improves the **user experience and operational efficiency** by:

- Reducing manual entry steps,
- Preventing login errors during cashier settlement, and
- Speeding up end-of-day reconciliation tasks across stores.

Configuration Settings

Configuration / Setting	Description	Default / Notes
Cash Recon – Team Member Look up	Enables automatic lookup and pre-fill of the team member username during cashier reconciliation authorization.	Defaults to False
CashUpSettings.ShowTeamMember ***(existing DB table setting)***	Displays the Team Member credentials entry fields	Defaults to False, must be enabled to utilize this feature

Mobile – Deposit & Banking Enhancements [F24915]

Summary

As part of a customer's *Move to Mobile* initiative, enhancements have been made to the **Mobile Banking Deposit** page within **Mobile Cash Management** to align its functionality with the legacy MMS Banking Deposit page.

The changes ensure a consistent user experience and compliance with the customer's banking and rounding policies.

1. Configurable Authorizer Fields

- The Mobile Banking Deposit page now dynamically displays the four authorizer fields based on store-level configuration:
  - **Verified-By**
  - **Prepared-By**
  - **Banked-By**
  - **Witness**
- Each field's visibility is controlled by the following banking settings:
  - ShowVerifiedBy
  - ShowPreparedBy
  - ShowBankedBy
  - ShowWitness
- When any of these settings are toggled, the corresponding authorizer field immediately appears or disappears without affecting other fields.

2. Configurable Disclaimer Visibility

- The Mobile Banking Deposit page now supports toggling a **disclaimer section** via the banking setting ShowDisclaimers.
- When enabled, the disclaimer is displayed at the bottom of the deposit page; when disabled, it is hidden.
- The setting update is reflected in real-time without requiring a page reload.

3. Deposit Amount Rounding Validation

- A new rounding validation has been added to ensure **Actual Deposit** amounts conform to the customer's business rule of rounding to the nearest $5.
- The validation uses the configuration key:
  - Financial_Deposits_Actual_Deposit_Factor:40629
- When a deposit amount entered is not a multiple of the configured rounding factor:

    - The system displays an inline, localized error message:
      “Actual Deposit entry must be a factor of $5.”
    - The system prevents saving the deposit until the value meets the rounding rule.
- This ensures accuracy and compliance with store-level deposit rounding policies.

Reason for the Change

During the transition from the legacy MMS platform to Mobile EBO, the customer identified several **functional gaps** in the Mobile Banking Deposit process:

- MMS displayed only the “Banked-By” authorizer, whereas the Mobile version required visibility of multiple authorizers.
- MMS lacked a disclaimer toggle that exists in the Mobile Banking Deposit.
- MMS enforced deposit rounding rules that were **not** present in the Mobile version.
-

To maintain **operational consistency** and ensure a smooth migration to the Mobile platform, these enhancements were introduced to:

- Provide flexible configuration for authorizer and disclaimer visibility.
- Enforce consistent deposit rounding policies across all stores.
- Improve usability and data validation without compromising the user experience.

Configuration Settings

Configuration / Setting	Description	Default / Notes
ShowVerifiedBy *(tbBankingSettings)*	Controls whether the “Verified-By” authorizer field is displayed on the Mobile Banking Deposit page.	False
ShowPreparedBy *(tbBankingSettings)*	Controls visibility of the “Prepared-By” field.	False
ShowBankedBy *(tbBankingSettings)*	Controls visibility of the “Banked-By” field.	True
ShowWitness *(tbBankingSettings)*	Controls visibility of the “Witness” field.	False
ShowDisclaimers *(tbBankingSettings)*	Controls whether the disclaimer message is displayed.	False
Financial -> Deposits -> Actual Deposit Factor	Defines the rounding factor for validating actual deposit amounts.	5

Mobile - Starting Float for Cash Management [F25627]

Summary

This enhancement introduces **Starting Float functionality** to the **Mobile Cash Management** module, aligning it with the existing MMS (Manager Maintenance System) process. The feature allows stores to enter and manage variable starting float amounts per cashier and day, ensuring accurate cash management and reconciliation.

Key Functional Enhancements

- **New "Starting Float Count" Page**
  - A new **Starting Float Count** page is added to the **Mobile Cash Management** section.
  - The page is visible only when the configuration CashupSettings -> UseStartingFloatCount is enabled and the user has **Cash Reconciliation page access**.
  - It appears as the **first item** under the Cash Management menu.
  - The page displays all Starting Float transactions for the selected date, including:
    - Team Member Name
    - Float Count Total
    - Variance
    - Submitting Time
    - Manager (Authorizer) Name
    - Status (Open/Closed)
- **Adding and Authorizing Starting Float Counts**
  - Users can create a new starting float by selecting a team member, entering the float amount, and submitting for authorization.
  - Managers authorize float counts via popup windows, following existing **authorization modes** (Single, Dual, or Manager Authorization Without Credentials).
  - Once authorized, the float record becomes read-only.
  - A team member can only have one authorized starting float per day.
  - Authorization events are logged for both successful and failed attempts.
- **Integration with Cash Reconciliation**
  - When performing cash reconciliation:
    - The system automatically searches for a matching authorized Starting Float based on the cashier's name.
    - If found, the float count is linked to the reconciliation, and totals are updated automatically.

        - If no match is found, users can manually link an unlinked float from a dropdown.
        - If no float is linked, the system prevents cash count submission and prompts the user:
          "A valid starting float for this reconciliation needs to be completed before continuing. Please proceed to the Starting Float Count screen."
    - Each starting float can only be linked to a single reconciliation.
    - The system now also supports submitting a cash count without selecting a starting float, if configured.
- **Localization Support**
    - The Starting Float Count list and detail pages are fully **localizable** to support multiple language settings.
- **Status Updates**
    - When a cash reconciliation linked to a starting float is authorized, the status of the corresponding starting float automatically updates to **Closed**.

Reason for the Change

Customers using a **variable starting float system** in MMS require this capability to transition to the mobile user experience.

To ensure operational continuity and accuracy during transition from MMS to the Mobile Cash platform, this enhancement replicates the MMS Starting Float process in MRMS Mobile, allowing

- Store-level flexibility in managing starting floats across cashiers and shifts.
- Accurate reflection of float usage during daily cash reconciliation.
- A seamless transition experience without altering established store procedures.

Configuration Settings

Existing Cash Management security permissions are required to access the Starting Float Count page, such as:

- Mobile - Cash Reconciliation – Can Access

Configuration / Setting	Description	Default / Notes
UseStartingFloat *(tbCashUpSettings)*	When enabled, the “Starting Float Count” page appears in the Cash Management menu.	False
Cash Count Mode *(Configuration Manager)*	Determines how float counts are entered (Popup or Inline).	Popup
Authorization Configuration *(Configuration Manager)*	Controls single, dual, or credential-less authorization modes.	Single

Enhance Virtual POS Validation Rule [F27314]

Summary

This release enhances the **Virtual POS Rule** and **Daily Reconciliation** logic within the MRMS **Cash Management** module to improve usability and operational efficiency for a customer's stores who use the NP6 point-of-sale system.

1. Enhanced Virtual POS Validation Rule

- A new configuration option — **"Bypass validation in Daily Reconciliations for Virtual POS"** — has been added to the Virtual POS Rule configuration screen.
- When this option is enabled:
  - The system **bypasses cashier close validation** for virtual POS registers during the **Daily Reconciliation Authorization** process.
  - The daily reconciliation will no longer fail validation if a virtual POS register:
    - Has only a cashier open event (missing a close event), or
    - Has a cashier close event that is not yet authorized.
- When disabled, the system enforces the standard validation logic — all cashier open events must have corresponding authorized cashier close events, including those from virtual POS registers.
- This enhancement ensures that virtual POS registers, which have **zero cash and float counts**, do not block reconciliation completion.

2. Daily Reconciliation Page Auto-Refresh

- The **Daily Reconciliation** page now automatically **refreshes all sections** (Cash Reconciliation, Safe Count, Banking Deposits, and Daily Summary):
  - **Before authorization** — to ensure all data is up to date when a manager clicks "Authorize".
  - **After successful release** — to display the most recent reconciliation status and data.
- The refresh happens **in-place**, without navigating away from the page, and includes a visual indicator (e.g., loading spinner) if the refresh takes noticeable time.
- This enhancement prevents managers from authorizing outdated data and improves reconciliation accuracy.

Reason for the Change

The customer identified operational challenges caused by **missing or unauthorized cashier close events** from **virtual POS registers** in NP6 polling data.

These incomplete records triggered unnecessary validation failures during daily reconciliation, requiring IT intervention and delaying store closing procedures.

Virtual POS registers:

- Carry no financial impact (auto-authorized with zero cash and float)
- Are already visually indicated in MRMS for transparency

The new configuration allows store managers to proceed with end-of-day reconciliation **without being blocked by non-critical virtual POS validation errors**.

Additionally, automatic data refresh ensures **data integrity and real-time accuracy** when store managers perform reconciliation and authorization tasks from different devices.

Configuration Settings

New Configuration Option (Virtual POS Rule):

- **Setting Name:** Bypass validation in Daily Reconciliations for Virtual POS
- **Type:** Checkbox
- **Default Value:** Disabled (unchecked)
- **Description:** When enabled, bypasses cashier close validation for virtual POS registers during Daily Reconciliation authorization.
- **Location:** Virtual POS Rule configuration screen

CloudLink

QuBeyond POS Integration [F26329]

Summary

This release introduces a **new integration between QuBeyond POS and Fourth's MacromatiX Back-of-House (BOH) system**, replacing the legacy NCR Aloha + LiveLink integration.

The integration enables seamless, near real-time synchronization of **sales**, **labor**, and **cash management** data between QuBeyond POS and MacromatiX through Qu's **Data Streaming Service** and **API framework**.

1. Modern POS Integration Architecture

- A new **POS event-driven integration pipeline** has been built using **Qu's Data Streaming Service**, which delivers data to MacromatiX through secure webhooks.
- The integration replicates all key data points supported by the existing Aloha + LiveLink connection, including:
    - Sales transactions and summaries
    - Cash drawer activities (e.g., start float, paid in/out, till reconciliation)
    - Labor events (clock in/out, breaks, shift changes)
    - Refunds, voids, and post-tender modifications
- Qu POS events are processed through the following new components:
    - **MxConnect Webhook Handler** – Receives, validates, and queues incoming POS events.
    - **CloudLink Middleware** – Transforms event payloads into MacromatiX-standard formats for processing by BOH systems.

2. MxConnect Webhook Handler (New Component)

- A new **POSEventsWebhookController** is introduced under Mx.Web.UI\Areas\External\Qu\.
- Handles incoming webhook events published by QuBeyond POS.
- Validates each event for:
    - Recognized topic type (Sales, Cash, or Labor)
    - Valid and active store configuration in MacromatiX
    - Correct store number or global store number mapping
- On successful validation, each event is:
    - Enqueued in the **PosIntegration message queue**
    - Tagged with EntityID, Business Day, and event metadata
- Includes:
    - 10-minute caching for store lookup
    - Disabled verbose logging for performance
    - Test tool to simulate event posting from Qu POS

Accepted Event Topics:

- **Sales Events** – Check closed, check reopened, export available
- **Labor Events** – Clock in/out, break in/out
- **Cash Events** – Till closed, EOD complete, float adjustments

3. CloudLink Middleware Enhancements

- CloudLink now supports transformation of **QuBeyond POS event payloads** into **MX-standard sales messages**, routing them to the MX Sales Queues for polling.
- **Key Enhancements:**
    - Generates **unique shift and transaction IDs** per till, per day.
    - Handles **multi-process transformations** for scalability.
    - Provides **configurable queue sources and service type mappings**.
    - Supports **default payment method and clerk ID for digital orders**.
    - Enables **store-level logging and purging** of processed messages.

Data Types Processed:

- Sales transactions (menu items, combos, condiments, modifiers)
- Discounts, tax breakdowns, guest counts, external order IDs
- Cash movements (open/close, loan/bleed, paid in/out)
- Labor records (clock events, breaks, meal periods)
- Refunds and voids, including overring and post-tender corrections

Duplicate & Change Handling:

- Prevents duplicate transactions based on unique identifiers and timestamps.
- Detects modified transactions (e.g., new tips or updated payments) and automatically:
    - Reverses the original transaction.
    - Inserts a corrected version with full audit trail linkage.

4. Refund, Void, and Loss Prevention Handling

- Distinguishes between **refund types**:
    - Regular refund, overring, and post-tender void.
- Refund transactions:
    - Record item details, refund amount, and reason.
    - Exclude from inventory restocking (quantity = 0).
- Voids are categorized and logged as:
    - Pre-store void, post-store void, or full order cancellation.
- All actions include:
    - Reason code, timestamp, and responsible cashier.
    - Exclusion from net sales but availability for audit and reporting.

5. Error Handling and Recovery

- All malformed or failed POS events are routed to a **dedicated error queue** for safe reprocessing.
- Includes structured error notifications (event type, store, error code).
- Supports **manual and automated retry mechanisms** without data duplication or loss.

Reason for the Change

The integration was developed to support a customer migrating from the **NCR Aloha POS system** (using LiveLink) to the modern **QuBeyond POS platform**.

This new integration ensures **continuity of BOH operations** while delivering several key improvements:

- **Real-time data synchronization** via Qu's Data Streaming Service.
- **Elimination of legacy file-based imports** (LiveLink dependency).
- **Improved scalability and reliability** for multi-store operations.
- **Enhanced data accuracy and traceability** across sales, labor, and cash workflows.
- **Future extensibility**, providing a reusable architecture for other POS partners or customers adopting QuBeyond.

Overall, this update provides a **modern, API-driven, and event-based POS integration** that meets enterprise operational requirements and future scalability goals.

Configuration Settings

Security Permissions

Permission	Description	Default Setting
External – QuBeyond Webhook Access *(new)*	Allows the QuBeyond POS system to post real-time event data (Sales, Labor, Cash) to the MxConnect Webhook endpoint.	Restricted to integration users only.
POS Integration – Queue Monitoring	Extended to allow monitoring of QuBeyond-related message queues.	No default change.

Settings

Configuration / Setting	Description	Default / Notes
POSEventsWebhookController	New API endpoint under Mx.Web.UI\Areas\External\Qu\ to receive POS event data.	Enabled for QuBeyond integration only.
Polling Configuration – QuBeyond	Identifies store-level Qu POS connection parameters (API credentials, store mapping).	Required for stores using Qu POS.
CloudLink Queue Settings	Defines source/target queues for POS event processing.	Configurable per environment.
Service Type Mapping	Maps Qu POS service types (e.g., dine-in, delivery) to MacromatiX equivalents.	Configurable via CloudLink.
Default Payment Method / Clerk ID	Used for unmapped digital orders.	Optional.
Store-Level Event Logging	Controls event log detail by store.	Disabled by default (exceptions only).
Cache Refresh Interval	Caches store and polling configuration for performance.	Default: 10 minutes.

Genius POS (GPOS) Integration - Improvements and EOD Transaction Reconciliation [F27195]

Summary

The integration with GPOS *(formerly Xenial)* is enhanced with new functionality, adjustments to data mappings, and various improvements to existing integration logic:

- End of Day Sales Reconciliation Process
    - This integration uses a data stream methodology, which introduces risk that transactions are either not received or not processed correctly during real-time processing.
    - Upon receipt of an End of Day event from the point-of-sale, based on configuration, a Reconciliation process can be executed.
    - The process compares Net and Gross Sales totals between MacromatiX and the point-of-sale system's totals retrieved from the provider's API - first at the day level, and then by transaction if day-level totals do not match.
    - Transactions that are found to be missing or otherwise misaligned between GPOS and MacromatiX are requested from the API and reprocessed to ensure accuracy and consistency.
    - In the event, following completion of the automated reconciliation process, that sales totals are still misaligned, a new auto-notification can be sent to appropriate resources for further investigation and manual intervention to resolve
- Improvements to the handling of post-tender transaction adjustments
- Improvement to the handling of refund transactions to ensure unique transaction reference numbers for the refunds are captured
- Adjustments to transaction item processing to ensure Non-Sales are handled correctly for the identified types configured in GPOS:
    - Gift Cards
    - Fees and Service Charges
    - Donations
- Populate a generic Cashier Name for transactions that are not associated with human cashiers *(such as online, 3rd party, and kiosk orders)*
- Associate sales transactions with the appropriate "Shift Number" *(GPOS Drawer Session Number)* for use in production of Cashier Reconciliations encompassing all sales activity for the cashier on their assigned drawer and register.

Reason for the Change

These enhancements address gaps in the initial implementation, provide automated data correction for mismatched sales received from the GPOS Data Stream, and improve the Cash Reconciliation process to ensure sales activity is associated with the correct cashier, register terminal, and cash drawer session where the orders are tendered.

Configuration Settings

The CloudLink polling service contains a new configuration settings to enable/disable the End-of-Day Sales Validation process:

- Enable Daily Reconciliation Process *(true/false)*
- Daily Reconciliation Queue Name *(MSMQ message queue used for Daily Reconciliation messages)*

Brink Cloud POS Integration - Sales & Payments [F27317]

Summary

MacromatiX is now able to receive Sales Transactions from the cloud-based Brink point-of-sale system, capturing key transaction header information, payment details, and Cash Accountability attributes:

- Business Day
- Transaction Close Time
- Gross Sales Amount
- Net Sales Amount
- Tax Amount
- Transaction Count
- Guest Count
- Register Number
- Cashier Name and ID
- Cash Drawer Shift Number

Reason for the Change

The introduction of this integration allows customers using the cloud-based Brink point-of-sale system to report on Sales Totals within MacromatiX.

Configuration Settings

No new configuration settings were introduced as part of this feature. However, the typical point-of-sale integration set-up steps and relevant configurations should be performed:

- System must be defined with appropriate polling settings, based on customer operations and point-of-sale system settings within tbPollPOS
    - *Note: The POS Type attribute for this system should be set to "ARTS"*
- Store locations must be configured through POS Polling Setup in MMS to use the "Brink" point-of-sale system, with translations for PLUs, and "Undefined" mappings for Sales Items and Control Info.
- This integration must be enabled in CloudLink, which should be installed on the customer's MacromatiX App Server, hosted by Fourth.
    - The correct API endpoint and access credentials must be assigned
    - The store locations which should be polled should be configured with the correct Brink Store Location Token and the appropriate API server *(designated by Brink based on customer/region)* and polling of the store enabled.

Brink Cloud POS Integration - Items, Modifiers, and Combos [F27642]

Summary

The integration between MacromatiX and the cloud-based Brink point-of-sale system can process the items within the transactions retrieved from Brink's API through the CloudLink polling service, including:

- A la carte items
- Combos
- Modifiers

Reason for the Change

Processing of Transaction Items enables mapped sales items between Brink and MacromatiX to be reflected in Product Mix reporting and for the underlying recipe ingredients for the items to be depleted and reported as Theoretical Usage.

Configuration Settings

No new configuration settings were introduced as part of this feature. However, the typical point-of-sale integration set-up steps and relevant configurations should be performed:

- POS Polling Settings *(tbPollPOS)* for Brink system to apply the desired "TranslateUsing" options *(such as "Title" or "Code")*
- PLU Code and ID mapping to Sales Items through POS Polling Setup
- Recipe ingredient assignments under the sales items through the Recipe Viewer

LiveLink

Extract More Data from SOS File [F27057]

Summary

The LiveLink integration with the NP6 POS system has been enhanced to extract **additional Speed of Service (SOS)** data from **DetailedSOS XML files**.

Previously, only a limited set of service time metrics was captured (e.g., OrderStore, OrderRecall, OrderTotal, OrderTender, etc.). With this enhancement, LiveLink now extracts a broader set of attributes from both the <ServiceTime> and <ProductionTime> elements within each <StoreTotals> block.

Newly supported attributes include, but are not limited to:

- From <ServiceTime>:
  segmentId, orderKey, tc, cars, tcPrepared, totalTime, tcOverPresentationPreset, tcOverTotalPreset, tcWorkOverTotal, totalAmount, etc.
- From <ProductionTime>:
  tcOver50, tcWorkOver50, tcUnderTotalTimeDT, tcOverTotalTimeMFY, tcUnderPresentationTimeFC, and other over/under time metrics across MFY, DT, FC, CSO, MCC, DELI, DLV, etc.

Each extracted attribute will be stored as an **SOSInfo record** in the tbTransactionControlInfo table, using the same mechanism as the existing itemCount logic.

Reason for the Change

A customer requested this enhancement to enable **more detailed and insightful service performance reporting**. Although these data points already exist in the NP6 DetailedSOS files, they were not previously captured or stored in the MRMS Reporting Data Store (RDS). By expanding the data extraction scope, the system will now support a wider range of operational KPIs and reporting use cases.

Configuration Settings

No new configuration settings were introduced as part of this feature.

2025.4 Release Bug Fixes

Defect ID	Description
D106511	Deposit and Banking Comments
D107518	MXConnect Night Banking - Incorrect Expected Deposit and Total Banked in Sales Summary
D108001	MXConnect Safe Count - Registers field on Top Safe Pop-Up
D108956	Mid-Period counts opened two or more days early are defaulting to previous period
D109188	Can not change order receive apply date after unlock period
D109487	Vendor item image update issue
D109642	Petty Cash has display issues in safe drop page when type be updated from 'Withdrawal' to ‘Octopus Card’ in petty cash module
D109653	[Transaction Viewer] When the filter is changed, the page does not reset to 1.
D109697	Forecasting - Service types and Timeline is missing when no data in a segment
D109718	StockTrans Export Not Running
D109746	Mobile data mismatch between dashboard and daily raw item summary export report
D109799	Redcat Polling -The discount quantity in the reversed order is incorrect.

D109925	Delivery receive will enter error queue issue
D110077	Mobile evaluator has manager adjust amount but manager accuracy displays as N/A
D110102	Forecasting Evaluator has stopped working
D110139	Can enter negative qty when ordering
D110186	Digital/Kiosk Transactions Crash CloudLink
D110247	Drawer login and logout records displays different type between mms and mobile transaction viewer
D110327	Mobile count page searching items issue
D110366	Treat null as ""0"" in Oracle API Calls
D110426	FA - UPT Values Not Included in StockHistory Export
D110500	Simphony Integration - Refund logic incorrect
D110667	VMI Order Update Doesn't Generate PO Export File Randomly for GWF - TIP TOP BAKERIES
D110718	Simphony Integration - Unable to get transaction
D110733	Negative waste entries not allowed
D110933	Gross Profit Analysis V3 does not work on mobile - Warranty
D110991	Reports fail to generate when sent to download center

D111054	Archived 0kb stld files when testing the new livelink and new config related to MOP reports
D111117	Category on mobile order details page is not ordered by settings in tbOrderCategory
D111120	Report Options Are Incorrect On Production Adjustment Page
D111178	Xenial POS - Drawer Event Timestamps
D111325	MXConnect Night Banking - Banked Amount = $0
D111326	Total Count is not updated after release the Cash Count and select another starting float count
D111327	Some dashboard and forecast UI display decimal points, it needs to check tbCurrency format
D111370	Stock History Export Not Including Week and Weekly (counted) Transaction Types
D111400	MX & Analytics Discrepancy
D111477	Received / Rebank Anomalies After Switching to Current Version Banking
D111562	UserSetup can link same POS ID
D111565	Error in Mobile Cash Reconciliation on Authorize
D111568	Mid-Period Count FUVS and Lawson Exports generated with incorrect dates
D111573	No Data Ops Summary at All Sites in Fourth Analytics

D111614	No add-on sales item amount in tbTransactionSalesItem with the new livelink version and mx config file
D111618	Time logic is different between empc 'sales trend' and production adjustment page
D111621	[IPAD Landscape] Cannot change anything after input some value in Dialog Popup Page
D111681	Starting Float - Count by Machine Option
D111682	Starting Float - Backdate Impossible in MXConnect
D111683	Starting Float - Cannot See Authorised Users in MXConnect
D111684	tbBankingDeposit.AmountDeposit = 0 after Move 2 Mobile (MXConnect)
D111744	New livelink version missing MOP transactions records
D111790	Starting Float Created in MMS Displays Strange Cashier Name in MXConnect
D111791	MXConnect Starting Float Balancing Issue and Counted by Machine
D111942	Sometimes the Starting Float Count is not visible under Cash Management unless reload the page
D111977	Mobile UI - Drop-down list for All category is not aligned in receive detail page
D112012	Edify Forecast Export - Timestamp not updated when forecast is adjusted.
D112070	Error in Mobile Cash Reconciliation on Authorize

D112072	Cashier Events Falsely Identified as Duplicates
D112073	UserSetup cannot create or modify users
D112151	RME / MX integration exports ""l"" or ""kg"" when custom UOMs associated with weight or volume are created.
D112188	MXConnect Starting Float Issues After Deploy
D112189	Feature Unavailable on the MMS Night Banking Page
D112191	Daily Reconciliation Report - Still Showing Massive Cash Variance in MXConnect Stores
D112412	Cashier closing Xenial order financial accountability if order initiated by a another user.
D112511	Missing item in a transaction
D112535	Discrepancy with transfer value between container report and rpc report
D112739	StockHistory Location Filtering
D112763	Mobile Prep Adjustment - Unable to submit with decimal qty
D112835	Mobile order received page Container display and item display columns are misaligned
D112910	Undefined Vendor Item Translation Failed
D112914	Production dashboard item debt reset is not working
D112951	Workforce - My Availability Failed when delete range available

D112992	Daily Reconciliation report missing all but three service destinations
D113038	Excessive UpdateAccountBrief Messages Being Generated
D113168	Xenial - Mobile orders are not processed when there is no employee in Contributors and Creator entities