EX067 VISION Reject Data

Contents

1 Document Revision History

Changed By	Date	Version	Notes
Helen Lewis	22/03/2023	V0.1	Document Creation
Ben Berridge	14/04/2023	V0.1	Document revision
Ben Berridge	18/04/2023	V0.2	Update following initial review
Ben Berridge	24/05/2023	V0.3	Estimate added
Ben Berridge	14/07/2023	V0.4	ITM_ANY_ExportItem error logging in MHE journal
Ben Berridge	13/09/2023	V1.0	Renumbered
Andrea HiltonCarr	02/1/02023	V1.1	Updates to section 4. Removed Inbound Message Type and add Destination Subscriber Config

2 Summary Information

Customer Name	ASDA
Customer Code	ASDA
Subproject Code	EX067
Salesforce Case Number:	
Product:	Manhattan Associates Active Warehouse Management (MAWM)
Spec functional Area	Device Integration

2.1 Overview

2.1.1 Business Requirement

MHE Outbound messages are sent to VISION for various flows from MAWM and once received into VISION may fail. VISION will respond to that message with a custom RejectData message type, containing the Original Message ID and the reason for failure which needs to be captured in MAWM so the operators know that there has been an issue and what action is required.

Extension EX067 is therefore required to trigger custom events to automatically find the original Outbound MHE Journal record and update to FAILED status and record the reason for failure as detailed in the message from VISION.

Where the original message type was ITM_ANY_ExportItem a new MHE journal message will be created to record the incoming error details.

This extension replaces VISION to GLS existing RejectData process.

2.1.2 Functional Overview

The purpose of this extension is to trigger a new custom MHE event that will receive the custom Inbound MHE message REJECTDATA from VISION via AIS to MAWM when an Outbound MHE Message fails to process in VISION. The custom Inbound MHE message will contain the original Message ID and the reason for failure. MAWM uses this data to lookup the message, change the message status to failed and store the failure reason against the message. If no reason for failure is passed a default value will be used. This gives operators the information in MAWM to make the decision whether to resend the data or resolve internally.

In addition to true MHE messages that are sent through MHE journal the ITM_ANY_ExportItem message is also being sent via the tranlog to Vision. The REJECTDATA message will also report back any ITM_ANY_ExportItem failures which will also need to be logged in the MHE journal as. To accommodate this requirement a new message will be sent to the journal with a message type of 'ITM_ANY_ExportItem'.

The extension will require a custom MHE Inbound Payload Message and Inbound Message Type that will be mapped to the VISION "RejectData" message via AIS. This message will trigger the custom

events to automatically update the original Outbound MHE Journal Message with the error detail in line with VISION.

2.2 Assumptions

Ref	Assumption
1	MHE Base Configuration and Installation is present.
2	EX067 is enabled in Warrington MHE Warehouse Only.
3	All MHE messages, both outbound (MAWM to VISION via AIS) and inbound (VISION to MAWM via AIS) will use REST and be in JSON format.
4	The mapping of fields for Integration has been defined between MAWM and AIS.
5	A new Inbound PAYLOAD message REJECTDATA will be configured. The message will use the same source transport and endpoints as all inbound messages. The endpoints used are not linked to any specific message.
6	A new corresponding Inbound Message type will be configured in Proactive.
7	Only one failed message will be included in each REJECTDATA message that is sent to MAWM.
8	Messages will be processed real time in MAWM once received from VISION.
9	When the HostMessageObjectType value is 'SKUMASTER' the error details will be sent to the MHE journal via the 'process' API with a message type of ITM_ANY_ExportItem.
10	A new MHE journal message ID will be assigned to ITM_ANY_ExportItem messages when they are sent to the MHE journal.

2.3 Dependencies

2.3.1 Extension Dependencies

N/A

2.3.2 Interface Dependencies

The new MHE Custom Message will need to be mapped to VISION Message RejectData via AIS. Reference needs to be made to the Integration document for data types, field lengths and mapping fields as detailed in the MAWM MHE Message Configuration.

2.4 Glossary

Active WM Term	AH Term	Description
WCS		Warehouse control system
VISION	VISION	Vanderlande WCS (warehouse control system), controls all picking and packing activity from the point of Inbound Receipt
GLS	GLS	Global Logistics System – the legacy warehouse management system
MAWM		Manhattan Active Warehouse Management system
MHE	MHE	Material Handling Equipment
Payload Message Type		Unique Message Type for MHE Message and Process
AIS	AIS	Integration layer sitting between VISION (MHE) and MAWM.

2.5 Performance Expectations

The expectation is that no existing or newly introduced MHE Messages will be impacted by the introduction of the new message and trigger.

The updates to the MHE Journal data on MAWM will be made in real time in sequence of receipt of the REJECTDATA/RejectData Messages.

3 Extension Detail

3.1 Process Flow

1. Outbound MHE Message is sent from MAWM to VISION and upon receipt of the message the message goes to failed status in VISION.
2. VISION sends the details of the error within the RejectData message. This includes the Message Id and Message Type of the original message which has failed in VISION and optionally the reason for failure.
3. The message is sent via AIS.
4. AIS maps the message to MAWM REJECTDATA message and sends the message into MAWM.
5. Is EX067 turned on (Config Store ID 'EX067 Vision Reject Data' Reference Field 1 = 'Y')?
    a. If No – base processing continues and no REJECTDATA custom event triggered.
    b. If Yes – Go to Step 6.
6. EX067 checks JournalEntry.MessagePayload.HostMessageObjectType value.
    a. If value is 'SKUMASTER' then generate ITM_ANY_ExportItem message from payload information and send to the device integration process API. [End processing]
    b. If value is not 'SKUMASTER' move to step 7.
7. EX067 uses the JournalEntry.MessagePayload.HostMessageId value in the Inbound REJECTDATA message to lookup the same value in JournalEntry.MessageId and finds the original Outbound message which is now failed in VISION. A custom event is triggered to automatically add a new custom message stage 'VISION ERROR' entry to the original Outbound MHE Journal record.
    a. If JournalEntry.MessagePayload.ErrorDetails in the REJECTDATA message is not null record ErrorDetails in new custom message stage.
    b. If JournalEntry.MessagePayload.ErrorDetails in the REJECTDATA message is null record default ErrorDetails value in new custom message stage.
8. Confirmation of the REJECTDATA message being received will be recorded in the MAWM MHE Journal UI records.
9. The Operator then decides on the appropriate course of action depending on the error logged.

3.2 ITM_ANY_ExportItem MHE message formats

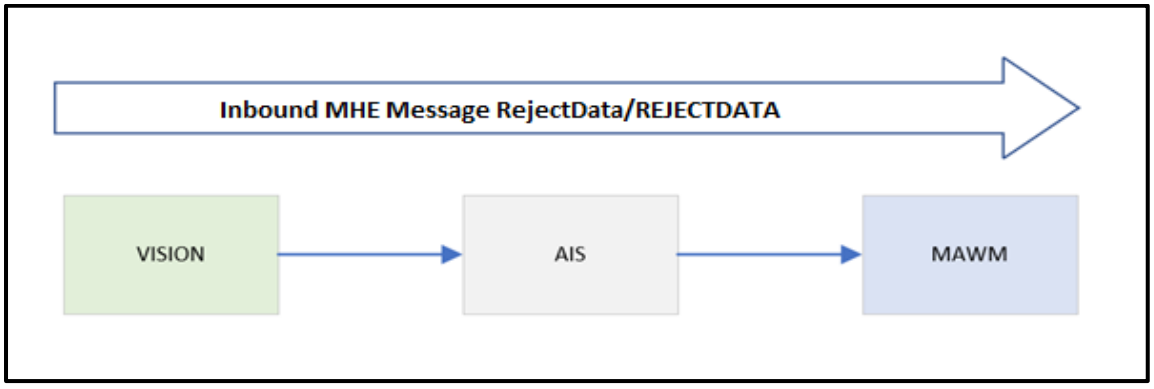
3.2.1 Incoming REJECTDATA Example

```
{
    "EndpointId": "INBOUND_SOURCEENDPOINT",
    "IncludeRequest": true,
    "Message": [
        {
            "MessageType": "REJECTDATA",
            "MessageId": "12345678",
            "HostMessageObjectType": "SKUMASTER",
            "HostMessageId": "61474976583394349064206652465855 24",
            "RejectInformation": "Internal server error caused by item 012231",
            "ObjectType": "RejectData"
        }
    ]
}
```

3.2.2 ITM_ANY_ExportItem Message generated by EX067

```
{
  "EndpointId": "DIRECT_RECEIVER",
  "IncludeRequest": true,
  "Message": [
    {
      "MessageType": "ITM_ANY_ExportItem",
      "HostMessageObjectType": "SKUMASTER",
      "HostMessageId": "61474976583394349064206652465855 24",
      "RejectInformation": "Internal server error caused by item 012231"
    }
  ]
}
```

3.3 MHE Message Diagram



3.4 Custom Events for MHE Message REJECTDATA

A new custom Inbound Message Type of REJECTDATA will be configured. VISION via AIS will send the following entries in the VISION RejectData Message mapping to fields contained within the MAWM payload message – REJECTDATA.

JSON identifier	MAWM JSON Custom Message	MAWM Definition
MessageId	REJECTDATA	JournalEntry.MessageId
HostMessageObjectType	REJECTDATA	JournalEntry.MessagePayload.HostMessageObjectType
HostMessageId	REJECTDATA	JournalEntry.MessagePayload.HostMessageId
RejectInformation	REJECTDATA	JournalEntry.MessagePayload.ErrorDetails
ObjectType	REJECTDATA	JournalEntry.MessagePayload.ObjectType
EndpointId	REJECTDATA	Inbound Source Endpoint
MessageType	REJECTDATA	Inbound Message Type

A new custom event REJECTDATA will be created that will automatically update the MHE Journal to FAILED status and record the error details.

The new payload message REJECTDATA will utilise the Inbound Source Transport and Inbound Source Endpoint.

4 Configuration

4.1 Custom Inbound MHE Message REJECTDATA

The Custom MHE Message REJECTDATA will need to be configured – [Refer to latest Version ASDA Warrington MAWM MHE Message Guide: Message Types: Legacy: RejectData: MAWM: REJECTDATA]

The configuration required is:

Payload Message	REJECTDATA is a custom payload message type so will need to be added. The message type for RejectData is REJECTDATA
SOURCE Transport	Utilise existing SOURCE Transport for INBOUND Messages
SOURCE Endpoint	Utilise existing SOURCE Endpoint for INBOUND Messages
SOURCE Subscriber	The source subscriber links the REJECTDATA Message with the INBOUND_SOURCEENDPOINT
DESTINATION Transport	New Custom REJECTDATA_DESTINATIONTRANSPORT Here the New Extension Point Id will be selected.
DESTINATION Endpoint	The REJECTDATA_DESTINATIONTRANSPORT is associated to the REJECTDATA_DESTINATIONENDPOINT
DESTINATION Subscriber	The REJECTDATA_Destination_Subscriber links to the Transformer Template to format the message.
Message Routing Strategy	One message routing strategy is set up per payload. A new routing strategy REJECTDATA will be created.

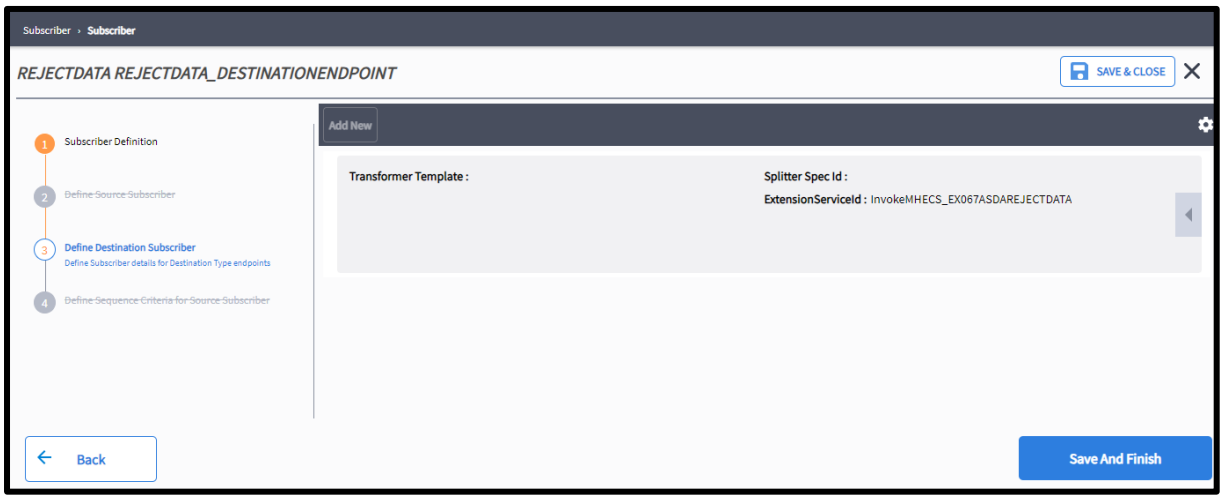
4.2 Extensions Enablement

The extension is enabled based on ***UI-Config Store*** configuration when Config Store Id “EX067 Vision Reject Data” has Reference Field 1 = ‘Y’.

The default error message to be logged if an error is not passed from VISION is stored in Reference Field 2.

4.3 Destination Subscriber

Add Extension Service Id to the Destination Subscriber in the MHE RejectData Message Configuration.



5 Key Test Scenarios

The following section details the key golden flow test scenarios and key exception scenarios. This is not an exhaustive list and is aimed to provide both the MA development and QA teams a view of the expected golden flow of the functionality and the key exception conditions.

5.1 Golden Flow Scenarios

Reference	Scenario Description	Tran Parm Setting	Expected Result
GF1	Validate that EX067 REJECTDATA has 'Reference Field 1' set to 'N'.	Extension Disabled	Event is not triggered.
GF2	Validate that EX067 REJECTDATA has 'Reference Field 1' set to 'Y' and error detail included in message.	Extension Enabled	Event is triggered. REJECTDATA message captured in MHE Journal. Original message ID in Message Journal updated to FAILED status and error detail recorded.
GF3	Validate that EX067 REJECTDATA has 'Reference Field 1' set to 'Y' and no error detail included in message.	Extension Enabled	Event is triggered. REJECTDATA message captured in MHE Journal. Original message ID in Message Journal updated to FAILED status and default error detail recorded.
GF4	Run GF2 and GF3 test scenarios for all valid Warrington outbound message types. Outbound message type: ITM_ANY_ExportItem, RemoveItem, PTW_DEI_AllocationCreated, PTW_DEI_AllocationCancelled, DCI_DEI_AddConditionCode, DCI_DEI_RemoveConditionCode, WOR_DEI_AllocationDownloadMsg, StockReportRequest (TBC)	Extension Enabled	All Warrington outbound message types are updated to FAILED status and error details updated.

5.2 Exception Scenarios

Reference	Scenario Description	Tran Parm Setting	Expected Result
EX1	Confirm MHE Journal records are not updated without the REJECTDATA message triggering the process.	Extension Enabled	No MHE Journal record is updated unless a REJECTDATA message is received for corresponding original message ID.

6 Estimates and Acknowledgement: EX067 VISION Reject Data

All services provided are pursuant to the terms and conditions of the Acknowledgement for Consulting Services or the Software Services Agreement previously entered into between our respective companies and these Agreements provide that such services are billed at the hourly billing rates in effect at the time services are rendered. This acknowledgement is to cover the estimate given below. Please note that the estimate below is good for only 60 days from the date the quote is provided.

6.1 Acknowledgement: EX067 VISION Reject Data

Your signature is required as proof of acceptance of the extension described above and the estimated cost in order for programming to begin. Please review the extension and estimated cost for services. Upon acceptance, please sign, date, and fax this form to Lisa Tudor-Williams at +44 (0)1189 22 8099 or scan and email to ltudorwilliams@manh.com

MOD	Dev Total	QA Total	Functional Testing	Deploy	Total	Cost
EX067	61	40	8	4	113	£16,046

ASDA

By:
Signature _____

Name:
Printed _____

Title: _____

Date: _____