

**294633 v1.0**

Aptean Ltd  
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1 294633



DHL C-TMS

# Modify Decodes to Map Location Details

FUNCTIONAL SPECIFICATION - 10.7

12/01/12 - 1.0  
Reference: FS 294633 NW-8PNK44





## 2 FUNCTIONAL OVERVIEW

### 2.1 Client Requirement

Given that DHL Link are not mapping the multiple Unison client locations into single codes within C-TMS, this activity will need to be carried out via the ?Decodes? in C-TMS.

The intention is to use the existing decodes functionality to map circa 750,000 locations in Unison down to circa 75,000 locations within C-TMS. This data will potentially need to be loaded as part of this RIO due to the volume of data.

In addition to this the following process will be adopted operationally and needs to be supported by C-TMS:

- Order file sent from Unison to C-TMS via DHL Link and processed within C-TMS.
- Where a location map does not exist in the ?Decode? table and an identical location ID does not exist in C-TMS, the order record should fail and not create an order - note that if the file contains multiple records only the individual record should fail, not the whole file.
- A configurable alert should be generated to send a message via either e-mail, SMS or both that records have failed in the file (name and time to be specified).
- The failed record(s) can then be manually corrected and re-processed.

### 2.2 Solution

The ?CN\_LOCATION\_MAPPING? decode name will be used to store the mapping of the Unison locations as a source value and the C-TMS locations as a target value.

The ?CN\_LOCATION\_MAPPING? decodes will have their source and target values uploaded via a ?DECODE? import type from a comma-delimited ?CSV? file provided by Healthcare UK.

**N.B. The number of records involved will require a separate process to be developed by OBS Logistics for use instead of the standard import process.**

**The process will be run as a data upload using temporary external tables that will then be used to replace the ?IMP\_DECODE\_ENTRY? database table. The existing data will be stored as a backup beforehand and then re-added afterwards.**

**The standard import process may still be setup for smaller files to be processed in future.**

The processes to import transport orders into C-TMS using ?CSV? or ?XML? files will be changed to assess whether the ?from? and ?to? locations provided are valid locations in C-TMS or exist as decoded locations: if they are not valid or do not exist then new locations will not be created in C-TMS and the transport order will not be uploaded.

Should a transport order in the file fail to upload then a configurable alert message will be sent to the relevant user. This alert will be sent as an e-mail and/or an SMS message as setup in the ?Messaging Maintenance? screen with a new message type and a new event type.

### 2.3 Scope

This change will be applied to system version 10.7.0.



## 3 SET-UP

### 3.1 Pre-Requisites

The import types will need to be setup.



## 4 FUNTIONAL DESCRIPTION

### 4.1 Location Import Maintenance

A location import for import type ?LOCATION? and record type ?LOCATION? will be setup in C-TMS for the Healthcare UK locations, for example:

The screenshot shows the 'Import Maintenance' window with the 'Config' tab selected. The 'Import Type' is 'LOCATION' and the 'Default Path' is 'c:\temp\'. The 'Dft Filename' is 'location.csv'. The 'Record Id' is 'LOCATION'. The 'Filename Fmt' is 'ASCII'. The 'Ext' is '100'. The 'Max Uploads' is '100'. The 'Default Record Type' is 'LOCATION'. Below this, there is a table with columns: Record Type, Field Type, Source Type, Occ, Source Value, Prefix, Pad, Char, Default, and Format. The table contains 10 rows for the 'LOCATION' record type, with fields: LOCATION\_ID, LOCATION\_TYPE, LOCATION\_NAME, ADDRESS\_LINE1, ADDRESS\_LINE2, ADDRESS\_LINE3, TOWN, COUNTY, COUNTRY\_CODE, and POSTCODE. Each field is mapped to a 'FIELD' source type with an occurrence of 1.

Record Type	Field Type	Source Type	Occ	Source Value	Prefix	Pad	Char	Default	Format
LOCATION	LOCATION_ID	FIELD	1						
LOCATION	LOCATION_TYPE	FIELD	2						
LOCATION	LOCATION_NAME	FIELD	3						
LOCATION	ADDRESS_LINE1	FIELD	4						
LOCATION	ADDRESS_LINE2	FIELD	5						
LOCATION	ADDRESS_LINE3	FIELD	6						
LOCATION	TOWN	FIELD	7						
LOCATION	COUNTY	FIELD	8						
LOCATION	COUNTRY_CODE	FIELD	9						
LOCATION	POSTCODE	FIELD	10						

### 4.2 Decode Import Maintenance

A new decode import for import type ?DECODE? and without a record type will be setup in C-TMS for the Healthcare UK locations, for example:

The screenshot shows the 'Import Maintenance' window with the 'Config' tab selected. The 'Import Type' is 'DECODE' and the 'Default Path' is 'c:\temp\'. The 'Dft Filename' is 'decode.csv'. The 'Record Id' is 'DECODE'. The 'Filename Fmt' is 'ASCII'. The 'Ext' is '100'. The 'Max Uploads' is '100'. The 'Default Record Type' is 'DECODE'. Below this, there is a table with columns: Record Type, Field Type, Source Type, Occ, Source Value, Prefix, Pad, Char, Default, and Format. The table contains 4 rows for the 'DECODE' record type, with fields: DECODE\_NAME, SOURCE\_VALUE, TARGET\_VALUE, and CUSTOMER\_ID. Each field is mapped to a 'FIELD' source type with an occurrence of 1.

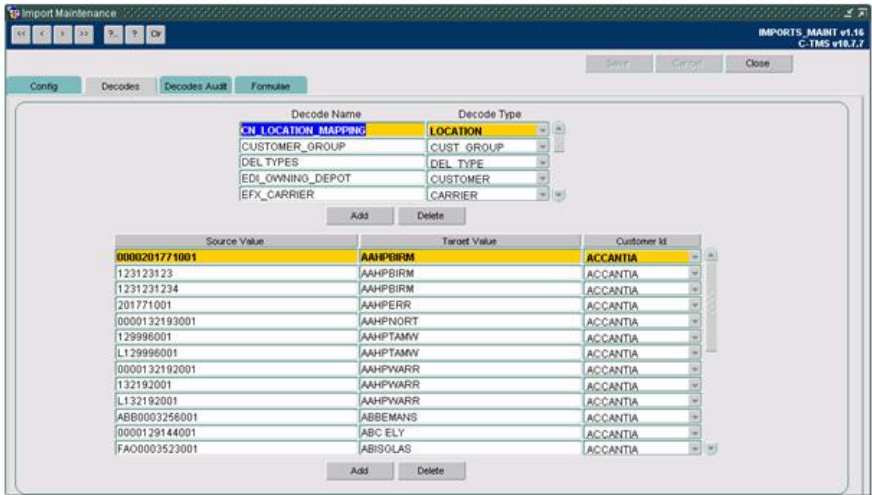
Record Type	Field Type	Source Type	Occ	Source Value	Prefix	Pad	Char	Default	Format
DECODE	DECODE_NAME	FIELD	1						
DECODE	SOURCE_VALUE	FIELD	2						
DECODE	TARGET_VALUE	FIELD	3						
DECODE	CUSTOMER_ID	FIELD	4						

The import files will use commas as delimiters.

The ?Source Value? for ?Field Type? ?DECODE\_NAME? would be ?FIXED? as ?CN\_LOCATION\_MAPPING? for Healthcare UK.

The ?Decode Name? ?CN\_LOCATION\_MAPPING? for ?Decode Type? ?LOCATION? will be setup with the valid ?Source Value? and ?Target Value? from the ?Decode? import files, for example:





The ?Customer ID? will be optional but may include the customer of the transport orders for Healthcare UK.

N.B. The ?Decode Name? ?CN\_LOCATION\_MAPPING? will be used because it is currently not used by Healthcare UK and it will not require any code changes where it is used currently in C-TMS.

The location code provided will be mapped as a source value to a target value and the target value will be used within C-TMS for the transport orders uploaded.

The mapping will be reversed when generating an output file so that the source value is obtained from the target value so that the original location code is exported as the <WMS\_WAREHOUSE> in a ?TripOrder? XML file, for example.

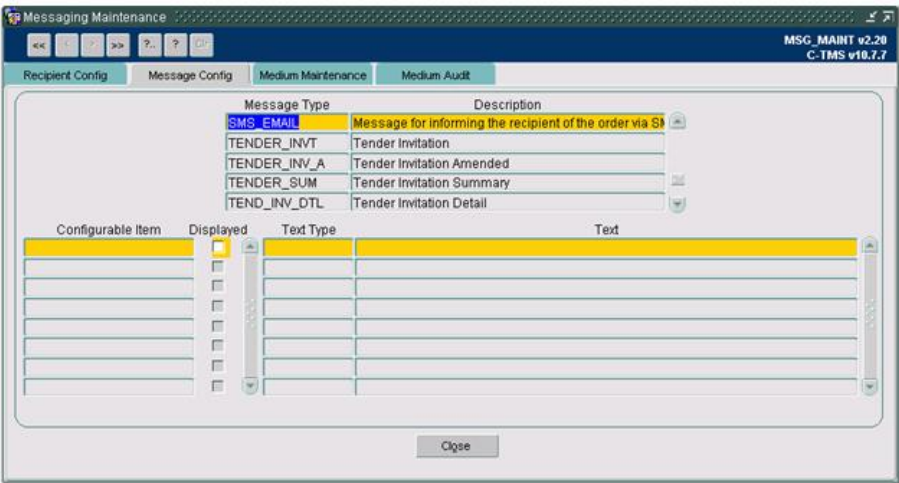
N.B. The number of records involved will require a separate process to be developed by OBS Logistics for use instead of the standard import process.

The process will be run as a data upload using temporary external tables that will then be used to replace the ?IMP\_DECODE\_ENTRY? database table. The existing data will be stored as a backup beforehand and then re-added afterwards.

The standard import process may still be setup for smaller files to be processed in future.

4.3 Messaging Maintenance

A new ?Message Type? of ?NEW\_OMS\_FAILURE? will be created in the ?Message Config? tab page of the ?Messaging Maintenance? screen, for example:



The description of the message type will be:



?Notification of failure to upload a transport order.?

A new ?Event Type? of ?NEW\_OMS\_FAILURE? will be created in the ?Medium Maintenance? tab page of the ?Messaging Maintenance? screen, for example:

The data may be setup as follows, for example:

Item	Value
Medium	SMS or EMAIL
Trigger	NEW
Subject	Notification of failure to upload a transport order
Format	Transport order <ORDER_REF> failed to upload into C-TMS, please investigate why the import was unsuccessful.
Restriction Start	00:00
Restriction End	00:00

N.B. The message will be as described in the ?Format? field and it may be maintained as required.

This setup will ensure that there is no restriction on the times that a failure notification message may be sent, however, times may be entered if required.

The values to display in the message may be maintained in the ?Medium Items? screen accessed via the ?Lookup? button, for example:

Value	Description	Level	Item	Format
BOOK_REF	Booking Reference	ORDER	BOOKING_REF	
CUST_REF	Customer Reference	ORDER	EXTERNAL_REF	
DEL_REF	Delivery Point Reference	ORDER	DEL_POINT_REF	
OMS	OMS Reference	ORDER	OMS_REF	
COST_CENT	Trip Cost Centre	TRIP	COST_CENTRE	
TRIP	Trip ID	TRIP	TRIP_ID	
COLL_DEL	Collection or Delivery	TRIP_STOP	ACTIVITY_NAME	
DEL_DATE	Delivery Date	TRIP_STOP	ARRIVE	DD/MM/YY
END_ARR	End Arrival Time	TRIP_STOP	DEPART	HH24:MI
START_ARR	Start Arrival Time	TRIP_STOP	ARRIVE	HH24:MI

The data may be setup as follows, for example:

Value	Description	Level	Item	Format
ORDER_REF	Order Reference	ORDER	ORDER_REF	



N.B. The ?ORDER\_REF? item will be the transport order reference provided in the failed upload of the order file because an OMS reference will not have been generated in C-TMS.

The recipient of the failure notification message will be setup in the ?Recipient Config? tab page of the ?Messaging Maintenance? screen, for example:

Recipient Config

Recipient Type: ALL

Search Recipient

Location	DNGTEST016	
Location	EXELBANB	
Location	EXELBARN	
Location	EXELBAWT	
Location	EXELBELL	
Location	TESCCHES	
User	CMR	
User	MTS_OWNER	
User	OBSPPG	

Electronic Address

Medium	Address Value	Enabled
E-Mail	catherine.roscelli@obs-logistics.co.uk	<input checked="" type="checkbox"/>
E-Mail	peter_crane@obs-logistics.com	<input checked="" type="checkbox"/>
E-Mail	ron.marks@obs-logistics.com	<input checked="" type="checkbox"/>

Buttons: New, Delete, Save, Close, Configure sending email

Message Requests

Message Type	Medium
Booking Details	E-Mail
Message for FTP failures	E-Mail
Message for informing the recipient	E-Mail

Buttons: New, Delete, Save, Close, Configure sending email

The ?Recipient Type? will be the user who imports or uploads the transport order and the ?Message Type? will be ?NEW\_OMS\_FAILURE? (displayed as ?Notification of failure to upload a transport order.?).

The message type will be setup for all of the media for which the message will be generated (e.g. ?E-Mail? and ?SMS?) in the ?Message Requests? tab page and the actual address will be set in the ?Address Value? field for the ?Medium? in the ?Electronic Address? tab page.

A new message medium of ?SMS? will be created in the ?MSG\_MEDIUM? database table to enable a ?SMS? message to be sent as well as an ?EMAIL? message:

MSG_MEDIUM	MSG_MEDIUM_DESC
SMS	SMS Text Message

Multiple e-mail or SMS addresses may be created for the recipient user.

The existing system parameter called ?SMS\_SERVICE\_BOX? will be used to store the e-mail address of the service box used to send the message to the SMS addresses:



Parameter Name	Config By	Config By Value	Value	Description
SMS_SERVICE_BOX	SYSTEM	NONE	outboxsms@obs-logistics.com	Stores the e-mail address of the SMS service box.

## 4.4 CSV Order Processing

An event message will be inserted when the transport order fails to be imported successfully.

The processes to import transport orders into C-TMS using a ?CSV? file will be changed to assess whether the ?from? and ?to? locations provided are valid locations in C-TMS or exist as decoded locations: if they are not valid, or do not exist, then new locations will not be created in C-TMS and the transport order will not be imported.

The ?ORDER\_REF? will be stored in order of preference:

1. Customer Reference
2. Booking Reference
3. Delivery Point Reference

Therefore, the event reference will be one of the transport order references provided.

N.B. If one of the transport order references is not provided then a failure notification cannot be sent and a message event will not be written.

The order import ?CSV? file can contain the transport order references as follows:

Format Name	Imp Type	Default Path	Dft Filename	Record Id	Filename Fmt	Xfer Type	Ext	Max Uploads	Default Record Type
TI_ORDER	C:temp	TIOrd	ASCII	1	ORDER_AND_LINE				

Field Type	Transport Order Reference
EXT_REF	Customer Reference
BOOKING_REF	Booking Reference
DEL_POINT_REF	Delivery Point Reference



The ?IMP.PROCESS\_TI\_ORDER? function will be changed to write the message event if a recipient exists for the ?NEW\_OMS\_FAILURE? event type.

## 4.5 XML Order Processing

An event message will be inserted when the transport order fails to be uploaded successfully.

The processes to import transport orders into C-TMS using a ?XML? file will be changed to assess whether the ?from? and ?to? locations provided are valid locations in C-TMS or exist as decoded locations: if they are not valid, or do not exist, then new locations will not be created in C-TMS and the transport order will not be uploaded.

The ?ORDER\_REF? will be stored in order of preference:

1. Customer Reference
2. Booking Reference
3. Delivery Point Reference

Therefore, the event reference will be one of the transport order references provided.

N.B. If one of the transport order references is not provided then a failure notification cannot be sent and a message event will not be written.

The order upload ?XML? file can contain the transport order references as follows in the <ORDER\_HEADER> section:

ORDER_TRANSACTION_DATE	1..1
type = dateTime	
ORDER_TYPE	0..1
type = string	
WMS_WAREHOUSE	0..1
type = string	
WMS_OWNER	0..1
type = string	
SO_REF	0..1
type = string	
ORIG_SO_REF	0..1
type = string	
TMS_REF	0..1
type = string	
PO_REF	0..1
type = string	
BOOK_REF	0..1
type = string	
BOOK_DATE	0..1
type = dateTime	
SPECIAL_INSTR	0..1
type = string	
ORDER_COMMENTS	0..1
type = string	

Field Type	Transport Order Reference
SO_REF	Customer Reference
BOOK_REF	Booking Reference
PO_REF	Delivery Point Reference

The ?INT\_XML\_IN.PROCESS\_ORD\_XML\_IN? procedure will be changed to write the message event if a recipient exists for the ?NEW\_OMS\_FAILURE? event type.

## 4.6 Message Processing

Should a transport order in the file fail to upload because of an invalid address then a configurable alert message will be sent to the relevant user. This alert will be sent as an e-mail and/or an SMS message as setup in the ?Messaging Maintenance? screen with a new message type and a new event type.

The import and upload processes will write an event message and an existing database job will process the record.

The message event record will be as follows, for example, where ?ORDER123? is a transport order reference received:



Database Item	Value
EVENT_TYPE	NEW_OMS_FAILURE
EVENT_REF	ORDER123
STATUS	NEW
CREATED_DATE	SYSDATE
CREATED_BY	USER

The ?created by? user will be used to access the recipient of the failure notification message, therefore, the ?NEW\_OMS\_FAILURE? message request and the ?EMAIL? and/or ?SMS? electronic address needs to be setup in the ?Message Maintenance? screen.

The ?MSG\_PROCESSING.F\_GET\_MSG\_DATA? function will be changed for the new message event type.

A new procedure called ?MSG\_PROCESSING.P\_PROCESS\_NEW\_OMS\_FAILURE? will be created to process the new message event.



## 5 REFERENCES

Ref No	Document Title & ID	Version	Date
1	EST-294633 NW-8P9K44 Modify Decodes to Map Location Details v1.0.doc	1.0	16/12/11



## 6 DOCUMENT HISTORY

Version	Date	Status	Reason	Initials
0.1	09/01/12	Draft	Initial version	PDR
1.0	12/01/12	Issue	Reviewed and Issued	MJC



## 7 AUTHORISED BY

<b><i>Matt Crisford</i></b>	Development Manager
<b><i>Peter Greer</i></b>	TMSCC MTS Product Manager

