

**291365 v1.0**

Aptean Ltd  
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1 291365

**A**aptean

DHL C-TMS

## Volumetrics

### FUNCTIONAL SPECIFICATION - 10.7

12/10/11 - 1.0  
Reference: 291365 MS-8KNH33



## 1.1 Client Requirement

Master data entered by user and uploaded from CSV. Define for each commodity the max order qty per vehicle type. This data allows the planner additional decision support to select and order the appropriate vehicle capacity for each order. Modifications to order well to allow volumetric information to be displayed on demand.

## 1.2 Solution

A new tab will be added to the existing Products screen (PRODUCT.fmb) to display, amend and enter values for existing product types and vehicle types. The tab will contain a scrollable area containing data columns for product types, vehicle types and a maximum DU quantity of that product allowed in a particular vehicle. This will allow the maximum quantity of a product to be stored against several vehicles types if needed. A new table will be created to store the new volumetric data.

A new CSV import flow will be created that will allow the importing of the new volumetric data. The import will be maintained in the existing Imports Maintenance screen and will run from the Imports Exec screen. The import will accept data in a CSV format and will store the data in the new table created for this RIO.

A new option will be added to the right click menu on the unscheduled orders tab of the trip screens (TRIPSUM.fmb and TRIP\_PLAN.fmb, EXECUTION.fmb). When this option is chosen a pop up window will be displayed that will show the product types associated with the order. Along with the product types the pop up screen will show the available vehicle types and the maximum quantity of that product that is allowed on the vehicle along with % fill for each vehicle type/Product Type combination.

## 1.3 Scope

This change will be applied to system 10.7



## 2 Set-up

### 2.1 Pre-requisites

None

### 2.2 Menu Structure

Unchanged

### 2.3 Data

A new table will be created PROD\_VEHICLE\_VOLUME this table will hold the maximum volume of products on a given vehicle.

A new sequence will be created SEQ\_PROD\_VEHICLE\_VOLUME will be created to be used as the primary key of the new table.

Records will be inserted into the IMP\_RECORD\_FORMAT, IMP\_IMPORT\_TYPE and IMP\_FIELD tables to accommodate the CSV import of volumetric information.

A record will be created in the ADM\_FORM\_TAB table for the new tab page.

New data will be added to the Extract Suite tables to facilitate a data extract of the Product Information

### 2.4 Implementation Advice

A system super user will be required to ensure that the import function and new tab page are added to the user group.



Action Q-TMS Modules Administration Edit Help Window

Access Groups

Group Name Description Enabled

ADMIN	Administrator of MTS	<input checked="" type="checkbox"/>
CUSTOMER_CHARGES	Administrators of Customer Fuel and Premium Charges	<input checked="" type="checkbox"/>
EDI IMPLEMENTOR	EDI Administration - EDI_OWNER ONLY	<input checked="" type="checkbox"/>
EXPORTS	Exports	<input checked="" type="checkbox"/>
IMPLEMENTORS	MTS Implementation Team	<input checked="" type="checkbox"/>
MTS PROJECT IMPLEMENTORS	Non Competency Centre Implementors	<input checked="" type="checkbox"/>
MTS USER ADMIN	MTS User Administrator	<input checked="" type="checkbox"/>
OBS IMPLEMENTORS	OBS Implementation Team	<input checked="" type="checkbox"/>

Functions Menus Tabs Reports Extracts Imports

Tabs Authorised for use by Group

Form Name	Tab Name	Parent Tab	Description
ACC_MAINT	ACCOUNTS		ACCOUNT MAINTENANCE TAB
ACC_MAINT	ACC_CURRENCY		CURRENCY
ACC_MAINT	ACC_CURRENCY_USAGE		CURRENCY USAGE
ACC_MAINT	ACC_PERIODS		ACCOUNT PERIODS MAINTENANCE TAB
ACC_MAINT	CHARGE_TYPES		CHARGE TYPES MAINTENANCE TAB
ACC_MAINT	INVOICE_REQTS		INVOICE REQUIREMENTS MAINTENANCE TAB

Tabs Available

Form Name	Tab Name	Parent Tab	Description

New Delete Save Close Add All Remove All



Access Groups

ACC\_CTRL v2.40  
C-TMS v10.7.6

Group Name	Description	Enabled
ADMIN	Administrator of MTS	<input checked="" type="checkbox"/>
CUSTOMER_CHARGES	Administrators of Customer Fuel and Premium Charges	<input checked="" type="checkbox"/>
EDI_IMPLEMENTOR	EDI Administration - EDI_OWNER ONLY	<input checked="" type="checkbox"/>
EXPORTS	Exports	<input checked="" type="checkbox"/>
IMPLEMENTORS	MTS Implementation Team	<input checked="" type="checkbox"/>
MTS_PROJECT_IMPLEMENTORS	Non Competency Centre Implementors	<input checked="" type="checkbox"/>
MTS_USER_ADMIN	MTS User Administrator	<input checked="" type="checkbox"/>
OBS_IMPLEMENTORS	OBS Implementation Team	<input checked="" type="checkbox"/>

Functions    Menus    Tabs    Reports    Extracts    Imports

Imports authorised for use by this Group:

- ASN\_BOOKING\_IMPORT
- ASSET
- BOOKING\_IMPORT
- CONTINGENCY\_IMPORT
- Carrier\_Lane
- Contract

Imports Available:

- BGW\_Par\_Imp
- Baxter\_Delivery\_Method
- Baxter\_Route
- DHLDone\_Order\_Import
- DHLDublin\_Order\_Import
- DHLLeom\_Order\_Import

New    Delete    Save    Close    Add All    Remove All



### 3 Functional Description

### 3.1 Product Volume Maintenance

A new tab page will be added to the product Maintenance screen to display enter and amend product/vehicle volume combinations, the data for this tab will be based on the information held in the new PROD\_VEHICLE\_VOLUME table. A suggested Layout is shown below.

The data shown in this screen is display only. The action buttons at the head of each column allow the data to be sorted by the values in the column in ascending or descending order. The existing functionality within the products screen to allow the user to query specific records will also be available in this page. There will be two buttons at the foot of the screen.

- New - this button will be used to add a new record, when this button is selected a new popup window will be displayed to create the record. A suggested layout is shown below.

Product Type	<input type="text" value="PRODUCT_TYPE"/>
DU Type	<input type="text" value="DU_TYPE"/>
Vehicle Type	<input type="text" value="VEHICLE_TYPE"/>
Max DU Qty	<input type="text" value="MAX_DU_QTY"/>

There will be no information populated for a new record. A list of values will be provided for the product type, du type and vehicle type which the user must select from. The max du qty will be a numeric field all four fields must be entered. Duplicate records will not be allowed and the combination of product type, du type and vehicle type will make the record unique. If a duplicate is entered and appropriate error will be displayed. There will be 4 buttons on the screen

- New will clear the details currently displayed to allow the entry of another record
- Save will validate the details input save the information.
- Cancel will discard any changes and return to the main canvas
- Exit will close the popup window and return to the main canvas.
- Edit - this button will be used to amend the details of an existing record, when this button is selected the canvas above will be displayed however the details of the currently selected row will be used to populate the values



displayed. The buttons and validation will have the same functionality as for adding new records.

## 3.2 CSV Import

The IMP package will be amended to add a new function PROCESS\_VOLUMETRICS. The format of the CSV import file is as follows

Import Field	Database field
PRODUCT_TYPE	PROD_VEHICLE_VOLUME.PRODUCT_TYPE
DU_TYPE	PROD_VEHICLE_VOLUME.DU_TYPE
VEHICLE_TYPE	PROD_VEHICLE_VOLUME.VEHICLE_TYPE
MAX_DU_QTY	PROD_VEHICLE_VOLUME.MAX_DU_QTY

The data contained within the CSV file must be validated to ensure that all product types, du types and vehicle types already exist in C-TMS if any of the information proves to be invalid the record will be rejected.

The max\_du\_qty must be numeric if non numeric data is found the record will be rejected.

The PROD\_VEHICLE\_VOLUME table also has an ID column which will be populated using a new database sequence (SEQ\_PROD\_VEHICLE\_VOLUME) this will then be used as the primary key of the table.

The product type, du type and vehicle type combination make the record unique if a duplicate record is found the max\_du\_qty should be updated for that record.

All rejected records will be displayed with an appropriate error message to allow the user to correct errors and re-import the data.

## 3.3 Trip Planning

The trip planning screens TRIPSUM, TRIP\_PLAN and EXECUTION will be amended to add a new option ?Show Volumetric Information? to the right click menu in the unscheduled order well an example is displayed below from the trip plan screen, similar functionality will exist in the Trip Manipulation and Execution screens which will also require amendment.



Action C-TMS Modules Administration Edit Help Window

Trip Planning

Export Save Cancel Close Message Find Trip Filter Recalculate Times Revalidate Refresh Tree Refresh Trip

TRIP\_PLAN v1.137  
C-TMS v10.7.6

Plan Reg Postal Reg From To Loc Curr Loc From To Wgt Vol RPE Either Status UNSCHEDULED Current Layout 1: DNG #1 EFX Ref.

Schedule Trip 110917 Order 110917

KPI Information Trip Outbound KPI .00 Trip Inbound KPI 100.00 Trip has Collection N Carrier Id Add Remove Carrier Outbound KPI Carrier Inbound KPI

OMS ... Cust... From To Current Current Fr Pl... To P... Status

1021436 LENHAN DELICIA

Configure Layout Refresh Apply to Trip Apply to Stops Apply via X-Dock locations Create One Order Trips Create New Trip Move to Schedule Edit Amend Values Cancel Order View Order Locations

Trips Detail Stops Finance Audit EFX PO Detail

Fix	Arr	Dep	A Arr	A DepType	Location	Town	Trailer	W Voyage	Port
<input checked="" type="checkbox"/> 1 17/09/11 08:24 08:59 08:24 10:00 SU	Bawtry	Exel	Baw	Bawtry					
<input type="checkbox"/> 2 17/09/11 09:00 09:36					PK	Bawtry	_VWH11	Tr	BAWTF
<input checked="" type="checkbox"/> 3 17/09/11 11:32 14:22 11:32 14:22 DL					Coop	Bradford	_B	Bradfor	
<input checked="" type="checkbox"/> 4 17/09/11 15:31 16:01 15:31 16:01 CL					Bawtry	_Exel	Bawl	Bawl	Bawtry

Weight on Dep .00 Hazardous Wt .00 move A v 1: Andy

RPE on Dep .00 Seq Activity OMS Ref RPE To Location

Km fr prev stop 0

Time fr prev stop 0

Record: 1/1 <OSC>

When the ?Show Volumetric Information? option is selected a new window will be displayed. The information from the PROD\_VEHICLE\_VOLUME table for the product types associated with the selected order will be displayed along with the maximum du qty allow for each and a percentage calculation of the quantities on the order to the maximum allowed for the vehicle. The Information on the screen will be display only. A suggested layout is shown below.

Product Type	DU Type	Vehicle Type	Max DU Qty	% Fill
PRODUCT_TYPE	DU_TYPE	VEHICLE_TYPE	MAX_DU_QTY	PERCENT
PRODUCT_TYPE	DU_TYPE	VEHICLE_TYPE	MAX_DU_QTY	PERCENT
PRODUCT_TYPE	DU_TYPE	VEHICLE_TYPE	MAX_DU_QTY	PERCENT
PRODUCT_TYPE	DU_TYPE	VEHICLE_TYPE	MAX_DU_QTY	PERCENT
PRODUCT_TYPE	DU_TYPE	VEHICLE_TYPE	MAX_DU_QTY	PERCENT
PRODUCT_TYPE	DU_TYPE	VEHICLE_TYPE	MAX_DU_QTY	PERCENT
PRODUCT_TYPE	DU_TYPE	VEHICLE_TYPE	MAX_DU_QTY	PERCENT
PRODUCT_TYPE	DU_TYPE	VEHICLE_TYPE	MAX_DU_QTY	PERCENT
PRODUCT_TYPE	DU_TYPE	VEHICLE_TYPE	MAX_DU_QTY	PERCENT
PRODUCT_TYPE	DU_TYPE	VEHICLE_TYPE	MAX_DU_QTY	PERCENT

Exit

The information should be displayed in product type and percentage fill order to ensure that all vehicles associated with a given product are displayed together and the percentage values can be displayed highest to lowest. The action buttons at the head of each column will be used to sort the display by the data in the column in ascending or descending order.



There will be only one button on the screen which when selected will return to the main screen. This functionality will be developed in the same way in all three of the trip planning screens.

### 3.4 Data Export

A new CSV extract process will be created to extract the volumetric information from the C-TMS database into a CSV format. This functionality will allow maintenance and amendments to be managed in excel and then re-imported using the CSV upload function mentioned above.

The generic Oracle reporting suite may be used to obtain the extracts an example of which is shown below

The screenshot shows the Oracle Reporting Suite (ORS) interface. The top menu bar includes Action, C-TMS Modules, Administration, Edit, Help, and Window. The top right corner displays the CALIDUS logo and the text 'ORS v1.10' and 'C-TMS v10.7.6'. The main window has a red header bar with the text 'Oracle Reporting Suite'. Below the header are several input fields: 'Report Type' (set to 'DRIVERS'), 'Report Level' (set to 'HEADER'), and 'Saved Reports'. There are also 'Refresh', 'Create CSV', and 'Close' buttons. The central part of the screen is a large table with columns: Level, Title, Displayed Title, Sel From, To, Sort, Req, and Inc. The table lists various fields such as Surname, Forename, Job Title, Location ID, Contact No, Agency Flag, etc. The 'Sel From' column contains 'Y' or 'N' values, and the 'Inc' column contains checked checkboxes. At the bottom of the table are buttons for 'Clear All Selection Criteria', 'Include All', and 'Include None'. Below the table are buttons for 'Save Selection', 'Copy To User', and 'Delete Report'. The bottom status bar shows 'Record: 1/1' and '<OSC>'.

The system parameters ?MTS\_CSV\_EXPORT\_PATH? and ?MTS\_CSV\_EXPORT\_PATH\_ORS? control where the output file is placed. The format of the extract should match the CSV format of the import records will be created in the ORS\_MASTER\_DATA and ORS\_SQL tables for the import. The records can then be manipulated and re-imported.

#### Table Updates Required

[[Image:]] [[Image:]] [[Image:]]

[[Image:]] [[Image:]] [[Image:]]

[[Image:]] [[Image:]]



## Modules to be changed

Module Name	Module Type	Notes
PRODUCT.fmb	Form	Add new tab page
IMP.sql	Package	Add new import
TRIP_PLAN.fmb	Form	Add Volumetric display
TRIPSUM.fmb	Form	Add Volumetric display
EXECUTION.fmb	Form	Add Volumetric display

## References

Ref No	Document Title & ID	Version	Date
1	EST-291365 MS-8KNH33 Volumetrics	1.0	13/09/11

## Glossary

Term or Acronym	Meaning
C-TMS	Calidus TMS

## Document History

Version	Date	Status	Reason	Initials
0.1	10/10/11	Draft	Initial version	CAK
0.2	11/10/11	Draft	Reviewed	MJC
0.3	12/10/11	Draft	Revised	CAK
1.0	12/10/11	Issue	Reviewed and Issued	MJC



## 4 AUTHORISED BY

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