279472 v1.1

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DHL MTS

RPE Calculation for Different Vendors

FUNCTIONAL SPECIFICATION - 10.4.7

05/10/2010 - 1.1
Reference: FS 279472 AA-87JJL3

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1.1 Client Requirement

Change Request Summary:

RPE calculation for different vendors.

Change Request Details:

Since OBS is aware and found already in their Saudi visit that we have a lack of weight and dimension information and also we are still not sure when we are going to have this from SAP system. So we have decided that if we can have the Vendor ID and Name in the MTS Resource v2.43 form?s page Dispatch Unit Types and then we will manually modify the RPE values of different DU types against vendor (will do this for top 50 vendors) based on our planners knowledge and with vendor helps so that MTS can display the correct RPE for our planners in the Trip Manipulation form.

Attached file name ?RPE Calculation.xls? is the example how we want vendor ID and how we will modify the RPE value. So for example if we receive the order for vendor ?10025538? having DU type ?Carton_Small? then MTS should show the RPE = 0.10, and if this is for vendor ?10012016? then MTS should show the RPE = 0.3 and if we receive the same for any vendor (who is not in the list) then MTS must use the RPE = 0.35 which is for general use.Note: This will be done for 31 DU Types which are available in SAP Vendor portal, attached file name ?Saudi Aramco - Package Standards in MTS and SAP.xls? shows all the available DU types in SAP vendor portal.

Second we want DU types to be displayed for the planners in the Trip Manipulation form.

Benefits identified as a result of the change:

Business requirement to improve the vehicle utilisation.

1.2 Solution

The ?Despatch Unit Types? page of the ?Resources? screen will be changed to include new columns titled ?Vendor? and ?Vendor Name? between the columns titled ?DU Description? and ?Volume?; the new columns will also be added to the ?Insert? and ?Edit? subscreens; the ?Vendor? code will be validated against the existing location codes in the ?Locations? screen.

The new column ?VENDOR_CODE? (a maximum of 25 characters in length) will be added to the table ?RES_DESPATCH_UNIT_TYPE? and will form a unique primary key with the column ?DU_TYPE?; this will allow multiple vendors to exist for the same DU type and to maintain different values for ?RPE?, ?Volume?, etc.

A data fix will be required during implementation to modify the table ?RES_DESPATCH_UNIT_TYPE? and to populate the new combinations of vendor and DU type; the combinations will be based on the information provided in the file ?RPE Calculation.xls?.

The ?Trip Manipulation? and ?Trip Planning? screens will be changed to display a column titled ?DU Type? in the items in the ?Configurable Layout? for the booking reference of the order to be planned.

If a combination of the vendor code for the booking reference of the order and DU type is not found then the values for the ?DU Type? itself will be used for the calculation of the RPE values; the vendor code may be considered to be the source location if an actual vendor code has not been set as it is for ASN packages.

The new combination of vendor and DU type for calculating RPE quantities for the orders will need to be assessed for RPE and DU type equivalents in the following processes:

- ?Booking Order? screen (i.e. ?BOOKINGS? form)
- ?Resources? package (i.e. ?RES?)
- ?Generate TIs? package (i.e. ?GEN_TI?)

Once an order has been generated with the correct RPE then the trailers, slots, trips, etc should continue to assess capacity as normal.

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N.B. Data may exist that expects the same RPE value for a DU type and may require further evaluation / alterations.

1.3 Scope

This change will be applied to system version 10.4.7 on SARTST and once approved SARPRD.

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2 Set-up

2.1 Pre-requisites

The tables will need to be altered and a data fix performed for the new combinations of vendor and DU type for the RPE value.

2.2 Menu Structure

Unchanged.

2.3 Data

The tables will need to be altered as described in Appendix A.

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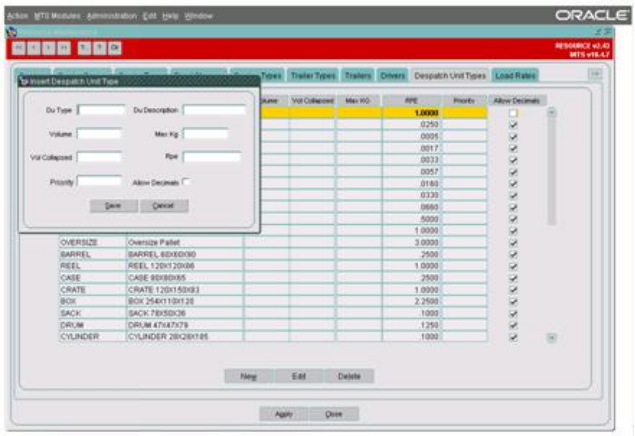
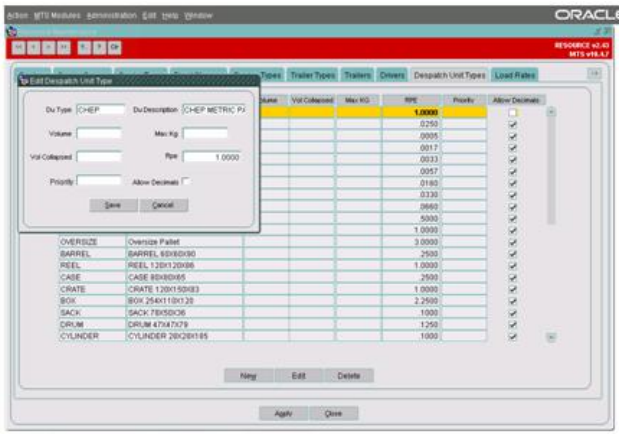
3 Functional Description

3.1 Resources Form (RESOURCES)

The ?Despatch Unit Types? page of the ?Resources? screen will be changed to include new columns titled ?Vendor? and ?Vendor Name? between the columns titled ?DU Description? and ?Volume?:

The new columns ?Vendor? and ?Vendor Name? will also be added to the ?Insert? and ?Edit? screens as a new line between ?Du Type? and ?Volume?:





The entry of the ?Vendor? code will be validated against the existing location codes in the ?Locations? screen and the ?Vendor Name? will be obtained automatically from the name of the valid location for display purposes only:

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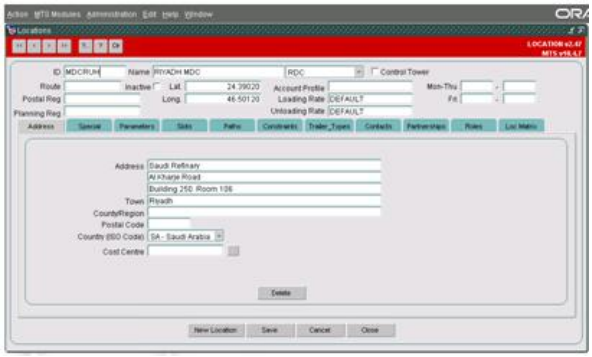


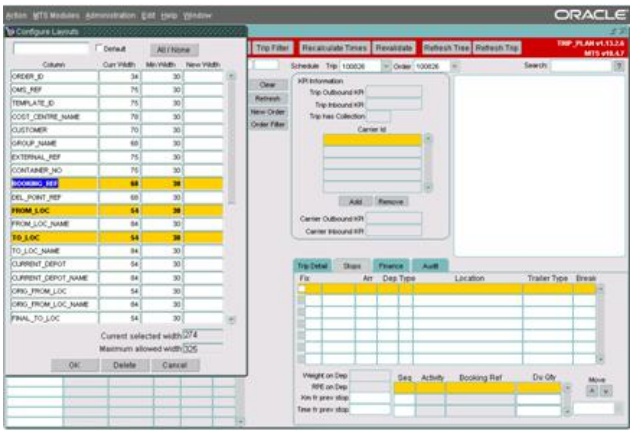
This will allow multiple vendors to exist for the same DU type and to maintain different values for ?RPE?, ?Volume?, etc for each combination.

3.2 Trip Planning Form (TRIP_PLAN)

The ?Trip Planning? screen will be changed to display a column titled ?DU Type? in the items in the ?Configurable Layout? for the booking reference of the order to be planned.

The new column will not be displayed by default and will have a minimum width of 30.

The ?DU Type? will display the value from item ?SCH_PRODUCT_SUMMARY.DU_TYPE? and the DU type found for the first product line of the booking for the order will be displayed. This is because the DU type is entered at the product level and the order itself is displayed for planning on trips.

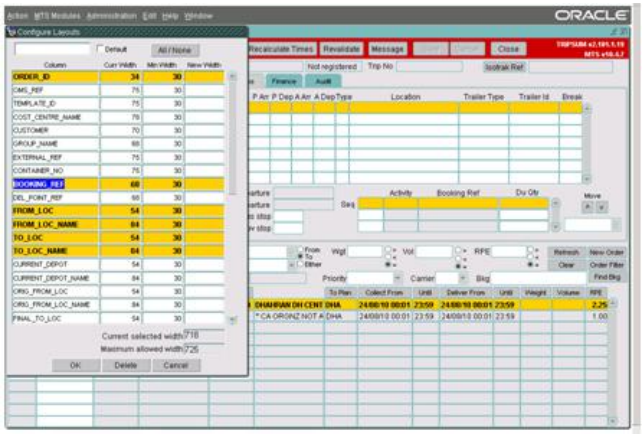


3.3 Trip Manipulation Form (TRIPSUM)

The ?Trip Manipulation? screen will be changed to display a column titled ?DU Type? in the items in the ?Configurable Layout? for the booking reference of the order to be planned.

The new column will not be displayed by default and will have a minimum width of 30.

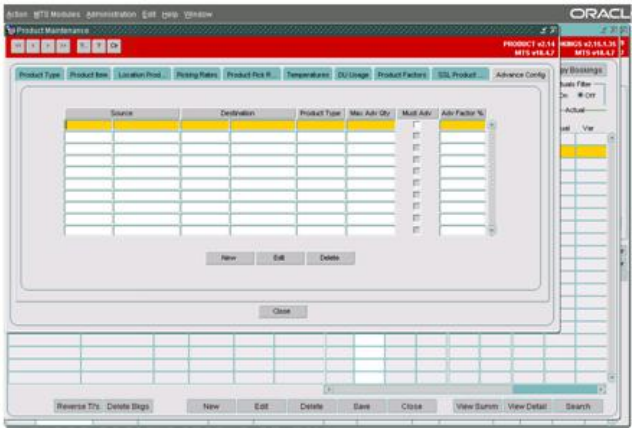
The ?DU Type? will display the value from item ?SCH_PRODUCT_SUMMARY.DU_TYPE? and the DU type found for the first product line of the booking for the order will be displayed. This is because the DU type is entered at the product level and the order itself is displayed for planning on trips.



3.4 Booking Order Form (BOOKINGS)

The check for the maximum configured RPE quantity for a store will need to be changed to account for the different RPE that may exist for a vendor and DU type.

This check is based on the advanced configuration for the locations and product type:



If an advanced quantity exists for the booking then the function ?DU_EQUIVALENTS? will ensure that the advanced quantity does not exceed the DU equivalent setup for the locations and product type.

The function ?DU_EQUIVALENTS? will be changed to check if the booking has a vendor and if so it will obtain the RPE for the DU type of the product for the vendor provided, otherwise only the DU type will be used to obtain the RPE for comparison with the advanced quantity set.

3.5 Resources Package (RES)

The functions ?RPE_EQUIVALENT?, ?RPE_TO_DU? and ?GET_DU_TYPE_DETAILS? will be changed to check if the booking has a vendor and if so it will obtain the RPE for the DU type of the product for the vendor provided, otherwise only the DU type will be used to obtain the RPE.

The vendor code will be added to the parameters received for the functions.

The functions will be overloaded to receive 2 parameters (I_DU_TYPE, I_QUANTITY) or 3 parameters (I_DU_TYPE, I_QUANTITY, I_VENDOR_CODE).

The parameters ?I_LOCATION_ID? and ?I_PRODUCT_TYPE? will not be used as per the development performed for ?NW-7TBD7M? and the RPE found for this combination will take preference to that found optionally for the vendor.

N.B. The ?Lane Based Order Entry? form (LB_ORDERS) will call function ?RES.RPE_TO_DU? and will pass 4 parameters, it will not need to pass the vendor code as the vendor code is not set for lane-based orders.

3.6 Orders Package (OMS)

The function ?VALIDATE_ORDERS? will be changed to pass the vendor code of the booking of the order to the function ?RES.GET_DU_TYPE_DETAILS? to obtain the volume, collapsed volume, maximum weight and RPE values for the order line.

3.7 Bookings Package (BKG)

The function ?AUTO_SUMMARY? will be changed to obtain the volume and maximum weight values for the order line for the default vendor ?ALL_VENDORS?.

3.8 Generate Orders Package (GEN_TI)

The functions ?GENERATE_TIS?, ?GENERATE_CROSSDOCK_TIS?, ?CREATE_BOOKING_TIS?, ?SINGLE_CREATE_BOOKING_TIS? and ?AUTO_ADVANCE? will be changed to check if the booking has a vendor and if so it will obtain the RPE for the DU type of the product for the vendor provided, otherwise only the DU type will be used to obtain the RPE.

The vendor code will be added to the parameters passed to the function ?RES.RPE_EQUIVALENT?; the third and fourth parameters passed will be null.

The cursors ?C_ORD? will be changed to select ?BKG_PROD_SUM_REC.VENDOR_CODE? so that it may be used to obtain the RPE for the order.

The cursors ?C_DU_TYPE? will be changed to obtain the values from table ?RES_DESPATCH_UNIT_TYPE? using the vendor code of the order and the DU type.

3.9 Reports

The following reports will need to be changed to pass the vendor code of the order to function ?RES.RPE_EQUIVALENT?:

- DRIVER_ITINERARIES (Function CF_RPE_TO_DELIVERFORMULA)
- HAULIER_CONFIRM_FAX (Function CF_RPE_EQUIVFORMULA)
- INBOUND_SCHEDULE (Function CF_RPE_EQUIVFORMULA)
- LOC_DEL_PRE_WARNING (Function CF_RPE_EQUIVFORMULA)
- SAR_INBOUND_SCHEDULE (Function CF_RPE_EQUIVFORMULA)
- TRIP_SUMMARY (Function CF_TOTAL_RPEFORMULA)
- UNPLANNED_PRODUCT (Function CF_RPE_EQUIVFORMULA)

N.B. All reports except ?SAR_INBOUND_SCHEDULE? have been designed to obtain the RPE on the combination of location and product type.

Report ?UNPLANNED_PRODUCT? may use the vendor code of the booking and not the order.

Table Updates Required

The new column ?VENDOR_CODE? may be added to table ?RES_DESPATCH_UNIT_TYPE? using the following script:

```
-- Alter table --
alter table RES_DESPATCH_UNIT_TYPE add VENDOR_CODE VARCHAR2(25);

-- Need to alter unique key index PK_RES_DESPATCH_UNIT_TYPE to be DU_TYPE, VENDOR_CODE
```

The unique key index ?PK_RES_DESPATCH_UNIT_TYPE? will need to be changed to be ?DU_TYPE,

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VENDOR_CODE?.

A data fix will be required to enable some DU types to have different RPE values for different vendors as may be seen in the spreadsheet provided:

Vendor ID	Vendor Name	DU_Type	DU_Desc	RPE
10025538	JARIR BOOKSTORE_5538	Carton_SmalA	Carton Small 12X12X12	0.01
10025538	JARIR BOOKSTORE_5538	Carton_SmalB	Carton Small 15X15X15	0.025
10025538	JARIR BOOKSTORE_5538	Carton_Small	Carton Small	0.1
10012016	AL-MAKTABA COMPANY LIMITED_2016	Carton_SmalA	Carton Small 12X12X12	0.025
10012016	AL-MAKTABA COMPANY LIMITED_2016	Carton_SmalB	Carton Small 15X15X15	0.1
10012016	AL-MAKTABA COMPANY LIMITED_2016	Carton_Small	Carton Small	0.3
		Carton_Small	Carton Small	0.35
10025538	JARIR BOOKSTORE_5538	Carton_MdmA	Carton Medium 30X30X30	0.035
10025538	JARIR BOOKSTORE_5538	Carton_MdmB	Carton Medium 40X40X40	0.045
10025538	JARIR BOOKSTORE_5538	Carton_Medum	Carton Medium	0.1
10012016	AL-MAKTABA COMPANY LIMITED_2016	Carton_MdmA	Carton Medium 30X30X30	0.045
10012016	AL-MAKTABA COMPANY LIMITED_2016	Carton_MdmB	Carton Medium 40X40X40	0.1
10012016	AL-MAKTABA COMPANY LIMITED_2016	Carton_Medum	Carton Medium	0.25
		Carton_Medum	Carton Medium	0.5
10025538	JARIR BOOKSTORE_5538	Carton_Large	Carton Large 80X80X80	0.5
10012016	AL-MAKTABA COMPANY LIMITED_2016	Carton_Large	Carton Large 80X80X80	0.65
		Carton_Large	Carton Large	0.75

References

Ref No	Document Title & ID	Version	Date
1	EST-279472 AA-87JJL3 RPE Calculation for Different Vendors v1.0.doc	1.0	10/08/10

Document History

Version	Date	Status	Reason	Initials
0.1	02/09/10	Draft	Initial version	PDR
1.0	06/09/10	Issued	Reviewed & Issued	MJC
1.1	01/10/10	Update	Corrected table for VENDOR_CODE in section 3.6	PDR

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