278681

Contents

1 278681

2 278681 - AR-86YL53/ Template Routing

3 FUNCTIONAL OVERVIEW

3.1 Client Requirement

Include new order status to identify template orders waiting confirmation of DU unit qty.

Diary of fixed schedules for each execution day and automatic generation in advance.

3.2 Solution

C-TMS will provide functionality to create templates of fixed schedules. Each fixed schedule relates to an operational day. An operational day can be defined as a working 24 hour period starting at a specific hour defined during initial set-up of the system. The schedule start time can therefore be set for the business to suit the operation usually around shift times, for example starting 22:00. The Aftermarket business is understood to be principally an overnight delivery service so it might be that schedules are configured to start at say 18:00.

Each fixed schedule is built using order entry and manual planning functions of C-TMS. This will be known as the ?Outline Schedule?. There may be a different Outline Schedule created for each day of the week if required. The Outline Schedule will then be imported into a named fixed schedule template for use in generating actual schedules of work.

A new status has been ruled out as being overly complex in its place a new variable will be added to the orders table which will be updated by the RDTs later in the operational process see ?278682 AR-86YLA3 Order Conf & Exceptions? for more details. The variable will initially be set to ?N? = ?Not Confirmed?.

Template orders will be created representing each anticipated transport movement from origin collection to final destination. The order headers will be uniquely identified for the template using an internal OMS reference. A customer reference can be captured for each template order which will be replicated against each actual order generated from the template in the normal day to day operation of the system. The template orders will hold the customer code for charging purposes, the origin collection location, destination delivery location, time window to load and time window to deliver. The template orders will be created with an anticipated qty of delivery units (cages) and an associated default weight, cube and RPE (pallet equivalent footprint) and this information will be stored at the line level of the order as a forecast.

C-TMS allows orders to be uploaded from a prescribed CSV (format). This feature could be used to upload the template orders into the system initially.

Once created, the template orders can be allocated to template route trips using the manual planning functions provided by C-TMS. This functionality allows orders to be allocated to movements on multi-drop radial delivery rounds loaded at the warehouse. Trunk trips can be created and orders planned to those trunks and then subsequently planned to multi-drop radial delivery rounds from the destination x-dock / out-base location.

The route template will be created based on a strategic plan devised by the business off system.

Once all the planned transport activity is completed, the template is generated by a simple copy function. Many different templates can co-exist; it is anticipated that a template will be created for each operational week day (night) so 7 template schedules will be created in the manner described above.

On demand, a template can be chosen and an operation schedule created for a specific date as a direct copy of the template route trips and order content. This requirement will be automated to generate with specific lead times say a week in advance on a rolling basis.

Once the operational schedule is created for the day of execution, additional orders can be added or cancelled, additional routes created or removed, additional drops added or removed, in fact the whole schedule can be manipulated as appropriate to cater for variations in volume, shutdowns, closures and holidays for example.

Resources can be stored in the template such as Carriers/Drivers/Vehicles/Trailers and copied forward. Any changes to these can then be carried out on an ad-hoc basis by operational users in the actual schedule.

Amendments to the template plan will need to be made to the outline schedule then the template should be re-created to be used for all future schedules. Alternatively Ad-hoc or one off changes should be made to the specific night?s schedule.

3.3 Scope

This change will be applied to system version 10.5

3.4 Data

3.5 Pre-requisites

None

3.6 Menu Structure

?Unchanged?

4 FUNCTIONAL DESCRIPTION

This functional description will describe changes required to C-TMS in order to fulfil the solution laid out in section 1.2 of this document for DHL?s Automotive Alliance Project.

4.1 FIXED Package Changes

The ?FIXED? database package controls both the import of the outline schedule into the template schedule as well as the generation of specific daily schedules from the template.

The changes needed to this package are as follows:

- 1. Template Table Updates

Existing template data tables need to be aligned to the current actual data tables see Appendix A for details. These new fields will need to be added to the import into the template and generation from the template. (TMP_%)

- 2. Payments Creation

Currently the Import and subsequent Generation processes do not consider automatically generated payments and revenue records which are created during the building of the outline schedule.

The generation process will be altered so that the current rate card is applied as each trip is created.

- 3. Consideration of Cross Docked Orders

During Import of new schedules into Templates there are checks to ensure an order is not added to the template twice. These checks need to be extended so that if an order appears on more than one pair of load/unload activities it may be added to the template once, and the relevant activities added as a single leg trip is currently.

These should then be copied forward when generating the specific schedule and the order?s current location set as per the original outline schedule i.e. the last planned to location.

- 4. Ability to run for ALL locations within a database

The current processes for importing and generating from templates is based around a single location selected by the user in the GENERATE form. In order for this functionality to be used for Automotive a new option must be added to allow the process to be run for ALL locations on the database so that a comprehensive template can be set up for the entire network. This will be controlled by cost centre so that additional contracts may be taken on without interfering with the Auto Alliance Project, should they not want to use templates in this way. A new parameter TRM_FIXED_DEF_COST_CENTRE will be added and set to the relevant cost centre.

- 5. New Order Identifier

A new field will be added to the main order header table: sch_ord, which will assist in the identification of orders which have not been updated / confirmed by the RF Consignment Building process. It is envisaged this will be initially set to ?N? by an insert trigger on the sch_ord table, so that whenever orders are generated by the system regardless of method this field will always be set and available for reference. It is then expected that the RF process will update this value on confirmation of Completion of the Consignment Build. This variable will not be modifiable within C-TMS.

- 6. Template Resources

Most resources are already captured during template generation however Trailer Type is not currently considered, The Template Import and Template generation will be updated to copy this field forward.

5 REFERENCES

Ref No	Document Title & ID	Version	Date
1.0	EST-278681 AR-86YL53 Template Routing	1	08/07/10

6 DOCUMENT HISTORY

Version	Date	Status	Reason	Initials
0.1	14/07/10	Draft	Initial version	MJC
0.2	15/07/10	Draft	Revised	MJC
1.0	20/07/10	Issued	Reviewed and Issued	MJC

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