294567 v1.0

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1 294567

aptean

DHL C-TMS

AA Daily Performance Report

FUNCTIONAL SPECIFICATION - 10.7

07/19/12 - 1.0
Reference: FS 294567 OB-8NRE6H

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2 FUNCTIONAL OVERVIEW

2.1 Client Requirement

The business requires 2 versions of a daily 'Delivery Performance' report that they can send out to the customers and use internally.

The report needs to detail the overall performance for each customer, and the performance by each site on the first page. On the second and subsequent pages, any exceptions should display (if there are any).

The parameters for what counts as an exception are detailed on the attached report design. If there are no exceptions, the report should just be on one page.

The business would like two versions of this report: one that excludes a certain range of ?NON_CON? codes from the ?OTIF? column and one that includes all ?NON_CON? codes in the ?OTIF? column.

The name of the report that excludes the range of ?NON_CON? codes is to be called 'Delivery Status Report'

The name of the report that includes all ?NON_CON? codes is to be called 'Delivery Status Report Internal'

The range of ?NON_CON? codes that is to be excluded from the 'Delivery Status Report' is ?A01? through to ?A99? (please note these codes have not been set up in AA test environment yet and will need doing once the report has been delivered).

The reports should be in a .pdf format.

The reports should have the following parameters to run:

- From Sched - [Mandatory]
- To Sched - [Mandatory]
- Customer - this should be a drop down of all the customers from the CUST_COST table. There should also be an option for 'ALL' customers. [Mandatory]

2.2 Solution

A new Oracle (PDF) report will be generated based on the attached requirements.

Two options for running the report will be provided to reduce the amount of code required where differences in layout and content are required these will be controlled programmatically within the report process. Two separate methods of running the report will be provided to avoid confusion for the users.

2.3 Scope

This change will be applied to system version 10.7.0.

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3 SET-UP

3.1 Pre-Requisites

The new report and its selection parameters will need to be created.

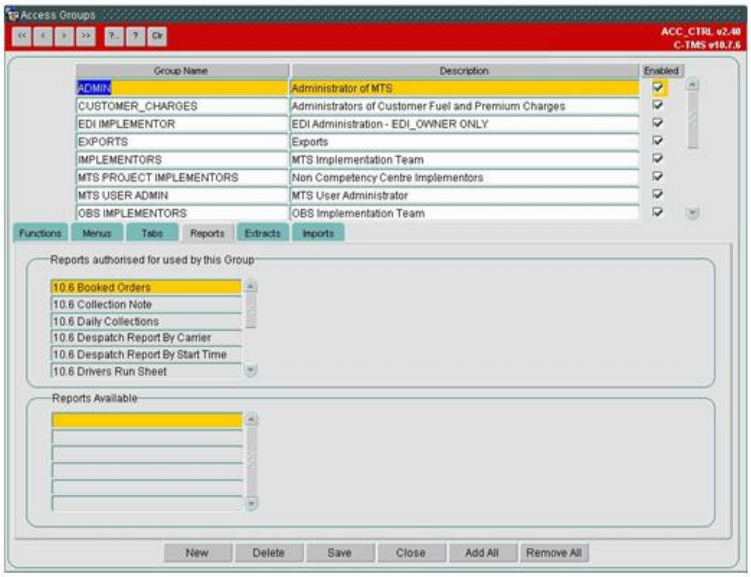
3.2 Data

The new report and its selection parameters will need to be created. (See Appendix A for the scripts to add the new report.)

NB Two Reports should be set up in the Report Parameters one for Internal and One for External. The value of ?usage? will default accordingly.

3.3 Implementation Advice

The new report will need to be authorised for use by the relevant user groups:



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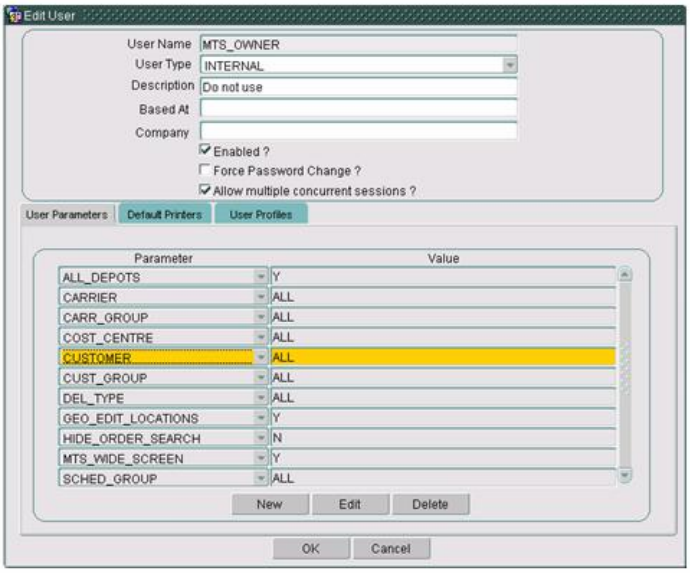
4 FUNCTIONAL DESCRIPTION

4.1 AA Delivery Statuse Report Parameters

The new ?AA Delivery Status Report? will have the following selection parameters available:

- Start Schedule
- End Schedule
- Customer
- Usage

The customer parameter will default to ?ALL? to indicate that all customers will be valid unless otherwise specified and the list of customers will be restricted to the value of the ?CUSTOMER? parameter for the user:



The parameters will contain the following lookups and validation:

Parameter	Mandatory/ Optional	Dropdown List	Validation
Start Schedule	M	All schedules	Format YYMMDD.
End Schedule	M	All schedules	Format YYMMDD and not before 'Start Schedule'.
Customer	M	Active customers for the user's group (including 'ALL')	Valid customer ID from ORG_CUSTOMER.CUSTOMER_ID.
Usage	M	INTERNAL EXTERNAL	

The default value for the ?Usage? selection parameter will be ?INTERNAL? for internal usage.

4.2 AA Delivery Status Report Layout

The proposed design of the report may be seen below:

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Sections 1 and 2:

Delivery Performance Report

DHL Supply Chain Auto Alliance

Start Schedule: DD/MM/YY
End Scehdule: DD/MM/YY

Summary By Customer

Customer	Total Deliveries	Total POD's		Total OTIF		Total Items Despatched	Total Items Delivered	Var	Var %	Total Items Collected
Mercedes	115	115	100.00%	114	99.13%	356	354	2	99.44%	208
Volvo	76	70	92.11%	70	100.00%	115	115	0	100.00%	79
Colt	98	90	91.84%	90	100.00%	198	198	0	100.00%	104
A N Other Customer	76	70	92.11%	68	97.14%	204	198	6	97.06%	143
Totals:	365	345	94.01%	342	99.07%	873	865	8	99.12%	534

Summary By Site

Site	Total Deliveries	Total POD's		Total OTIF		Total Items Despatched	Total Items Delivered	Var	Var %	Total Items Collected
DHL Avonmouth	47	46	97.87%	45	97.83%	154	153	1	99.35%	89
DHL Bellshill	9	7	77.78%	4	57.14%	76	76	0	100.00%	58
DHL Cirencester	24	22	91.67%	21	95.45%	167	167	0	100.00%	87
DHL Hatfield	83	82	98.80%	82	100.00%	153	151	2	98.69%	96
DHL Milton Keynes	104	96	92.31%	94	97.92%	214	211	3	98.60%	115
DHL Rochdale	98	92	93.88%	96	104.35%	109	107	2	98.17%	89
Totals:	365	345	92.05%	342	92.11%	873	865	8	99.13%	534

Section 3:

Delivery Performance Report

DHL Supply Chain Auto Alliance

Start Schedule: DD/MM/YY
End Scehdule: DD/MM/YY

Exceptions

Del Route	Dealer	Dealer Name	Delivery Window	Actual Arrival Time	Despatched	Delivered	Var	Reason Code
R02	200	Enza Manchester	22:00-08:00	22:30	4	3	1	
R02	200	Enza Manchester	22:00-08:00	22:30	3	2	1	
C04	C123	Misubishi Hinkley	22:00-06:00	06:45	7	7	0	A07
M02	300	EvoBus Coventry	22:00-03:00		3		3	

A07	Late Loading at Depot				

N.B. The standard OBS report format and page headings will be used in the report.

For example:

Date: 12/12/11
Time: 10:02
Page: 2 of 23

Driver Trip Sheet
From 01/12/2011 00:00 to 12/12/2011 00:00
Depot : EXELBANT

TRIP_SHEET v1.9
C-TMS v10.7.6

Where ?Driver Trip Sheet? will be ?Delivery Status Report?, ?TRIP_SHEET? will be ?AA_DEL_STAT? and ?Depot? will be blank.

The ?Summary By Customer? (at the customer level), ?Summary By Site? (at the location level) and ?Exceptions? (at the transport order level) sections will be developed as displayed in the example provided.

<u>Comments present in the example provided:</u>

Item	Comment
Date Run	This will be the date and time that the report is run at, and page x of x. This will be in the normal small grey text (standard)
Delivery Performance Report	Fixed text
DHL Supply Chain Auto Alliance	Fixed text (smaller than the rest as indicated)
Start Schedule	Fixed text
DD/MM/YY	From schedule date in the correct format
End Schedule	Fixed text
DD/MM/YY	To schedule date in the correct format
Customer	From customer in CTMS PLEASE NOTE - if an additional customer is added to the DB they must then start to appear on the report If the report is run for a specific customer parameter, only this customer should display.
Total Deliveries	Total number of trip stops by customer with an UNLOAD activity for all LOCATIONS with a BRANCH type? (don't want this to count any unloading as items are cross docked through the network if that makes sense, also if there are two or more OMSs planned to be delivered to the same place, it should only count as one delivery).
Total PODs	Same logic as the total deliveries count, but total number of stops with an actual arrive and depart time (either from Microlise or keyed in manually). Percentage being total POD figure against total delivery figure.
Total OTIF	This total need to look at two things from the total POD column. 1. Is the total number of delivered items (Delivered field at item level) equal to or greater than the despatched items (To Deliver field at item level) for all orders that are subject to the calculation for the total deliveries. So if 3 OMSs count as one delivery (as they are all delivered on the same trip stop), and each of the OMSs has one item despatched (total 3 despatched), then all 3 must be delivered (also I don't know if the delivered quantity can ever be greater, but best put it in the calculation) 2. Is the actual arrive time for all orders at stop level less than or equal to the planned departure time set up against the delivery slot for the location for that day. PLEASE NOTE - currently auto alliance doesn't have any slots setup against the locations. This process would need to be completed in order for this report to work.

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	Example - Schedule day is equal to a Wednesday. The slot set up is for Wednesday as Day -1 Time 18:00 - Day 0 Time 04:00. This will mean that if the actual arrival time against the trip is 03:00 it counts as on time (as the planned latest deliver against the slot is 1 hour after this). If the actual arrive time is 05:30, then the delivery is counted as late by 1.5 hours. PLEASE NOTE - this column will change depending on whether or not the report that is run is the 'Delivery Status Report' or the 'Delivery Status Report Internal', as the 'Internal' version of the report includes all NON_CON codes.
Total Items Despatched	Total number of items despatched (to deliver at item level) on all orders that are subject to total deliveries logic.
Total Items Delivered	Total number of items delivered (delivered qty at item level) of all orders subject to the total deliveries logic.
Var	Despatched – Delivered.
Var %	Delivered / despatched expressed as a percentage to 2 decimal places.
Total Items Collected	This needs to be almost the reverse logic of the total deliveries field, so all stops with a LOAD activity, with a location type of BRANCH, then a total number of items against those orders that fall into that logic.
365	Total of above
345	Total of above
94.01%	Average of above
342	Total of above
99.07%	Average of above
873	Total of above
865	Total of above
8	Total of above
99.12%	Average of above
534	Total of above
Site	This report needs to be the same as above, but be broken down at depot level (all locations with a locationtype of RDC). Everything else should be the same as above. PLEASE NOTE - if a new location type of RDC is added to the DB it should then appear on the report. Sorted in Alphabetical Order please.
Exceptions	The following parameters are what should class a delivery (deliveries being the parameters described above) as an exception: 1. A difference between the despatched and delivered quantities. 2. Deliveries that are classed as late (i.e. the actual arrive time for the stop / order is after the latest delivery time as held in the slots for that locations described above). 3. A stop has no actual arrival and departure times against it. As with the parameters for Customer above, if the report is run for a specific customer, then only exceptions for that customer should display, if it is run for all Customers, then all exceptions should display.
Del Route	From EXTERNAL_REF against OMS_REF
Dealer	TO_LOC_ID
Dealer Name	TO_LOC_NAME
Despatched	Total number of items despatched (to deliver at item level) on all orders that are subject to total deliveries logic.
Delivered	Total number of items delivered (delivered qty at item level) of all orders subject to the total deliveries logic.
Var	Despatched – Delivered.

Reason Code	This column should display any NON_CON reason codes that are held against the OMS REF that is subject to the exception rules. In the Example below, currently the only exception that has a reason code against it is the third OMS_REF for delivery to dealer C123.
R02	Example of exception where delivered doesn't equal despatched.
C04	Example of a late.
M02	Example of a delivery with no actual time. Because this delivery has no actual time as systemically it has not yet been delivered, the delivered qty is blank, once the actual time is populated, provided that is not either late, and there are no differences between the actual despatched and delivered quantities (i.e. it is not subject to either of the other exception types), this should no longer display on the report. This will cater for instances where we lose Microlise, so if a user goes in and keys in a delivery time manually of 02:00 and a delivered quantity of 3 it no longer becomes an exception.
Enza Manchester	PLEASE NOTE - for this example, there are two OMS_REFs to go to this stop on the trip, information for both OMS_REFs must display if both have an exception. If only one of the two OMS_REFs is classed as an exception, then only one should display
A07	At the bottom section of the last exceptions page to be produced (i.e. on the final page only), a list of all (if any) reason codes should be displayed and the comments displayed next to them. If there are no reason codes to display, then this section doesn't need to display at all.

4.3 AA Delivery Status Report Query

The new report will have two different queries for internal and external usage as determined by the ?Usage? selection parameter.

The ?Usage? refers to the type of reason code in the ?Reason Codes? tab page of the ?Business Data Maintenance? screen:

N.B. The reason codes may now be segregated by cost centre and a ?+? in the cost centre indicates that the reason code is available for all cost centres. Therefore, it is expected that the new ?NON_CON? reason codes will be created for cost centre ?NRCC?.

4.3.1 Internal Usage

All ?NON_CON? codes will be included in the ?Total OTIF? column and the ?Exceptions? section of the report.

4.3.2 External Usage

?NON_CON? codes in the range ?A01? to ?A99? will be excluded from the ?Total OTIF? column and the ?Exceptions? section of the report.

The title of the report will be ?Delivery Status Report?.

4.3.3 Data

The 4 selection parameters will be passed to the report and used in the query to select the trips and transport order records for the report from the database items:

Parameter	Table	Item
P_START_SCHEDULE	SCH_TRIP	SCHED_NAME
P_END_SCHEDULE	SCH_TRIP	SCHED_NAME
P_CUSTOMER	SCH_ORD	CUSTOMER_ID
P_USAGE		

The report will be divided into 3 sections as shown in section 3.2:

1. Summary By Customer (always displayed)
2. Summary By Site (always displayed)
3. Exceptions (displayed only if any exceptions exist)

The data in the example report will be obtained as follows (note that the title of the report will be ?Delivery Status Report? and not ?Delivery Performance Report?):

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Field	Database Item / Parameter / Calculation	Format
Delivery Status Report		Text
DHL Supply Chain Auto Alliance		Text
Start Schedule	P_START_SCHEDULE	DD/MM/YY
End Schedule	P_END_SCHEDULE	DD/MM/YY
Summary By Customer		Text
Customer		Text
Total Deliveries		Text
Total PODs		Text
Total OTIF		Text
Total Items Despatched		Text
Var		Text
Var %		Text
Total Items Collected		Text
Mercedes	ORG.CUSTOMER.CUSTOMER_NAME	
115	Subtotal	
115	Subtotal	
100.00%	Calculated	2.d.p.
114	Subtotal	
99.13%	Calculated	2.d.p.
356	Subtotal	
354	Subtotal	
2	Calculated	
99.44%	Calculated	2.d.p.
208	Subtotal	
Totals:		Text
365	Subtotal	
345	Subtotal	
94.01%	Calculated	2.d.p.
342	Subtotal	
99.07%	Calculated	2.d.p.
873	Subtotal	
865	Subtotal	
8	Calculated	
99.12%	Calculated	2.d.p.
534	Subtotal	
Summary By Site		Text
Site		Text
Customer		Text
Total Deliveries		Text
Total PODs		Text
Total OTIF		Text
Total Items Despatched		Text
Var		Text
Var%		Text
Total Items Collected		Text
DHL Avonmouth	GEO_LOCATION.LOCATION_NAME	

47	Subtotal	
46	Subtotal	
97.87%	Calculated	2.d.p.
45	Subtotal	
97.83%	Calculated	2.d.p.
154	Subtotal	
153	Subtotal	
1	Calculated	
99.35%	Calculated	2.d.p.
89	Subtotal	
Totals:		Text
365	Subtotal	
345	Subtotal	
92.05%	Calculated	2.d.p.
342	Subtotal	
92.11%	Calculated	2.d.p.
873	Subtotal	
865	Subtotal	
8	Calculated	
99.13%	Calculated	2.d.p.
534	Subtotal	
Exceptions		Text
Del Route		Text
Dealer		Text
Dealer Name		Text
Delivery Window		Text
Actual Arrival Time		Text
Despatched		Text
Delivered		Text
Var		Text
Reason Code		Text
R02	SCH_ORD.EXTERNAL_REF	
200	SCH_ORD.TO_LOC	
Enza Manchester	GEO_LOCATION.LOCATION_NAME	
22:00-08:00	SCH_ORD.EARLY_DEL- SCH_ORD.LATE_DEL	HH24:MI
22:30	SCH_TRIP_STOP.ACTUAL_ARRIVE	HH24:MI
4	Calculated	
3	Calculated	
1	Calculated	
Blank	SCH_ORD_NON_CONFORM.REASON_CODE	
A07	SCH_ORD_NON_CONFORM.REASON_CODE	
Late Loading at Depot	SCH_REASON_CODE.DESCRIPTION	

4.3.3.1 Summary by Customer

Customer? will be the customer name of the transport order on the trip stops.

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- ?Total Deliveries? will be the total number of trip stops (count of ?SCH_TRIP_STOP.STOP_NO?) where items for the customer are unloaded for locations of type ?BRANCH?.

- ?Total PODs? will be the total number of trip stops (count of ?SCH_TRIP_STOP.STOP_NO?) where items for the customer are unloaded for locations of type ?BRANCH? and the trip stop has actual arrival and departure times recorded.

?Total PODs? will also be expressed as a percentage of the ?Total Deliveries?.

- ?Total OTIF? will be the total number of trip stops (count of ?SCH_TRIP_STOP.STOP_NO?) selected for the ?Total PODs? quantity that have had all of their order items delivered ?on time? (in regards to the delivery slots setup against the delivery location of the trip stop) and ?in full?.

?Total OTIF? will also be expressed as a percentage of the ?Total PODs?.

(N.B. Include or exclude non-conformance reason codes as described in sections 3.3.1 and 3.3.2).

- ?Total Items Despatched? will be a subtotal of the despatched quantities (?SCH_ORD_ITEMS.QTY_TO_DELIVER?) of all of the items included on the transport orders included in the calculation of the ?Total Deliveries?.

- ?Total Items Delivered? will be a subtotal of the delivered quantities (?SCH_ORD_ITEMS.QTY_DELIVERED?) of all of the items included on the transport orders included in the calculation of the ?Total Deliveries?.

- ?Var? will be the ?Total Items Despatched? quantity minus the ?Total Items Delivered? quantity.

- ?Var %? will be ?Var? expressed as a percentage of the ?Total Items Despatched?.

- ?Total Items Collected? will be a subtotal of the despatched quantities (?SCH_ORD_ITEMS.QTY_TO_DELIVER?) of all of the items included on the transport orders for the customer are loaded at a location of type ?BRANCH?.

N.B. The collection trip stops will be selected like the delivery trip stops that constitute the ?Total Deliveries? which are for the unloading activities.

- ?Totals? will be calculated as subtotals and average percentages based on the subtotals calculated.

4.3.3.2 Summary By Site

- ?Site? will be the location name of the trip stops at the location of type ?RDC?.

- ?Total Deliveries? will be the total number of trip stops (count of ?SCH_TRIP_STOP.STOP_NO?) where items for the customer are unloaded for locations of type ?RDC?.

- ?Total PODs? will be the total number of trip stops (count of ?SCH_TRIP_STOP.STOP_NO?) where items for the customer are unloaded for locations of type ?RDC? and the trip stop has actual arrival and departure times recorded.

?Total PODs? will also be expressed as a percentage of the ?Total Deliveries?.

N.B. All other calculations will be performed as described for the ?Summary By Customer? section.

4.3.3.3 Exceptions

An exception will be recorded for the following conditions:

1. A difference exists between the actual despatched and delivered quantities (assessed for the transport orders themselves on the trip stop).
2. A delivery classed as late (assessed per transport order on the trip stop.)
3. A delivery trip stop has no actual arrival and departure times against it (will include all transport orders on the trip stop.)

- Del Route? will be the customer reference (?SCH_ORD.EXTERNAL_REF?) of the transport order that contains the exception.

- ?Dealer? will be destination location ID (?SCH_ORD.TO_LOC?) and name (?GEO_LOCATION.LOCATION_NAME?) of the transport order that contains the exception.

- ?Delivery Window? will be the early delivery (?SCH_ORD.EARLY_DEL?) and late delivery (?SCH_ORD.LATE_DEL?) dates and times of the transport order that contains the exception.

- ?Actual Arrival Time? will be the actual arrival time (?SCH_TRIP_STOP.ACTUAL_ARRIVE?) of the trip stop for the unloading activity at the destination location of the transport order that contains the exception.

- ?Despatched? will be the total number of items despatched (?SCH_ORD_ITEMS.QTY_TO_DELIVER?) on the transport order that contains the exception (as the ?Total Deliveries? calculation).

- ?Delivered? will be the total number of items delivered (?SCH_ORD_ITEMS.QTY_DELIVERED?) of the transport order that contains the exception (as the ?Total Deliveries? calculation).

- ?Var? will be the ?Despatched? quantity minus the ?Delivered? quantity.

- ?Reason Code? will be the reason codes (?SCH_ORD_NON_CONFORM.REASON_CODE?) of usage ?NON_CON? held against the transport order.

A section for the reason codes, and their descriptions, used in the ?Exceptions? section will be present at the end of the ?Exceptions? section should a reason code be displayed in the ?Exceptions? section.

- ?A07? is a reason code (?SCH_ORD_NON_CONFORM.REASON_CODE?) of usage ?NON_CON? held against the transport orders selected in the previous sections of the report.
- ?Late loading at Depot? is the description (?SCH_REASON_CODE.DESCRIPTION?) of the reason code.

The breakdown of the database records is show below:

Trip -> Stop -> Haulage Activity -> Transport Order -> Line -> Item

Trip -> Stop -> Haulage Activity -> Transport Order -> Non-conformance

5 REFERENCES

Ref No	Document Title & ID	Version	Date
1	EST-294567 OB-8NRE6H AA Daily Performance Report v1.0.doc	1.0	08/12/11
2	AA Daily Status Report Design v1_03.xls	1_03	

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6 DOCUMENT HISTORY

Version	Date	Status	Reason	Initials
0.1	16/12/11	Draft	Initial version	PDR
1.0	19/12/11	Issue	Reviewed and Issued	MJC

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7 AUTHORISED BY

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