



Aptean

C-TMS Overview

Calidus TMS - 12.48

29th April 2025 - 2.0
Reference: OVERVIEW

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1 Overview

1.1 About Aptean

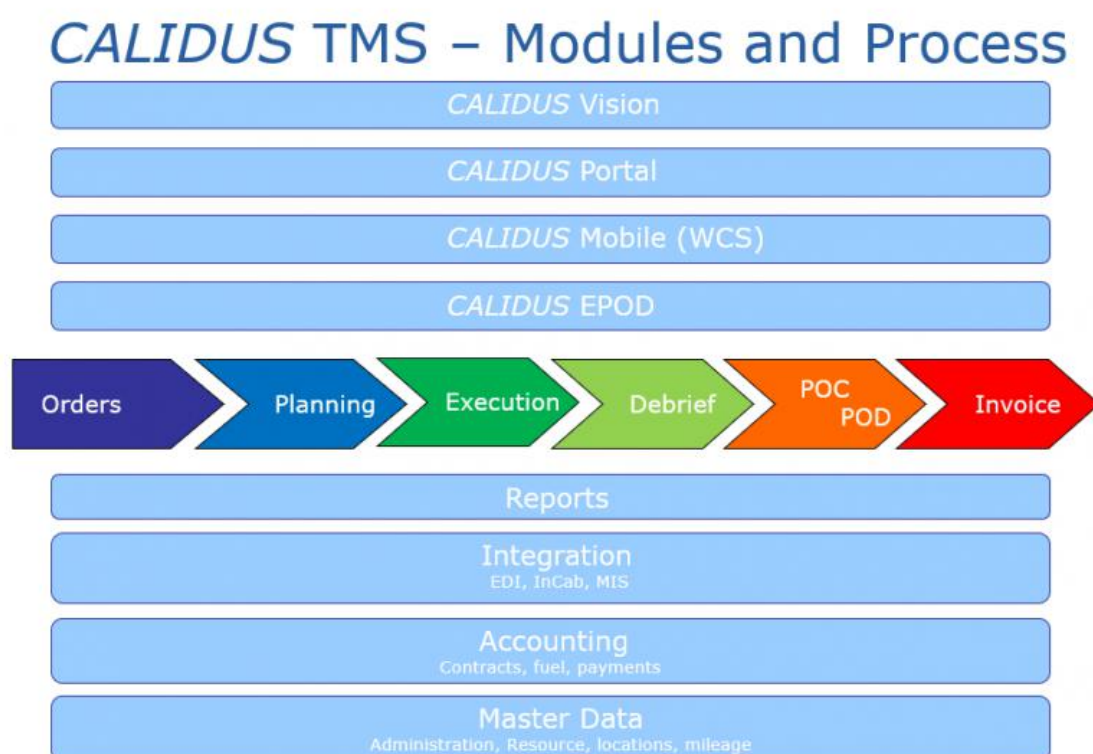
OBS Logistics Ltd was acquired by Aptean and is now part of the Aptean group.

OBS Logistics is a leading provider of Transport Management and Warehouse Management Software Solutions, having worked with many of the world's largest logistics, supply chain and transportation companies over the last 25 years.

Using the latest technologies, OBS Logistics adds value to its core solutions through the development of unique functionality, providing true visibility across supply chain operations.

The CALIDUS Transport Management and Warehouse Management modules are the core of our supply chain solution.

1.2 The Calidus Product Suite



1.3 Overview

C-TMS is a transportation and logistics solution that reduces costs by optimising transport management across depots, manufacturers, retailers & carriers, providing central planning and management services. C-TMS focuses on improving the whole transport management process, including order generation, planning, execution and administration, and payment. The C-TMS system known as the Managed Transport Services Host System, operates on an Oracle 10g database. The host system provides interfaces to customer systems, sophisticated order entry templates and reporting. Links to transport planning tools, real-time tracking and execution tools and Oracle Financials accounting package, support the whole process. C-TMS allows all or just selected functions of the system to be utilised according to customers' particular needs.

The C-TMS system incorporates several elements, order entry, order management, routing / scheduling, tracking and continuous improvement. These enable complete visibility of the optimisation process.



Order entry can be achieved in several ways, electronic interfaces enable the process to be fully automated, manual entry allows last minute requirements to be met and the ability to enter these via the internet allows flexibility and simplicity.

The order management functionality enables the system to create point to point orders encompassing the collection location, delivery location, time windows for these to be achieved and the vital information about the products and their size, weight and quantity. These items known as transport instructions are then available for routing.

Based on specific requirements set by the customer's priorities the system takes the transport instructions and optimises them into trips. During the optimisation process the system interrogates available resources, all locations to be visited, specific rules and regulations and the laws that the vehicles operate under and produces the most efficient schedule.

Once the trips have been accepted and are en route then the in cab tracking systems can offer real time information to the customers and the planning centre. The system uses GPS (Global Positioning Satellites) to pin point vehicle locations. The in cab equipment enables drivers to update collection and delivery information as they actually occur with detailed information including quantities against product code. The systems enables the planners to add emergency trips to the vehicles giving a flexible real time service to the customer.

Continuous improvement is a key part of any service; the C-TMS system enables this through detailed reporting and flexible configuration. C-TMS is used to measure the operation against Key Performance Indicators (KPI's).

The power of the system has made it an invaluable part of many services provided by OBS's customers to their own customers. In order that the system is available to provide full optimisation it is positioned with a strong infrastructure backbone and is supported by a dedicated Applications Management team. The main applications are located on IBM P570 mirrored servers within specialised data centres. This enables the service to be available twenty-four hours a day seven days a week on a high availability basis.

C -TMS includes a Web Portal for suppliers or customers to enter order details, returns and to track orders. The TMS application can also be deployed with full RF task driven scanning to support warehouse collection and cross docking.

1.4 C-TMS Host Modules

The C-TMS solution for each client is made up of a "C-TMS Host" configuration and the third party applications to which the host is interfaced.

The C-TMS Host configuration is made of a selection from a series of modules depending on the client's specific requirements.

A specific configuration of modules for a client is known as the "C-TMS Host" system for that client.

Throughout the wiki the term C-TMS is used interchangeably to refer to either the "C-TMS Host" or the C-TMS integrated solution.



2 Glossary

Term or Acronym	Meaning
Ad Hoc Collection	Ad Hoc Collections are collections at a consignee or other point, where the actual items to be collected have not been defined, allowing for a free-form scanning of items.
AI	In barcode terms, an Application Identifier; some pre-defined characters in a barcode that define the data content rather than the format.
Asset	A traceable DU; the item that is tracked during delivery and collection. This Asset has a type (e.g. Cage, Tet, etc).
Audit Log	A log of events that have happened in the C-TMS system. It could include information, error, debug or audit messages. Users are able to search for messages of a certain type, on a certain day and from a certain area of the system.
Backloads	Orders that are placed on a pre-existing trip at the end of the trip before returning to the depot. They may be for customers other than the customer that is paying for the full trip and may result in a rebate to the customer, and a charge to the backload order's customer.
Booking	A quantity of a single Product Type on a single DU Type to be delivered from one location to another on particular date but not at a particular time. These records are usually created by the Auto Summary process. These records are displayed in the main view on the Bookings form.
Carrier	The carrier completing the trip. Can comprise any carrier configured in the system, but normally Home Fleet (usually a carrier per depot), 3rd-party carriers, supplier-/customer-own transport, own collection, etc.
Case	A Case of individual packets of a product e.g. a case of Cornflake packets.
Consolidating Centre	A depot that takes delivery of goods from several origins and consolidates them for trunking to outbases (q.v.) or final delivery to destinations. See also Consolidation.
Consolidation	In execution terms, this is the act of taking several jobs and combining them into a single execution job. This can be by several criteria but is broadly defined as: Same Location consolidation, where the delivery/collection points are identical; Linked Location, where the deliver/collection points have been configured to be seen as the same point within C-TMS and; Manual (Ad Hoc) Consolidation, where the driver decides that two jobs should be delivered/collected at the same time.
Containerisation	The action of taking items and placing them inside another item for tracking purposes. See also Asset.
Cost Centre	A part of an organization to which costs may be charged for accounting purposes. For C-TMS, this is used for accounting purposes, and also to generally configure the system.
C-Portal	CALIDUS Portal, Aptean's web-enabled external access system to the Calidus systems. Also, any electronic internet-based system designed to access functionality for a particular purpose (for example, customer enquiries, supplier activity, track and trace, etc.)
Cross-Dock	Also a specific location at which product is exchanged.
C-ePOD; EPOD, APOD	Electronic Proof of Delivery. The Aptean EPOD system is CALIDUS ePOD or Aptean POD.
C-TMS	CALIDUS TMS, Aptean's Transport Management System.
CSB	This refers to Carrier Self Billing, the process that C-TMS uses to produce and send invoices to carriers.
Customer	In 3PL terms, the customer on behalf of which the transport is being operated.
DDL	Drop-down list - a series of pre-designated answers to a particular question on a device, rather than requiring the user to key the answer in full.
Debrief	Comprises 3 parts: Trip debrief, where general trip notes and vehicle information is captured; Stop debrief, where actual arrival and departure times against a trip are entered; Order debrief, where actual product and item quantities are entered; Driver/Trip debrief, where additional information is captured from the driver relating to the trip.
Delivery Types	This defines the category of the order, and is intrinsically linked to revenue and cost tariffs.
Demurrage; Detention	Any time spent loading, unloading or waiting that is outside contractual obligation in execution of a trip. This usually incurs additional charges.
Depot	Any location that schedules and controls transport.
Despatch	In transport terms, the process of loading and despatching items out of a depot. In this implementation, the process of loading and despatching is predominantly controlled by C-MCS (q.v.). See also Loading.
DMS	Document Management Systems: Systems than manage the storage and viewing of (predominantly) scanned documents. Usually these systems also include some automation and indexing routines.



Term or Acronym	Meaning
DOT	Delivery On Time - see OTIF.
Driver	Comprising drivers and crew assigned to a trip.
Drivers Day	A schedule of work that a driver would undertake in a day including any rest periods and breaks.
Drop	A stop on a trip.
DU	Distribution/Despatch/Deliverable Unit - box, tray, cage, tet, etc.; Also Asset, Asset Type.
EDI	Electronic Data Interchange - a mechanism by which 2 systems can communicate normally without user intervention.
ERP	Enterprise Resource Planning
Fixed Route Template	A template in C-TMS that provides a series of timed slots into which orders will fit. This can be used to create fixed routes (q.v.) and also as a template for cross-docking and grouping similar orders together.
Fixed Route	In transport terms, a fixed route is a trip comprised of a series of fixed stops that are typically always visited. A C-TMS fixed route template (q.v.) can be used to create these.
Fixed Schedule	An order that occurs at a fixed time. Differing from the above, the order will be created in the schedule; Also Milk Run.
Fuel Surcharge	An additional charge that may be applied to a Transport charge to reflect the increasing price of fuel.
Isotrak	A third party software package that allows users to be informed of the whereabouts of their vehicles using GPS technology. Interfaces with C-TMS in order to provide ?actuals? information for trips (i.e. the time a trip arrived at a stop and the amount of pallets that were delivered).
Item	A single item for delivery/collection.
Load	C-TMS: A trip that encompasses just a vehicle-full of items, or one journey out and back to a depot.
Loading	In transport terms, the process of loading and despatching items out of a depot. In this implementation, the process of loading and despatching is predominantly controlled by C-MCS (q.v.). See also Despatch.
Location	In C-TMS terms, a trip comprises visits or drops to many locations. A location can be of many different types.
Location Types	Usually one of: Depot, Customer, Delivery/Collection Location, Store, etc.
MCS	Mobile Control System
OBD	On-Board Diagnostics - an automotive term referring to a vehicle's self-diagnostic and reporting capabilities. Also CANbus.
OMS Ref	A unique transport movement ID, referring to a single transport movement request.
OPS13	Vehicle Checks; Defect Reporting
Optimisation	Route Building and Optimisation
Order	Equiv: OMS Ref; a transport movement.
Order Line	An order can be made up of different order lines (i.e. an order from one location to another can contain many lines such as 20 ambient pallets and 20 chilled pallets)
Order Status	The lifecycle of an order, usually UNSCHEDULED->SCHED-COLL->SCHEDULED->DELIVERED/FAILED/CANCELLED.
OTIF	On Time In Full - Metrics to measure successful collection or delivery.
Outbase	A depot whose purpose is to deliver to final delivery destination within a geographically-restricted subsection of the whole catchment area; also ROC, RDC.
Payment	Monies paid by a cost centre to a third party such as a carrier.
Plan	A term used to describe the result from scheduling Orders onto Trips. The first set of Trips may be referred to as ?Plan A?, with a subsequent, more accurate plan later in the day being referred to as ?Plan B?.
Post Schedule	The period after Orders have been scheduled in the Scheduling Program and then returned to C-TMS. Any subsequent manipulation of these Orders would be Post Schedule manipulation.
Pre Schedule	The period before Orders have been scheduled in the Scheduling Program and then returned to C-TMS. Any manipulation of these Orders would be Pre Schedule manipulation.
Product Item	Another term for a case or SKU
Product Quantity	A quantity of a single Product Item or SKU to be delivered from one location to another on particular date but not at a particular time. These records are created by the inbound Bookings interface process. These records are displayed in the View Detail screen on the Bookings form.
Product Summary	Another term for Booking
Product Type	



Term or Acronym	Meaning
	The category that a Product Item, Case or SKU falls in to, usually associated with temperature e.g. FROZEN, PERISHABLE, AMBIENT
Reason Codes	Of many types: Adjustment, Non-conformance, Order.
Recalculate Distance and Times	A C-TMS function that is applied to a trip. The function checks the properties of the trip to ensure that it meets the defined rules for a trip in respect of drive times and driver's breaks.
Receipt	In transport terms, the process of receiving and uploading items into a depot. In this implementation, the process of receipt and unloading is predominantly controlled by C-MCS (q.v.). See also Unloading.
Region	Geographical Region. Also, Postal Region. Regions are allocated to Depots and are used to determine ownership of a particular Order.
Resources	Drivers, Crew, Tractors, Vehicles, Trailers
Revenue	Monies received by a cost centre from a third party such as a customer.
Route	A route is a fixed route that is repeated. A Trip is a unique trip, which may be created from a route.
ROC	Regional Operating Centre; a depot whose purpose is to deliver to final delivery destination within a geographically-restricted subsection of the whole catchment area; also Outbase.
RDC	Regional Distribution Centre.
RPE	Regular Pallet Equivalent - This is used to estimate volume and therefore capacity of vehicles within C-TMS.
Schedule	A day's plan, usually consisting of 24 hours, not necessarily from midnight to midnight.
Service Levels; Service Types	Typically used to determine additional services for an order, or a quicker transport service. This defines the order windows i.e. the collection and delivery windows and offsets relating to the service level, through schedule rules.
Shunt	A trunk (q.v.) movement between depots using the trunk network, typically of a much shorter length than a trunk movement.
Sourcing Unit	A second entity that can be applied to a Lane, and all charges relating to that Lane will then be applied to the Sourcing Unit and not the Customer.
Stop	Also Trip Stop. A stop on a trip. In this solution, Drop is the pre-assigned fixed route drop number, whereas Stop is the generated CTMS stop ID.
Surcharges	Any charges applied to an invoice at invoice stage, rather than generated from the order or trip itself. Examples are: Fuel Surcharge/Rebate, Demurrage.
Tariffs	Rate Cards, forming the basis of generating trip/carrier costs and order revenue.
TI	Transport Instruction - another term for an Order.
TLM	Transport Logistics Manager
Tractor	The driver cab, pulling the trailer.
Trailer	The trailer carrying the goods. Can be several types.
Transport	The transport management office.
Trip	C-TMS: A selection of work to be completed, specifically a workload that lasts for an entire shift for a driver.
Trip Manipulation	The manipulation of Scheduled Trips, whether it be to add a Carrier or to completely recalculate times on the Trip.
Trip Status	The lifecycle of a trip
Trunk	A route between depots, transporting goods usually to be delivered from the destination depot, but any transfer of goods from the original receiving or originating depot in the network to the final delivery depot (the out-base).
TTM	CALIDUS TTM; Track and Trace Module; Aptean's application dedicated to tracking and tracing order events with inputs from several external systems.
Unloading	The process of receiving and uploading items into a depot. In this implementation, the process of receipt and unloading is predominantly controlled by C-MCS (q.v.). See also Receiving.
WCS	Warehouse Control System
WMS	Warehouse Management System



3 Schedules

A schedule within C-TMS relates to a physical grouping of orders and trips that can be used to refer to a schedule of work. All orders, order lines, trips, trip stops, and haulage activities must belong to a parent schedule, which acts as a container for those key items of data which defines the work that C-TMS is managing.

As such a schedule is a driving entity within the C-TMS system and is used to restrict the view of data presented within forms, reports, exports, interfaces and many other elements of the C-TMS system.

However, the creation of a schedule itself is not something that a user has to necessarily be concerned about, since schedules are automatically created when creating orders in C-TMS.

Schedules generated by the C-TMS application will either have a name of YYMMDD e.g. 020101 (if the date was 1st Jan 2002); this is the default, or WKDAY e.g. 01MON.

In the case of YYMMDD a "Key DateTime" is taken from the order (usually the early delivery date). The schedule has a nominal start time, stored in a system parameter and if the time component of the Key DateTime is after this time, then the date component of the Key DateTime is used as the schedule name, otherwise the previous day is used.

In the case of WKDAY, this format uses the week number and a three-letter abbreviation for the day of the week as the schedule name. For example, in the case of 01MON the WK 01 would represent a schedule for the first week of the financial year and the DAY MON would represent a Monday within that first week of the financial year. The WK part of the schedule name is in fact the number of weeks elapsed since a fixed date specified by a system parameter. (The week containing this date is deemed to be week 1.) The Schedule Start time is used as above.

In the case of YYMMDD, which is the most commonly used format for schedules within C-TMS, (WKDAY does not indicate year so has implications after a system configured in this manner has been operational for more than a year) a schedule can be for any number of days although 1 day and 7 days (a week) are the most commonly used values.

When a user or an interface creates an order in C-TMS, the Schedule module will look to see if a schedule already exists for the Key DateTime that is defined and if it does the order will be placed into that schedule, otherwise a new schedule will be created for that order and any other orders which have the same Key DateTime will also be placed into that schedule too.

Schedules have a status of either 'active' or 'closed'. If a schedule is active then operations can be undertaken on the trips and orders that reside in that schedule, assuming for the operation that the user wants to perform, the trip or order being worked upon is in an appropriate status.

The screenshot shows a window titled "MTS_OWNER on CONST" with a red header bar containing "ORI_STATS v2.14" and "MTS v10.5.0". Below the header, there are two checkboxes: "Show Stats" and "Show History". A table lists schedules with columns: Schedule, Sched Start, Sched Status, and Locked. The table contains four rows of data. Below the table, there are four buttons: "Unscheduled Orders", "Scheduled Orders", "Unconfirmed Trips", and "Confirmed Trips". At the bottom, there is an "Active Profile" dropdown menu and four buttons: "Apply", "Refresh", "Delete", and "Close Schedule", along with an "Exit" button.

Schedule	Sched Start	Sched Status	Locked
950505	04-MAY-2095	ACTIVE	
950405	04-APR-2095	ACTIVE	
950404	03-APR-2095	ACTIVE	
950403	02-APR-2095	ACTIVE	

The schedule form is the entry point to the C-TMS application, in that it is the first form that a user would be presented with after they have logged in using their username and password. It lists all of the schedules within the database, their start date and their status and whether the schedule is locked or not. It also provides statistics about orders and trips within the schedule (if the show status checkbox is selected) and allows the user to create a new schedule close a schedule and delete a schedule (assuming that they have the correct access privileges).



The locked by property of a schedule is used if a user is performing an operation that affects the whole of the schedule and the schedule must not be viewed or updated by another user. When this type of activity occurs the locked property would display the username of the user that is running the process that is locking the schedule such as a synchronisation of trips from a planning tool back to C-TMS, once the process that has locked the schedule has completed the locked property would be unset.

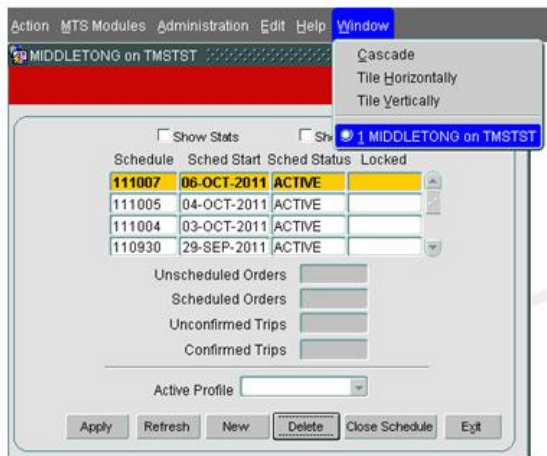
Since the schedule form is the entry point to the C-TMS application it is also the exit point in that when a user wants to end their session in C-TMS they should use the Exit button to gracefully exit the C-TMS application.

In general, schedules are created automatically in C-TMS as a result of standard system functionality. Initially, no schedules will exist until transactional data (Order, Booking, Trip etc) is created which requires a schedule for a particular date. The action of creating this data will generate the schedule for you.

There are instances which may require a new schedule, where the C-TMS functionality does not automatically create this record - e.g. Manual booking creation, Fixed Schedules. There exists the ability to create this record manually:

This is actually generated from the main access screen ORI_STATS - no menu selection is required; however, if other screens are open, you may need to:

- Select Window
 - ♦ <User name> on <database name>
 - ♦ e.g. SMITHJ on MASTST



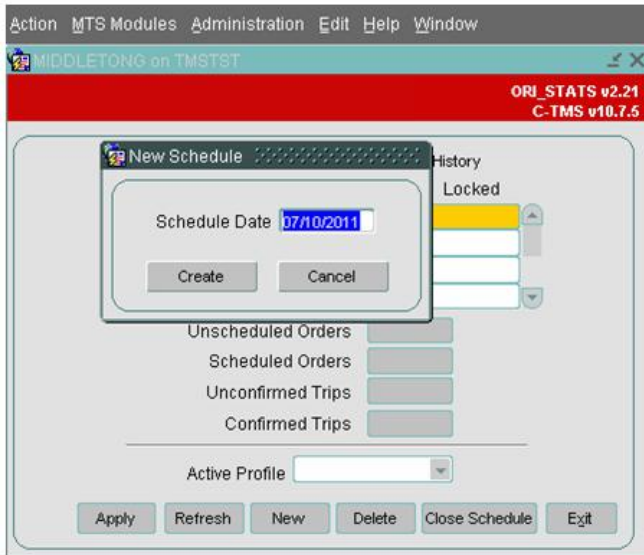
The main C-TMS Stats form will be displayed.

The System Parameter SCH_MANUAL_CREATE_SCHED will need to be set to 'Y' in order for the "NEW" button to be displayed.

3.1 Create Schedule

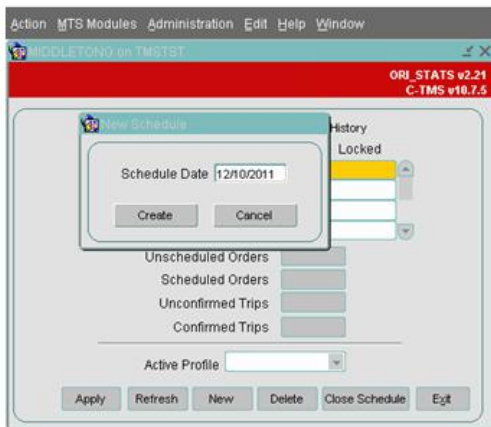
Click on the "New" button and the New Schedule window is displayed.





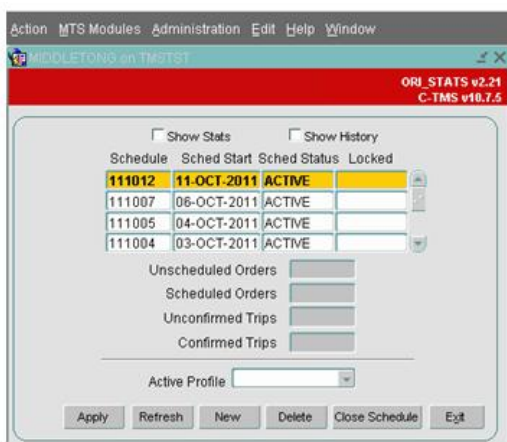
The Access Control Group Function SCH_Manual_Create_SCHED will need to be authorised for use by the C-TMS Group to which user name is applied.

This will default the "Schedule Date" to today's date. Enter the date you wish to create in the format DD/MM/YYYY.



Click the "Create" button to generate a schedule for the date entered.

This will display a refreshed version of the main C-TMS Stats form, highlighting the created schedule.



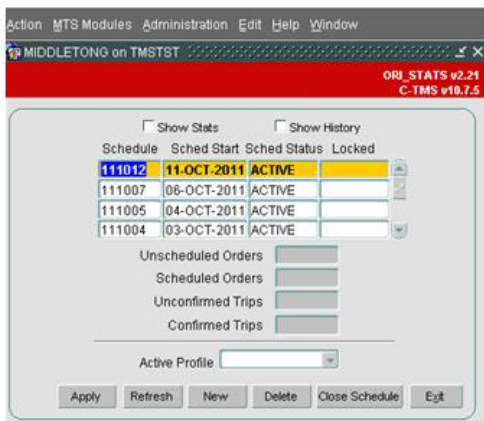
If a schedule already exists for the chosen date, a pop-up window is displayed showing an appropriate error message.





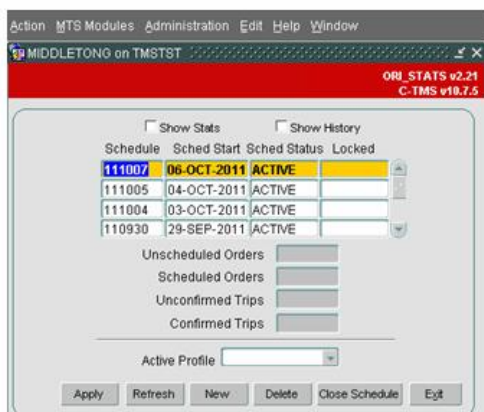
3.2 Delete Schedule

Highlight the Schedule record which you wish to delete from the main C-TMS Stats form.



Click the "Delete" button, this will remove the schedule.

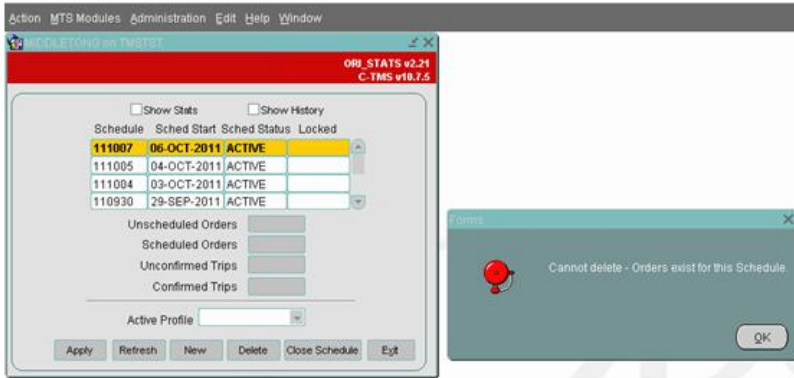
A refresh of the main C-TMS Stats form shows the schedule as removed. Note: this is not yet saved.



Click the "Apply" button to save the deletion.

You can only remove a schedule for which no transactional data occurs, e.g. Orders or Trips. If attempted, a pop-up window is displayed with appropriate error message.





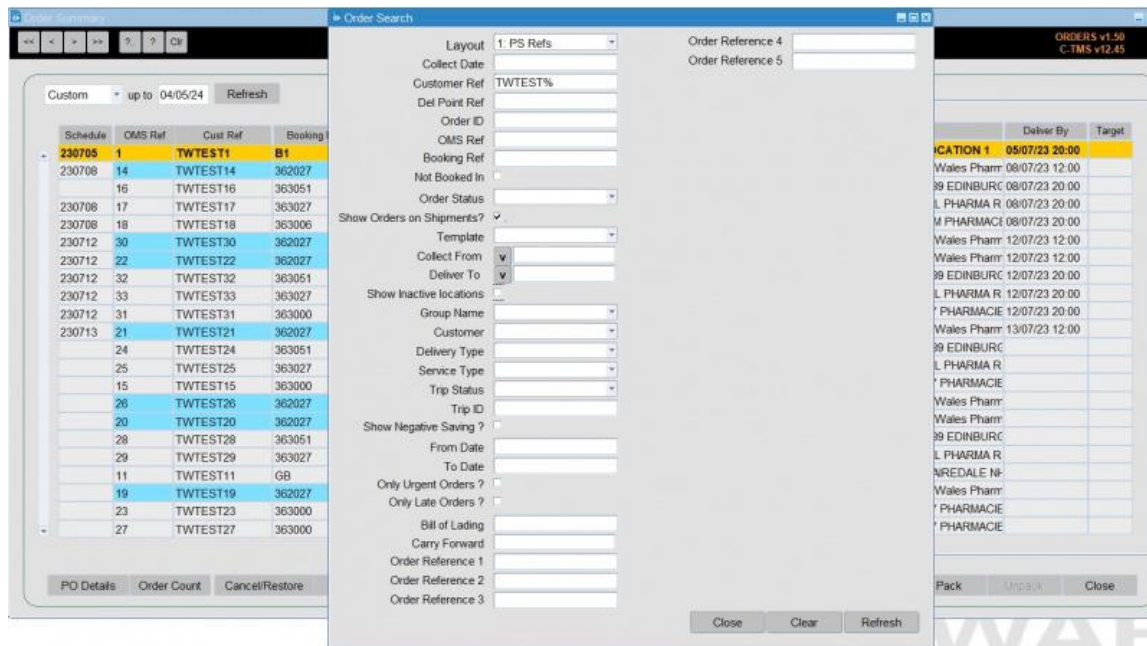
4 New Order

Orders, or Transport Instructions, can be created, modified, viewed and deleted from the Order Management module.

This is invoked by selecting *Orders* or *New Order* from the main menu.

 **Note:** The New Order screen is covered here in detail. The old *Orders* screen is no longer developed, but contains extremely similar information, but much more compact.

Upon selection, the primary Order Summary screen will open, accompanied by the "Order Search" screen:



4.1 Order Search

The "Order Search" screen enables you to query orders by a variety of criteria that can be made as specific as required. For example, by only entering the schedule date, the query will extract all orders for that schedule currently within the C-TMS software. Once data has been entered or changed, it is highlighted in red, as are the **Refresh** buttons on both forms.

The Orders Search panel can be configured to your needs by right-clicking on the orders results and selecting *Configure Search Criteria*. This allows you to select criteria. Note that any order sub-references (*Additional References*) configured in the system will also be listed and can be selected as search criteria. See [Search by Additional References](#) below for more details on this function.

Clicking the **Refresh** button executes the query and populates the Order Summary screen. An example of how these queries extract data is shown below, where only those orders in a status of "SCHEDULED" on the schedule of "061026" are shown:



Schedule	OMS Ref	Cost Ref	Booking Ref	Status	Type	Collect	Ready At	Deliver	Deliver By	Target
230705	1	TWTEST1	B1	UNSCHEDULED	Standard	PDRLOC1	05/07/23 16:00	T001	TEST LOCATION 1	05/07/23 20:00
230708	14	TWTEST14	362027	INVALID	S12	LBZ Site 3	07/07/23 00:00	Pn1633	Prince of Wales Pharm	08/07/23 12:00
230708	16	TWTEST16	363051	INVALID	S24	LBZ Site 3		2	BUKL 6089 EDINBURG	08/07/23 20:00
230708	17	TWTEST17	363027	INVALID	S24	LBZ Site 3		3	VERTICAL PHARMA R	08/07/23 20:00
230708	18	TWTEST18	363006	INVALID	S24	LBZ Site 3		4	QUANTUM PHARMACE	08/07/23 20:00
230712	30	TWTEST30	362027	UNSCHEDULED	S12	LBZ Site 3	11/07/23 09:00	Pn1633	Prince of Wales Pharm	12/07/23 12:00
230712	22	TWTEST22	362027	CANCELLED	S12	LBZ Site 3	11/07/23 09:00	Pn1633	Prince of Wales Pharm	12/07/23 12:00
230712	32	TWTEST32	363051	CANCELLED	S24	LBZ Site 3		2	BUKL 6089 EDINBURG	12/07/23 20:00
230712	33	TWTEST33	363027	CANCELLED	S24	LBZ Site 3		3	VERTICAL PHARMA R	12/07/23 20:00
230712	31	TWTEST31	363000	CANCELLED	S24	LBZ Site 3		1	FAIRWAY PHARMACE	12/07/23 20:00
230713	21	TWTEST21	362027	SCHEDULED	S12	LBZ Site 3	11/07/23 09:00	Pn1633	Prince of Wales Pharm	13/07/23 12:00
24	TWTEST24	363051	INVALID	S24	LBZ Site 3	11/07/23 09:00	2	BUKL 6089 EDINBURG		
25	TWTEST25	363027	INVALID	S24	LBZ Site 3	11/07/23 09:00	3	VERTICAL PHARMA R		
15	TWTEST15	363000	INVALID	S24	LBZ Site 3		1	FAIRWAY PHARMACE		
26	TWTEST26	362027	INVALID	S12	LBZ Site 3		Pn1633	Prince of Wales Pharm		
20	TWTEST20	362027	INVALID	S12	LBZ Site 3	11/07/23 09:00	Pn1633	Prince of Wales Pharm		
28	TWTEST28	363051	INVALID	S24	LBZ Site 3		2	BUKL 6089 EDINBURG		
29	TWTEST29	363027	INVALID	S24	LBZ Site 3		3	VERTICAL PHARMA R		
11	TWTEST11	GB	INVALID	S24	LBZ Site 3		NHS1632	NHS003-AIREDALE NH		
19	TWTEST19	362027	INVALID	S12	LBZ Site 3	11/07/23 09:00	Pn1633	Prince of Wales Pharm		
23	TWTEST23	363000	INVALID	S24	LBZ Site 3	11/07/23 09:00	1	FAIRWAY PHARMACE		
27	TWTEST27	363000	INVALID	S24	LBZ Site 3		1	FAIRWAY PHARMACE		

4.1.1 Search by Additional References

Additional order sub-references can be defined in the **Imports** screen, on the **Decodes** tab. The decode table "XML_REFERENCES" of type "REFERENCE" is used for this.

Once these are created, an order sub-reference can be added to orders using the **Add Details** tab, as seen below.

Any sub-references will be listed in the available search criteria shown when configuring this search panel by right-clicking on the orders results and selecting **Configure Search Criteria**. You can select them and they will then be available for you to search by.

When using them, you can use them to search in conjunction with any other search criteria specified in the panel.

For example, if there were an Order sub-reference "CARRIER_REFERENCE" (labelled as "Carrier Ref") that could be added to orders, then you could search as follows:

- To find the exact carrier reference "SR12345678", click on the *Carrier Ref* entry field and enter "SR12345678".
- To find any carrier reference beginning with "SR", click on the *Carrier Ref* entry field and enter "SR%".
- To find any carrier reference ending in "12345678", click on the *Carrier Ref* entry field and enter "%12345678".
- To find any carrier reference that contains "2345", click on the *Carrier Ref* entry field and enter "%2345%".
- To find any order that has any carrier reference at all, click on the *Carrier Ref* entry field and enter "%".

Note: No orders without the sub-reference will be shown in any of the cases.

This is explicitly very useful when using rebooking, and there are orders that require rebooking that the system has automatically tagged for you (REBOOK_REQUIRED sub-reference, set to "Y"). In this case:

- An order may not have a REBOOK_REQUIRED sub-reference, meaning it does not require rebooking.
- An order may have a REBOOK_REQUIRED sub-reference set to "Y", meaning it requires rebooking.
- An order may have a REBOOK_REQUIRED sub-reference set to "N", meaning it has already been rebooked.

So you can use the Rebook Required sub-reference search as follows:

- To find any orders that requires rebooking, click on the *Rebook Required* entry field and enter "Y".
- To find any orders that have already been rebooked, click on the *Rebook Required* entry field and enter "N".
- To find any orders that at any point required rebooking, click on the *Rebook Required* entry field and enter "%".

Note: No orders without the sub-reference will be shown in any of the cases.

In both of these use cases, you can combine this with other criteria, such as Schedule, to further limit the results.



4.1.2 Search Layouts

When you select the criteria that you want to use when searching, you can save those search criteria with a name, so that you can re-use it again and again. This is especially useful to ease training in certain processes.

In the example above, we know that it is fairly easy to find all rebook orders in the system. The operational process might be to find all orders that require rebooking at the end of the day and check that they have been planned, or to find particular rebook orders for depots, carriers, days, etc.

So, you may create a Search layout called "Rebooks", including ONLY those fields that you would commonly use on this process, for example:

- *Schedule*
- *Rebook Required*
- *Rebook Order* - the original order reference
- *Group Name* - the planning group, your depot.

That way, when you want to search for rebook orders in any of the use cases above, you can select the "Rebooks" layout, and be presented only with the search criteria that is important to you in this use case.

Carrying that forward, here's examples of further use cases:

The image displays three examples of the 'Order Search' dialog box, illustrating how different search layouts can be configured and used.

Top Screenshot: 'Order Search' dialog box with 'Layout 4: All Orders' selected. This layout includes a wide range of search criteria: Schedule (250821), Customer Ref, Del Point Ref, OMS Ref, Booking Ref, Order Status, Collect From, Deliver To, Cost Centre, Group Name, Customer, Delivery Type, Service Type, From Date, To Date, Only Urgent Orders?, Only Late Orders?, Postcode, Rebook Required, Customer PO Ref, Rebook Count, Rebook Cust Ref, Rebook Order, and Run Number. Buttons for Close, Clear, and Refresh are at the bottom.

Bottom Left Screenshot: 'Order Search' dialog box with 'Layout 1: Invalid Orders' selected. This layout is simplified, showing only Schedule (250821), Customer Ref, OMS Ref, and Order Status. Buttons for Close, Clear, and Refresh are at the bottom.

Bottom Middle Screenshot: 'Order Search' dialog box with 'Layout 2: Trunks' selected. This layout shows Schedule (250821), Customer Ref, and Group Name. Buttons for Close, Clear, and Refresh are at the bottom.

Bottom Right Screenshot: 'Order Search' dialog box with 'Layout 3: Rebooks' selected. This layout is tailored for rebooking, showing Schedule (250821), Customer Ref, Order Status, Group Name, Rebook Required (with a dropdown menu), and Rebook Order. Buttons for Close, Clear, and Refresh are at the bottom.



4.2 Order Summary

The screen displays the core data on the left of the screen, plus a tabbed list of different additional details in a tabbed display on the right of the screen.

- **Core data** - this displays the schedule on which the order should be planned, the customer reference, the current order status and the delivery type.
- **Locations** - this displays location-based information: Collect location ID and name, Collection Ready At date and time, Deliver location ID and name, Deliver By date and time. The target will generally be blank, as this is used to show the target time of the order delivery window, but is now redundant.
- **Totals** - this shows Planned weight, volume, DUs and Units as well as any Actual data that has been entered on the order. The totals for the data selection are displayed on the bottom line, which has a grey background.
- **Finance** - The Revenue, Cost, Base Cost and Allocated Cost are populated directly from the order. The Margin is calculated from Profit divided by Revenue multiplied by 100 ($\text{Margin} = \text{Profit} / \text{Revenue} \times 100$). The Profit is calculated by subtracting the Allocated Cost from the Revenue ($\text{Profit} = \text{Revenue} - \text{Allocated Cost}$). Note that a number of totals are again shown at the bottom of the form.
- **Comments** - this shows all lane and order comments, and also the Group that the order belongs to - this corresponds with the Group Name field on the order itself.

All fields are populated with data from the "Order Details" form, and therefore blank fields indicate missing data from the order.

Once the Order Summary form has been populated, the order(s) can be viewed and edited as required and also sorted by the column headers as required (this is done by clicking on the column header by which you wish to sort).

Other options available from buttons on this screen:

- **PO Details.**
- **Order Count** - This button totals the number of orders shown in the current Order Search range. This is particularly useful for calculating averages in conjunction with data from the "Totals" and "Finance" tabs.
- **Cancel/Restore** - Orders can also be cancelled from this screen by using the **Cancel/Restore** button, with the benefit of being able to be restored if required.  **Note:** When cancelled, the order is set to CANCELLED status - if the order was already planned onto any trips (status SCHEDULED, SCHED_COL, SCHED_DEL), it will be automatically removed from those trips. If the order is restored, the order will return to UNSCHEDULED status.
- **Search** - re-show the order search pop-up form.
- **New** - create a new order. See "Creating a new order" below.
- **Edit** - view an existing order for editing. You can also edit or view an existing order by double-clicking the order in the list. See "Order Details" below.
- **View** - view an existing order. You can also edit or view an existing order by double-clicking the order in the list.
- **View Trip** - This button shows the trips on which the order has been planned in the "Trip Debrief" form.  **Note:** Orders in a status of ABORTED, CANCELLED, INVALID and UNSCHEDULED will not have any trip details, as they are not scheduled onto a trip.
- **View POD.**
- **Re-Book** - see "Re-booking Orders" below.
- **Print Label.**
- **Pack.**
- **Unpack.**
- **Close** - close the form.

Options available from right-clicking an order on this screen:

- **Edit** - view an existing order for editing. You can also edit or view an existing order by double-clicking the order in the list.
- **Send to Paragon** - required only if using a manual Paragon interface, and not required when not using Paragon or using the seamless Paragon API.
- **Show Trips** - show all trips for the order selected.
- **Show Shipment** - show all shipments for the order selected.
- **Revenue.**
- **Payments.**
- **Check Status.**
- **Reset NEW.**
- **Abort.**



- **Schedule** - you can use this to quickly add an order to a trip across schedules. When you select this option, you will be shown a list of all trips that the order can be scheduled on - select one and confirm with the **OK** button, or cancel the scheduling with the **Cancel** button. Like any lookup, you can also find and filter the data shown here.
- **X-Dock** - See "Cross Docking" below
- **Unschedule**.
- **Unschedule Order from Trips**.
- **Configure Search Criteria** - as described above.
- **Split Orders** - split the order. You will be prompted through a pop-up how many orders you would like. You can process the split with the **Process** button or any other button to exit. This works only when splitting pallet orders. To split an item order, do this by editing the order, then using the Split functions in the Order Items tab.
- **Copy Orders** - copy the order. You will be prompted for the number of orders and the new orders' collection and delivery windows. You can process the copy with the **Process** button or any other button to exit.
- **Set Order to On-Hold/Release from Hold** - set or unset the order status to ON HOLD

Click on the **New** button on the Order Summary screen to start entering a new order manually. Then you can start entering order details through the tabs below.

You can edit an existing order once found on the screen using the tabs below in exactly the same way.

When creating, viewing or editing an order, the "Order Details" form shown below will open.

4.3 Order Details

Order Details will open, showing the Details tab initially. For a new order, this is where you will be required to enter most of the initial information required to create the order.

The various tabs are covered below.

4.3.1 Details

New orders will be partly populated by defaults set up against the user; the "Cost Centre", "Customer", "Product Type" and "Qty" may be predetermined.

In the absence of defaults set against the user, defaults from the System Parameters will be used, although this will only apply to the "Cost Centre" and "Customer".



Each time a new order is created, the "OMS Ref" is populated by default with the next numerically sequenced number, and the status will default to "INVALID".

The "Cost Centre" and "Customer" fields must be populated. The "Schedule" field can be populated manually if the schedule already exists. If it does not exist, however, this field should be left blank, and the application will calculate the schedule from the collection and delivery windows. Attempting to enter a schedule that does not exist will result in a drop-down menu of existing schedules being presented.

 **Note:** The Schedule is calculated from the earliest collection date and time or the latest delivery date and time, depending on the setting of a system parameter. Therefore, if an order crosses schedules (typically midnight), you may need to check that the schedule is correct and as required.

The "Delivery Type" is either specified against a user ID or from a System Parameter - it can also be changed manually.

"Vehicle Type" may be set to limit the vehicle types (trailers) that can be used for this order.

"Carrier" can be used to set an expectation of which carrier should be used for the order.

"Temp Combo" can be set to determine the compartment type that can be used for the order.

"Booking Ref", "Customer Ref", and "Del Point Ref" can be added as required and are available regardless of which tab you have selected.

The required location should be selected either by double-clicking with the mouse or by highlighting and left-clicking on the **OK** button. This will then populate the field on the "Order Details" form. The "Deliver To" location can be populated in the same way, and then the time windows entered manually, date first and then time.

Note that for orders driven by a delivery time, the latest collection time should always be the same as the latest delivery time. For orders driven by the collection time, the earliest delivery time should always be the same as the earliest collection time.

Rather than key in four dates and times, there is also functionality that allows the time windows to be created either by the target collection or target delivery time. Select the *Delivery Time Target* option, and this will grey out all of the fields apart from the *Target* fields to the left of it. Click **Save**, and the collection and delivery windows will automatically be populated.

When saving, you may see a validation message, which generally states that the earliest collection time for the order is already in the past. This is a sense-check and, provided there is no issue with this, click **OK**: The order time windows will then be populated by the pre-set values associated with the location types, as shown in a later section. The "Collection Time Target" works in a similar way, by creating the windows from the Target collection time, rather than delivery. You will notice that the order status also changes to "UNSCHEDULED" as all of the required details have been entered and the "Schedule" has been automatically populated. It should be noted that this is calculated from the earliest collection date and time, and therefore, if an order crosses midnight, you may need to check that the schedule is correct and as required.

A number of additional checkboxes are also present and can be edited:

- *Show Inactive Locations.*
- Auto-processed flags - show whether the order has been through and been scheduled by a scheduling engine process. When ticked, these orders will not be processed again. Untick them to send the order back through the indicated process.
 - ◆ *Auto-processed PCL.*
 - ◆ *Auto Processed 3PL.*
 - ◆ *Auto Processed WS.*
 - ◆ *Manual Schedule.*
- *Hazardous.*
- *Quality Control.*
- *ADR Regs.*
- *Late Order.*
- *Manual Order.*
- *Urgent Order.*
- *Van Fleet.*

General order comments can be entered here.

You can enter lines - summaries of product types and DUs to be collected or delivered with this order.



If the product type is not set up to populate automatically, it can be selected in the same way as the other data, but the "DU Type" will populate automatically with the default value associated with the product - this can be over-typed if required.

"Weight", "Volume" and "RPE" will be calculated automatically from defaults set against the product and DU types. Therefore, only the "Qty" (Quantity) value needs to be entered. The totals for all lines are displayed at the bottom, to prevent excessive volume being placed on a single order.

The "Special Flag" field can be used to represent particular classes of order, such as "Advance" or "Left Off" - this will be populated automatically if the "Booking Entry" form has been used to create the order.

In general, entry of details on this tab will result in an order that can be scheduled. However, your operation may require more information, or be using a different order profile (for example, service levels, specific order items, etc), so additional information may be entered through the following tabs.

4.3.2 Order Items

All order items are shown for the order. This layout is configurable.

The screenshot displays the 'Order details for 21' window. At the top, there's a header bar with 'ORDERS v1.50' and 'C-TMS v12.45'. Below this, a navigation bar includes tabs like 'Status', 'Order Items', 'Location Details', 'Add Detail', 'MTM Info', 'Audit', 'Audit Archive', 'Finance', 'Non Conformance', 'Payments', 'Storage', 'Trip Detail', 'Hazardous Data', and 'White Glove'. The 'Order Items' tab is active, showing a table with columns: Identifier, Product, Aka Code, Item Description, Factor, Lifts, Stack, Ordered, To Deliver, Delivered, Diff, Weight, Volume, and Location. The first row shows 'CLT91454/1' for 'AMBIENT' products. To the right of the table are buttons for 'Show Long Description', 'Split Order for Items' (with 'All' and 'None' radio buttons), 'Create', and 'Edit/Delete'. Below the table is a 'Reason' section with columns for Reason, Description, Reason Comments, Qty, Depot, Scan Type, and Created Date. At the bottom, there's an 'Item Content' section with columns for Item Identifier, Type, Item, Description, AKA Code, and Qty. The bottom of the window features a toolbar with buttons: 'Print Label', 'New Order', 'View Info', 'Save', 'Close', 'Re-book', 'Send Ord Msg', 'Non Conformance', 'Pack', and 'Unpack'.

Actions available:

- **Show Long Description** - shown in a pop-up window.
- **Split order for Items** - you can split the item to a new order.
- **Create** - the screen will show a pop-up window to enter item details.
- **Edit/Delete** - the screen will show a pop-up window to edit item details or to delete the item.

When editing or creating items, the screen will show and allow you to enter or amend the following data, if configured to allow this in your access control group:

- Item Identifier.
- Transport Unit information if palletised - ID, Type.
- Product.
- DU Type.
- AKA Code.
- Pallet ID.
- Item Description.
- Pallet information - Factor/Lifts/Stack.
- Quantities - Ordered/To Deliver/Delivered.
- Package information - Units/Pack Quantity.
- WCS Loc.
- Dims - Weight, Volume, Length/Width/Height.
- Item Price.



 Note:

- You can split a total quantity of selected items onto a new split order. You cannot use this functionality to split an item into a split order - you must achieve that manually, by creating your own new transport order for the split, and then manually changing the quantities on the existing order.
- When splitting, any split transport order created will have the customer reference appended with "_S1", indicating a split. This will likely impact communications between CTM and any externally connected systems.

For each item selected, the screen shows a history of actions against that item in the table below.

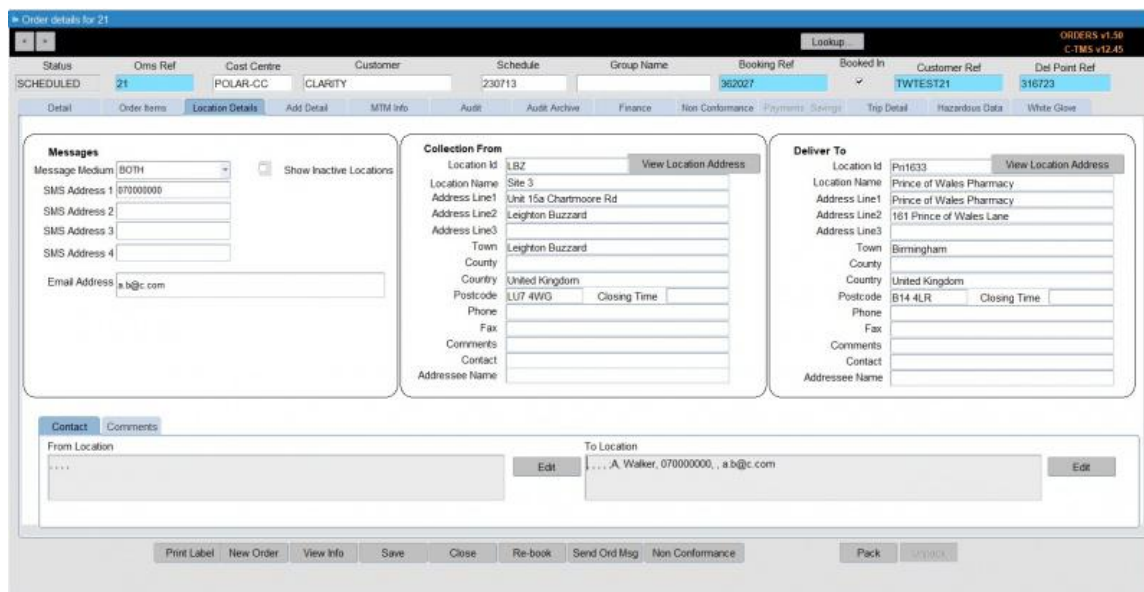
Actions available:

- **Create** - the screen will show a pop-up window to enter item history details.
- **Edit/Delete** - the screen will show a pop-up window to edit item history details or to delete the item history.

For each item selected, the screen shows any content against that item in the table below.

- **Show Long Description** - shown in a pop-up window.
- **Create** - the screen will show a pop-up window to enter item content details.
- **Edit/Delete** - the screen will show a pop-up window to edit item content details or to delete the item content.

4.3.3 Location Details



This screen shows

- Message medium - you can enter or view any SMS or email details against the order, and select how messages are sent to the contact (SMS, EMAIL, BOTH, NONE).
- Locations - the from and to locations are shown for the order. You can view all the details of the location itself with the **View Location Address** buttons provided.
- Contacts - the Contacts tab shows the contacts against the order for the from and to locations. You can add, edit or delete them using the **Edit** button, which shows an Order Information pop-up for this purpose.
- Comments - the Comments tab shows the comments against the order for the from and to locations. You can add, edit or delete them using the **Edit** button, which shows an Order Comments pop-up for this purpose.



4.3.4 Add Details Tab

The "Add Detail" tab of the order form allows extra details to be added if required:

The "Order" expresses details of how the order is received and is automatically generated.

The "Order" holds a number of pieces of information derived from other data:

- The first two characters refer to the cost centre, taken from the "Cost Centre Code" of the cost centre.
- The third and fourth characters refer to the customer, taken from "MTM Customer Code" of the customer.
- The fifth character relates to the "Code" of the "Delivery Type" assigned to the order.

Note: Changes to the cross-reference codes against the customer, cost centre or delivery type after order creation will not reflect on any previously-created orders, only on orders created from that point forward.

The "Src Sys" shows the origin of the order, for example "MANUAL", "IMPORTS", "TEMPLATE", depending on how the order was created. For example, created manually, imported, generated from a Lane or Template, etc.

The "POD/CMR No" (Proof Of Delivery) is entered from the Order Tracking or Trip debrief form upon confirmation of delivery.

"Container No" is a free text field to record container numbers

The "Cont Wt" or container weight is taken again from another field.

"DUs" and "Actual DUs" are a simple measure of planned against actual, and are taken from the information on the "Detail" tab.

The "Service Level" is a basic service level and informs the collection and delivery windows if configured to do so.

The "Carrier Service Level" is populated if configured against that carrier and service level. This is configured through the [Carrier Service Level](#) tab on the [Resources](#) screen.

The "Interface ID" will show an audit reference to the interface entry that created the order, if this was created through EDI.

Similarly, the "Template ID" will display the template from which the order was created, if any.

The following are also displayed and editable if you have permissions to do so in your access control group:

- "Original From" - the original source location of the order, if different to the order's From location. A lookup is provided and, when selected or entered, the location name is displayed.
- "Final To" - the final onward destination location of the order, if different to the order's To location. A lookup is provided and, when selected or entered, the location name is displayed.



- "Total Price" - the total price of the order.

The Additional References section displays any additional references sent with the order. Furthermore, certain actions (such as rebooking), or the presence of Dry Ice, Gel Packs or hazardous goods (based on the DU and product types selected) may automatically generate additional references on the order. Usually, Debrief will also generate additional references for information.

This can be used to add an additional field name and capturing a data value against that field name. These fields can then be configured on the "Configurable Search Criteria" in order to locate orders by these reference values.

You can add references to the order in this screen by clicking the + button - the screen will create a new line for you. You can now enter a reference or use CTRL-L to show a lookup of references available to be added to the order. When you have entered or selected a reference to enter, you can enter a value against the reference - this is free text entry.

You can edit additional reference codes and values from this screen by directly typing over the reference or values in the table.

You can also delete any references against the order by selecting the reference and clicking the - button.

All changes to references will be saved when you next click **Save** against the order.

4.3.5 MTM Info

This tab displays MTM interface-specific information. This is used for reference by external systems and does not impact the use of CTMS. This tab may be restricted by the user's group through [Access Control](#).

The screenshot shows the 'MTM Info' tab selected in the 'Order details for 21' window. The interface includes a top navigation bar with tabs like Status, Order Items, Location Details, Add Detail, MTM Info, Audit, Audit Archive, Finance, Non Conformance, Payments, Settings, Trip Detail, Hazardous Data, and White Glove. The MTM Info tab contains various input fields for delivery and handling information, including Delivery Priority, Handling Code 1-3, Carrier Code, Inspection Required, Testing Required, Unit of Measure, Product Item, Original City, Warehouse Code, Storage Code, and a checkbox for 'Exclude from Fixed Routes?'. There are also fields for 'Send to MTM', 'Trans. Code', 'Shipping Ref', and 'First/Last Flag'. A 'Lookup' button is visible in the top right corner. At the bottom, there are buttons for 'Print Label', 'New Order', 'View Info', 'Save', 'Close', 'Re-book', 'Send Ord Msg', 'Non Conformance', 'Pack', and 'Unpack'.

4.3.6 Audit Tab

The "Audit" tab details the original user who created the order, along with the date and time of creation. The tab also shows the last user to update or amend the order, along with a history of changes made to the order. This tab may be restricted by the user's group through [Access Control](#).



Order details for 21

STATUS: SCHEDULED Oms Ref: 21 Cost Centre: POLAR-CC Customer: CLARITY Schedule: 230713 Group Name: Booking Ref: 362027 Booked In: TWTEST21 Del Point Ref: 316723

Lookup ORDERS v1.50 C-TMS v12.45

Detail Order Items Location Details Add Detail MTM Info Audit Audit Archive Finance Non Conformance Payments Savings Trip Detail Hazardous Data White Glove

Audit Id	Status	Change	Changed By	Changed Date	TZ Abbr
458	INVALID	Order created.	MTS_OWNER	07/07/2023 15:16	
459	INVALID	INSERTING CC POLAR-CC	MTS_OWNER	07/07/2023 15:16	
460		Order line created - 1 BOX of AMBIENT ordered.	MTS_OWNER	07/07/2023 15:16	
461		Volume changed from 0 to 0.05000	MTS_OWNER	07/07/2023 15:16	
462	INVALID	Currency changed from NULL to GBP	MTS_OWNER	07/07/2023 15:16	
463	INVALID	Exclude from Fixed Routes changed from NULL to N	MTS_OWNER	07/07/2023 15:16	
464	INVALID	Hazardous flag changed from NULL to N	MTS_OWNER	07/07/2023 15:16	
465	INVALID	Total Volume changed from 0 to .05	MTS_OWNER	07/07/2023 15:16	
466	INVALID	Total Pieces changed from 0 to 1	MTS_OWNER	07/07/2023 15:16	
467	INVALID	Service Level changed from NULL to S12	MTS_OWNER	07/07/2023 15:16	
481	INVALID	Customer Ref changed from CLT91454 to TWTEST10	MTS_OWNER	07/07/2023 15:18	
521	INVALID	Customer Ref changed from TWTEST10 to TWTEST21	MTS_OWNER	07/07/2023 15:53	
4213	INVALID	Early Del changed from 12/07/2023 07:00 to 13/07/2023 07:00	MTS_OWNER	21/11/2023 11:00	
4214	INVALID	Late Del changed from 11/07/2023 12:00 to 13/07/2023 12:00	MTS_OWNER	21/11/2023 11:00	
4215	INVALID	Schedule changed from 230711 to 230713	MTS_OWNER	21/11/2023 11:00	
4216	UNSCHEDULED	Status changed from INVALID to UNSCHEDULED	MTS_OWNER	21/11/2023 11:00	

Created By: MTS_OWNER at 07-JUL-2023 15:16:21
Last Modified By: MTS_OWNER at 19-FEB-2024 15:11:35

Print Label New Order View Info Save Close Re-book Send Ord Msg Non Conformance Pack

4.3.7 Audit Archive Tab

The "Audit Archive" tab displays the information previously held in the "Audit" tab that has been deleted after a pre-determined number of days. A system parameter setting determines how many days the order audit information will be retained against the order. After this period has expired, the data will be moved to the archive tab, for a further pre-determined number of days.

4.3.8 Finance Tab

The "Finance" tab displays information calculated from the base data set up within the system, as part of freight payment:

Order details for 21

STATUS: SCHEDULED Oms Ref: 21 Cost Centre: POLAR-CC Customer: CLARITY Schedule: 230713 Group Name: Booking Ref: 362027 Booked In: TWTEST21 Del Point Ref: 316723

Lookup ORDERS v1.50 C-TMS v12.45

Detail Order Items Location Details Add Detail MTM Info Audit Audit Archive Finance Non Conformance Payments Savings Trip Detail Hazardous Data White Glove

Currency: GBP

Cost: 0.00 Costs: Revenue: 0.00 Revenue:

VAT: 0.00 VAT: 0.00

Total: 0.00 Total: 0.00

Allocated from Trip: 0.00
Standard Cost: ☐ Do not recalc
VS Revenue: 0.00
Saving:

Services

Service Id	Name	Qty	Value	Total Revenue	Inherited
ADD_DISTANCE	Additional distance	2.5	0.00	0.00	No

New Save Edit Delete

Print Label New Order View Info Save Close Re-book Send Ord Msg Non Conformance Pack

Last Error: Contract 1 found, No tariff found by Standard Journey Pn1633

STD Cost Data: Base Cost calculated from contract for order / lane: Contract 1 found, No tariff found by Standard Journey Pn1633

Revenue Data: Order Revenue obtained from CONTRACT. Insufficient contract information for Order 21(0): Contract 1 found, No tariff found by Standard Journey Pn1633

Lane Comments:

Order Comments:

Generally, either the "Cost" or the "Revenue" will be used. The "VAT" will be shown separately, and then the "Total" is displayed. The "Allocated from Trip" field will display costs that have been allocated from the trip on which the order is scheduled.

The "Standard Cost" of the order is calculated, either from a contract, from a value set against a lane, or through "Combinations", which are linked to the lanes. By checking the "Do not recalc" box, this value will be fixed.



"VS Revenue" is calculated from the trip on which the order is scheduled and, if there are two or more orders on the trip, will be a proportion of the trip cost.

Additionally, comments are shown here:

- The "Last Error" field will display the last error, which occurred when saving the order; in this case, it is a contract error linked to the way freight payment is configured.
- "STD Cost Data"
- "Revenue Data"
- The "Lane Comments" is read only and is only populated when orders are created by Lane-based order entry. The "Order Comments" field is a free text field to record any information not yet incorporated.
- You can also enter some general "Order Comments" here, for your reference.

You can view and enter additional order services here if configured in the system. These services are additional charges against the order that are not captured by the contract. These are generally charges that are incurred by the customer at the time of delivery, for example, demurrage or excessive waiting time, excess handling, etc. They are only charged where applicable. In most examples, these cannot be included in the contract, as they may not always be charged.

To enter a service, place the cursor on a new line (in the service ID column) or click the provided **New** button. Then select CTRL-L to select a service type.

Once selected, the screen will display the ID and description. You can now enter a quantity. A value may be automatically generated for this service, based on the quantity (if this has been configured with a base cost for the service against the **customer account**). If not, you can enter a value here, and the total revenue will be calculated and shown here. You can indicate whether the charge should be inherited.

You can save your changes to order services with the supplied **Save** button. You can delete any order services using the supplied **Delete** button.

When the record is saved and the order is saved, a new payment record is created, and the payment is included in the order revenue total.

Note that Order services may also be entered during debrief, and will be visible against the order.

You can view all trip costs or order revenue using the **Costs** and **Revenue** buttons, respectively. This will display the Payments screen, which is covered in more detail in the **Finance guides**. Note that the order services will generate payments against the order, and will show the payment type and narrative, as set up against the service charge configuration against the **account**.

4.3.9 Non Conformance Tab

The "Non Conformance" tab details any non-conformances associated with the order. These will generally be applied from the "**Trip Debrief**" form, and will be reasons for early or late despatch or delivery, discrepancies, etc.

A record of the reason for rebooking can be viewed in the *Non Conformance* tab, if this is a rebooked order.

Non-conformance is covered in the **Debrief** page.



[illegible]

4.3.10 Trip Detail Tab

The "Trip Detail" tab is a view-only form. The order needs to be scheduled onto a trip for the fields to be populated. This gives the user an alternative way to view trips and find information about which trip or trips the order has been booked onto.

A cross-docked order would show multiple trips.

This layout is configurable.

[illegible]

4.3.11 Hazardous Data Tab

This tab offers a place to view and enter any UN codes related to any items on the order, should they exist, as dictated by any ADR or other hazardous goods regulation.



4.4 Re-booking Orders

To re-book an order, click on the **Rebook** button at the bottom of the order form.

A pop-up window will appear - you will need to input the new delivery date and give a reason for rebooking the order. Once the "New Date" and "rebooking reason" have been entered, click **OK**. You will now be asked if you either want to change the schedule to that of the earliest collection window of the rebooking, to retain the same schedule as the original order or enter a different schedule completely.

Once you have selected your choice, the rebooked order is now created. Note that "_R1" will be added to the "Customer Ref" field. Note also that any re-books of this "_R1" order will become "_R2", etc.

A more complex version of the rebook order screen exists, for entry of more details against the rebooked order:



Note: Orders that have no actuals against them will be set to a status of "aborted" and cannot be edited. If the order is on a trip, then it will be removed, and the order status set to "aborted". If this is the only order on the trip, then the trip will also be deleted.

If the order has actuals against it, then the status of the order remains unchanged. The order will also remain on the trip.

A record of the reason for rebooking can be viewed in the *Non Conformance* tab of the rebooked order.

4.5 Cross Docking

Crossdock or x-dock - means of delivering an Order via one or many additional locations.

4.6 Tips & Tricks

RPE stands for Regular Pallet Equivalent and provides a standard measure for comparing DU Type size, and thus how much space a DU will take up on a Trailer or vehicle. For example, a Standard Roll Pallet may equate to 1 RPE, a Large Board may equate to 2 RPEs. Typically, this is used to determine vehicle fill rate, and used for capacity management of vehicles executing trips, based on these orders (as the RPE values are rolled up to the trip stops and the trip on which they are planned).

Typically RPE would be used on the basis of a 1.1 m3 equivalent pallet, and therefore, you would set up items accordingly.

However, if you have small items that do not take up much space or weight, then consider setting these as RPE 0, and setting the RPE of other items to 1 (as opposed to being based on a volumetric percentage, as shown above). Then RPE will show the quantity of items that you care about filling the vehicle.

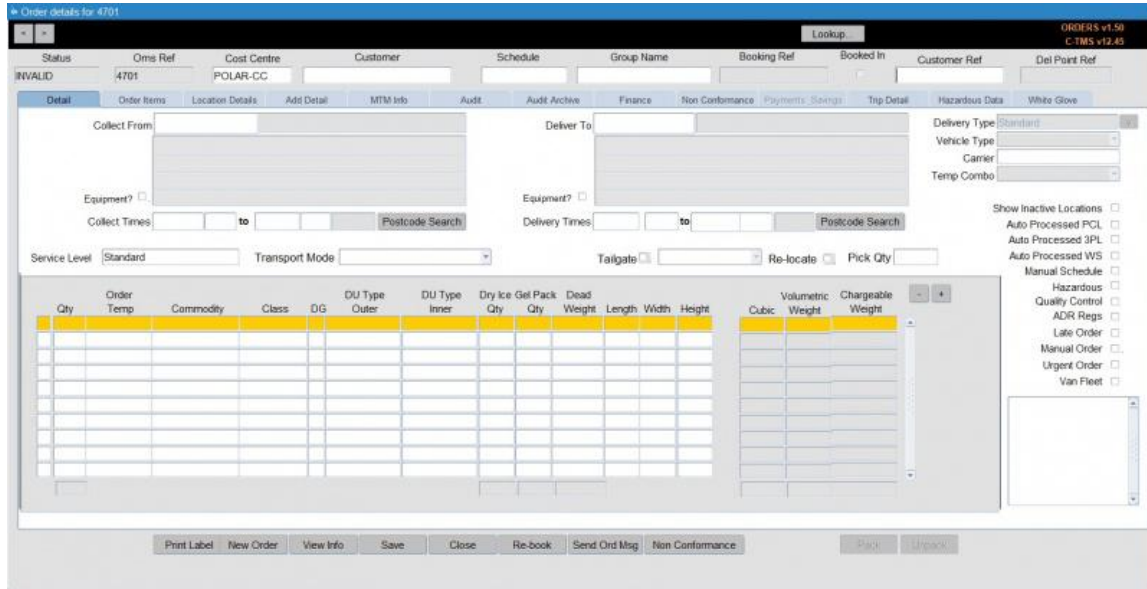
You would then need to set the capacity of the trailers or vehicles accordingly - for example, my operation delivers tyres to the trade. I also deliver miscellaneous items, and use order lines to show charges like delivery charges. My operation cares only about how many tyres we are loading. Therefore, I set the Miscellaneous and Charge DUs to have RPE of 0, and Tyre DUs to have RPE of 1. I also set the vehicle's capacity so that an average (or maximum) number of tyres is the total capacity, for example, 60 tyres to a van, 120 tyres to a larger vehicle, etc.

This then still provides capacity management and vehicle fill percentages when planning, but also allows me to see an easy count of the items that I care about on orders in all screens that display RPE - in CTMS, that's all of the planning, execution, overview, order and debrief screens. The other DUs don't count towards this total, but can still be configured for loading and unloading rates and weights.



4.7 Fast Order Entry

Fast order entry can be enabled through an access control function parameter "FN_FAST_ORDER". Essentially, this changes the Detail tab so that certain additional fields are always present, and allows quick entry of the order through the Detail tab.  **Note:** This is very bespoke to healthcare-related operations and should not be enabled for other transport operations.



When a user belongs to a group with this function assigned, the following will be applied when creating an order:

- A new line level tab is displayed with Commodity, Dead Weight, dimensions and volumetric weight displayed.
- The from location, customer, cost centre, early collection date and time will be pre-populated, based on the data assigned to the user in [Access control](#).
- Items will be automatically generated from the lines when the order is saved. The item identifier will be generated using the OMS reference and a count of the items.

The screen header display is altered as follows:

- Service Level.
- Transport Mode.
- Tailgate.
- Re-Locate.
- Pick Qty.

The following are disabled on the screen:

- Delivery Type.
- Vehicle Type.
- Temp Combo.

The following fields will have been pre-populated with data set in the [access control](#) screen:

- Cost Centre.
- Customer.
- Group Name.
- From Loc.

Users will have different PICKPACK logins, where the customer will be set, based on the customer for whom they are preparing the pick/pack orders.

You are required to enter the delivery location, service level and transport mode. This information, in conjunction with the customer and from location, will be used to set the collection and delivery windows.



The windows are derived from the schedule rules.

The date identifies the relevant zones for the collection and delivery location, and, using the offset values, will set the collection and delivery dates. The collection date will be set relevant to the cut-off time.

If an order is created after the cut-off time, then 1 will be added to the off-set, to increase the collection date by 1 day. The early collection time will be set to the current time, and the late collection time will be set to the late time. For the delivery windows, the early and late times will be used.

For the windows to be populated from this table, there must be a record that matches the customer, service level, cost centre and location zones in [Scheduling Maintenance](#). Once the windows have been set, they may be manually edited.

The detail section is completely bespoke and non-configurable. It contains the following information:

- Line number (non-editable, automatically populated).
- Qty.
- Order Temp.
- Commodity.
- Class.
- DG.
- DU Type Outer.
- DU Type Inner.
- Dry Ice Qty.
- Gel Pack Qty.
- Dead Weight.
- Length.
- Width.
- Height.

The following are calculated and displayed:

- Cubic.
- Volumetric Weight.
- Chargeable Weight.

You are required to enter the order lines manually, with no pre-population.

The following fields are mandatory:

- Quantity.
- Order Temp.
- Commodity.
- DU Type Outer.
- Dead Weight.

You may be required to enter a class based on the commodity you have selected. Selecting the commodity will automatically set the dangerous goods flag when relevant.

If you select a non-ambient Order temp, you will be required to enter the quantities of the relevant additional packages. If you select WETICE, then you must enter a quantity of GEL PACKS. If you select DRYICE, then you must enter a KG quantity of DRYICE. When you select AMBIENT, no additional packaging quantities will be required.

When an outer DU type is selected, the relevant dimensions will be populated on the screen. You must enter the weight to allow the system to calculate the Volumetric and Chargeable weight.

Multiple lines may be entered.

When entering Order Temp, Commodity, Class and Inner or Outer DU Type, you must select a value from a list. If you enter a value that is not in the list, the system will display an error. The data lists are populated from maintenance tables on the system (maintained in the [Products](#) maintenance screen).

When you save the order, the lines will be used to generate the items automatically. The quantity on each line will determine how many items are generated. The item information will be inherited from the line. You will then be able to edit the individual items through the existing *Order Items* tab.



4.8 Further Configuration

The following System Parameters affect this functionality:

Parameter	Description	Level
SERVICES	Controls if service payments are generated	COST CENTRE
OMS_ALLOW_MANUAL_SCHEDULE	Display Manual Schedule Flag in orders screen	COST CENTRE
SCH_SCHED_ORD_DERIVE	Controls the Order Schedule Date. Acceptable values ECDT, LCDT, EDDT, LDDT.	SYSTEM
ALLOW_DUPLICATE_CUST_REF	Allow orders with duplicate cust refs but different to locations.	SYSTEM
ALLOW_HOLD_ORDERS	allow orders to be placed on hold	SYSTEM
CANCEL_STATUS_CHK	Only orders on Planned trips can be cancelled	SYSTEM
CHANGE_DEBRIEF_LABELS	Controls the labels for certain items in the debrief and orders screen	SYSTEM
DEF_SERVICE_LEVEL	Default service level for orders when null	COST CENTRE
GEO_DT_CALC_ORD	Determines distance calculation method for orders	COST CENTRE
OMS_CHECK_CUTOFF	Controls if cut of times for product and du are considered when creating orders	SYSTEM
OMS_DEFAULT_ORDER_CREATION	Controls dates needed when creating Orders in Orders form. ALL, COLLECTION, DELIVERY or STANDARD	SYSTEM
OMS_ORDER_AUDIT_ARCH_DAYS	Number of days that Order Audit message should be retained in the main table before being archived.	SYSTEM
OMS_RESET_AUTO_PROC	Will the auto-processed flags of the order for the scheduling engine be reset when the early delivery date and time is changed? (Y/N)	COST CENTRE
OMS_RE_BOOK_STATUS	Controls the status of re-book orders to DEL FUTILE	SYSTEM
OMS_VALIDATE_INACTIVE_CODES	To validate orders with error condition for an invalid code for delivery type and service level	SYSTEM
ORD_DESP2_RESEND	Allow Desp2 message to be resent from orders screen	COST CENTRE
ORD_ENHANCED_REBOOK	Controls which rebook screen is displayed in the orders form	COST CENTRE
ORD_POSTCODE_SEARCH	Determines whether the user can search for order addresses via a postcode (Y/N).	SYSTEM
ORD_SET_BUSINESS_TYPE	Set Business Type on Orders	COST CENTRE
ORD_SET_SERVICE	Controls if the service level is set to match the delivery type	SYSTEM
ORD_SPLIT_ALL_REFS	Are all references copied when items are split?	SYSTEM
ORD_SPLIT_REBOOK_ITEMS	Controls if items on the original order suffixed with X when the order is re-booked	COST CENTRE
ORD_SPLI_ALL_REFS	Are all references copied when items are split?	SYSTEM
ORD_TEMPERATURE_COMBO	Use Temperature Combo to determine if the customer reference should be highlighted.	COST CENTRE
ORD_UPDATE_LATE_COLL_DATE_TO_DEL	Controls if the Late Collection Date/Time is updated at Save to Match the Late Delivery Date/Time.	SYSTEM
ORD_VALIDATE_GROUP_NAME	Validate Group Name during order entry	COST CENTRE
REBOOK_ALT_STATUS	If set to Y when an order is rebooked the original orders status will not be changed	SYSTEM
REBOOK_COPY_SUB_REF_CONTACTS	Set as Y or N to copy Sub References on Rebook, contact details only i.e. SMS and Email details	COST CENTRE
REFRESH_WHEN_CLOSE_ORDER_DETAILS	Refresh the order summary screen when you close the order details page in the Orders form	SYSTEM

The following Access Control rights affect this functionality:

Parameter	Description	Level
FN_FAST_ORDER	Allows Fast order entry	Functions



Parameter	Description	Level
ORD_EDIT_PRICE	Ability to display and edit price.	Functions



5 Orders

Orders or Transport Instructions form the input to the scheduling process. They are created in several ways including via the [Create TI?s](#) function, [Order Templates](#), [Imports](#), and manually via Order entry using the [ORDERS](#) form or [Order Entry Target](#) form.

Each Order details the actual collection and delivery windows on particular dates when the quantities of the [Product Types](#) should be collected and delivered. Typically an Order details no more than a single truck-load of goods to deliver.

Schedule	Col Ref	Status	Type	Collect	Ready At	Deliver	Deliver By	Target
061205	496321	SCHEDULED	Standard	BURTEON Burton_Edinburgh Fac	04/12/06 00:01	BURWALT Burton_Walton Sum	04/12/06 18:01	
061205	496322	UNSCHEDULED	Standard	EXE_BAWT Bawtry_Exel - Bawtry_Dt	04/12/06 16:33	ASDAORAN Grangemic_Asda 3ra	05/12/06 00:30	
061205	496331	UNSCHEDULED	Standard	EXE_BAWT Bawtry_Exel - Bawtry_Dt	04/12/06 16:33	ASDAORAN Grangemic_Asda 3ra	05/12/06 00:30	
061205	006158948	UNSCHEDULED	Standard	EXE_WHITE Whitwood_Exel - Whitwoc	04/12/06 16:03	SUPEPCNT Pontefra_Superdrag	05/12/06 02:00	
061205	006158933	UNSCHEDULED	Standard	EXE_WHITE Whitwood_Exel - Whitwoc	04/12/06 16:03	SUPEPCNT Pontefra_Superdrag	05/12/06 02:00	
061205	496332	UNSCHEDULED	Standard	EXE_BAWT Bawtry_Exel - Bawtry_Dt	04/12/06 16:03	ASDAORAN Grangemic_Asda 3ra	05/12/06 00:30	
061205	496332	UNSCHEDULED	Standard	EXE_BAWT Bawtry_Exel - Bawtry_Dt	04/12/06 16:03	ASDAORAN Grangemic_Asda 3ra	05/12/06 00:30	
061205	496332	UNSCHEDULED	Standard	EXE_BAWT Bawtry_Exel - Bawtry_Dt	04/12/06 16:03	ASDAORAN Grangemic_Asda 3ra	05/12/06 00:30	
061205	8003247130	UNSCHEDULED	Standard	EXE_BAWT Bawtry_Exel - Bawtry_Dt	04/12/06 16:03	SUPEPCNT Pontefra_Superdrag	05/12/06 05:00	
061205	8003247097	UNSCHEDULED	Standard	EXE_BAWT Bawtry_Exel - Bawtry_Dt	04/12/06 16:03	SUPEPCNT Pontefra_Superdrag	05/12/06 05:00	
061205	8003247203	UNSCHEDULED	Standard	EXE_BAWT Bawtry_Exel - Bawtry_Dt	04/12/06 16:03	SUPEPCNT Pontefra_Superdrag	05/12/06 05:00	
061205	8003247131	UNSCHEDULED	Standard	EXE_BAWT Bawtry_Exel - Bawtry_Dt	04/12/06 16:03	SUPEPCNT Pontefra_Superdrag	05/12/06 05:00	
061205	8003247140	UNSCHEDULED	Standard	EXE_BAWT Bawtry_Exel - Bawtry_Dt	04/12/06 16:03	SUPEPCNT Pontefra_Superdrag	05/12/06 05:00	
061205	61384725	UNSCHEDULED	Standard	EXE_TRAFF Trafford_Exel - Princes	04/12/06 21:03	SUPEPCNT Pontefra_Superdrag	05/12/06 05:00	
061205	496140	UNSCHEDULED	Standard	EXE_BAWT Bawtry_Exel - Bawtry_Dt	04/12/06 21:03	COSTLUTT Lutetwa_Cosco Uk	05/12/06 08:00	
061205	496140	UNSCHEDULED	Standard	EXE_BAWT Bawtry_Exel - Bawtry_Dt	04/12/06 21:03	COSTLUTT Lutetwa_Cosco Uk	05/12/06 08:00	
061205	656515	SCHEDULED	Standard	EXE_STAN Stanton_DHExel_IP31	04/12/06 22:03	WILKINSON Major_Wilkinson Gro	05/12/06 05:00	

5.1 Manual Order Entry

An Order can be manually created in which case the collection and delivery times and [Product Types](#) and quantities need to be manually entered. There are 3 ways of entering the collections and delivery windows, the user has the option to enter standard times (early collection, later collection, early delivery and late delivery), or a collection target time or a delivery target time. If a target time is entered the other times are calculated from the Target time.

When the Order is saved it is validated to calculate totals, e.g. the RPE quantity, and check that the Order is indeed valid, e.g. the Order is collected before it is delivered. Once the Order is successfully validated it is stored in a status of [Unscheduled](#) ready for scheduling.

Changes to important fields on an Order are written to an Audit table to provide a means of seeing when an Order was changed and who changed it. For more details see the [ORDERS](#) form help page.

5.2 Create TI?s

Create Transport Instructions is an automated [Slot](#) Order creation facility initiated from the [Bookings](#) form. This function is described in detail in the [Create TI?s](#) section of this wiki.

5.3 Order Templates

[Order Templates](#) provide the facility to create Orders from predefined data. A Template can be created that stores similar information as an Order, which can then be generated to create an Order that inherits the detail on the template. The Template can then be re-used to generate similar Orders perhaps every day.

Templates can be generated independently or grouped into Batches. A Batch can contain many Templates which can be generated in a single instance rather than generating each template one by one. The screen shot below shows the Order Templates screen with a Batch and one of its Templates selected.

5.4 Additional Functionality

The history of Batch and Template generation is stored so that a Batch is not inadvertently generated twice on the same day and to keep a reference to when and by whom the generation process was initiated.

Orders can also be created via Imports, see the [Imports](#) section for more details.



Additional functionality that is available within the Orders suite includes Re-booking. The re-booking process is used when an orders has not been successfully delivered for whatever reason but still needs to be delivered. A duplicate order is created which can then be scheduled onto a new trip, any costs that were incurred against the original order are maintained and can be charged back to the customer if appropriate.



6 Item Management

This screen allows querying of the history of a specific asset or item.

The screenshot shows the 'Item Management' window with the following details:

- Asset / Pallet id:** 50552324AAA67580
- Date from:** 22-MAY-2024
- Date to:** 28-MAY-2024
- Search:** (button)

Item ID	Pallet ID	TU	External Ref	Depot	Reason	Description	Trip ID	Created Date	Created By
Dtls 00001-B	50552324AAA67580		01501011	T2	SC	26/MAY/24 13:05 ROWE0022		26/05/2024 13:05	ROWE0022
Dtls 00001-B	50552324AAA67580		T01301011	T2	SS	26/MAY/24 12:57 CLAR0188		26/05/2024 12:57	CLAR0188
Dtls 00002-B	50552324AAA67580		T01300329	T147	SD	24/MAY/24 09:45 CURN0003		24/05/2024 09:36	CURN0003
Dtls 00002-B	50552324AAA67580		T01300329	T2	SC	24/MAY/24 09:36 CURN0003		24/05/2024 09:36	CURN0003
Dtls 00002-B	50552324AAA67580		T01300329	T2	SS	24/MAY/24 08:59 LAWL0007		24/05/2024 08:59	LAWL0007
Dtls 00003-Z	50552324AAA67580		AHC01 RTE-T2	SD		23/MAY/24 14:42 SMT0104	RTE-01664381	23/05/2024 14:47	EPOD
Dtls 00003-Z	50552324AAA67580		AHC01 RTE-T167	SL		23/MAY/24 12:17 SMT0104	RTE-01664381	23/05/2024 14:47	EPOD
Dtls 00001-B	50552324AAA67580		T01299790	T7	SS	22/MAY/24 15:35 RAK0002		22/05/2024 15:24	RAK0002
Dtls 00001-B	50552324AAA67580		T01299889	T7	SS	22/MAY/24 15:35 RAK0002		22/05/2024 14:43	RUDG0004
Dtls									
Dtls									
Dtls									
Dtls									
Dtls									
Dtls									

Close (button)

You can search for items by:

- Entering an item or asset ID.
- Entering a date range (defaulting to the last week).

The screen displays a history of the item from latest (at the top) to earliest (at the bottom), so that you can see the movement of that item or asset through the network.

The information on this screen is sourced from Item reasons information.

The details shown will be as follows:

- Item - a unique item ID identifying the product in the box.
- Pallet
- TU - The transport unit ID - an outer transport media ID i.e. a cage into which the box has been placed.
- External Ref - the order external reference.
- Depot - the depot at which the event happened.
- Reason - a reason for the scanning event or exception. Common codes are:
 - ◆ SS - Successfully Scanned.
 - ◆ SC - Successfully Collected.
 - ◆ SL - Successfully Loaded.
 - ◆ SD - Successfully Delivered.
- Description - description of the scanning event.
- Trip ID
- Created Date
- Created By

There is also a **Dtls** button against each line to show more details of the order.



The screenshot shows a 'Item Details' window with the following fields and values:

Field	Value
Oms Ref	5033709
External Ref	T01301011
Customer	
Prod Type Id	B
Item Identifier	00001-B
Pallet Id	50552324AAA67580
Item Description	
Weight	
Volume	
Current Location	
Transport Unit Id	
Transport Unit Type	
Qty Ordered	1
Qty To Deliver	1
Qty Delivered	
Units	6

This screen displays:

- OMS Ref
- External Ref
- Customer
- Prod Type ID
- Item Identifier - a unique identifier
- Pallet ID - the containing box
- Item Description - a description
- Weight
- Volume
- Current Location - the current location if not in transit.
- Transport Unit ID - an outer transport media ID i.e. a cage into which the box has been placed.
- Transport Unit Type - the type of transport media.
- Qty Ordered
- Qty To Deliver
- Qty Delivered
- Units - the number of contained units on this item.



7 Planning

The Planning screen can be accessed via the drop-down menus C-TMS Modules / Trip Management / Planning.

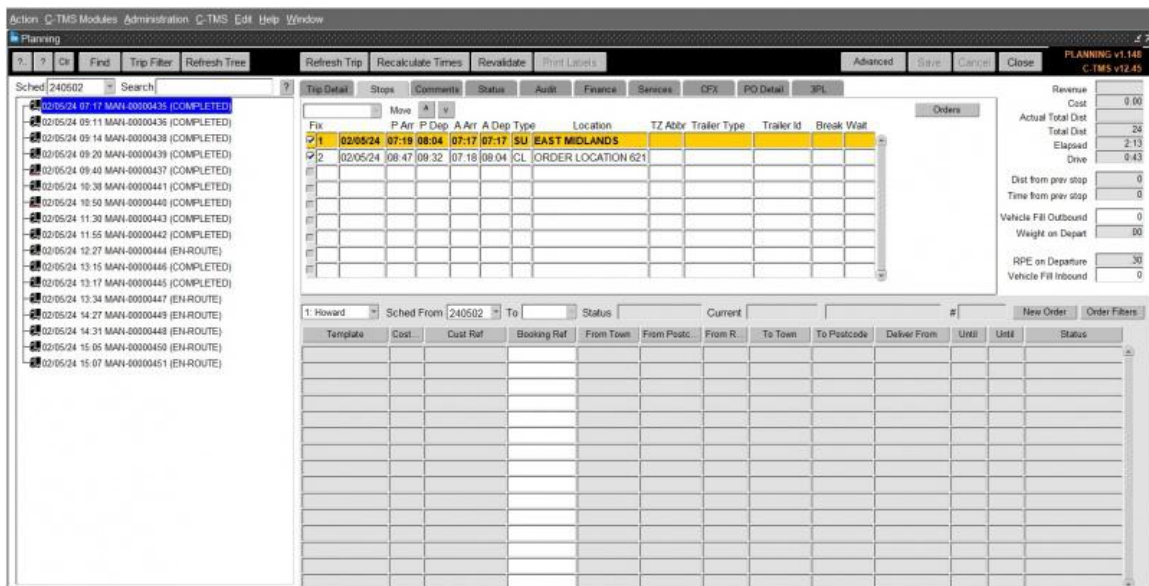
Trip manipulation can be used for both the pre-planning of trips and the execution of that plan. A planner will often be responsible for creating the orders and then putting these orders onto trips. Fixed routes will often automate part of this job for you, leaving some orders to be tripped up manually using the skill of the planner. There is functionality within trip manipulation that will aid and guide the planner in making an informed decision.

For instance, the Network (point-to-point) table held in the background of C-TMS holds details of travel times and mileages that will illustrate to the planner the planned arrival and departure times for these trips. This will then work in conjunction with the times populated on the order to show whether the deliveries will be made on time or not. C-TMS will also flag whether the planner is trying to create a trip that exceeds the trailer capacity of the vehicle type that has been allocated to this trip. Further to this, C-TMS can tell the planner if the trip exceeds a pre-set drive or duty time for each driver.

The Transport operator will then be able to allocate resources to the trips, and enter actual trip times and pallets delivered after the driver has returned from their journey.

7.1 General Use

The following is an example of the Planning Screen:



The screen consists of multiple sections

- Left - Trip tree - a list of all trips on the schedule.
- Middle Top - Trip Details - for specific details of the trip.
- Top Right - Trip Summary Details
- Bottom - Order Well - unscheduled orders.

Key functions may be accessed by buttons above the section:

- **Revalidate** - validate the currently-selected trip displayed in the Trip Details section.
- **Recalculate Times** - recalculate distances and times on the currently-selected trip displayed in the Trip Details section.
- **Refresh Trip** - refresh the currently-selected trip displayed in the Trip Details section.
- **Advanced** - advanced integration features
- **Save** - save any changes you have made. The button will only be enabled when you have changes to save.
- **Cancel** - cancel any changes that have not yet been saved. The button will only be enabled when you have changes to cancel.
- **Close** - close the Planning form and exit.



Many of these key functions are discussed in more detail in the following sections.

7.2 Trip Tree section

By default, the screen will open with the latest active schedule already shown, with all the trips that have already been created, either automatically or manually.

The trip tree will display only trips that match your user's depot (BASED_AT) parameter (if you are a planner for a single depot), or all trips if your user is configured to see all depots (a control tower-style configuration set by using the ALL_DEPOTS user parameter). Trunk trips (trips between depots) will be shown for any trips that are from or to your depot. Owning depot configuration is covered in the [Owning Depot](#) guide.

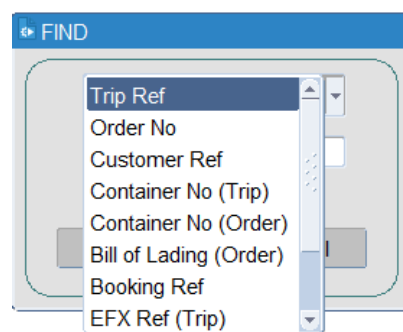
The Trip Tree displays the header for the trips contained within the schedule selection.

The trip header contains the planned arrival time of the driver at the depot, the unique transport identifier, and the status of the trip. This is also configurable to display the route. The trip header in the trip tree can also indicate if there are any outstanding warnings or errors with this trip, with a red highlight - you can see these warnings on the Comments tab in the *Trip Details* section, discussed below. Note that this icon may also display in RED, depending on how you want the screen implemented for your system.

This schedule selection can be made in the top left drop-down box named "Sched". The schedule refers to a date and is the method of grouping a set of orders and trips together into one manageable set. The schedule can be daily or weekly.

You can change the schedule shown on the screen by clicking on the Sched box and selecting or typing a schedule.

The **Find** function can find trips across schedules by many criteria.



You can select one of:

- Trip Ref
- Order No
- Booking Ref
- Customer Ref
- Container No (Trip)
- Container No (Order)
- Bill Of Lading (Order)
- EFX Ref (Trip)
- EFX Ref (Order)
- Route Code
- Tractor ID

Enter the value you wish to search for (note: case-sensitive) and then click **Find** (or **Cancel** to cancel the search).

When you click **Find**, the system will find all matching trips across all schedules and display the results in the trip tree.

The **Filter** function can filter the trips that are displayed in the trip tree.



You can choose to filter by:

- Carrier - a drop-down list of all available carriers your user can see.
- Depot
- Collect From - a list of locations from which the orders are being collected. You can use the **v** button to initiate a pop-up lookup.
- Deliver To - a list of locations from which the orders are being delivered. You can use the **v** button to initiate a pop-up lookup.
- Date
- Trip Prefix
- Checkboxes can also apply a filter:
 - ♦ *Include Trips with Stops at Based At locations* - this is initially checked.
 - ♦ *Include Trips with Orders at Sched Groups* - this is initially unchecked.
 - ♦ *Show Trips beyond Planning Region* - this is initially unchecked.
 - ♦ *Show Trips with Temp Controlled Products ONLY* - this is initially unchecked.
- Product type - you can select multiple product types to match trips against through the **Multi Product Types** button.
- Include status - you can filter the trips at particular statuses only through the check-boxes provided. By default, all trips at all statuses bar DELETED will be shown.

Once you have entered the criteria, click **Search**, and the trip tree will be filtered by your criteria. If you don't want to search, click **Cancel**.

The **Refresh Tree** button refreshes the trip tree.

Many key functions can be accessed through a right-click menu on the trip in the tree.

- *Refresh* - refresh the trip.
- *Validate Trip* - revalidate the trip to see any validation errors.



- *Set Status* - set the status of the trip from a sub-menu of statuses.
- *Change Schedule Date* - move the trip onto a different schedule.
- *Split Trip* - split the trip from the stop selected on the Trip Stops section - a second trip will be created with all stops from that point removed from the original trip.
- *Merge Trip* - merge two selected trips together.
- *Merge Trip across Schedules*
- *Merge Trip with...*
- *Delay Trunk* - mark the trunk as delayed and unplan every order on this trip.
- *Delete Trip* - delete the selected trip and unplan every order on this trip.
- *Unschedule Orders* - unschedule orders from this trip.
- *Edit Order*
- *Resend NAKs*
- *Show Map* - show a map in a new browser window showing all the stops on that trip, plus navigation instructions.
- *Print Maps* - print the map above.
- Several standard documents can be generated from this trip tree - the report run is configured through system parameters shown later in this document:
 - ◆ *Print Manifest*
 - ◆ *Loading List*
 - ◆ *Delivery Docs*
 - ◆ *Despatch Note* - This will generate the Despatch Note report in PDF form for the trip that is currently highlighted in the trip tree.
 - ◆ *CMR Note*
 - ◆ *Combined Documents*
- *Send Message*
- *Send Enabling Message*
- *Resend PO Message*
- *Debrief Trip* - open the trip in the [Trip Debrief](#) screen.
- *Trip Volumetrics*
- *Redirect Trip*
- *Reject Trip*

Many of these key functions are discussed in more detail in the following sections.

7.3 Trip Summary section

Summary trip and stop information is presented here.

- *Revenue* - the total revenue allocated to this trip from orders planned on this trip.
- *Cost* - the trip cost calculated from the carrier tariff, if present.
- *Actual Total Dist*
- *Total Dist* - the planned total distance travelled on this trip.
- *Elapsed* - the planned elapsed time taken for this trip.
- *Drive* - the planned drive time taken for this trip.
- *Dist from Prev Stop* - the distance of the stop selected from the previous stop.
- *Time from Prev Stop* - the time of the stop selected from the previous stop.
- *Vehicle Fill Outbound* - the percentage of vehicle fill on departure of the trip.  **Note:** This is only available if there is a trailer type associated with the trip and stops, and that type has a defined capacity. Trailer types may be automatically assigned to the trips when created from fixed routes. This guide shows how to assign trailer types in the [Key Functions](#) section below. Trailer Type definitions are covered in the [Resources](#) screen guide.
- *Weight on Departure* - the total weight of orders on the trip at departure.
- *RPE on Departure* - the total RPE of all orders on this trip loaded at the departure point.
- *Vehicle Fill Inbound* - the percentage of vehicle fill on completion of the trip.

7.4 Trip Details section

This section will display the details of the trip that is currently selected within the trip tree section. There are multiple tabs in this section, the default of which is the Stops tab, which displays the different stops on the trip selected.

- *Trip Detail* - This shows the general information on the trip. Resources can be assigned, and the references edited here.



- **Stops** - This shows all stops on the trip, and is the default tab. This is where the key functions for a trip can be accessed. Orders on stops can be accessed here through the Orders button.
- **Comments** - You can add or edit general comments here. You can also view rejection comments, errors and contract auditing from this tab.
- **Status** - The screen shows general trip status changes here.
- **Audit** - The screen shows detailed auditing information on the changes to the trip here.
- **Finance** - The screen displays generated finance (trip cost and revenue from orders) here. Payments and additional costs can be added here.
- **Services** - You can see, add or modify any trip services here.
- **CFX** - You can see, add or modify CFX information here.
- **PO Detail** - You can see, add or modify PO information here.
- **3PL** - You can see details of the 3rd-party carriers here to compare costs.

7.4.1 Stops Tab

Fix	P Arr	P Dep	A Arr	A Dep	Type	Location	TZ Abbr	Trailer Type	Trailer Id	Break	Wait
✓ 1	11/03/24	07:28	07:58	00:00	SU	Site 3					
✓ 2	11/03/24	10:00	10:15	00:00	DL	B31 2GH					
3	11/03/24	12:17	12:47		CL	Site 3					

It shows by default (from left to right):

- the stop number,
- the planned arrival and departure times from each stop,
- the actual arrival and departure times (if this has been keyed within the debrief screen),
- the type of stop (SU = Start-up, DL = Deliver, PK = Pick-up, CL = Closedown),
- the name of the location,
- the type of trailer that has been allocated to the trip,
- the trailer ID associated with each stop,
- where the driver break needs to be taken,
- any wait time at the stops.

This layout is configurable, and the following fields may also be added to the display:

- Booking Time
- Pick By
- Pick By Time
- Location Town
- Location PostCode
- Trailer ID (2)
- Mother Feeder
- Vessel ID
- Voyage
- Port
- Stop ETA Date
- Stop ETA At Date
- Warehouse Loading Time
- Stop Lifts
- RPE on Arrival
- REP At Stop
- Bordero
- Drop Number - a Fixed Drop Number. **Note:** This is specific to the Fixed Drop Scheduling Engine.

Many key functions can be accessed through a right-click menu on the trip stop in this tab:

- *Configure Layout* - configure the columns on this table.
- *Insert Stop* - insert a stop at this point.



- *Append Stop* - append a stop to the trip at a specified point.
- *Delete Stop* - delete the selected stop.
- *Abort Stop* - abort the selected stop.
- *Assign Trailer Type*.
- *Remove Trailer Type*.
- *Assign Trailer ID*.
- *Remove Trailer ID*.
- *Print Material Checklist*.
- *Move Stopover back*.
- *Reset Stopover*.
- *Move Stopover Forward*.
- *Move Stop* - move the stop to a new position.
- *Desp Conf Message Hold*.
- *Transfer Orders* - transfer all of the orders on the stop onto a different trip (also Job Swap).
- *Create Pickup*.
- *Create Delivery*.
- *Print Labels*.
- *Send Trip Stop*.

Many of these key functions are discussed in more detail in the following sections.

You can also see the orders that have been placed on the stop on the trip through the **Orders** button, which will open a pop-up window to show you the orders.

[illegible]

In this window, you will find the orders that are related to the stop that is highlighted within the larger section above, and it shows the following information:

- Seq
- Activity
- Cust Ref
- RPE
- To Location
- Activity Qty
- Service
- Del Point Ref

Double-clicking on the order header will take you into the details of the order itself, where you will be able to amend time windows and pallet quantities.

Several key functions are available from this stop orders list, accessed via right-clicking on an order in the list:

- *Unschedule Order* - unschedule the order from this trip.
- *Unschedule Order from Trips* - unschedule the order from all trips.
- *Show Shipment*
- *Transfer Order* - transfer the selected order on the stop onto a different trip (also Job Swap).
- *Find and Replace/Replace* - replace the order with another order.
- *Carry Forward* - this configurable option allows you to select orders and carry them forward to another route on the following schedule.



7.4.2 Trip Detail Tab

The "Trip Detail" tab in this section will allow for resources such as the carrier, the driver and the tractor registration to be allocated against the trip.

You can right-click on the driver and choose to show resource details of the driver, carrier or tractor - a pop-up window will be shown with these details.

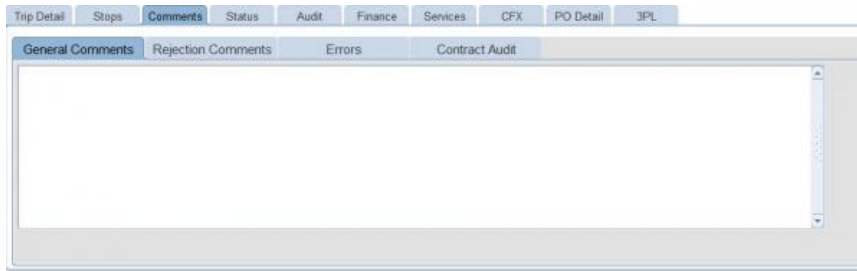
You can also enter the following:

- Seal number - free text entry
- Container no
- Shift Code - with lookup
- Delivery type - The Delivery Type is set from the first order planned against a trip and is triggered automatically. In normal circumstances, this is display only and for information only.
 - ◆ For the NHSBT Scheduling Engine and Fixed Templates processing, this is critical to the adding of orders automatically to these trips.
 - ◆ Note also that for Carriers that are marked as LogiNext enabled (i.e. they are executing tasks through the LogiNext 4PL platform), this can be configured through a system parameter ALLOW_TRP_DEL_TYPE_UPDATE configured per carrier, to allow the Delivery Type to be changed to a curated list, available through a drop-down list. The list will display only those values that have been configured in the decode list for LogiNext use. No manual entry is allowed.
- Route Code - a free text route code. If this trip was created from Paragon or from fixed routes, this will be populated with the route code. See note below.
 - ◆ Route code can also be set to be a lookup item as well as free text - this is controlled through a system parameter LOOKUP_FOR_ROUTE_CODES. In this case, a lookup button will be provided. This lookup will display the 'Route Code', 'Route Name', and 'Trip ID' if a trip already exists for the given Route Code. If multiple trips exist, the first one will be displayed that is in either PLANNED, ACCEPTED, EN-ROUTE state. You can then select a trip, and the route code and description will be set for you against this trip.
- Route Name - a free text field describing the route, for informational purposes.
- Status - the trip status, display only.
- Carrier - the carrier assigned to the trip, and from whom the resources (driver, crew, tractor/trailer/vehicle) will be sourced. You can change this with the lookup button provided.
- Carrier Ref - if this is a third-party carrier, then a carrier reference may have been provided, and is displayed here.
- Crew 1/2 - additional crew.
- PO Number
- ADR Reg
- Full Trailer Load
- Groupage
- Subcontractor

7.4.3 Comments Tab

You can add comments against the trip by right-clicking in the general Comments sub-tab, selecting *Add comments* and entering your text.





To the right of the General comments tab is the Errors tab. This displays the rules that have been broken for this trip, which could include the total time of the trip or a broken delivery window.

You can also view rejection comments and contract auditing from this tab.

Note that any information regarding the tendering, acknowledgement or acceptance of trips and orders for 3rd-party carriers using the LogiNext interface may be displayed here, such as indications when all orders have been acknowledged or accepted.

7.4.4 Status Tab

This tab shows the auditing of the change of status of the trip.

Trip Detail	Stops	Comments	Status	Audit	Finance	Services	CFX	PO Detail	3PL
Action	Trip Status	Carrier	Action Date	Actioned By	TZ Abbr	Manifest Sent			
CREATE	PLANNED		07/03/24 08:08	MTS_OWNER		22-MAY-24 08:45			
MODIFY	PLANNED	LBZ	07/03/24 08:19	MTS_OWNER		Last update 07/06/24 14:48:22			

It also shows whenever a carrier is changed, and who made the change and when, the last change date and whether the manifest has been produced or sent.

7.4.5 Audit Tab

The screen shows detailed auditing information on the changes to the trip here.

Trip Detail	Stops	Comments	Status	Audit	Finance	Services	CFX	PO Detail	3PL
Trip Id	Db Action	Action By	Action Date	Status	Trip Change				
MAN-00000014	INSERT	MTS_OWNER	07/03/24 08:08	PLANNED	Trip inserted				
MAN-00000014	INSERT	MTS_OWNER	07/03/24 08:08	PLANNED	Stop 1 inserted				
MAN-00000014	INSERT	MTS_OWNER	07/03/24 08:08	PLANNED	Stop 2 inserted				
MAN-00000014	MODIFY	MTS_OWNER	07/03/24 08:08	PLANNED	Planned Arrive at stop 1 changed from to 08/03/24 09:02				
MAN-00000014	MODIFY	MTS_OWNER	07/03/24 08:08	PLANNED	Planned Depart at stop 1 changed from to 08/03/24 09:32				
MAN-00000014	MODIFY	MTS_OWNER	07/03/24 08:08	PLANNED	Planned Arrive at stop 2 changed from to 08/03/24 10:00				
MAN-00000014	MODIFY	MTS_OWNER	07/03/24 08:08	PLANNED	Planned Depart at stop 2 changed from to 08/03/24 10:45				
MAN-00000014	MODIFY	MTS_OWNER	07/03/24 08:08	PLANNED	Owning Depot changed from to BRM				
MAN-00000014	INSERT	MTS_OWNER	07/03/24 08:09	PLANNED	Stop 3 inserted				

This enables you to view the history of the trip, showing both who has created and amended the trip. It will also show if the trip has been set to another status, and if it has been deleted.

7.4.6 Finance Tab

The screen displays generated finance (trip cost and revenue from orders) here. Payments and additional costs can be added here.



Trip Detail	Stops	Comments	Status	Audit	Finance	Services	CFX	PO Detail	3PL
Trip Id	Db Action	Action By	Action Date	Status	Trip Change				
MAN-00000014	INSERT	MTS_OWNER	07/03/24 08:08	PLANNED	Trip inserted				
MAN-00000014	INSERT	MTS_OWNER	07/03/24 08:08	PLANNED	Stop 1 inserted				
MAN-00000014	INSERT	MTS_OWNER	07/03/24 08:08	PLANNED	Stop 2 inserted				
MAN-00000014	MODIFY	MTS_OWNER	07/03/24 08:08	PLANNED	Planned Arrive at stop 1 changed from to 08/03/24 09:02				
MAN-00000014	MODIFY	MTS_OWNER	07/03/24 08:08	PLANNED	Planned Depart at stop 1 changed from to 08/03/24 09:32				
MAN-00000014	MODIFY	MTS_OWNER	07/03/24 08:08	PLANNED	Planned Arrive at stop 2 changed from to 08/03/24 10:00				
MAN-00000014	MODIFY	MTS_OWNER	07/03/24 08:08	PLANNED	Planned Depart at stop 2 changed from to 08/03/24 10:45				
MAN-00000014	MODIFY	MTS_OWNER	07/03/24 08:08	PLANNED	Owning Depot changed from to BRM				
MAN-00000014	INSERT	MTS_OWNER	07/03/24 08:09	PLANNED	Stop 3 inserted				

This allows you to see, add or change the costs associated with doing this trip when allocated to a subcontractor. Finance can be studied in more detail within the Contracts Module.

The cost against a trip indicates the amount paid to a subcontractor to carry out the trip. If the trip is being carried out by an own fleet carrier, there is generally no charge. Subcontractor charges can be created automatically from Contracts, in a similar way to Order revenue. The payments are automatically generated when the order is set to Accepted. The revenue displayed is a sum of the revenue generated for the orders being collected on the trip.

The trip revenue displays the sum of the revenue against the orders on the trip.

The Profit Loss fields show the revenue minus the cost. Where there is a loss, the field will be coloured red.

The set up of account charges, is covered fully in the [Accounts](#) module. This section will show you how to allocate a cost to a [trip](#) within the [trip manipulation](#) or Planning screen after all the set-up has taken place.

There are two ways that the cost of a [trip](#) can be allocated. These are either manually, or automatically, both of which are covered below.

To allocate a cost automatically (assuming that rates and contracts have been set up), all you need to do is to allocate the relevant [carrier](#) to the [trip](#) in question, recalculate the trips times and then set the trip status to "TENDERED". You should then select the "Finance" tab from within the trip detail section of the screen. You should notice that the cost of the trip has been automatically assigned to the trip below. In this example the cost of £100 has been allocated to the trip.

This automation has been possible because a contract and rate matrix have been set up for this carrier. If you do not have this set up, you are still able to enter a cost against the trip, but again the relevant set-up must have taken place beforehand. To do this, select your trip and allocate the relevant carrier to that trip. Re-calculate times of the trip and save your changes. Next, switch to the finance tab and press the ?Payments? button. This will bring up the "payments for trip" screen which details all the payments that have been allocated to the trip so far. At this point this screen will be empty as you have not entered any payments yet.



To enter a payment press the **New** button at the bottom of the screen. This will take you into the "Create payment" screen.

First enter the payment type. This will usually be "Trip haul ma" (as in the example below), but may also be payments such as fuel surcharge. Next, enter the cost of using the selected carrier for doing this trip (the example below has a cost of £100 entered). Lastly enter the status of the payment as "forecast".



Once you have entered those three pieces of information you can press the **OK** button to create the payment. This will take you back to the "Payment for trip" screen where you will see your newly created payment. When you close this screen you will see the payment assigned to the trip. If you want to add further payments against the same trip, you will simply need to repeat the process detailed above. If you chose to add a manual payment, the system will no longer calculate the cost from contract, recognizing that you have chosen to overrule the cost.

7.4.7 Services Tab

This tab allows you to see, create, amend and delete any trip services.

Service Id	Name	Qty	Value	Total	Inherited

These are additional costs accrued against a trip from the carrier.

The buttons below are available:

- **Save** - save any changes you have made.
- **New** - create a new service in the table - you enter the details there.
- **Edit** - edit a selected line
- **Delete** - delete a selected line.

7.4.8 CFX Tab

This tab shows specific CFX interface parameters.



7.4.9 PO Detail tab

This tab allows POs to be entered against a trip. See [Purchase Orders](#) for more information on this process.

7.4.10 3PL Tab

When a carrier is known, the carrier may simply be selected for the trip created for these orders. If the carrier is not known or multiple carriers exist, you can ask the system to select the best 3PC for the trip.

To use this functionality:

Enter the carrier of the trip as "3PL" and click **Save**.

The system will calculate the charges for each carrier specifically and compare costs, selecting the best. The calculated charges from the carriers will be specified in the audit trail, and the total charges are displayed in this 3PL tab in this section.

7.5 Order Well Section

This section can be found at the bottom of the screen, and it displays orders that have not yet been allocated to trips. You are also able to create new orders or cancel existing orders here.

The order well will display only orders that match your user's depot (BASED_AT) parameter (if you are a planner for a single depot), or all trips if your user is configured to see all depots (a control tower-style configuration set by using the ALL_DEPOTS user parameter).

Each line within this Order Well shows you the header information for an unscheduled order. The order ID is a unique sequential number allocated to an order at the time of its creation. The customer reference is an optional field on the



order that is often populated when orders are imported into C-TMS. This is because you tend to import your orders from another system that will have its own reference number. You can however, input this reference number manually straight into C-TMS.

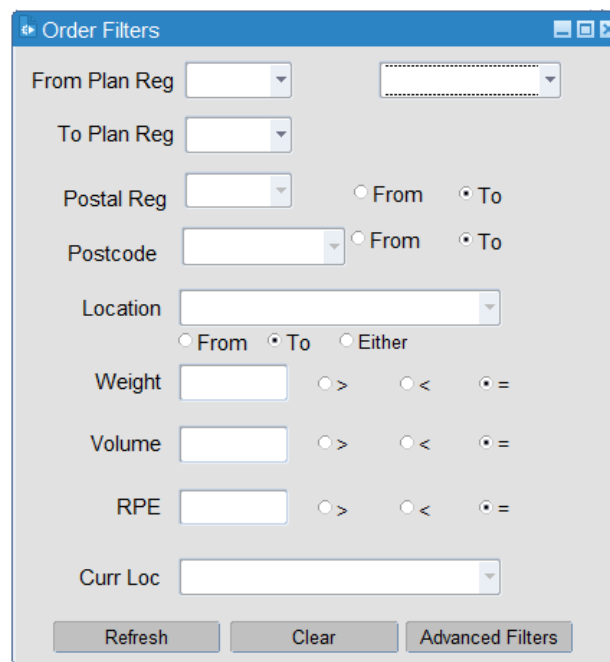
You can also see where the order is being collected from and where it is being delivered to. You will also see the region code for that order. This will typically relate to the first two alpha characters of the locations' postcodes so that the planner has an idea of its location. Next to the region code is the 4 time windows that make up the collection and delivery window. Lastly, you can see the weight, volume and RPE that relate to the quantity of goods that are being moved for that order.

 **Note:** Emergency orders are shown in red and will always be at the top.

You can change the layout of the field in this section and filter by many attributes.

You can add a new transport order using the **New Order** button from this section - you will be taken to the [New Order](#) form to enter the details.

There are several filter options relating to the unscheduled order well section, so that when the planner is undertaking the planning, they are able to narrow their search to particular order types.



The "Schedule selector" can be used to change the set of orders that the order well is showing you. This is a separate filter from the schedule filter found in the trip tree section of the trip manipulation screen. This means that you are able to drag orders from previous or later schedules onto trips that belong to this schedule.

You can access additional order filters using the **Order Filters** button.

The Planning Region filter allows you to select the Planning Region from/to that the orders have been assigned to. Orders are assigned to planning regions automatically based on their postcode and postal area.

The Postal Region Filter relates to the first two alpha characters of the postcode for a location on the order. This can either be the collection or the delivery location of the order, depending on whether the ?From? or the ?To? check box is selected. Choose whether you are interested in the collection point ("from") or the destination point ("to"), and select the relevant box. The drop-down box will now show all the region codes that relate to your chosen location point against each order. Selecting one of these will filter out locations that do not have the region code you have selected (i.e. you are left with orders that are delivering or collecting from your chosen region code).

There is also a filter to find orders that have specific trailer type requirements.

The Location Filter relates to the order Collection from location, Delivery to location, or both. This is dictated by the check boxes to the right of the location drop-down box. By selecting the "From" check box, the locations within the drop-down box will relate to the collect from locations within the orders listed in the unscheduled order well. If you then selected one



of those locations from the list, the unscheduled order well would filter out any locations that didn't have your chosen "from" location as their collection point. Conversely, selecting the "To" check box will display the delivery locations within the well, and selecting one will filter out any locations that don't deliver to your specified location. The "Either" check box allows you to see and filter both the collection and delivery locations of the order.

The Weight, Volume and RPE filters all work in the same way. They allow you to filter out orders via the weight, volume or pallets associated with each order in the unscheduled orders well. Selecting the ">" check box and entering a figure in the associated box, will filter out any orders that have less weight, volume or pallets than your specified figure. The "<" check box will give you the opposite result. The "=" check box will keep any orders that have that exact figure on their order as you have keyed into the relevant search box.

There is also a filter on Current location - this allows you to select orders based on where they have been planned up to. So an order that has been planned from the from location FROM 1 to RDC1 (on the way to location TO1) will be found if you search for the current location "RDC1".

You can right-click on orders here to access many key features.

- *Configure Layout*
- *Refresh*
- *Apply to Trip*
- *Send to Paragon*
- *Apply to Stops*
- *Apply via X-Dock Locations*
- *Create One Order Trips*
- *Create One Order Trips and Brief*
- *Create New Trip*
- *Add Order to Milk Round*
- *Move to Schedule* - You can use this to carry forward orders onto another schedule.
- *Edit*
- *Find External Reference*
- *Amend Day Offset*
- *Amend Values* - You can amend an unscheduled orders booking ref, planned DU quantity or latest delivery through this option.
- *Cancel Order*
- *View Order Locations*
- *Show Volumetric Information*
- *Set Order to On Hold*
- *Suggest Trip* - This option will search for planned, accepted or en-route trips where the from and to locations of the order are present, where the stops have not been arrived at yet, and where the collection and delivery windows of the order match up to the stop arrival and departure windows. 💡 **Note:** This will IMMEDIATELY plan the order onto the first trip it finds with that location on it. This option will only suggest trips on cost centres that have been configured for this functionality through a system parameter - see [Further Configuration](#) for more details.
- *Reset Auto-Scheduling* - This configurable option allows you to select orders that have been marked for Manual Planning and reset that flag, so that they can be processed by the scheduling engine again.
- *Carry Forward* - This configurable option allows you to select orders and carry them forward to another route on the following schedule.

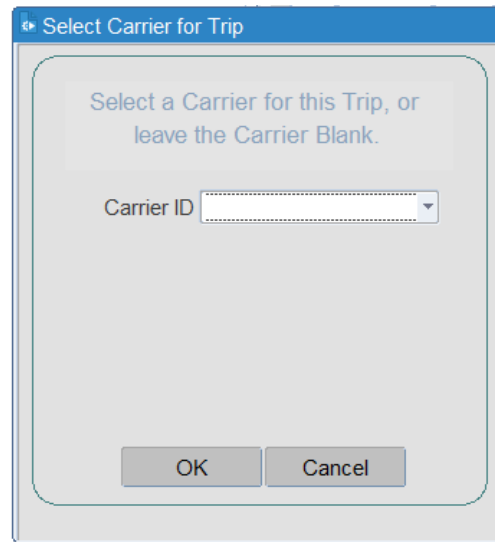
7.6 Key Functions

7.6.1 Create New Trip

Once you have a set of orders ready to plan, you can start to put them onto trips. Select one of your unscheduled orders from the unscheduled orders well by left-clicking onto it. Now right-click on the order and choose the *Create New Trip* option. Note that you can multi-select orders from the well by holding down the SHIFT or CTRL keys when clicking.

After you have selected the *Create New trip* option, a pop-up window will appear asking you to select a carrier.





Using the drop-down list, select the required carrier.  **Note:** For subsequent trips, the carrier ID will default to the previously selected carrier - you can change the carrier if required by reselecting using the drop-down list.

The order will now disappear from the unscheduled order well, as it is now scheduled onto a trip, and the new trip will be visible (and selected) in the trip tree.

The trip you have just created will be the one highlighted in blue in the trip tree section of the screen. The detail section of the screen will relate to your new trip. You will see that C-TMS has worked out the arrival and departure times for each of your stops on the trip. This has been driven by your collection and delivery windows for your order. C-TMS will try and meet the windows, getting to the delivery location as early as is feasible at the start of the delivery window.

C-TMS will then work backwards / forwards from this time to work out the arrival and departure times at the depot on the first and final stops. The drive time and distance are worked out from the network table that sits behind the trip manipulation screen. The network table keeps a record of the distance and drive time between every location and uses the applicable record when calculating times and distance on a trip.

You will also notice that at each stop, C-TMS has allocated a stop time. This can be worked out by looking at the difference between the planned arrival and planned departure times at each stop. This time will have been taken from the loading / unloading rates allocated to each location within the location maintenance screen. It may also include a break time if the driver has reached the designated limit (usually 4.5 hours drive time, but configurable against the carrier).

If you click on the detail tab within the trip detail section of the screen, you will see that the carrier has been allocated to your trip. You can change the carrier by clicking on the carrier button and selecting it from a list (this will be covered in more detail within the resource allocation section module).

7.6.2 Assign Resources

Within the Planning form, it is possible to assign resources to a Trip.

Once you have created a trip, you will then be able to allocate different resources to it. These include the carrier, the driver, the tractor registration, the trailer type and the trailer ID.

A Carrier can be selected from a list of valid Carriers. This is done by pressing the button to the right of the carrier name box, which activates the lookup. This will list all the carriers available for selection. If your intended carrier does not appear here, you will first need to set it up from within the resources maintenance screen.

When you have found the required carrier, you can either double click on its name, or left-click once to highlight it and press the **OK** button. You should then notice that your selected carrier's ID has been populated in the relevant box on the trip.

It is then possible to populate a Driver (and optionally 2 crew members), Vehicle and Trailer Id. Depending on the set-up of the carrier (i.e. Fleet or Haulier) these values will either be selected from a list or entered as free text. If a Haulier is being used, the details of all resources will not be stored in C-TMS, so they will need to be entered manually. If selecting



from a list, the list will be restricted to those resources that are available to the Carrier that is assigned to the Trip.

How you assign fixed driver, crew, tractor and Trailer resources like this can vary depending on configuration.

- Simple - just select from a drop-down list of all available resources.
- If the resource diary has been maintained and the tractors/trailers are all fixed, then this can be done through the resource diary allocation.

7.6.2.1 Simple Resource Allocation

Adding a Driver's name - After selecting the required trip from the trip tree section, click on the Trip Detail tab within the trip detail section of the screen. Within this tab, you will see that there is a Driver section.

If the driver name box has a white background, then the population of this field will be free-text. This means that you are able to type the driver's name straight into the box.

If the box has a grey background, then the population of this field is via a pre-set driver list. The type of entry is dependent on the way that the carrier you have selected is set up in resource maintenance.

If the name box has a grey background, then by pressing the button to the right of the Driver name box, this activates the lookup, and a list of all the drivers available for selection would appear. If your intended driver does not appear here, that driver has either not yet been set-up, or the driver is not allocated to that carrier. As part of the driver set-up (covered in the resources Module) you will see that each driver is allocated to a particular carrier, so if you select that carrier on a trip, the drivers selectable will only include those that have been allocated to that carrier.

When you have found the required driver, you can either double click on their name, or left-click once to highlight it and press the **OK** button. You should then notice that your selected Driver name has been populated in the relevant box on the trip.

Adding a Tractor Unit - After selecting the required trip from the trip tree section, click on the "trip detail" tab within the trip detail section of the screen. Within this tab you will see that there is a Vehicle section. It is within this section that you are able to record the tractor registration number of that trip. If the vehicle box has a white background, then the population of this field will be free-text. This means that you are able to type the tractor registration straight into the box. If the box has a grey background, then the population of this field is via a pre-set vehicle registration list. The type of entry is dependent on the way that the vehicle you have selected has been set up in resource maintenance.

This is done by pressing the button to the right of the Vehicle box, which activates the find box. This will list all the vehicle registrations available for selection. If your intended vehicle registration does not appear here, that registration has either not yet been set-up, or the vehicle is not allocated to that carrier. As part of the vehicle set-up (covered in the resources Module) you will see that each vehicle is allocated to a particular carrier, so if you select that carrier on a trip, the vehicle registrations selectable will only include those that have been allocated to that carrier. When you have found the required vehicle registration, you can either double click on the relevant registration, or left-click once to highlight it and press the **OK** button. You should then notice that your selected vehicle registration name has been populated in the relevant box on the trip.

Adding a Trailer Type - The trailer type is selectable from the main trip stops tab of the trip manipulation screen, rather than from the trip detail tab as with the carrier, driver and tractor unit.

Select the trip that you want to allocate a trailer type to from the trip tree section of trip manipulation. You may notice that the trailer type for this trip has been pre-populated for you by C-TMS. When you create a trip, C-TMS will look for the most appropriate trailer type for your trip, taking into account the trailers based at the depot and the number of pallets to be moved. This process will have taken place at the time of the trip's creation.

Right-click on the blank trailer type box of the first stop. This will bring up a menu. From this menu, select the *Assign Trailer Type* option. This in turn will provide you with an entry box.

If you know the trailer type ID, you can enter it straight into the Trailer type box and press the **OK** button. Otherwise, type in a percent symbol ("%") into the Trailer type box. Pressing the **OK** button in this instance will provide the find box, which



will list all the trailer types available for selection. Select the trailer type from the list and press the **OK** button. Your trailer type will populate the trailer type field and you will now be able to press the **OK** button. You will then see that the trailer type you selected has been allocated to the trip.

You are able to add a different trailer type for different stops on the trip (these must be for subsequent collections, rather than stops serviced from the collection picked up at stop one). Simply repeat the process outlined above, but starting off by right-clicking on the desired stop number rather than the first stop. This will effectively change the trailer type for that stop and all subsequent stops after it.

Adding a Trailer ID - The trailer ID is selectable in exactly the same way as the trailer type above.

7.6.2.2 Allocate Resources (Diary)

The Allocate Resources (Diary) screen is accessible via the **Alloc Resource** button in the PLANNED and ACCEPTED sections of the [Trip Overview](#) screen and through the Planning screen.

In order for this functionality to be available, the system parameter RES_AVAILABILITY_ALLOC must be set to "Y" for the applicable cost centre - you can use the [System Parameters](#) screen to do this.

From the Waterfall screen, select a trip from the well, that you want to allocate resources to, then click the **Alloc Resource** button.

From the Planning screen, select to resource a driver, tractor or trailer against a trip or trip stop.

The screen below will be displayed:

The screenshot shows the 'Allocate Resources' window with the following details:

- Schedule:** 240409
- Trip Id:** TMP-00001271
- Trip Start:** 09-APR-2024 04:09:00
- Trip End:** 09-APR-2024 07:06:00
- Carrier Id:** 930
- Status:** PLANNED
- Vehicle Type:** DEL_TMP
- Shift Code:**
- Driver:** Murphy, Dominic
- Vehicle:** AB74XYZ
- Trip Stop:** 1

Below the details are two tables for resource allocation:

Driver Id	Surname	Forename	Hrs/14dys	Shift Start	Shift End	Aval From	Aval To
34	Corbin	Mark	0	09/04/24 06:00	09/04/24 14:00		
40	Gasson	Dale	0				
39	Foster	Gemma	0				
1	Murphy	Dominic	0	09/04/24 06:00	09/04/24 14:00	09/04/24 07:06	09/04/24 14:00

Vehicle	Type	Aval From	Aval To
AB74XYZ	DEL_TMP	09/04/24 07:06	09/04/24 23:59

Buttons at the bottom include: Assign Driver, Remove Driver, Driver Diary Exceptions, Assign Vehicle, Remove Vehicle, Vehicle Diary Exceptions, Remove All, Save, Cancel, Close, and Add Resource.

Note: All fields on the driver and vehicle part can be sorted by clicking on the button above that column.

The Drivers and Vehicles that appear in the bottom of the screen are those available to be allocated to the current trip.

Only Drivers and Vehicles linked to the Carrier assigned to the trip are available for selection.

If a Trailer Type has already been assigned to the trip then only Vehicles of that Trailer Type are available for selection. Only Drivers that can drive that Trailer Type will be available for selection.



If no Trailer Type has been assigned, then all Drivers and Vehicles will be available.

See the [Resources](#) screen for the set up of these links.

You can filter drivers and vehicles using the filters above each panel, and then clicking the ? button to the right.

The screen displays the availability of the drivers, based on their assigned shifts and resource diary. If the driver has been assigned to another trip, this will be accounted for in the availability.

The screen displays the availability of the vehicles, based on their assigned trips and VOR/Inactive status.

RAG colouration is applied to make it easy to see which drivers and vehicles are available.

- GREEN - available
- RED - unavailable for any of the reasons above.

The Driver column marked Hrs/14dys is an indication of the hours the driver has worked in the last 14 days, allowing you to take into account a driver working too many hours.

The currently allocated driver and vehicle are displayed in the top of the screen, and darkened in the driver and vehicles lists.

If a Trailer Type has not been assigned, this can be done using the **V** lookup button next to that field in the header.

Those resources that are currently in use between the trips start time and finish time are high-lighted in grey to show the user they are currently in use, although they can still be allocated.

To assign a resource, select it from the list and click the associated **Assign ...** button. When assigned, the name/id will appear in the header. Use the **Remove ...** button if a resource needs to be removed.

You can remove all resources applied to the trip using the **Remove All** button provided.

You can view the resource availability in detail using the **... Diary Exceptions** buttons provided.

Activity	Start	Finish	Duration	Created Date
TMP-00001271	09/04/2024 04:09	09/04/2024 07:06	00:02:57	19-APR-2024

Note: When you add the last resource for this carrier, the screen will warn you of this in a pop-up.



Whilst in this screen, you may need to add or change a resource to make them available for the trip. You can do this by clicking on the **Add Resource** button - you will be taken to the **Resources** maintenance screen.

Once happy that resources have been added, click **Save**. If during a **Save**, all resources have been added to a PLANNED trip, the system will automatically update the trip status to ACCEPTED.

7.6.3 Apply to Trip/Apply to Stop

Allows any Unscheduled **Orders** on that Schedule to be applied to a new or existing **Trip**.

Once you have created a trip, you may want to add further orders to the same trip. To do this, select the trip you want to add orders to (if not already selected), and highlight the unscheduled order (or orders) you want to add to that trip. Right-clicking on that order will cause a menu to pop up where you should click on the *Apply to Trip* option.

Once you have done this you will see that your order has jumped onto the selected trip and disappeared from the unscheduled order well. Notice that only one stop has been added as the order was collected from a location already on the trip.

By default, an Order will be automatically applied to what the system believes to be the most appropriate stops.

It is also possible to apply an Order to a specific pair of stops to reduce the need for manual manipulation. When multiple orders are being applied to a **trip**, the system will try to minimise the number of stops required by selecting the largest trailer type available.

7.6.4 Revalidate Trip

Performs validation checks on the selected **Trip** to ensure that the **trip** is valid and feasible. If the **trip** breaks any validation rules these will be reported back to the user.

These checks include:

- Ensure that the **trip** has at least 1 load and unload activity and these activities are in the correct order.
- Ensures that the **trip** complies with driving regulations such as Driver's Breaks.
- Checks whether the **Trip** will deliver within the delivery windows of the **Orders**.
- Ensures that a valid Trailer Type is assigned to the **Trip**. If a Trailer has been 'fixed' onto a **Trip** (see Fixed Routes for more details) it will not be overwritten.

7.6.5 Recalculate Distance and Time

Allows the times on a **Trip** to be recalculated, wait times will be optimised and Driver's Breaks included (this can include an overnight stopover), all departure times will be made unique. This may result in Delivery windows being breached, however, these failures will be reported during **Trip** Validation.

7.6.6 Set Trip Status

The trip status is a way of signifying to the operation just what stage the trip is at.

Typically this follows the process as below:

PLANNED -> TENDERED (optional) -> ACCEPTED -> EN-ROUTE - . COMPLETE -> CONFIRMED (Optional).



A status of planned will signify that the trip is still being looked at by the planner and the trip is yet to be finalised. Planned is the status that is allocated to the trip when it is first created.

When the planner is happy with the trip, they will set the trip to accepted to signify this fact.

Alternatively, they may set it to Tendered to show that the trip has been tendered out to a different carrier, and they are waiting for the carrier to accept or decline that piece of work (if the carrier has accepted the piece of work, the planner will then set the trip to accepted). Note that some interfaces to 3rd/4th party carriers will automatically change the status from TENDERED to ACCEPTED (such as LogiNext 4PL interfaces)

When the driver has left the site with their trip, operations will tend to set the trip to EN-ROUTE. Note that certain Electronic POD systems will automatically handle this change of status (such as Aptean POD systems and LogiNext 4PL interfaces), as will use of Calidus MCS Despatch.

After the driver has returned and the trip has been debriefed within the trip debrief screen, the trip status will be changed to complete. Note that certain Electronic POD systems will automatically handle this change of status (such as Aptean POD systems and LogiNext 4PL interfaces), as will use of Calidus MCS Receipt.

Confirmed status may be used for any other purpose that your operation needs, such as to mark as dealt with for Invoicing, etc.

Setting the status of the trip is simple. Highlight your trip within the trip tree section of the screen, and then right-click on it. This brings up a menu list where you should select *Set Status*, followed by the status that you want to set the trip to.

C-TMS will ask you a question, making sure you want to change the status of the trip, to which you reply **OK**. The system will check whether there are any dependencies on changing the status to the selected value (such as resources allocated when changing to Accepted status). You will then notice the status of the trip change to accepted within the trip tree section of the screen.

7.6.7 Manipulating a Trip

Once you have added your orders to a trip, you may then want to change the trip around somewhat. You will be able to manoeuvre stops around, change order details, override C-TMS-derived stop times, split trips into two separate trips, merge trips together, and remove stops on existing trips.

7.6.7.1 Manoeuvre Stops

You are able to move a stop up and down the stop order by using the move up **^** and down **v** buttons found at the top of the Trip Detail section.

Simply highlight the stop you want to move and press the relevant move button. C-TMS will not let you move the order's delivery above the order's collection, which is logical as you cannot deliver an order before you have collected it.

It may not always be feasible to move stops, in which case C-TMS will warn you if delivery windows will be missed.

7.6.7.2 Merge Trip

Most people use Trip manipulation to track their drivers' workload. Once they have scheduled all their orders onto single trips, they are likely to start looking for trips to put together to create multiple "gate exit" trips. So a driver may go out and do a delivery, come back to base before collecting a further load for delivery. These two gate exits are likely to be represented originally by two separate trips in C-TMS. So you will need to use the merge functionality within C-TMS to bring those two trips together.

To do this, highlight the first trip you want to merge by left-clicking on it within the trip tree section of the screen. You will then need to hold down the CTRL key on your computer keyboard, and while you are doing this, left-click on the second trip that you want to merge (again from within the trip tree section of the screen). You will notice that the result of your actions are that both trips are highlighted within the trip tree. You will now need to right-click on one of your two trips in the trip tree to bring up the options menu.

Select the *Merge Trips* option. You will receive a confirmation message telling you that the merge you undertook was successful. One of your trips will have been deleted, and the orders that were on that trip have been moved onto the other trip. C-TMS will have recalculated the times automatically for you.



Two configurable system options are now possible for this function. Either duplicate Stops will be removed and stops will be combined together where possible, or Stops will be appended on to the end of the resulting trip.

7.6.7.3 Split Trip

If you have merged two separate "gate exit" trips together, but later want to reverse that merge, or you have a large over-capacity trip that you want to split, or a time-limited resource problem to solve, you will be able to utilise the split functionality.

The split functionality will split one trip into two separate trips.

Select the trip that you want to split by left-clicking on the trip within the trip tree section of the screen. You will first need to expand the trip within the trip tree so that all its trip stops are showing. To do this, you will need to press the small **+** button to the left of the trip. If there is not a small **+** next to your trip, press the **Refresh Trip** button. Once you have expanded the trip, you will need to select the stop where you want the split to take place by left-clicking on it. The split will take place above the stop you select.

Select *Split Trip* to activate the split trip functionality. You will be confronted with a message box telling you that you that split has been successful and that a second trip has been created for you. You will also notice that the trip does not appear to have changed. This is because C-TMS has not refreshed the screen, so you will need to do it. Press the **Refresh Tree** button to update all the trips with the trip tree. You should now notice the effect of the split functionality.

Each Trip will then be validated to ensure that it has the relevant SU and CL activities.

7.6.7.4 Delete Trip

If a **trip** is no longer required, it can be deleted. The trip will remain on the database with a status of deleted, the stops will be removed and the **Orders** set back to **Unscheduled**.

7.6.7.5 Insert Stop

Allows a new stop to be manually added to a **Trip** after the selected Stop, an Activity Type, Location and Trailer Type are required.

Specific stops may be added to trips as a manual task. This will then allow orders to be added to the trip, with the load and unload at the required part of the trip.

Select a stop, then right-click in the Stops and choose *Insert Stop*.

This will display a pop-up screen where the details of the new stop are specified, including where the stop is to be added (the stop number) and the stop (PK, DL). You must also select the location, using a lookup if required.

7.6.7.6 Append Stop

Allows a stop to be appended to the end of a **Trip**, an Activity Type, Location and Trailer Type are required.

This works in the same way as Insert Stop above, but automatically assumes that the stop will be after the final stop on the trip.



7.6.7.7 Move Stop

Moves the currently selected stop. You will be asked where the stop will be moved on this trip, before/after a specific stop number. Clicking **OK** will confirm the movement and this will be reflected on the stops tab. Clicking **Cancel** will cancel the move.

7.6.7.8 Overriding Stop Times

C-TMS will work out the times against each stop on your trip for you. If for some reason you want to change these times against the trip, you can do this using the "Fixed" functionality.

The first column in the Trip Detail section of the screen is headed "Fixed". Clicking in a fixed box puts a tick in that box and has effectively fixed the stop, meaning that C-TMS will not recalculate that stops times.

So if you wanted to change the times on the first stop of a trip to start a driver at a later time than C-TMS had allocated, click in the first stop's "Fixed" box. Then change both the planned arrival and planned departure times for this stop.

Clicking on the **Recalculate** button will leave the first stop's times to how they have been set by you, but change the subsequent stops to reflect the driver's new start time.

 **Note:** You are able to fix more than one stop on the trip, but you are unable to effectively fix a stop in the middle of a trip without fixing all previous stops.

When you do forcibly change the stop time of a trip, you may notice that you receive a warning message detailing windows that have been broken. Because you are overriding the times on the order, you may well have broken one of the windows on that order. Drill down into the order in question to find out the details, for example, by how much you have broken the window.

7.6.8 Removing Order(s)

If you need to remove an order from a trip, there are two ways of doing it. The first involves deleting an entire stop and all of its orders from the trip, and the second is a little more subtle, where you are able to remove a single order at a time.

7.6.8.1 Delete Stop

Allows a stop to be deleted from a **Trip**, any **Orders** at that Stop will be **Unscheduled**.

To use the "Delete stop" functionality, highlight the stop you want to delete from within the trip detail section of the screen. Right-click on that stop and select the *Delete Stop* option from the menu.

C-TMS will ask if you are sure you want to delete the stop to which you press the **OK** button. You will notice that the stop has been deleted from the trip. The order(s) you have removed from the trip may not at first appear within the unscheduled order well at the bottom. To see the order, press the **Refresh** button within the **Order Filters** pop-up on the unscheduled order well section.

7.6.8.2 Unschedule Orders

You can also achieve similar results by using the Unschedule Orders functionality. This way will allow you to remove single orders at a time from a stop. To do this, highlight the trip that you want to remove the order from, by clicking on it from within the trip tree section of the trip manipulation screen. You will then need to highlight the stop on the trip that contains the order you want to remove (remember that the order will be present at two stops on the trip, both where the order is collected and where the order is delivered). Next, press the **Orders** button and highlight the order that you want taking off the trip.

Now right-click on that order and select the *Unschedule Order* option. You will be given confirmation that your order was removed successfully, and the order will drop-down into the unscheduled order well automatically.

7.6.9 Change Order Details (whilst on a trip)

You can change an order's planned pallet quantities or order time windows whilst the order is on a trip. This will often be the case when you have added multiple orders to a trip, only to find that because of previous stops on the trip, your order



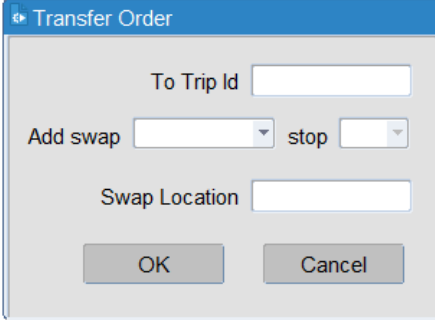
will be arriving late. Also, if you have planned to squeeze 27 pallets onto a trailer that has the capacity to support only 26 pallets, then you may also want to make changes to the pallet quantities.

Select the stop that the order is either collected from, or delivered to, and click the **Orders** button. Then double click on the order from within the pop-up. This opens the order details form, where you are able to edit pallet quantities or time windows accordingly.

 **Note:** If you try to edit the order but C-TMS does not allow you to, this will be because of your access level. These have been set up by your system administrator.

7.6.10 Transfer Order(s)

You can transfer an order from a trip stop or all orders on a trip stop.



The 'Transfer Order' dialog box contains the following fields and buttons:

- To Trip Id**: A text input field.
- Add swap**: A dropdown menu.
- stop**: A dropdown menu.
- Swap Location**: A text input field.
- OK** and **Cancel**: Two buttons at the bottom.

You will be asked to select the trip onto which you want to transfer the order or orders. A lookup of available trips is provided, with information to help you decide which trip to select.

- Trip ID
- Trip Status
- Route Number.
- Route Description.
- Trip departure time.
- RPE on departure.
- Number of stops.
- Trip completion time.
- Last non-RDC stop departure time.

You must also identify a swap transfer point if you are only transferring the delivery of the order. You can identify the stop and whether the swap should be before or after the stop you identified. If you are transferring the collection, this is not required.

The position of the new load in the swap trip is identified by defining AFTER or BEFORE an existing stop on the swap trip. The swap location selected must exist in C-TMS to be selected as a swap location. You may manually create locations.

Selecting OK will complete the following changes:

- **Original Trip** - The order is unloaded at the new swap location. If the trip does not currently have a stop at the swap location, a new stop will be created. The new stop will be inserted after the last stop to be debriefed. Checks will ensure the new stop is not inserted before the stop on which the order is loaded.
- **Swap Trip** - If the swap or unload location do not exist on the trip, 2 new stops will be created. The swap location will be created in the position as defined in the screen above and the unload location will be added to the end of the trip. The unload location will be set to the same unload location on the original trip.

7.6.11 Move to Schedule

You can use this to carry forward orders onto another schedule.

You can select multiple orders using the CTRL or SHIFT keys when clicking on orders in the order well.



You will be prompted for confirmation, and then prompted on to which schedule you want to move the order, selected from a drop-down list.

The system will then automatically refresh the order well, at which point your updated orders may well be removed from the order well for the schedule selected (depending on your selection criteria of course).

Note that this will not change the orders' collection and delivery windows - this option just changes the schedule. You may then want to change the order's windows through the [New Order](#) screen.

7.6.12 Carry Forward

This configurable option allows you to select orders and carry them forward to another route on the following schedule.

You will be prompted to select a route or trip from the next available schedule.

The screen will display a list of all routes that are available in the system (provided you have access), indicating whether a trip has already been created for that route on the schedule.

Route Code	Route Days	Carrier	Trip	Schedule	No of Orders	No of Tyres
BHCOL	0111110	962	DSK-00000100	250417	1	0
BH01N	0111110	962			0	0
BH01P	0111110	962			0	0
BH02A	0111110	962			0	0
BH02P	0111110	962			0	0
BH03N	0111110	962			0	0
BH03P	0111110	962			0	0
BH04A	0111110	962			0	0
BH04P	0111110	962			0	0
BH05P	0111110	962			0	0
BH06P	0111110	962			0	0
BH07P	0111110	962			0	0
BH08P	0111110	962			0	0
BH09P	0111110	962			0	0
BH10P	0111110	962			0	0

The information displayed is:

- Route Information:
 - ◆ Route Code
 - ◆ Route Days - the days that the route is active, from Sunday to Monday
 - ◆ Carrier
- Trip information (if there is a trip created for that route):
 - ◆ Trip
 - ◆ Schedule
 - ◆ No of Orders
 - ◆ No of Tyres

You can filter by partial carrier or route code, then click the **Search** button to filter the list.

When selected and confirmed with the **Save** button, this will add the selected order to the selected trip, or create a new trip for that order from the selected route.

If the order was already planned on to a trip, this order will be moved.

7.6.13 Amending Order Values

You can amend an unscheduled orders booking ref, planned DU quantity or latest delivery by highlighting the required order in the order well, right-clicking and selecting *Amend Values*. This will display a pop-up screen where you can do the following:

- Amend the details - save with the **OK** button.



- Create a trip for the unscheduled order with the **Create Trip** button.
- Cancel any changes with the **Cancel** button.

7.6.14 Creating Trips via Crossdocks

This is functionality within C-TMS that will allow you to create multiple trips with one order. You are therefore able to emulate a collection at point "A", a delivery at point "B", via a crossdock at point "C".

The first thing you need to make sure of is that the location ID you are to use as a crossdock has been set up as such within the Maintenance business data screen. The Location Types tab within this screen enables you to set certain locations up as crossdocks. This should be set up by a superuser or a system administrator.

To create your crossdocked trips from within the trip manipulation screen, highlight the order you want to use from within the unscheduled order well. Now right-click on the same order to bring up the menu box, and select the *Apply via x-dock locations* option.

This will cause a new screen to appear titled "X-Dock Order".

This screen will enable you to create the first legs of your crossdocked trips. The final leg will then be created back in the trip manipulation screen as normal.

The top box within this screen provides header information for the order you are to crossdock. This includes the original collection point and the final destination point. The box below it allows you to list the locations that this order will be crossdocked via. If a further crossdock location is required, press the ?New? button and enter a second crossdock location ID in the row below.

The "New Trip?" box should be ticked if this crossdock trip is to be added to a new trip rather than a pre-existing one. If you are adding this to an existing trip, un-tick the box and enter the C-TMS trip number into the "Trip id" box.

When you have entered all the required crossdock locations, press the **OK** button. This will prompt C-TMS to create all the trips that you have requested via the "X-Dock Order" screen. The final leg of the trip, the one that delivers the goods to the final destination, is still to be created. You will still be able to see the order you have used to create your crossdock legs within the unscheduled order well at the bottom of the trip manipulation screen with a status SCHED-COLL, indicating the collection has been scheduled but not the delivery. Select the order and create a new trip from it. This will mean that all legs of the trip have been created and are available from within the trip tree section of the screen.

7.6.15 Pass a Depot Trip to Another Depot or Carrier

It may be that a lack of resources means that your depot may not be able to complete a trip. In that case, you can pass your trip on to another carrier. This may be another of your internal fleet carriers or a third-party carrier (3PC). To do this:

- Select the trip in the trip tree.



- Go to the Trip Details tab.
- Change the Carrier to the new carrier - select it from a list of available carriers.

New SU and DL stops at the new carrier location will be added to the trip.

7.6.16 Change a Driver on a Trip

It may be that drivers change after execution has started, perhaps due to sickness. In this case, you may not want to change the driver allocation (which might require resending manifests to third parties, execution systems like C-ePOD or APOD, etc). In this case, if you just want to record the changed driver, you can use the crew to record this:

- Retain the existing driver on the trip.
- Add the name of the new driver in to the Crew field on the trip detail tab.
- Select the comments tab and edit comments to record the stop where the driver was changed.

7.7 Notes

7.7.1 Distance and Fuel Units

Please note that distance and fuel units, displayed throughout C-TMS, but specifically on the Planning form, are now controlled within C-TMS via 2 system parameters: GEO_DT_DISTANCE_UNITS and RES_DT_FUEL_UNITS. These are initially set up to only be edited by your implementation team. They will default to "Miles" and "Litres" respectively if the operation does not request alternative units such as Kilometres and Gallons.

It is assumed that any external system to C-TMS will be configured by to pass data using the correct units.

7.7.2 Break Times

Within C-TMS, when calculating the planned stop times, the system takes into account the legal driver regulations as regards the regular breaks and overnight stops.

This includes an overnight break (stopover or layover) once the driver has exceeded his maximum number of working hours for a day.

The data used within this calculation is configurable at the carrier level.

- Trip Threshold Hours
- Standard Shift Hours
- Overtime Factor
- Work Break Threshold (Hrs)
- Work Break Threshold (Mins)
- Stopover Threshold (Hrs)
- Stopover Threshold (Mins)
- Stopover Duration (Mins)
- Max Shift Hours
- Standard Factor
- Driver Break Threshold (Hrs)
- Driver Break Threshold (Mins)

If not specifically set for the carrier, then the values will default to the database-level system parameters.

- TRM_APPLY_DRIVER_BREAK_RULES - This can be used to switch off this functionality altogether
- TRM_MAX_DRIVING_HOURS - This can be used to default the maximum driving hours for a driver (within a shift) when it has not been specified at the carrier level. This value is compared against the total driving hours for each trip to ensure that the trip does not exceed the maximum shift driving hours permissible for a driver.
- TRM_MAX_SHIFT_HOURS - This can be used to default the maximum shift hours for a driver when it has not been specified at the carrier level. This value is compared against the total hours for each trip to ensure that the trip does not exceed the maximum shift hours permissible for a driver.



The following parameters can be used to default the appropriate values to be used in planned stop time calculations when they have not specified at the carrier level:

- TRM_DFLT_DRV_BREAK_MINS
- TRM_DFLT_MAX_DRV_HRS_WO_BREAK
- TRM_DFLT_MAX_DRV_HRS_WO_STOPOVER
- TRM_DFLT_MAX_WRK_HRS_WO_BREAK
- TRM_DFLT_MAX_WRK_HRS_WO_STOPOVER
- TRM_DFLT_STOPOVER_BREAK_MINS
- TRM_DFLT_WRK_BREAK_MINS

The TRM_MAX_WAIT_TIME parameter is used to optimise the wait time, i.e. Will cause any waiting time incurred at a stop to be moved to end of the preceding stop, if the latter is an RDC.

The MTM_OPTIMISE_WAIT_TIME parameter is used to restrict the amount of time that a driver can wait at a location.

The planned arrival and departure times are then calculated using the driving times between stops and loading/unloading time required at the stop to determine the planned times.

It keeps track of the total time and drive time since the last break and then adds on any necessary breaks (including stop-overs), before calculating the next time, also taking into account any slack time.

These breaks and layovers can be seen on the trip planning form against each stop (depending on the configurable layout - layover) as break time.

They can be manually adjusted, and options exist on the right-click menu to move the stopover position.

- *Move Stopover back.*
- *Reset Stopover.*
- *Move Stopover Forward.*

7.7.3 Wait Times

A planned order may have restrictions on it as to when it can be delivered or collected. CTMS will, by default, plan the departure times of the trip to be flexible, in order to accommodate the least amount of time out of the depot. But if the departure time is fixed from the depot (for example, leaving at 6AM, the first delivery is at 9AM, but the travel time is only half an hour), then wait times occur.

In this case, a 2.5 hour wait time will be accrued against the stop and displayed in the wait time column.

Note that CTMS will always do its best to accommodate order and location delivery times within the plan, which sometimes results in wait times. However, if the planned sequence of stops means that CTMS can't get to the order for collection or delivery, it will still retain the order, but will note that the collection or delivery window has been missed on the stop and order.

7.8 Further Configuration

The following system parameters affect this functionality:

Parameter	Description	Level
SUGGEST TRIP	Suggest an appropriate trip for an order	COST CENTRE
GEO_DT_DISTANCE_UNITS	Current distance unit - miles or kilometres	SYSTEM
RES_DT_FUEL_UNITS	Current fuel unit - Litres or Gallons	SYSTEM
RES_AVAILABILITY_ALLOC	Determines how resources are allocated to a trip.	COST CENTRE
FORMS_DEFAULT_ORDERS_MODULE	Default Orders Form - ORDERS_WIDE, ORDERS or ORD_ENTRY_TARGET	SYSTEM
TRIP_ALWAYS_SHOW_EMERGENCY_ORDERS	Emergency Deliveries are always displayed regardless of filter criterion	SYSTEM
TRIP_HAZARD_DISPLAYED	Show the Trip hazardous Totals or not.	SYSTEM



Parameter	Description	Level
TRIP_LABELS	Indicates the name of the report to be run from the Print Labels menu option in the trip tree in the Planning screen.	COST_CENTRE
CMR_NOTE	Name of the CMR note report	COST_CENTRE
CMR_NOTE1	Name of the CMR note report	COST_CENTRE
COMBINED_DOCUMENTS_REPORT	Name of the Combined Documents report.	COST_CENTRE
DELIVERY_NOTE	Name of the delivery note report	COST_CENTRE
DESPATCH_REPORT	Name of the despatch note report printed from the trip tree	COST_CENTRE
LOADING_REPORT	NON Cost centre Loading Report	SYSTEM
MANF_REPORT	Indicates the name of the manifest report to be automatically generated when a trip is accepted	COST_CENTRE
MANF_REPORT	Driver Manifest Name	COST_CENTRE
REP_DELIVERY_DOCS	Name of the Delivery report printed from trip tree	COST_CENTRE
SEND_MANF_TO_SUPP	Indicates if the supplier manifest report will be automatically generated when a trip is accepted for the cost centre of the trip being collected.	COST_CENTRE
SEND_MANF_TO_SUPP	Indicates if the supplier manifest report will be automatically generated when a trip is accepted for the cost centre of the trip being collected.	CUSTOMER
SUPPLIER_MANF	Indicates the name of the supplier manifest report to be automatically generated when a trip is accepted.	COST_CENTRE
TRIP_SHEET	Trip Sheet Report	COST_CENTRE
TRM_LFS_PRINT_TRIP_POD_POC	Display LFS Trip Sheet POD POC report menu option (Y/N)?	SYSTEM
TRM_APPLY_DRIVER_BREAK_RULES	Switches Driver Breaks on or off - Y or N	SYSTEM
TRM_MAX_DRIVING_HOURS	Maximum Driving Hours	SYSTEM
TRM_MAX_SHIFT_HOURS	Maximum Shift Hours	SYSTEM
TRM_DFLT_DRV_BREAK_MINS	Default Driver Break (minutes)	SYSTEM
TRM_DFLT_MAX_DRV_HRS_WO_BREAK	Default maximum drive hours without break	SYSTEM
TRM_DFLT_MAX_DRV_HRS_WO_STOPOVER	Default maximum drive hours without stopover.	SYSTEM
TRM_DFLT_MAX_WRK_HRS_WO_BREAK	Default maximum work hours without break	SYSTEM
TRM_DFLT_MAX_WRK_HRS_WO_STOPOVER	Default maximum work hours without stopover.	SYSTEM
TRM_DFLT_STOPOVER_BREAK_MINS	Default stopover duration (minutes).	SYSTEM
TRM_DFLT_WRK_BREAK_MINS	Default work break duration (minutes)	SYSTEM
TRM_MAX_WAIT_TIME	Maximum waiting time at Location (minutes)	COST_CENTRE
MTM_OPTIMISE_WAIT_TIME	Should wait time incurred at a stop be moved to end of the preceding stop if the latter is an RDC.	SYSTEM
RESET_MANUAL_SCHEDULE	Provides described new menu functionality to allow reset of manual schedule flag and carry forward.	SYSTEM
LOOKUP_FOR_ROUTE_CODES	Display lookup button in PLANNING beside Route Code	SYSTEM
ALLOW_TRP_DEL_TYPE_UPDATE	Allow Delivery type updates in the planning screen	CARRIER



8 Trip Manipulation

The Trip Manipulation module provides users with a view of all the **trips** on a particular schedule. The unscheduled **Orders** on the Schedule chosen by the user are also displayed. **Trips** can be created directly within C-TMS Host from unscheduled **Orders** or can be created in an external scheduler and then transferred back to C-TMS Host (see the **Interfaces** for further details).

All key information relating to a **trip** is displayed on the Trip Manipulation form and a mechanism is provided to link back to the **Orders** that are delivered on the Trip. A number of manipulation functions can be accessed through Trip Manipulation and these are discussed below.

A Trip Planning screen is also available in C-TMS and displays mostly the same information as is displayed in Trip Manipulation but shows more **Orders** to assist users in the planning process.

The following is an example of the Trip Manipulation Screen:

The screenshot displays the Trip Manipulation screen in C-TMS. At the top, there are various menu options like 'Find', 'Trip Filter', 'Refresh Tree', etc. Below this, a list of scheduled trips is shown on the left. The main area contains a table with columns for Trip, Stops, Finance, and Audit. The bottom section features fields for 'Weight on Departure', 'RFE on Departure', and a table of orders with columns for Order ID, Cust Ref, From, To, To Plan, Collect From, Units, Deliver From, Unit, Weight, Cases, and RPE.

The Postal Region, Planning Region, Location, Weight, RPE and Volume filters allow a user to restrict which Unscheduled **Orders** they are able to see, this helps to speed up the planning process. The number of Unscheduled **Orders** displayed has also been increased to speed up the creation of manual **trips**.

Please note that distance and fuel units, displayed throughout C-TMS, but specifically on the Trip Manipulation form, are now controlled within C-TMS via 2 system parameters: GEO_DT_DISTANCE_UNITS and RES_DT_FUEL_UNITS. These are initially setup to only be edited by the OBS Support team. They will default to 'Miles' and 'Litres' respectively if the operation does not request alternative units such as Kilometres and Gallons.

It is assumed that any external system to C-TMS will be configured by to pass data using the correct units.

8.1 Trip Filter

The Trip Filter allows a user to control which **Trips** they can see.

The key functions are:

8.1.1 Apply Order to Trip

Allows any Unscheduled **Orders** on that Schedule to be applied to a new or existing **Trip**. By default an Order will be automatically applied to what the system believes to be the most appropriate stops, it is also possible to apply an Order to a specific pair of stops to reduce the need for manual manipulation. When multiple orders are being applied to a **trip**, the system will try to minimize the number of stops required by selecting the largest trailer type available.

8.1.2 X-dock Order

It is possible to **crossdock** an Order via one of many locations, for example an Order going from Loc1 to Loc2 can be x-docked via Loc3. An order can be x-docked on a single **Trip** or multiple **Trips**. An Order can be x-docked in the



TRIPSUM and ORDERS forms.

8.1.3 Validate Trip

Performs validation checks on the selected Trip to ensure that the trip is valid and feasible. If the trip breaks any validation rules these will be reported back to the user.

These checks include:

- Ensure that the trip has at least 1 load and unload activity and these activities are in the correct order.
- Ensures that the trip complies with driving regulations such as Drivers Breaks.
- Checks whether the Trip will deliver within the delivery windows of the Orders.
- Ensures that a valid Trailer Type is assigned to the Trip. If a Trailer has been ?fixed? onto a Trip (see Fixed Routes for more details) it will not be overwritten.

8.1.4 Recalculate Distance and Time

Allows the times on a Trip to be recalculated, wait times will be optimised and Drivers Breaks included (this can include an overnight stopover), all departure times will be made unique. This may result in Delivery windows being breached, however, these failures will be reported during Trip Validation.

8.1.5 Set Trip Status

Trip Statuses include ACCEPTED, TENDERED, DELETED, EN-ROUTE. This function allows the status to be changed to another status, there are restrictions to control the changes that are permitted. For instance it may not be valid to change a trip from EN-ROUTE to DELETED.

8.1.6 Split Trip

Allows a trip to be split into 2 separate trips. Upon splitting a new trip will be created and Stops below the split point will be placed on the new Trip. Each Trip will then be validated to ensure that it has the relevant SU and CL activities.

8.1.7 Merge Trip

Two trips can be selected and merged together to make 1 trip. Two configurable system options are now possible for this function. Either duplicate Stops will be removed and stops will be combined together where possible, or Stops will be appended onto the end of the resulting trip. Upon completion the first trip will remain and the second trip will be deleted.

8.1.8 Delete Trip

If a trip is no longer required it can be deleted, the trip will remain on the Database with a status of deleted, the stops will be removed and the Orders set back to Unscheduled.

8.1.9 Insert Stop

Allows a new stop to be manually added to a Trip after the selected Stop, an Activity Type, Location and Trailer Type are required.

8.1.10 Append Stop

Allows a stop to be appended to the end of a Trip, an Activity Type, Location and Trailer Type are required.

8.1.11 Delete Stop

Allows a stop to be deleted from a Trip, any Orders at that Stop will be Unscheduled.

8.1.12 Costs and Revenue

Cost and Revenue details are displayed for a Trip, costs can also be allocated to a Trip (see the Accounting documentation for more details as to how these costs are generated).



8.1.13 Assign Resources

Within the **Trip** Manipulation form it is possible to assign resources to a Trip. A Carrier can be selected from a list of valid Carriers. It is then possible to populate a Driver (and optionally 2 crew members), Vehicle and Trailer Id. Depending on the set up of the carrier (i.e. Fleet or Haulier) these values will either be selected from a list or entered as free text. If a Haulier is being used the details of all resources will not be stored in **C-TMS** so they will need to be entered manually. If selecting from a list the list will be restricted to those resources that are available to the Carrier that is assigned to the Trip.

It is also possible to manually assign a Trailer Type to a Trip. If a trailer is manually assigned to a stop it is also assigned to all subsequent stops and is 'Fixed?'. The fact that it is fixed means it will not be overwritten by validate trip and gives the user the ability to force a trip to use a particular trailer. A large number of Trips that are created from Fixed Routes will have a trailer 'fixed?'. A trailer can be 'un-fixed?' by removing it from all stops, once this has happened validate trip will again try and assign the best fit trailer.

If multiple orders are being added to a trip, the system will automatically select the largest trailer available and 'fix' it to the stops when the 2nd order is added. The user can then manually change the trailer assignment as desired. Both assignment methods are subject to the same trip validation routines and may still have to be altered before a trip's status can be changed.

It is possible to configure the fields that are displayed in the Trip Stop and Unscheduled **Orders** section, thus allowing a user to view the fields that are most relevant to their role.

In order to speed up the Scheduling process multi select functionality has been added, thus making it possible to select multiple orders and add them to a Trip in one go.

8.2 Recent Changes

- **249378** (PA-7DDFH9) Check and enhance EFX data export



9 External Map Applications

9.1 Drive Time and Distance Calculation using External Map Application

When a customer needs to deliver to new locations on a regular basis, there needs to be a method by which C-TMS can gain reasonably accurate drive times and distances for the journey legs that it creates. There are other methods that already exist within C-TMS, such as Pythagoras and Time & Distance Matrix: -

- Pythagoras - calculating the distance using Pythagoras (plus a wiggle factor) then using an average speed to calculate the drive time. Note that the distance unit, i.e. miles or kilometers, is determined by the system parameter GEO_DT_DISTANCE_UNITS which is configured by the superuser in conjunction with the C-TMS Application Team.
- Time & Distance Matrix - a matrix of times and distances, held in a table, which needs to be pre-populated using the output from another system (such as Paragon Routing).

By introducing NAVTEQ or MapPoint the following C-TMS functionality is made available:

- NAVTEQ or MapPoint allow for Times and Distances to be generated on the fly, by passing in the source and destination long/lat coordinates, and then calculating the journey based on a road network using various road speeds depending on the class of road used.

In summary, the functional process is as follows (using MapPoint as an example):

1. C-TMS ?Get Time and Distance? function is called when the drive time and distance is required between two trip stop locations (a journey leg), such as when pressing a ?Calc Dist & Time? button.
2. A request is queued to the MapPoint Interface program (named ?CBDS Interface?). The request simply includes the data that the CBDS Interface program needs to calculate drive time and distance using MapPoint, such as location latitude and longitude (lat/Long) of each location.
3. The queued request is picked up by the CBDS Interface which then initiates a background MapPoint ?session?. The lat/long of the two locations is used to pin-point the journey leg locations on a MapPoint map.
4. Once the two locations are pin-pointed on the map, a route is created between the two. The route follows the road network and considers the parameters configured in the CBDS Interface, such as whether to use KM or Miles and Road Speeds.
5. Once the route is complete, the Distance and Drive Time are returned from MapPoint to the CBDS Interface program. The CBDS Interface program then updates the C-TMS Trip Stops with the calculated data and marks the request as processed.
6. The end-to-end process typically takes a second or so and usually occurs in real time.

9.2 Latitude/Longitude Calculation using External Map Application

To achieve the best distance and drive time results using MapPoint, each location on a journey leg should have both latitude and longitude. This ensures that each location can be pin-pointed in an external map application without ambiguity. However, in some cases locations will be provided without latitude and longitude (lat/long). In such situations the lat/long must be calculated when the location is created in C-TMS. Once the lat/long has been applied to the location, the standard process of calculating distance and drive time by lat/long can be followed. MapPoint can be used to calculate the lat/long for a location as long as the necessary address data is available for the location to be pin-pointed in MapPoint. The full set of address information is as follows:

- Street
- City
- Other City (within the UK, such as a village within a City district)
- Region (the province name for addresses in Canada, the region name for addresses in Italy, the autonomia name for addresses in Spain, the constituent county name for addresses in the United Kingdom, the state name for addresses in the United States)
- Postal Code
- Country

Not all this address data is necessary for MapPoint to pin-point locations. Typically the minimum address data required is City, Postal Code and Country.

In summary, the functional process is as follows (using MapPoint as an example):

1. When a Location is created in C-TMS, the location is checked to see that it has lat/long. If not, the location is checked in more detail to see if it contains enough address data to calculate the lat/long. Typically the minimum



address data required is as mentioned above, City, Postal Code and Country. If enough address data exists on the location a request is queued to the MapPoint interface program (CBDS Interface) to calculate the lat/long.

2. The queued request is picked up by the CBDS Interface (note that a lat/long calculation request is processed differently to a time and distance request) which then initiates a background MapPoint ?session?. The locations for which lat/long is to be calculated is pin-pointed on a MapPoint map using the address data. (MapPoint provides numerous ways of pin-pointing locations, two of which are by lat/long as used in time and distance calculations, and by address as used here).
3. Once the location is pin-pointed on the map, an algorithm is used to calculate the latitude and longitude of the location.
4. Once the algorithm is complete the lat/long are returned from MapPoint to the CBDS Interface program. The CBDS Interface program then updates the **C-TMS** location with the calculated data and marks the request as processed.
5. The end-to-end process typically takes less than a second or so.



10 Layout Configuration

Several forms allow you to configure the layout of tables, including or excluding elements up to a maximum width.

How this is accessed depends on the screen:

- Right-clicking on a table may show an option "Configure ..." or similar - clicking this will show the Configure Layouts panel.

Column	Curr Width	Min Width	New Width
ITEM_IDENTIFIER	74	45	
PROD_TYPE_ID	48	40	
ITEM_AKA_CODE	48	40	
ITEM_DESCRIPTION	121	15	
ITEM_FACTOR	42	20	
LIFTS	36	20	
STACK	30	20	
QTY_ORDERED	42	20	
QTY_TO_DELIVER	42	20	
QTY_DELIVERED	42	20	
ORDER_DIFFERENCE	42	20	
WEIGHT	40	20	
VOLUME	40	20	
CURRENT_LOCATION	50	25	
SAP_LINE_NO	50	15	
DU_TYPE	50	50	
PALLET_ID	48	50	
DIMENSIONAL_WEIGHT	40	20	
UNITS	68	20	

Current selected width: 697
Maximum allowed width: 750

OK Delete Cancel

The Configure Layouts pop-up will show all of the items that can be configured to be shown or hidden.

You can select or deselect items to be shown by control-clicking on the elements in the table.

When you are configuring tables, you will also be shown the current and minimum width of the item, plus the maximum width of the table. Once you have selected an item, you can change the width of the displayed items with the New Width box, up to the maximum width of the items in the table, which is shown at the bottom of the form.

You can name the layout using the text box at the top of the screen, and set this layout as the default. This is optional, but means that you can have multiple layouts that you can select from to configure the screen best for a particular task.

You can save and apply the layout with the **OK** button. The layout is stored in the system against your user, so you will be able to access the layout from anywhere you access the system.

You can cancel your changes with the **Cancel** button - the form will exit and the layout will not be saved or changed.

You can delete the currently-selected layout by clicking the **Delete** button.

Usually, in screens that allow configuration, there will be a drop-down list situated on the screen to allow you to quickly select configurations for that table or section.

List of screens with configurable layouts:

- Orders/New Order



- ◆ Order Items
- ◆ Trip Details
- Planning/Trip Manipulation
 - ◆ Stops
 - ◆ Order Well
- Trip Debrief
 - ◆ Order Debrief
 - ◆ Order Items
- Carrier Trip Planning
- Trip Overview (Waterfall)

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