



USER MANUAL – BOOKING AND OPERATIONS

LAYTIME CALCULATION

26 February 2005

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REVISION HISTORY

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1 Accessing the Laytime Calculation Module

Working in the Laytime Calculation module is per voyage. There are basically two ways of opening a voyage in the module:

- Open a voyage indirectly by selecting **Modules -> Laytime Calculations** from the menu bar and then click the **L**ist button to select a voyage to work with.
- Open a voyage directly from the Booking and Operations Module by selecting it in the Voyage List and then click the **Laytime Calculation...** button.
- Learn how to navigate in the module on the next page

Note: once you have opened the module you can switch voyage any time by using the **L**ist button.

2 Navigating in the Laytime Calculation Module

The Port Call. Lists all port calls included in the selected Voyage.

The Charter Parties. Lists all CP relevant for the selected port call.

The Port Call Events. Lists all events relevant for the selected Port Call (like arrived, departed etc).

The Event Matrix gives an overview of all events for all parcels, both Port Call and Cargo Port events.

This section contains all CP for transshipments and relets.

The Port Call Deduction panel. In this section deductions which are applicable for all parcels can be added and prorated to each cargo in the relevant port call.

The Cargo list. This panel lists all parcels for the **selected charter party only**. If there are multiple charterers, click on the Charter Parties tab to switch to another charterer.

The Cargo Port list. Lists all load and discharge ports for the cargo selected in the Cargo List.

The Cargo Port Deduction panel. In this section deductions which are applicable for the selected parcel and cargo port **only** can be added.

The Cargo Port Events. Lists all events relevant for the selected Cargo Port **only**.

The screenshot shows the following data tables:

#	Port	Terminal	R
1	PORT PIRIE		L
2	NEWCASTLE		L
3	LIANYUNGANG		D
4	ONSAN		D
5	TONGHAE		D

Reference	Parcel	Commodity	Quantity	Laytime	Terms	Used	Allowed	Deduct	DemBank	Time De...	Time De...	Rate Dem...	Rate Desp...	Demurrage	F...	Despatch	F...	Re...	Ca...
1275619		ZINC CON...	16 000,000	0,00		0h 0m	0h 0m	0h 0m	0h 0m	0h 0m	0h 0m	13 000,00	6 500,00	0,00		0,00			1

#	Port Name	Quantity	Laytime	Terms	Laytime Comme...	Laytime Completed	%	Used	Allowed	Deduct	Time on...	Rate D...	Rate D...	Demurrage	Despatch	...	...	...
1	L PORT PIRIE	16 000,000	3,50	TOTAL...				0,00	84h 0m	84h 0m	0h 0m	0,00	0,00	0,00	0,00	1		
1	D TONGHAE	8 500,000	3,50	TOTAL...				0,00	84h 0m	84h 0m	0h 0m	0,00	0,00	0,00	0,00	1		
2	D ONSAN	7 500,000	0,00					0,00	0h 0m	0h 0m	0h 0m	0,00	0,00	0,00	0,00	1		

...	Event Text	Date/Time	From Date/Time	To Date/Time	Days	%	Reason For Deduction	Prorate
29	COMMENCE LOADING					0h 0m	100,00	<input type="checkbox"/>
31	COMPLETE LOADING					0h 0m	100,00	<input type="checkbox"/>
						0h 0m	100,00	<input type="checkbox"/>

3 General Tips for Using the Laytime Calculator

- All data is *auto-saved*. You do not need to click a **Save** button or similar
- The calculations are **not** automatic. You have to click the **Recalc** (or Alt-c) to recalculate the demurrage/ despatch
- Try to avoid using the mouse. This will make you more efficient in entering the data
- To move from field to field, use the <Enter> or <Tab> on your keyboard
- To move from column to column in a table/list, use <Tab> on your keyboard
- To move backwards, use <Alt-Tab> on your keyboard

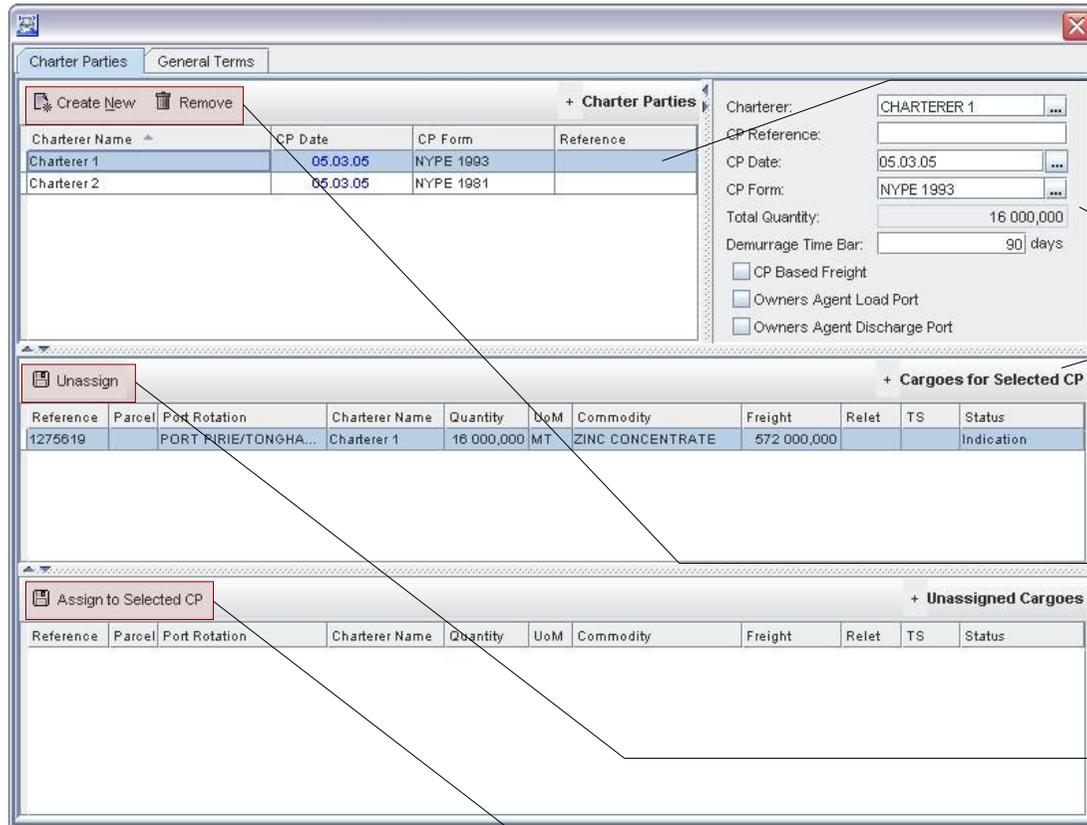
4 Prerequisites

Before a calculation can be made certain data needs to be present in the system:

- You can only perform laytime calculations on **frozen** voyages
- Each cargo must be included in a **charter party**

4.1 Creating a Charter Party

- For single cargo voyages the charter party is automatically created when the voyage is frozen
- For voyages with multiple parcels you must create the charter party
- To create, maintain or delete charter parties access the charter party screen by selecting **Voyage -> Charter Parties** after selecting the voyage either in the Booking an Operations module or in the Voyage Estimate module:



Each charter party is listed in the Charter Parties list. Click on a charter party to see its details on the right hand side.

Maintain additional details about the charter party in the details panel.

A list of the cargoes included in a specific charter party is displayed in this list when the charter party is selected in the top list.

Use the **Create New** and **Remove** buttons to create and remove charter parties. If you remove a charter party the attached cargoes will automatically revert back to the Unassigned Cargoes list.

Use the **Unassign** button to move the selected cargo from being assigned to a particular charter party down to the Unassigned Cargoes list.

Use the **Assign to Selected CP** button to move the selected cargo from being unassigned to being assigned to the select charter party.

Once you have created the necessary charter parties they will show up under Charter Parties in the Laytime Calculation module and you are ready to start feeding in the required details for performing a demurrage/ despatch calculation.

5 Entering a Provisional Estimate for Demurrage or Despatch

Prior to receiving sufficient details about port calls and events to make a full laytime calculation it might be needed to enter a provisional estimate for either demurrage or despatch to make the Voyage Estimate and result as realistic as possible.

To make a provisional estimate follow the steps in 6.3 and 6.5 to locate the relevant cargo and key in the amounts as displayed below:

The screenshot shows the 'Recalc' button highlighted in the top toolbar. Below it are three data tables. Callouts provide instructions for each step:

- Step 1:** lock the estimated amounts (to prevent them from being recalculated) by checking the Fixed column.
- Step 2:** key in the total demurrage or despatch amount.
- Step 3:** for information, key in the details of the demurrage by port (will not be automatically accumulated).
- Step 4 (IMPORTANT):** click the **Recalc** button to update the Voyage Estimate.

Charterer	CP Date	Quantity	Laytime	Terms	Used	Allowed	Deduct	Time De...	Time De...	Rate Demur...	Rate Despa...	Demurrage	Despatch	CP F...	Carg...
Charterer 1	05.03.05 00...	16 000,000	0							0,00	0,00	0,00	0,00	NYPE...	<input type="checkbox"/>

Reference	Parcel	Commodity	Quantity	Laytime	Terms	Used	Allowed	Deduct	DemBank	Time D...	Time D...	Rate Dem...	Rate Desp...	Demurrage	F...	Despatch	F...	Re...	Ca...
1275619		ZINC CON...	16 000,000	0,00		7,00000	7,00000	0,00000	0,00000	0,00000	0,00000	13 000,00	6 500,00	20 000,00	<input checked="" type="checkbox"/>	0,00	<input type="checkbox"/>	<input type="checkbox"/>	1

#	...	Port Name	Quantity	Laytime	Terms	Laytime Commen...	Laytime Completed	%	Used	Allowed	Deduct	Time o...	Rate D...	Rate D...	Demurrage	Despatch	...	...	...
1	L	PORT PIRIE	16 000,000	3,50	TOTAL ...			100,00	3,50000	3,50000	0,00000	0,00000	0,00	0,00	10 000,00	0,00	1	<input type="checkbox"/>	<input type="checkbox"/>
1	D	TONGHAE	8 500,000	3,50	TOTAL ...				0,00	3,50000	0,00000	0,00000	0,00	0,00	5 000,00	0,00	1	<input type="checkbox"/>	<input type="checkbox"/>
2	D	ONSAN	7 500,000	0,00					0,00	0,00000	0,00000	0,00000	0,00	0,00	5 000,00	0,00	1	<input type="checkbox"/>	<input type="checkbox"/>

6 Performing a Full Laytime Calculation (Typical Steps)

Please follow the steps in this section to perform a simple laytime calculation. Refer to the later sections for more advanced functions.

6.1 Select the Port Call

...	Port	Terminal	R
1	PORT PIRIE		L
2	NEWCASTLE		L
3	LIANYUNGANG		D
4	ONSAN		D
5	TONGHAE		D

Select the Port Call for your calculation. When you select a Port Call the Charter Parties list will only show charter parties which includes cargoes being loaded/ discharged in that particular port.

6.2 Enter Port Call Events

- Port call events are events that are common for all cargoes in a port
- These events typically includes Arrived, Departed etc. which are copied from the schedule
- These events are **not** used in any calculations but important information in the laytime statement

...	Code	Date
0	ARRIVED	14.12.04 15:01
1	BERTHED	15.12.04 03:01
3	DEPARTED	18.12.04 15:01

Click on the Port Call Events tab to view, add and remove events. To add or remove events right click on the list and click either **Add Event** or **Remove Event**. When you click **Add Event** a list of pre-defined event types will be displayed. These event types are maintained in the General Master Data section of the system (ask your system administrator or super user if you want to increase or narrow down the list of events in the list).

6.3 Select the Charter Party and Cargo

The screenshot shows a software interface with three tables. The first table, 'Charter Parties (PORT PIRIE)', has columns 'Charterer', 'CP Date', and 'Qt'. It contains one row: 'Charterer 1', '05.03.05 00:00', and a blank cell. The second table has columns 'Reference', 'Parcel', 'Commodity', and 'Qu'. It contains one row: '1275619', a blank cell, 'ZINC CONCEN...', and a blank cell. The third table has columns '#', 'R', 'Port Name', 'Ter...', and 'Quan'. It contains one row: '1', 'L', 'PORT PIRIE', a blank cell, and '1'. Three callout boxes with arrows point to the 'Charter Parties' tab, the 'ZINC CONCEN...' cargo, and the 'PORT PIRIE' port name respectively.

Click on the Charter Parties tab. You will then see a list of all relevant charter parties for the selected port. Click on the desired charter party.

When you click on the charter party all cargoes assigned to that particular charter party will be displayed below. Click on the desired cargo.

When you click on the cargo all relevant cargo ports for the cargo will be displayed in the third list.

Tip: in this example there is only a single charter party for the selected port call. In this case you can skip this stage as the charter party is automatically selected when you select the port call.

6.4 Check Quantity and Terms

- Quantities are originally estimated in the Voyage Estimate or Booking module
- When the B/L quantity is updated in Booking and Operations the quantity automatically reflects also in the Laytime Calculation module
- Terms are originally inputted in either the Voyage Estimate or Booking module and automatically reflects in the Laytime Calculation module
- Both quantities and terms should be checked for correctness before proceeding with the calculation.
- The below screenshot indicates the relevant places to check quantities and terms depending on the type of calculation:

The demurrage and despatch rates defaults from the Voyage Estimate or Booking and Operations module. The rates are by default keyed in at the Cargo level. For non-reversible calculations and in cases where the demurrage/despatch rate varies by port, make sure to fill out the rates also at the lower (Cargo Port) level.

Port Calls		Charter Parties (PORT PIRIE)			Port Call Events (PORT PIRIE)			Event Matrix (PORT PIRIE)			Charter Parties (ALL TRANS-/PRESHIPMENTS AND RELETS)					
Charterer	CP Date	Quantity	Laytime	Terms	Used	Allowed	Deduct	Time De...	Time De...	Rate Demur...	Rate Despa...	Demurrage	Despatch	CP F...	Carg...	
Charterer 1	05.03.05 00...	16 000,000	0		0,00000	0,00000	0,00000	0,00000	0,00000	0,00	0,00	0,00	0,00	NYPE...	<input type="checkbox"/>	

Reference	Parcel	Commodity	Quantity	Laytime	Terms	Used	Allowed	Deduct	DemBank	Time D...	Time D...	Rate Dem...	Rate Desp...	Demurrage	F...	Despatch	F...	Re...	Ca...
1275619		ZINC CON...	16 000,000	0,00		0,00000	0,00000	0,00000	0,00000	0,00000	0,00000	13 000,00	6 500,00	0,00	<input type="checkbox"/>	0,00	<input type="checkbox"/>	<input type="checkbox"/>	1

#	...	Port Name	...	Quantity	Laytime	Terms	Laytime Commen...	Laytime Completed %	Used	Allowed	Deduct	Time o...	Rate D...	Rate D...	Demurrage	Despatch	...	...	...
1	L	PORT PIRIE		16 000,000	3,50	TOTAL ...		0,00	3,50000	3,50000	0,00000	0,00000	0,00	0,00	0,00	0,00	1	<input type="checkbox"/>	<input type="checkbox"/>
1	D	TONGHAE		8 500,000	3,50	TOTAL ...		0,00	3,50000	3,50000	0,00000	0,00000	0,00	0,00	0,00	0,00	1	<input type="checkbox"/>	<input type="checkbox"/>
2	D	ONSAN		7 500,000	0,00			0,00	0,00000	0,00000	0,00000	0,00000	0,00	0,00	0,00	0,00	1	<input type="checkbox"/>	<input type="checkbox"/>

Quantities and terms from the original estimate is by default showing at the cargo port level. The quantities are accumulated both to the Cargo as well as the Charter Party levels (especially relevant in multiple parcel scenarios). The terms can be adjusted directly in the laytime screen. To adjust the quantities you must access the cargo details under the Cargo List in the Booking and Operations module.

In cases of total laytime for both loading and discharging (typically in tanker scenarios) it might be relevant to key in the total terms at a higher level, either on Cargo or Charter Party. The terms at the Cargo Port level will then adjust automatically.

The indicators at the right section of the screen are used to control reversible vs. non-reversible laytime as well as proration. See details under the sections on reversible and proration further down in this document.

6.5 Enter Laytime Commenced / Laytime Completed

#	R	Port Name	Ter...	Quantity	Laytime	Terms	Laytime Commenced	Laytime Completed	%	Used	Allowed
1	L	PORT PIRIE		16 000,000	3,50	TOTAL DAYS	14.12.04 17:00	181204143	100,00	3,50000	3,50000
1	D	TONGHAE		8 500,000	3,50	TOTAL DAYS			0,00	3,50000	3,50000
2	D	ONSAN		7 500,000	0,00				0,00	0,00000	0,00000

Key in the Laytime Commenced/ Completed for the port in the Cargo Port section. When recalculated, the Used column will show the difference between the completed and commenced time in number of days (or hours and minutes depending on your setup).

6.6 Enter Deductions/ Additions

- Deductions and or additions can be added both at the Port Call and Cargo Port level
- Deductions at the Port Call level is useful when operating with more than one parcel for prorating deductions across multiple charterers and you have to check the Prorate column for the time to be applied to the individual parcels in the port
- To enter Additions simply enter the % to count column as a negative figure (example: -100%)
- To see how the deductions effect the calculation of demurrage/ despatch, please refer to the Reviewing the Calculation section below.

Tip: please refer to section 2 (Navigating in the Laytime Module) to see in which section of the screen each type of deduction can be entered.

See the screenshot on the next page for details on how to enter deductions:

Use the **Create New** and **Remove** buttons to enter new or remove existing deductions.

The title indicates which port and which parcel you are working on. In this case we're working in the Cargo Port deduction section.

From Date/Time	To Date/Time	Days	%	Reason For Deduction	Prorate
14.12.04 17:30	14.12.04 18:00		0,02083	100,00 RAIN...	<input type="checkbox"/>
1412041930			0,00000	100,00	<input type="checkbox"/>

Key in the From and To dates and times for the deduction.

This column shows the calculated number of days for each deduction. It is not calculated until you click the **Recalc** button on the top of the screen.

The % column can be used to enter partial deductions (for instance 2 out of 4 cranes breaking down – 50%). To **add** time enter a negative percentage.

Free text description of the breakdown. This will also show on the printout.

Tip: note that using the Alt-N key combination will automatically create a new row and position the cursor at the From Date/Time column ready for entering the data. This is very efficient when dealing with a high number of deductions to be keyed in.

6.7 Enter Cargo Port Events

- As described in section 2 (Navigating in the Laytime Module) there are two types of events that can be entered
- Cargo port events are events that are specific to a **single cargo** in a port
- These events are **not** used in any calculations but important information in the laytime statement
- Please refer to section 6.3 on how to enter these events and a description of the difference between these events and the port call event.

6.8 Review the Calculation

- When all the input has been made and a recalculation performed the screen will update with laytime used, allowed, deductions and time on demurrage as well as demurrage/ despatch amounts. For a review of total calculation please refer to the below screenshot:

The screenshot displays the 'Laytime Calculations - OCEAN CARRIER II 2004/8' window. The 'Recalc' button is highlighted with a red box and a callout: "Click **Recalc** to show the refreshed calculation and update the Voyage Estimate."

The 'Event Matrix (PORT PIRIE)' table shows demurrage and despatch amounts calculated and accumulated according to the demurrage rate and time on demurrage:

Quantity	Laytime	Terms	Rate Demur...	Rate Despa...	Demurrage	Despatch	CP F...	Carg...
16 000,000	0		0,00	0,00	4 893,07	0,00	NYPE...	

The main calculation table shows the following data:

Reference	Parcel	Commodity	Quantity	Laytime	Terms	Used	Allowed	Deduct	DemBank	Time D...	Time D...	Rate Dem...	Rate Desp...	Demurrage	F...	Despatch	F...	Re...	Ca...
1275619	01	ZINC CON...	16 000,000	0,00		7,39722	7,00000	0,10729	0,00000	0,28993	0,00000	13 000,00	6 500,00	3 769,09		0,00			1

The 'Events' table shows the calculation of deductions for each port:

#	Port Name	Quantity	La...	Terms	Laytime	Completed %	Used	Allowed	Deduct	Time o...	Rate D...	Rate D...	Demurrage	Despatch	...	...	...
1	L PORT PIRIE	16 000,000			14:32	100,00	3,89722	3,50000	0,10729	0,28993	13 000,00	6 500,00	3 769,09	0,00	1		
1	D TONGHAE	8 500,000					0,00	3,50000	0,00000	0,00000	0,00	0,00	0,00	0,00	1		
2	D DNSAN	7 500,000					0,00	0,00000	0,00000	0,00000	0,00	0,00	0,00	0,00	1		

Callouts explain: "For each port for a particular cargo the laytime used, allowed, deductions is calculated and used as a basis for calculating the time on demurrage. All the figures are then accumulated to the above levels."

The 'Deductions/ Additions - Cargo Port PORT PIRIE (Parcel 01)' table shows individual deduction calculations:

#	Event Text	Date/Time	From Date/Time	To Date/Time	Days	%	Reason For Deducti...	Pr...
29	COMMENCE LOADING	14.12.04 18:00	14.12.04 17:30	14.12.04 18:00	0,02083	100...	RAIN...	
31	COMPLETE LOADING	14.12.04 19:23	14.12.04 19:23	14.12.04 23:32	0,08646	50,00	BREAKDOWN	

Callout: "Each deduction is calculated separately and the total deduction is accumulated to all levels."

6.9 Print the Laytime Statement

To print the laytime statement make sure you have selected the correct port both in the Port Call and Cargo Port section and click Print. This will launch the Acrobat reader and display the laytime statement:

Make sure to select the correct port and then click the **Print** button.

The screenshot shows the 'Booking and Operations - OCEAN CARRIER II 2004/8' window. The 'Port Calls' tab is active, showing a table with columns: Port, Terminal, and R. The first row is '1 PORT PIRIE' with 'L' in the R column. Below this is a 'Laytime Calculations' table with columns: Reference, Parcel, Commodity, Quantity, Laytime, Terms, Used, Allowed, Deduct, DemBank, Time D..., and Time. The first row is '1275619 01 ZINC CON... 16 000,000 0,00 7,39722 7,00000 0,10729 0,00000 0,28993 0,00000'. At the bottom, there is a detailed laytime table with columns: #, Port Name, Quantity, Laytime, Terms, Laytime Commen..., Laytime Completed, %, Used, and Allowed. The first row is '1 L PORT PIRIE 16 000,000 3,50 TOTAL ... 14.12.04 17:00 18.12.04 14:32 100,00 3,89722 3,50000'. The 'Print' button in the top right corner is highlighted in red.

7 Reversible Terms

- The laytime module has a high level of flexibility in terms of using reversible terms
- See the below screenshot on how to set up reversible terms and the effects on the calculation:

For the reversible terms to come into effect the Reversible mode checkbox **must** be checked.

The Reversible Match columns indicates which ports are calculated together. In this case the two discharge ports are marked with „2“ and the loadport marked with „1“. You can use any character to match up the ports. Changing the combination to 1, 1, 2 in the example would lead to the load port and first discharge port being calculated together and the second discharge port separately.

When calculating in reversible mode the Demurrage and Despatch rate fields should not be keyed in on the individual port level.

Rate Dem...	Rate Desp...	Demurrage	F...	Despatch	F...	Re...	Ca...
13 000,00	6 500,00	3 789,09	<input type="checkbox"/>	0,00	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1

Deduct	Time o...	Rate D...	Rate D...	Demurrage	Despatch	...	...	...
0,10729	0,28993	0,00	0,00	0,00	0,00	1	2	1
0,00000	0,00000	0,00	0,00	0,00	0,00	2	1	2
0,00000	0,00000	0,00	0,00	0,00	0,00	2	2	1