



Cargo Efficiency Operations System (CEOS)

16 December 2019

Agenda

- Background
- CEOS Project overview – CMCC
- CEOS Road Functionality – 4Tel
- CEOS Transition to Operational use - CMCC



CMCC: TfNSW Objectives

- Improving the efficiency of freight movements through Port Botany is critical for supporting trade growth
- A network of efficient road & rail links that allows freight to be transported more efficiently from Port Botany to key freight centres will be vital to Sydney's liveability and NSW's economic success

Cargo Movement Coordination Centre (CMCC)

The Cargo Movement Coordination Centre (CMCC) was established in 2014 and works with road carriers, rail operators, stevedores and related supply chain stakeholders to maximise use of existing network capacity and continuously improve the efficiency of cargo movement through Port Botany, Port Kembla and regional NSW.

<https://www.transport.nsw.gov.au/operations/cargo-movement-coordination-centre-cmcc>

CMCC Performance Monitoring System

- The current system (OPM – Operational Performance Management Framework) has reached end of its life. Transport for NSW requires a modern system that can support landside operations performance monitoring into the future
- New system is called CEOS: Cargo Efficiency Operations System
- Past 9 months: Developing & testing CEOS system
- Intend to:
 - ‘Go live’ with CEOS in late December 16th 2019

A Connected Port to Maximise Efficiency

Rail Planning

- Consolidation of
- Operator plans
- ARTC plans
- Stevedore plans

Train Tracking

Stevedore Business Systems

- Truck bookings



Truck Movements (captured by ANPR system)

Train Movements

(captured by ICE Radio and CMCC Rail Team)

Independently Calculated Performance & Penalties

- Slow stevedores
- Cancelled truck slots
- Early/late truck arrivals
- Container lifts/hr
- Rail Planned v Actual

Cargo Efficiency Operations System (CEOS)

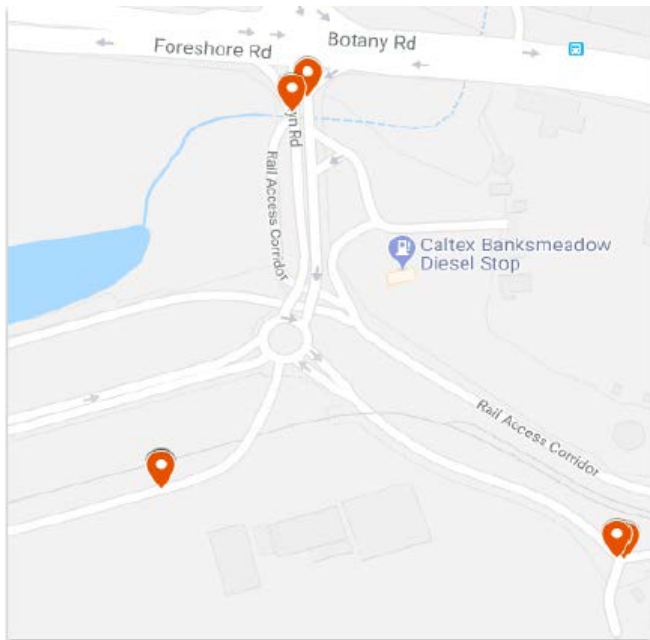
- Integrates stevedore data with truck and train tracking data to provide an independent & comprehensive record of operations of the landside interface at Port Botany
- Independent data sources
- Truck and Train tracking at key port and network locations
- Transparency for stevedores, rail operators, freight owners & road carriers
- User capable reporting
- Information on truck, traffic and rail congestion
- Rail performance
- Real-time information made available to supply chain
- No paper!

Road Operational Performance Measures

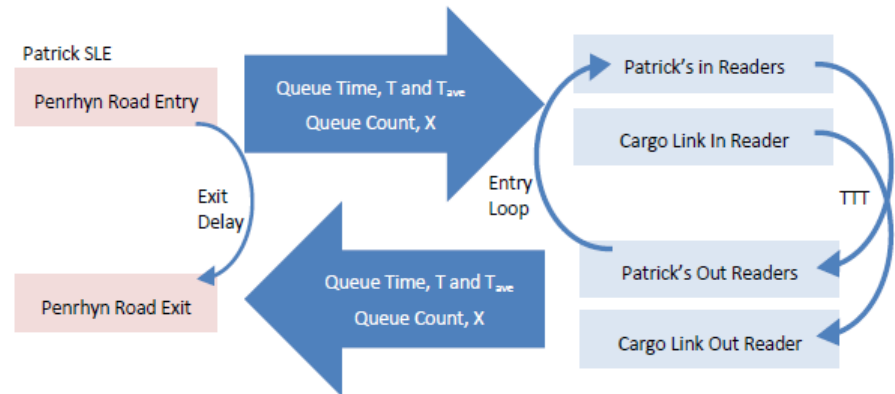
- Road carriers:
 - Early arrivals
 - Late arrivals
 - No shows
 - Cancellations
 - Non Service
- Stevedores:
 - Slots / hr (offered to carriers)
 - Minimum lifts per hour (trains)
 - Truck turnaround time
 - Failure or refusal to service carrier
 - Cancellations
 - Non Service




Road Sensors



- Were RFID tags
- Now Automatic Number Plate Recognition (Cameras)
- Located at key road locations

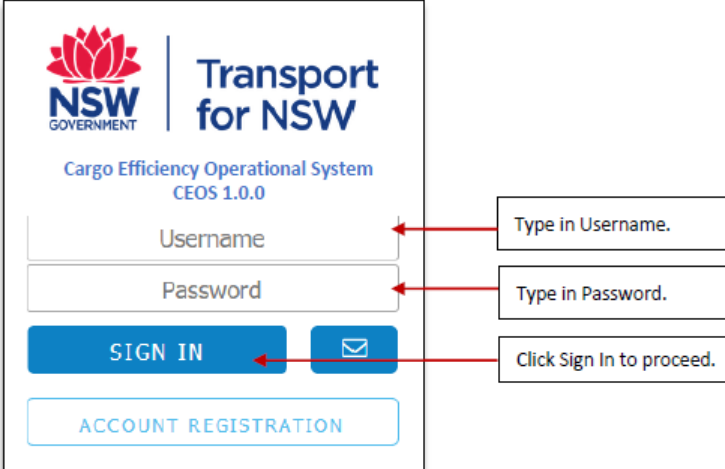


Implementation

- Integrate with ANPR (Automatic Number Plate Recognition) at key port locations
 - Electronic data interface between TfNSW & each stevedore
 - Fully automated reporting system
 - Measures KPIs according to the Regulations
- 

Accessing CEOS

- User interface: web browser: Chrome (recommended) or Firefox
- URL :<https://ceos.ot.transport.nsw.gov.au>



The screenshot displays the login page for the Cargo Efficiency Operational System (CEOS 1.0.0). At the top left is the NSW Government logo, and to its right is the text "Transport for NSW". Below this, the system name "Cargo Efficiency Operational System" and version "CEOS 1.0.0" are shown. The login form consists of two input fields: "Username" and "Password". Below these fields are two buttons: a blue "SIGN IN" button and a blue button with an envelope icon. At the bottom of the form is a light blue "ACCOUNT REGISTRATION" button. Three red arrows point from instructional text boxes to the form elements: one to the Username field, one to the Password field, and one to the SIGN IN button.

NSW GOVERNMENT | Transport for NSW

Cargo Efficiency Operational System
CEOS 1.0.0

Username

Password

SIGN IN

ACCOUNT REGISTRATION

Type in Username.

Type in Password.

Click Sign In to proceed.

Landing Page



Transport
for NSW

ROAD

Road Dashboard

Activity Summary

Slot Booking List

Truck Trips

Penalty List

Port Calendar

Apply for Requests

Truck Matching

Truck Location Maintenance

RAIL

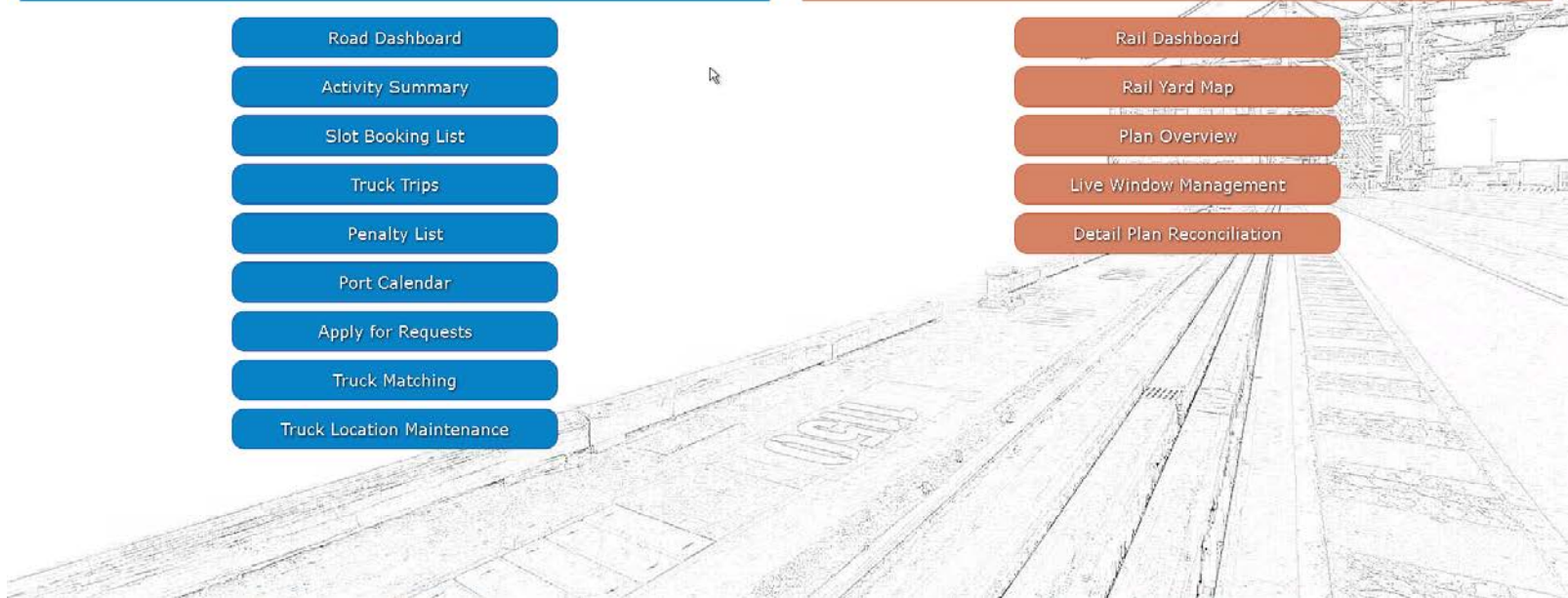
Rail Dashboard

Rail Yard Map

Plan Overview

Live Window Management

Detail Plan Reconciliation



Landing Page - Road

The screenshot displays the 'Road' landing page interface. At the top right, the NSW Government logo and 'Transport for NSW' text are visible. The main header area is blue with a large 'RAIL' title. Below the header, there are two columns of buttons: a left column with blue buttons for 'Penalty List', 'Port Calendar', 'Apply for Requests', 'Truck Matching', and 'Truck Location Maintenance'; and a right column with orange buttons for 'Plan Overview', 'Live Window Management', and 'Detail Plan Reconciliation'. A bottom navigation bar contains the NSW logo, 'Transport for NSW', '4Tel Admin Support', and the time '11:00:25'.

Annotations include:

- A red circle around a '+' icon in the top left corner of the page.
- A red circle around a '+' icon in the browser's tab bar.
- A red circle around a '+' icon in the browser's address bar.
- A red box around the 'Home' tab in the browser, with a callout: "Click the + tab to access drop down menu".
- A red box around the 'Home' tab in the browser, with a callout: "Help: Opens the online User Manual." pointing to a question mark icon.
- Two red boxes around the 'Home' tab in the browser, showing the expanded dropdown menu with the following items:
 - Home
 - Admin
 - Road
 - Rail
 - Road Dashboard
 - Activity Summary
 - Slot Booking List
 - Truck Trips
 - Penalty List
 - Port Calendar
 - Apply for Requests
 - Truck Matching
 - Truck Location Maintenance
 - Rail Dashboard
 - Rail Yard Map
 - Live Window Management
 - Detail Plan Reconciliation
 - Plan Overview

Real-Time Performance Monitors

- Tab based
- Real-time graphs of:
 - Queue times
 - Turnaround times
- Averages (30 min)
- Precinct: Comparison of four precinct facilities
- TMA: status & upcoming closures



Slot Booking List

- Filterable
- List of bookings & associated details, including those that did not eventuate
- Search function

The screenshot displays a web application interface for managing slot bookings. The main window title is "SLOT BOOKING LIST".

Filters:

- From:** 1 Sep 2019 00:00
- To:** 1 Sep 2019 23:59
- Booked By:** -
- Slot Key:** [Text Input]
- Stevedore:** -
- Carrier:** -
- Time Zone:** -
- Manifest ID:** [Text Input]
- Rego:** [Text Input]
- Container No.:** [Text Input]
- Slot Booking No.:** [Text Input]
- Slot Status:** -
- Slot Type:** -

Buttons: [Reset] [Search]

Table:

DATE	TIME ZONE	SLOT BOOKING	MANIFEST ID	STEVEDORE	CARRIER	REGO	SLOT TYPE	SLOT STATUS
- Empty -								

SLOT BOOKING DETAILS Panel:

- SLOT BOOKING NO.:
- SLOT KEY:
- STEVEDORE:
- REGO:
- CARRIER:
- TIMEZONE:
- MANIFEST ID:
- CONTAINER NO.:
- SLOT TYPE:
- SLOT STATUS:
- CONTAINER CODE:
- FULL/EMPTY:
- UNFORESEEN EVENT: -
- MASTER BOOKING: -
- STACK RUN: -
- REEFER: -
- OUT OF GAUGE: -
- HAZARDOUS: -

Slot Booking List

SLOT BOOKING DETAILS

TIMEZONE: 11:00
 MANIFEST ID: 9307864
 CONTAINER NO.: CSLU1943700
 SLOT TYPE: EXPORT
 SLOT STATUS: ARRIVED
 CONTAINER CODE: 22G0
 FULL/EMPTY: EMPTY
 UNFORESEEN EVENT: false
 MASTER BOOKING: false
 STACK RUN: false
 REEFER: false
 OUT OF GAUGE: false
 HAZARDOUS: false

DATE: 23/08/2019
 DATE ARRIVED: 23/08/2019 11:18
 DATE AVAILABLE: 21/08/2019 07:45
 DATE BOOKED:
 DATE CONFIRMED: 23/08/2019 11:18
 DATE CANCELLED:
 DATE LISTED:
 DATE MANIFESTED:
 DATE NO SHOW:
 DATE WITHDRAWN:

Click here to 'View Truck Details'. This will then bring a pop up 'Current Truck' on the screen, shown in Figure 25.

PENALTIES:	STATE	PENALTY CODE	PENALISED PARTY	AMOUNT	EXEMPTION

[View Truck Details](#)

SLOT BOOKING - TRUCK DETAILS

STEVEDORE: [REDACTED] GATE IN: 11:18
 TRIP DATE: [REDACTED] GATE PASS: 11:18
 REGO: [REDACTED] CALL UP FIRST: 11:18
 TIME ZONE: 11:00 CALL UP LAST: 11:18
 CARRIER: [REDACTED] ON GRID:
 MANIFEST ID: 9367864 JOB COMPLETE: 12:04
 MTR DELAYED: true GATE OUT: 12:04
 CONGESTION: false
 MATCHED: false

TRUCK ARRIVAL TIME: 11:18 SIT Available:
 TTT START TIME: 11:18 SIT ACCRUED:
 ACTUAL TTT: 46 min SIT USED:
 ALLOWED TTT: 65 min SIT REMAINING:
 SIT QUALIFIER:
 SIT START PERIOD:

READ POINTS:

PENALTIES:	STATE	CODE	PARTY	AMOUNT	EXEMPTION

SLOT BOOKINGS:	SLOT	SLOT TYPE	CONTAINER
	11E452785	EXPORT	CSLU1943700
	11E093981	EXPORT	00LU1264520

[CANCEL](#)

Truck Trips

- Filterable
- List of Truck trips
- Booking details
- Penalty details

Home x | Road Dashboard x | **Truck Trips** +
⚙️ 🔍 📄 📄

TRUCK TRIPS

Date Range From: To:

TTT Range From: To:

Stevedore:

Carrier:

Time Zone:

Manifest Id:

Rego:

Container No:

Congestion:

MTR:

DATE	MANIFEST ID	STEVEDORE	CARRIER	REGO	TIME ZONE	GATE IN	PENALTIES
25/11/2019	201911250428	Hutchison	[REDACTED]	[REDACTED]	04:00	04:39:00	false
25/11/2019	201911250458	Hutchison	[REDACTED]	[REDACTED]	04:00	04:40:00	false
25/11/2019	201911250459	Hutchison	[REDACTED]	[REDACTED]	04:00	04:14:00	false
25/11/2019	201911250520	Hutchison	[REDACTED]	[REDACTED]	05:00	05:09:00	false
25/11/2019	201911251250	Hutchison	[REDACTED]	[REDACTED]	12:00	12:03:00	true
25/11/2019	201911251327	Hutchison	[REDACTED]	[REDACTED]	13:00	13:04:00	true
25/11/2019	201911251351	Hutchison	[REDACTED]	[REDACTED]	13:00	13:03:00	false
25/11/2019	201911251374	Hutchison	[REDACTED]	[REDACTED]	13:00	13:04:00	true
25/11/2019	201911251418	Hutchison	[REDACTED]	[REDACTED]	14:00	14:08:00	true
25/11/2019	201911251420	Hutchison	[REDACTED]	[REDACTED]	14:00	14:25:00	false
25/11/2019	201911251420	Hutchison	[REDACTED]	[REDACTED]	14:00	14:04:00	true
25/11/2019	201911251429	Hutchison	[REDACTED]	[REDACTED]	14:00	14:04:00	true
25/11/2019	201911251518	Hutchison	[REDACTED]	[REDACTED]	15:00	15:07:00	true
25/11/2019	201911251566	Hutchison	[REDACTED]	[REDACTED]	15:00	15:20:00	true

TRUCK DETAILS

STEVEDORE: [REDACTED]

TRIP DATE: [REDACTED]

REGO: [REDACTED]

TIME ZONE: 05:00

CARRIER: [REDACTED]

MANIFEST ID: 20191125053404

MTR DELAYED: false

CONGESTION: false

PARKED: false

MATCHED: true

GATE IN: 05:14:00

GATE PASS: 05:14:00

CALL UP FIRST: 05:15:00

CALL UP LAST: 05:15:00

ON GRID: 05:20:00

JOB COMPLETE: 05:14:00

GATE OUT: 06:21:00

REJECTED GATE IN:

REJECTED GATE OUT:

TRUCK ARRIVAL TIME: 05:14:48

TTT START TIME: 05:14:48

ACTUAL TTT: 59 min

ALLOWED TTT: 45 min

SIT AVAILABLE: -

SIT ACCRUED: -

SIT USED: -

SIT REMAINING: -

SIT QUALIFIER:

SIT START PERIOD:

NAME	DATE	TIME
Hutch Queue Lane 2	25/11/2019	05:13:35
Hutch In Gate Lane 2	25/11/2019	05:14:48
Hutch Out Gate Lane 2	25/11/2019	06:21:34
Hutch Discount Lane 2	25/11/2019	06:23:06

SLOT BOOKINGS:	SLOT	SLOT TYPE	CONTAINER
	1125051004	IMPORT	CPR: [REDACTED] <input type="button" value="View Details"/>

PENALTIES:	STATE	CODE	PARTY	AMOUNT	EXEMPTION
	CEOS Only	TTTV	STEVEDORE	25	NONE <input type="button" value="View Details"/>

Transport for NSW

✓ Truck Trip details loaded - Last updated: 13:40:51

Jonathan Dolden
🕒 13:42:58

Penalty List

PENALTIES

From: 10 Sep 2019 00:00 Stevedore: -
 To: 10 Sep 2019 23:59 Carrier: -
 Penalty Party: - Timezone: -

STATE	DATE	CONTAINER NUMBER	STEVEDORE	
M	10/09/2019	GESU5528926	Hutchison	SYDNEY TRAN
M	10/09/2019	CGMU3012060	Hutchison	SGL T
M	10/09/2019	CCLU7915731	Hutchison	
M	10/09/2019	CMAU6190113	Hutchison	RE
M	10/09/2019	TGHU6106358	Hutchison	Palr
M	10/09/2019	TLU4159321	Hutchison	TRANSGROUP TR
M	10/09/2019	TEMU3281102	Hutchison	SGL T
M	10/09/2019	OOLU8362087	Hutchison	
M	10/09/2019	CSNU6810117	Hutchison	KIT BRO
M	10/09/2019	TCNU4458234	Hutchison	RE
M	10/09/2019	CSNU6570150	Hutchison	Landbr
M	10/09/2019	OOLU8983364	Hutchison	ADDRESS
M	10/09/2019	OOLU4980455	Hutchison	CG
M	10/09/2019	OOLU0167973	Hutchison	Import &
M	10/09/2019	CBHU9050724	Hutchison	Emre's Tran
M	10/09/2019	APHU7401357	Hutchison	JOHNSTONS
M	10/09/2019	CSNU1677038	Hutchison	
M	10/09/2019	TLU5227797	Hutchison	JAS Tran
M	10/09/2019	TRHU2938835	Hutchison	MKD
M	10/09/2019	OOLU0129926	Hutchison	NTD Distribut
M	10/09/2019	CMAU5679840	Hutchison	
M	10/09/2019	CAIU6627242	Hutchison	Verneto Pty L
M	10/09/2019	OOLU7512102	Hutchison	JOHNSTONS
M	10/09/2019	TGBU2422016	Hutchison	FL
M	10/09/2019	CSLU1117904	Hutchison	JOHNSTONS
M	10/09/2019	TEMU7896471	Hutchison	keoh
M	10/09/2019	TCNU3694338	Hutchison	KING CONTA
M	10/09/2019	OOLU1393131	Hutchison	SYDNEY TRAN
M	10/09/2019	OOLU0532280	Hutchison	CG
M	10/09/2019	TEMU2384106	Hutchison	CG
M	10/09/2019	OOLU1148140	Hutchison	KING CONTA
M	10/09/2019	FSCU7275903	Hutchison	KING CONTA
M	10/09/2019	APHU6762640	Hutchison	MKD
M	10/09/2019	OOLU6871505	Hutchison	Sydney
M	10/09/2019	FSCU8621446	Hutchison	Cahill Tre
M	10/09/2019	TCLU9703168	Hutchison	JUL
M	10/09/2019	FSCU5103968	Hutchison	The Trustee
M	10/09/2019	FSCU5103968	Hutchison	The Trustee
M	10/09/2019	FICU3343913	Hutchison	
M	10/09/2019	CCLU7710881	Hutchison	AUSTRALM
M	10/09/2019	TGHU5037930	Hutchison	Toll
M	10/09/2019	FICU9996556	Hutchison	keoh
M	10/09/2019	TRHU1065010	Hutchison	JUL
M	10/09/2019	APZU4334577	Hutchison	

S = Stevedore Only, M = Matched, C = CEOS Only

PENALTIES - TRUCK DETAILS

STEVEDORE: [REDACTED] GATE IN: 08:07
 TRIP DATE: 10/09/2019 GATE PASS: 08:07
 REGO: A [REDACTED] CALL UP FIRST: 08:10
 TIME ZONE: 08:00 CALL UP LAST: 08:10
 CARRIER: JOH [REDACTED] ON GRID: 08:15
 MANIFEST ID: 20190 [REDACTED] JOB COMPLETE: 09:19
 MTR DELAYED: false GATE OUT: 09:27
 CONGESTION: false REJECTED GATE IN:
 PARKED: false REJECTED GATE OUT:
 TRUCK ARRIVAL TIME: 08:06 SIT AVAILABLE: -
 TTT START TIME: 08:06 SIT ACCRUED: -
 ACTUAL TTT: 72 min SIT USED: -
 ALLOWED TTT: 45 min SIT REMAINING: -
 SIT QUALIFIER:
 SIT START PERIOD:

NAME	DATE	TIME
Hutch Que Lane1	10/09/2019	08:05
Hutch In Gate Lane 1	10/09/2019	08:06
Hutch Discount Lane 1	10/09/2019	09:29

STATE	CODE	PARTY	AMOUNT	EXEMPTION
PENALTIES: Matched	TTTV	STEVEDORE	50	NONE
Matched TRUCKTURNAROUNDTIMEVIOLATIONFEE		STEVEDORE	50	NONE

SLOT BOOKINGS:	SLOT	SLOT TYPE	CONTAINER
	0910081006	IMPORT	CSLU1117904

CANCEL

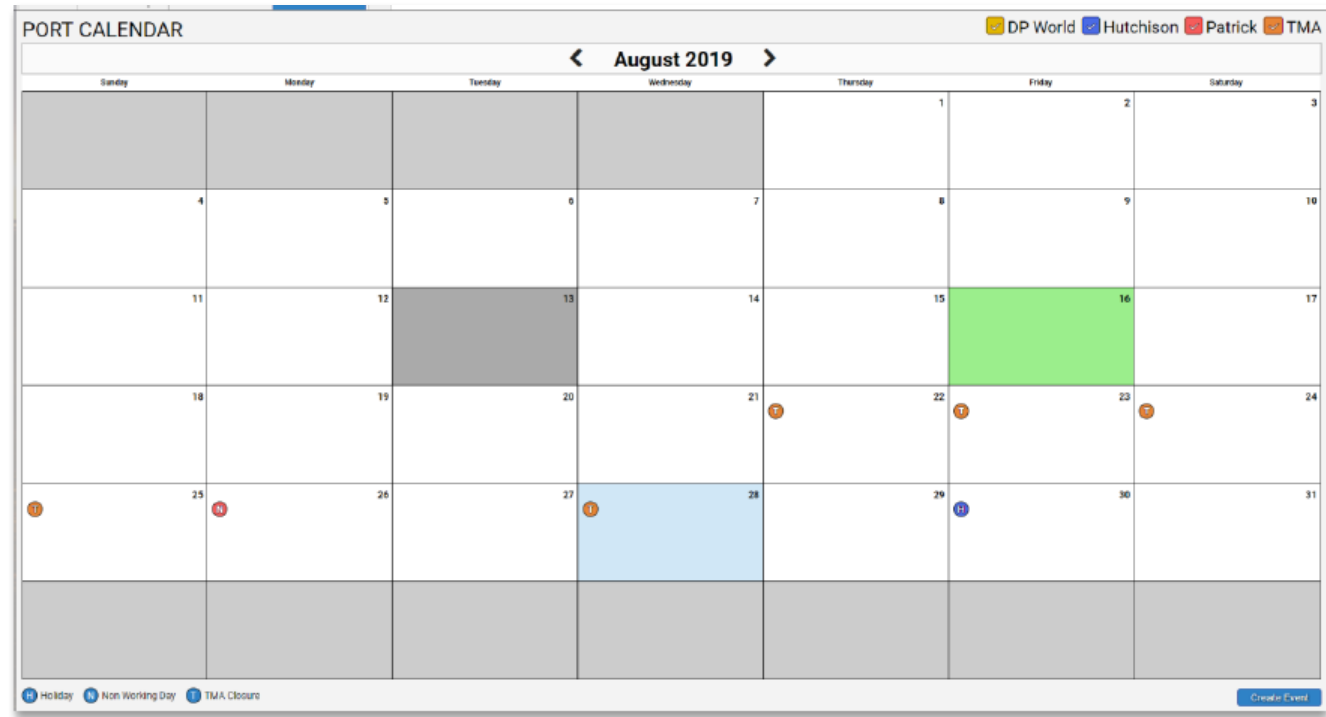
(This page contains test data only)

PENALTY DETAILS

View Slot Booking Details

Port Calendar

- Filterable by stevedore
- Mouse over to obtain details



Apply for Requests

The following User groups can view and submit their own requests in the following categories:

STEVEDORE	REQUESTED BY	REFERENCE NUMBER	DATE	REQUEST TYPE	STATUS
Patrick	Local Admin	00000006	20/07/2019	Slot Reduction	Requested
DP World	Local Admin	00000007	26/07/2019	Unforeseen Event	Requested
DP World	Local Admin	00000008	20/07/2019	Slot Booking Cancellation	Requested
Patrick	Local Admin	00000006	22/07/2019	Unforeseen Event	Requested
Patrick	Lorely Truster	00000005	18/07/2019	Slot Booking Cancellation	Approved
Patrick	Local Admin	00000002	12/07/2019	Time Zone Early Opening	Approved
Hutchison	Local Admin	00000003	12/07/2019	Slot Booking Cancellation	Rejected
DP World	Local Admin	00000004	12/07/2019	Unforeseen Event	Rejected
Patrick	Local Admin	00000001	11/07/2019	Data Quality Issue	Pre-approved

Road Users

- Unforeseen Event

Stevedore Users

- Unforeseen Event
- Slot Reduction
- Slot Booking Cancellation

Landing Page - Rail

The screenshot displays the Rail Landing Page interface. At the top right, the NSW Government logo and 'Transport for NSW' are visible. The main header area features the word 'RAIL' in large white letters on a blue background. Below this, there are several navigation buttons: 'Penalty List', 'Port Calendar', 'Apply for Requests', 'Truck Matching', and 'Truck Location Maintenance' (all in blue); and 'Plan Overview', 'Live Window Management', and 'Detail Plan Reconciliation' (all in orange). A help icon (a question mark) is located on the left side of the main content area, with a callout box stating 'Help: Opens the online User Manual.'.

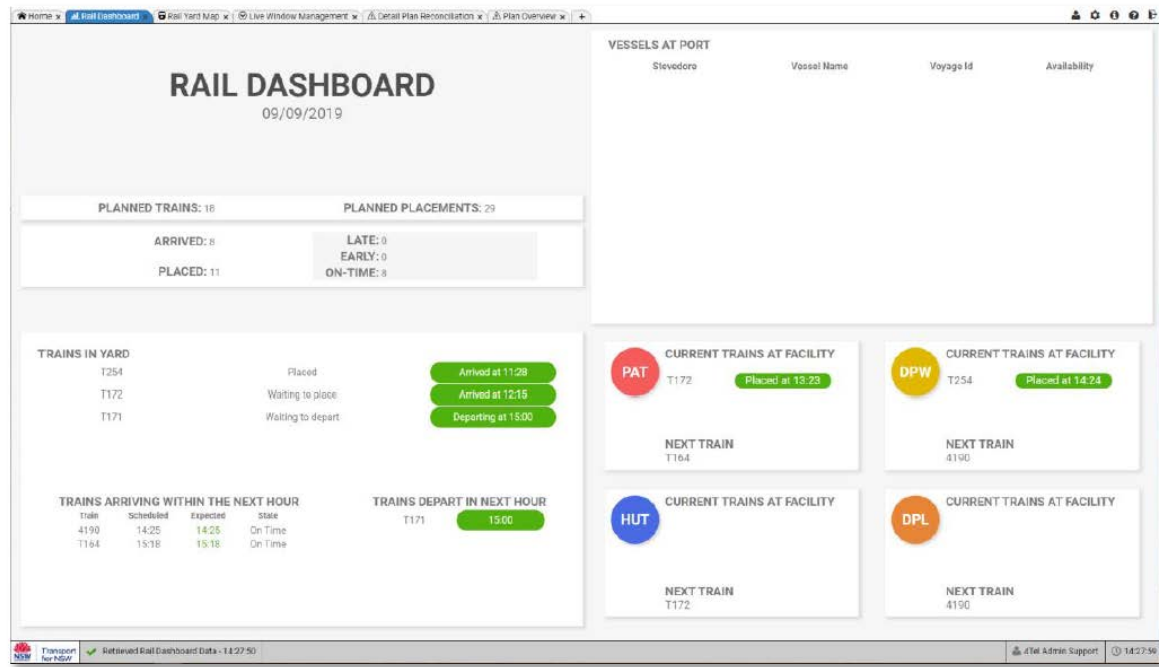
Annotations include:

- A red circle around a '+' icon in the top left corner of the browser window.
- A red circle around the user profile, settings, and help icons in the top right corner of the browser window.
- A red box around the 'Home' tab and a '+' icon, with a callout box: 'Click the + tab to access drop down menu'.
- A red box around the expanded navigation menu, showing options like 'Home', 'Admin', 'Road', 'Rail', 'Road Dashboard', 'Activity Summary', 'Slot Booking List', 'Truck Trips', 'Penalty List', 'Port Calendar', 'Apply for Requests', 'Truck Matching', and 'Truck Location Maintenance'.
- A red box around the 'Rail' sub-menu, showing options like 'Rail Dashboard', 'Rail Yard Map', 'Live Window Management', 'Detail Plan Reconciliation', and 'Plan Overview'.

At the bottom of the page, there is a footer with the NSW Government logo, 'Transport for NSW', '4Tel Admin Support', and the time '11:00:25'.

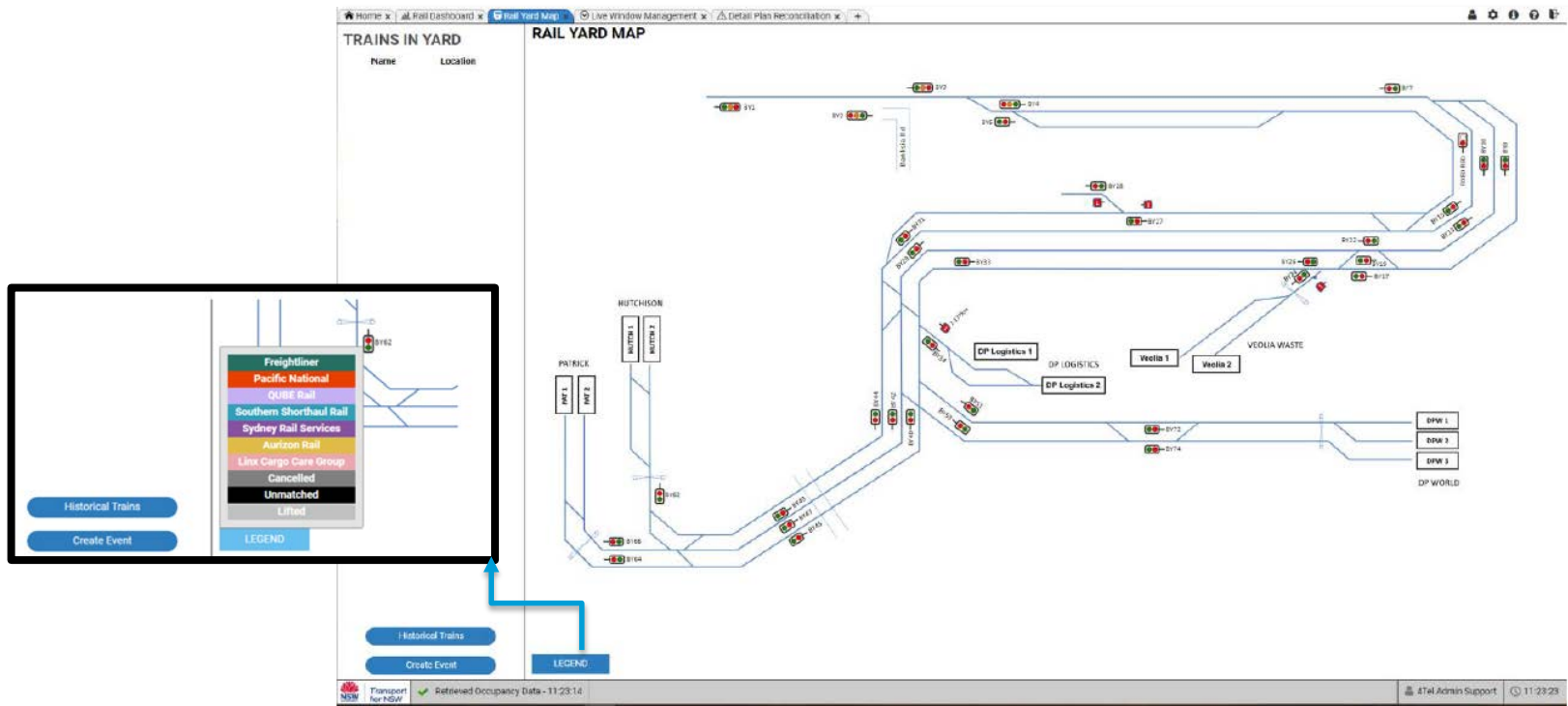
Rail Dashboard

- Tab based
- Planned trains & placements
- Trains in yard
- Trains arriving in next hour
- Current trains at facility



Rail Yard Map

- Rail Users can View current status of trains in Botany yard and connected terminals.



Plan Overview

- Rail users can use this screen to view each train's plan details.

TODAY

Train Arrival Time

T254	05/12 11:27
T154	05/12 18:00
T164	05/12 19:00
T252	05/12 21:23
T282	05/12 21:55
2194	06/12 00:22
T158	06/12 01:20
T284	06/12 03:30
T250	06/12 03:46
T260	06/12 05:33
8146	06/12 06:50
8148	06/12 09:00
T170	06/12 09:45
T172	06/12 13:00
T254	06/12 13:50
4190	06/12 14:25
2120	06/12 19:00
T164	06/12 19:40
T252	06/12 21:23
T282	06/12 21:55

LEGEND

ARRIVAL

Train No: **T254**

Total Wagons: 24

Origin: CVY

Destination: **BOTANY**

Length: 300m

05/12 11:27

DEPARTURE

Train No: **T253**

Total Wagons: 0

Destination:

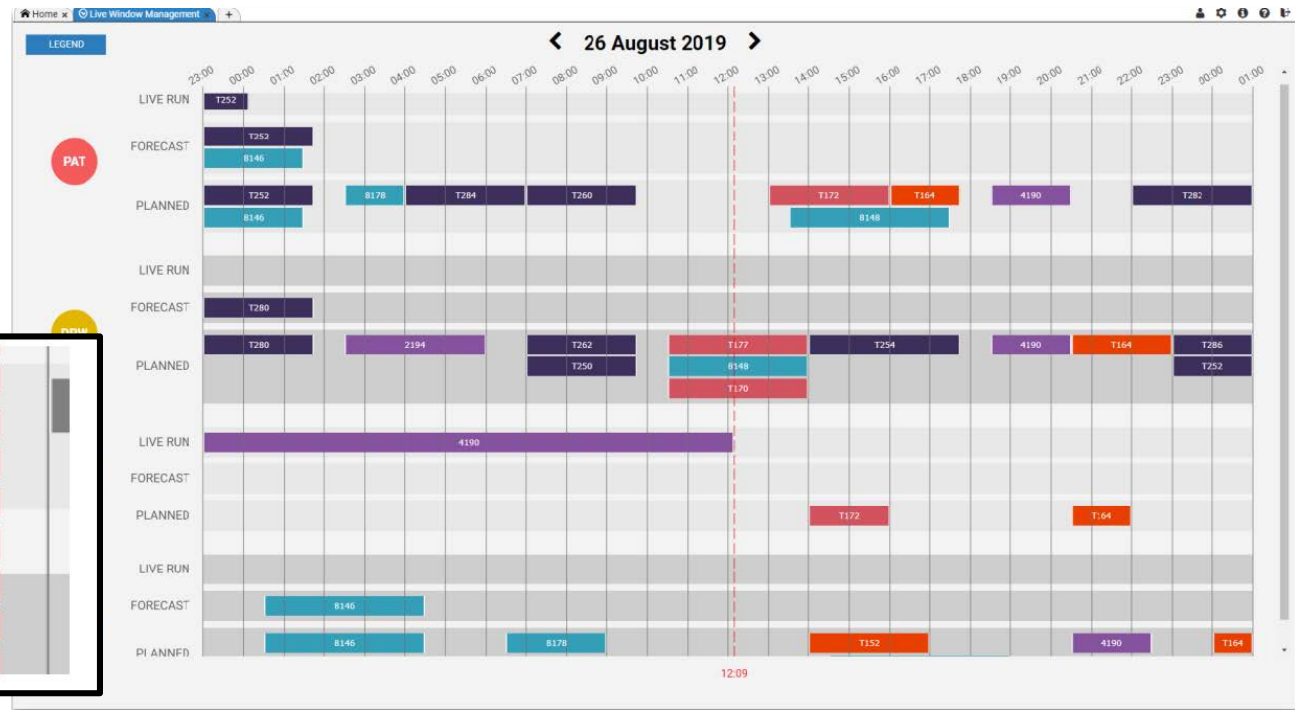
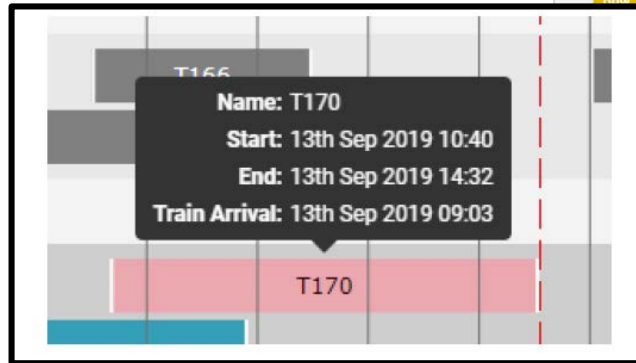
Length: 0m

05/12 19:23

PAT	Patrick	DPW	DP World	HUT	Hutchison	DPL	DP Logistics
Time In: 06/12 12:30		Time In:		Time In:		Time In:	
Time Out: 06/12 15:00		Time Out:		Time Out:		Time Out:	
Wagons: 24		Wagons:		Wagons:		Wagons:	
Export Lifts: 45		Export Lifts:		Export Lifts:		Export Lifts:	
Import Lifts: Yes		Import Lifts:		Import Lifts:		Import Lifts:	

Live Window Management

- Real-time view of current train yard movements scheduled in the yard
- Mouse over for pop up details



CMCC: Management of Users

- Access is via:
<http://ceos.ot.transport.nsw.gov.au>
- Chrome is the preferred browser
- All existing OPMS company admin account holders will receive a password email from CEOS and can then set up their other staff

Questions

Contact the CMCC for more information:

Road Team : P 82657920

E landsideimprovement@transport.nsw.gov.au

Rail Team: P 82657930

E rocc@transport.nsw.gov.au

