

Rail Opal Assignment Model

1 Background

To create a deeper understanding of how our passengers use the public transport network we transform Opal tap on and off data using Opal Allocation Models (OAMs). By combining Opal information with live timetable data, we can allocate a passenger to a particular service and create new information relating to passenger delays, boardings and alightings, as well wait times at interchanges across all modes of public transport. Importantly OAMs are the only way we can split Metro and Train trips with the Opal tap on and tap off data.

Our legacy OAMs, which are currently widely used across Transport, does not support the complexity of the new services on the Sydney Metro line. This necessitates an acceleration of the adoption of the new Near Real Time Opal Allocation Model (NRT OAMs).

2 Data Structure

Field Name	Data Type	Field Description
ACT_STOP_STN	String	Train station name
NEW_TRIP_NAME	String	Train trip name which joined trips to form returning services (e.g. 1B-JOINED)
SERVICE_DATE	Date	Service running date (Ignore the timestamp)
PLN_STN_ARRV_TIME	Datetime	Scheduled arrival time at a station
ACT_STN_ARRV_TIME	Datetime	Actual arrival time at a station
PLN_STN_DPRT_TIME	Datetime	Scheduled departure time from a station
ACT_STN_DPRT_TIME	Datetime	Actual departure time from a station
SEGMENT_DIRECTION	String	Service direction
		Up - service going towards CBD
		Down - service going away from CBD

OFFICIAL

TRIP_NAME	String	Train trip name used to identify a train service in punctuality data	
SERVICE_TYPE	String	Train Service Type, such as "Metropolitan", "Intercity", etc.	
SERVICE_LINE	String	Service line – definition used by Sydney Trains (City Circle line included)	
TRIP_ZONE	String	The service line is further mapped to TfNSW defined trip zone such as "T1", "T2", etc.	
ORIG_STN	String	The scheduled first station name of a train trip	
DEST_STN	String	The scheduled last station name of a train trip	
LEAD_SET_NUMBER	Number	The leading carriage type of the train service	
LEAD_SET_TYPE	String	The leading set number of the train service	
NODE_SEQ_ORDER	Number	The sequence number to indicate the order of each stopping station by the trip segment	
ACT_STOP_NODE	String	Node name, usually the abbreviation of station name and platform number	
REPORTING_LINE	String	Service line - definition used by TfNSW and any customer facing query (no City Circle line)	
ACT_STN_DPRT_TIME_BAND	String	15-minutes band flag for ACT_STN_DPRT_TIME	
ACT_STN_ARRV_TIME_BAND	String	15-minutes band flag for ACT_STN_ARRV_TIME	
CARD_TYPE	String	Opal card type • Adult • All Card Types • Child/Youth • Concession • CTP	

		Day Pass Child/Youth w/o SAF
		 Day Pass without SAF
		Employee
		• EMV
		Free Travel
		• OPAL
		Purse Card – Adult
		School Student
		Senior/Pensioner
		Sgl Trip Rail Adult
		 Sgl Trip Rail Child/Youth
		UNKNOWN
		Note: CTP = Contactless Payment
		(Credit/Debit Card payment), SAF = Station Access Fee
		SAF = Station Access Fee
SEAT_CAPACITY	Number	Seat capacity for a train trip
OCCUPANCY_RANGE	String	Occupancy numbers grouped into range of 20
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3 Filtering Data

The New NRT ROAM includes more regional services than OLD ROAM data. Users can exclude the regional services by filtering out data based on **reporting_line** and **set_type** values.

The table below provides information on Reporting Lines and Set Types:

reporting_line	lead_set_type
T1 Western Line	А
T9 Northern Line	А
T8 Airport & South Line	А
T1 North Shore Line	А
T2 Inner West & Leppington Line	А
T3 Bankstown Line	А

T5 Cumberland Line	А
T2 Inner West & Leppington Line	В
T8 Airport & South Line	В
T9 Northern Line	В
T1 North Shore Line	В
T3 Bankstown Line	В
T1 Western Line	В
T5 Cumberland Line	В
Central Coast & Newcastle Line	н
South Coast Line	Н
T4 Eastern Suburbs & Illawarra Line	н
T9 Northern Line	Н
T1 Western Line	Н
T1 North Shore Line	н
Hunter Line	J
T2 Inner West & Leppington Line	К
T3 Bankstown Line	К
T8 Airport & South Line	К
T7 Olympic Park Line	М
T5 Cumberland Line	М
T3 Bankstown Line	М
T2 Inner West & Leppington Line	М
T8 Airport & South Line	М
Metro North West Line	MT
South Coast Line	N
Southern Highlands Line	N
Hunter Line	N
Blue Mountains Line	Ν

Southern NSW	Р
North West NSW	Р
NSW TrainLink North Western Train Services	Р
NSW TrainLink Southern Train Services	Р
T4 Eastern Suburbs & Illawarra Line	Т
T1 North Shore Line	Т
T1 Western Line	Т
South Coast Line	Т
T9 Northern Line	Т
Central Coast & Newcastle Line	V
Blue Mountains Line	V
North Coast NSW	Х
Western NSW	Х
Southern NSW	Х
Southern NSW	[NULL]
Western NSW	[NULL]
North Coast NSW	[NULL]
North West NSW	[NULL]