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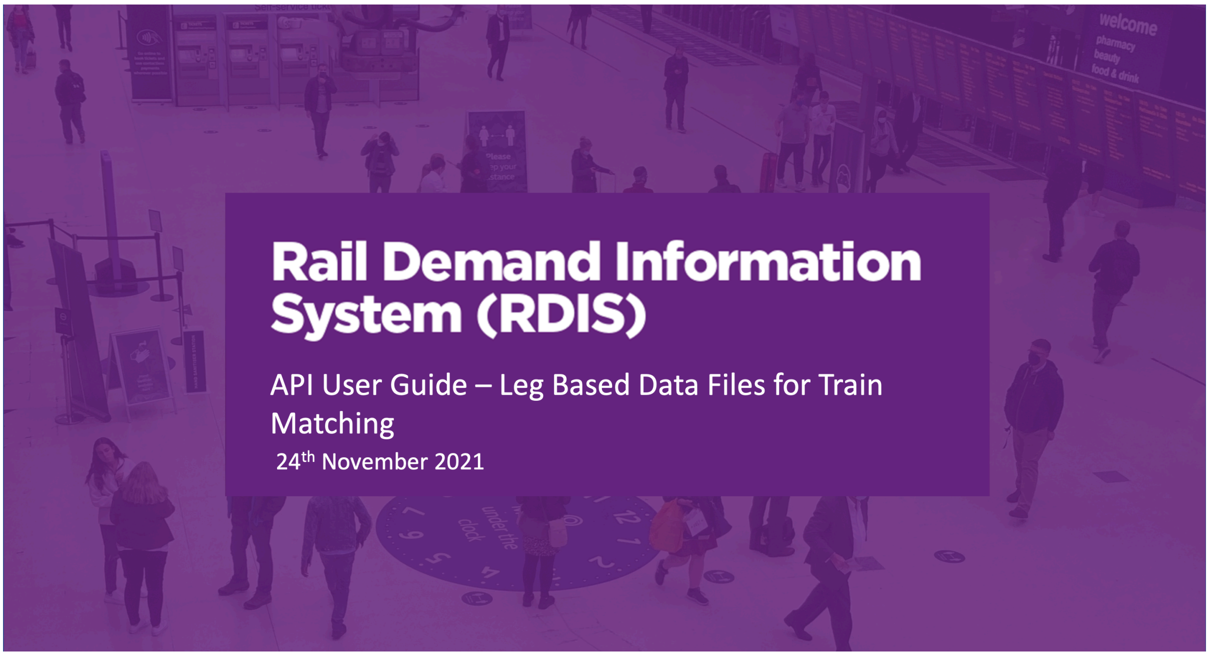

Rail Demand Information System (RDIS)

API User Guide – Leg Based Data Files for Train Matching

24th November 2021

Leg Based Data Files for Train Matching

1 Introduction

As part of the introduction of the analysis for the R12 OD version of RDIS, Citi Logik derive multileg rail journeys using train position information for each service running on a specific day. To better calculate train loadings, Telios and SWL require leg information for those multileg trips rather than for entire rail journey which these reports provide. In the meantime, Network Rail (NR) will be able to use these reports to better understand rail interchanges. This means that a new format for the OD information needed to be developed, focussing on the leg-based rail trips. This note summarises the agreed data format, and the way to access the reports via APIs.

2 Data Format

2.1 Daily Data Delivery

2.1.1 Specification

Data will be delivered as CSV format. 3 leg-based files will be produced, in addition to the trip-based files already produced, named with date (Year-Month-Day) with no separators for data they contain:

- Full OD leg matrix by 15 minutes interval – example name TimeSlotLegMatrix_20200801.csv
- Daily leg matrix - example name DailyLegMatrix_20200801.csv
- Daily leg total - example name DailyTotalLegCount_20200801.csv

2.1.2 Data Transfer Mechanism

Data is made available to NR through APIs every day as per other reports. Files can also be pushed to Telios once Telios set up a push end point. Files to be issued daily with the other trip-based files.

2.2 Data Field Format

2.2.1 Full OD leg matrix by 15 minutes interval

The dataset contains the following fields:

- **TripDate**
  Date for the dataset considered.
- **TimeSlotStart**
  The departure 15 minutes Timeslot.
- **TimeSlotEnd**
  The arrival 15 minutes Timeslot.
- **Start_CRS**
  Leg start station CRS code.
- **End_CRS**
  Leg end station CRS code.
- **Legs**
  Number of legs observed with privacy applied.

- **Confidence**
  Leg confidence level.
- **AvgJourneyTime**
  Average journey time in minutes for the leg.
- **IsStartInterchange**
  A Boolean field, marked 1 or 0, indicating whether the start station is an interchange for that leg of the trip.
- **IsEndInterchange**
  A Boolean field, marked 1 or 0, indicating whether the end station is an interchange for that leg of the trip.

2.2.2 Daily leg matrix

The dataset contains the following fields:

- **TripDate**
  Date for the dataset considered.
- **Start_CRS**
  Leg start station CRS code.
- **End_CRS**
  Leg end station CRS code.
- **Legs**
  Number of legs observed with privacy applied.
- **Confidence**
  Leg confidence level.
- **AvgJourneyTime**
  Average journey time in minutes for the leg.
- **IsStartInterchange**
  A Boolean field, marked 1 or 0, indicating whether the start station is an interchange for that leg of the trip.
- **IsEndInterchange**
  A Boolean field, marked 1 or 0, indicating whether the end station is an interchange for that leg of the trip.

2.2.3 Daily leg total

The dataset contains the following fields:

- **TripDate**
  Date for the dataset considered
- **DailyLegCount**
  Number of legs observed for the date with privacy applied.

3 API Calls

The new API calls for the leg-based reports are summarised below.

3.1.1 Download Full OD leg matrix by 15 minutes interval

Returns a full leg-based station to station matrix grouped by 15-minute time slot for a single day.

*Endpoint: https://api.citianalytics.com/networkrail/od/*downloadLegsTimeslots
Method: GET
Input parameters: date(required), url (optional)
Headers: authToken (required)
Body: N/A

3.1.2 Download Daily leg matrix

Returns a full leg-based station to station trip matrix for a single day.

Endpoint: https://api.citianalytics.com/networkrail/od/downloadLegsDaily
Method: GET
Input parameters: date(required), url (optional)
Headers: authToken (required)
Body: N/A

3.1.3 Download Daily leg total

Returns a number containing the total daily leg count for a particular day.

Endpoint: https://api.citianalytics.com/networkrail/od/downloadDailyTotalLegCount
Method: GET
Input parameters: date(required), url (optional)
Headers: authToken (required)
Body: N/A