



CSV Timetable and Vehicle Schedule Import

Austrics 25.2

CSV TIMETABLE SPECIFICATION

File name and format

The Timetable and Vehicle Schedule Import requires that all timetable data is in the format outlined below, saved in Comma Delimited Format (.csv), available in software such as Microsoft Excel or Google Sheets.

A separate file is required for each different route (or logical group of routes) and day type. In addition, each file should follow a specific naming format.

Examples: i275w o275w i275t o275_DECt i275_2601s o275s

Where...

- **i** or **o** indicates a direction of travel (inbound or outbound)
- **275** indicates the route number (or represents a group of route numbers)
- **w, t, s** indicates the day type on which the timetable operates (Weekdays/Saturdays/Sundays)

Note: The day type character must be at the end of the filename.

Example

Below is a sample of the contents in a timetable file named **i545w.csv**:

HEADER ROW	ROUTE	DAYFLAGS	RUN	VEHICLE CLASS	TRIP TYPE	TRAIN NOTE	TRAIN NOTE	TRAIN NOTE	STOP HEADINGS AND TIMES (See below)			DEPART DEPOT	DEPART TIME	ARRIVE DEPOT	ARRIVE TIME
	H								Wynn Vale	...	City Terminus				
T	545		200	a	S	Note One	Note Two	Note Three	500	...	600				
T	545		201	a	S				530	...	630				
T	545		100	a	S				600	...	700				
T	545		101	a	S				630	...	730				
T	545		103	a	S				700	...	800				
T	545		200	a	S				730	...	830				
T	545X		201	a	S				800	...	900				
T	545		100	a	S				830	...	930				
T	545		101	a	S				900	...	1000				
T	545		103	a	S				930	...	1030				
T	545F	0000010	200	a	S				1000	...	1100				
T	545M	0111100	201	a	S					...	1130				
T	545		100	a	S				1100	...	1200			city	1205

Header Row

The first row for each valid CSV timetable must be defined as a header row by a single **H** in the first column. The next eight columns contain trip details: **Route**, **Day Flags**, **Run**, **Vehicle Class**, **Trip Type**, and **Train Note** (3). The **Route** column is the only mandatory trip detail column.

The trip detail headers must either all be blank, or all specified using the above names. When blank, the importer will assume the columns are in the order specified above. For example, three trip detail columns found before the stop headings would be assumed to contain data for **Route**, **Day Flags**, and **Run**. If the trip detail headers are specified, they can be in any order, provided they occur prior to the stop headings. E.g. **Route**, **Vehicle Class**, **Run**, **Day Flags**.

When specifying trip detail headers, it should be noted that the header names are not case sensitive, and the **Train Note** header may appear a maximum of three times.

The next set of columns will contain the **Stop Headings** and there can be as many as required for this timetable. The Stop Headings should not be empty and would be equivalent to either Node Headings or Node Codes. Stop Headings must be entered in time sequence.

Note:

Ensure that any stop headings entered for identical time points on multiple timetables (i.e. the same physical location on different routes or on a different day type), are entered in the same format in each file. If this is not done, the conversion program will identify the two points as separate places.

Example: West Beach in **i275w** City in **i275w**
 West Bch in **i275t** Adelaide in **i123w**

A unique stop will be identified for each of these example headings and imported as separate places.

The final four columns may contain vehicle block details: **Depart Depot**, **Depart Time**, **Arrive Depot**, and **Arrive Time**. The header for these columns should be left blank, and the importer will only look to use this data (if available) when importing Vehicle Schedules.

Trip Rows

Each valid CSV timetable must contain one or more Trip Rows, which are defined by a single **T** in the first column.

ROUTE Column

The **Route** column is *mandatory* and should contain the Route Number assigned to the Trip. If the stopping pattern for this trip does not match an existing path, the **Route** will be used as part of name for the new path record to be used for this trip. It is advisable to group similar routes in the same timetable file.

DAY FLAGS Column

The **Day Flags** column is *optional* used to indicate if an individual trip runs on specific days of the week. If nothing is entered in this column for a trip, the conversion program assumes the trip is runs on every valid day for the timetable's day type.

If there are any variations on trips for particular days, the field should be completed with the appropriate Day Flags following the outline set out in this example:

0000010 Friday Only

0000100 Thursday Only

0111010 Excluding Thursday

Saturday and Sunday timetable files do not require a day flag column, nor do weekday timetables that do not contain any variable day trips.

RUN Column

The **Run** column is *conditional* in that it must be present when performing a Vehicle Schedule import. It should contain a run number that assigns this trip to a linked vehicle run for the day. Depot to Depot blocks can be defined with the vehicle block detail columns (see below).

VEHICLE CLASS Column

The **Vehicle Class** column is *optional* and may contain a one or more single character case-sensitive Vehicle Class codes (separated by commas) to assign as valid vehicle classes for this trip.

TRIP TYPE Column

The **Trip Type** column is *optional* and may contain a single character case-sensitive code to designate the Trip Type for this trip. Refer to the table below for valid Trip Type codes.

CODE	TRIP TYPE
S	Service*
x	Special
s	School
t	Sport
l	Industrial
r	Reposition
i	Cutin
o	Cutout
d	Work as directed

*If no **Trip Type** is specified, all imported trips will be designated as **Service** trips by default.

TRAIN NOTE Columns

The **Train Note** columns are *optional* and may allow train connection notes (or any other desired notes) to be imported as a Trip Note for this trip. There can exist a maximum of three Train Note columns, and each completed note will be imported as consecutive Trip Notes on the trip.

STOP TIME Columns

The next set of columns in a *Trip Row* will be a representation of the times and stopping pattern for this trip and each time entry corresponds to the Stop Heading defined in the *Header Row*.

The importer seeks to use an existing path if one matches the precise set and order of stops as laid out in this row. If one is not found, the importer will generate a new path and name it based on the **Route**.

Ensure that when entering times on these trip rows that the times increase from left to right. If a reverse time is encountered, the trip stop will be ignored.

To include a wait or lay-up time at an intermediate stop on a route, two identical, adjacent stop headings must be entered in the Heading Row. The arrival time should be entered in the first column for that point, with the departure time in the second.

If a timetable contains some trips with wait times and some without, the single time for those trips without waits should be entered into the *second* column for that point. If the trip terminates at this point, the time must also be entered in the second column for the point.

Times should be in a **24-hour** scheduling clock format.

For example, trips times that occur beyond midnight would be entered as 2410, 2530, etc.

Times must also follow any of the following acceptable formats:

HHMM, **HH:MM**, or **HH:MM:SS**.

If a stop is to be skipped or not serviced, you may leave that stop's column blank.

VEHICLE BLOCK Columns

The final four vehicle block columns are *optional*, however, if vehicle block data is to be imported, all four columns should be used. The columns would follow the last Stop Heading column and would be in this order: **Depart Depot**, **Depart Time**, **Arrive Depot**, **Arrive Time**

If a trip is the first trip of a block of linked trips, the **Depart Depot** column should specify the depot, and the **Depart Time** column should specify the time the vehicle departs from the depot.

If a trip is the last trip of a block of linked trips, the **Arrive Depot** column should specify the depot, and the **Arrive Time** column should specify the time the vehicle arrives at the depot.

Depots can be specified using either the depot's Node Heading or Node Code, but whichever is used should be consistent across all files—do not mix use of Headings/Codes.

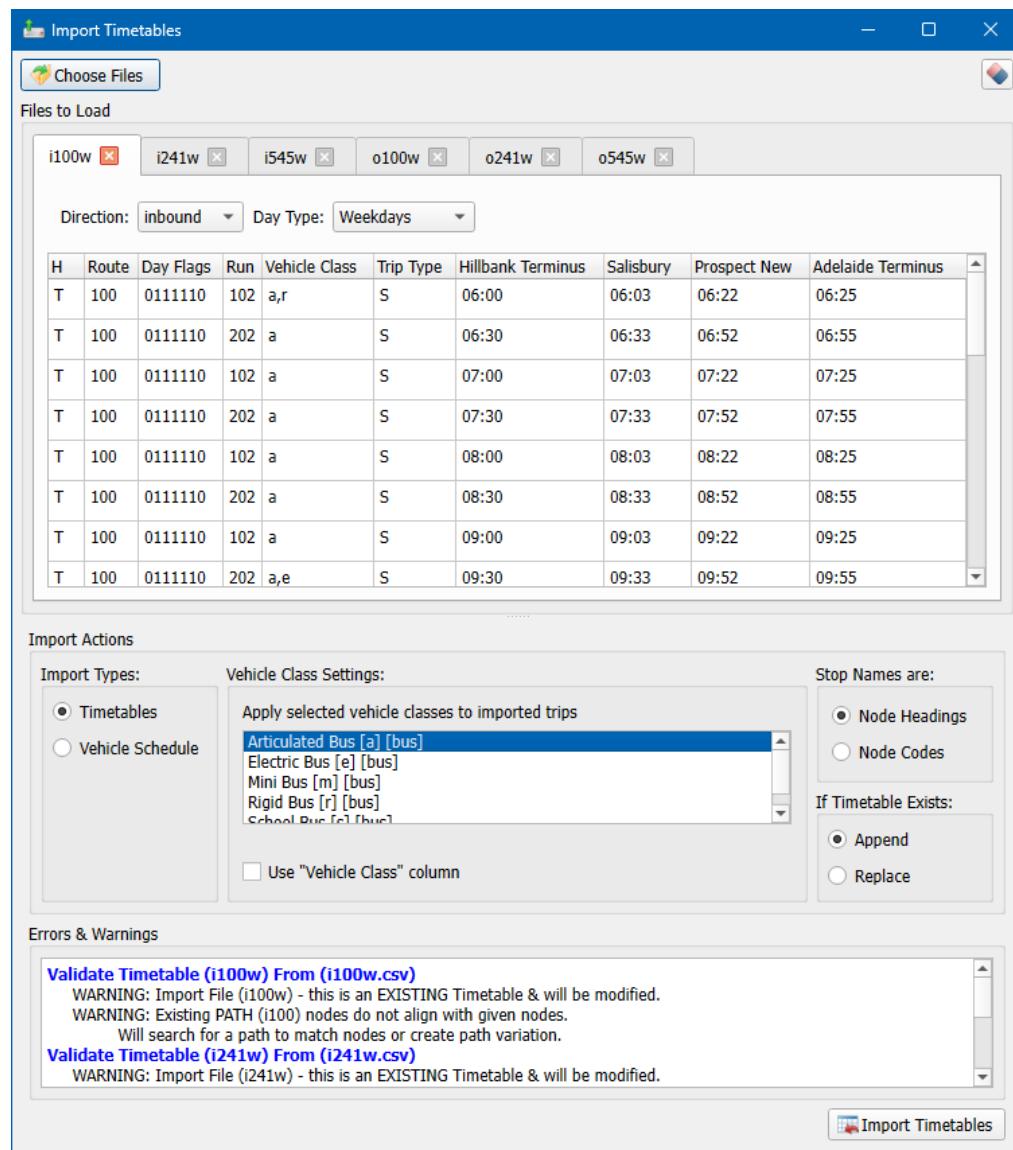
If the importer does not find any depart or arrive depot data across all selected CSV timetables, the run will be imported into the vehicle schedule as linked vehicle blocks with missing depot information.

USING THE IMPORTER

Loading CSV Timetable Files

1. Open the **Trip Editor**.
2. Go to the **Trip** menu and select **Import Timetables**.
3. Click **Choose Files** to select one or more CSV timetables to be imported.
4. The editor will display each loaded timetable file, allowing you to check over the data to be imported.

Importing Timetables



Import Types: Timetables Vehicle Schedule

Vehicle Class Settings: Apply selected vehicle classes to imported trips
 Articulated Bus [a] [bus]
 Electric Bus [e] [bus]
 Mini Bus [m] [bus]
 Rigid Bus [r] [bus]
 School Bus [s] [bus]

Stop Names are: Node Headings Node Codes

If Timetable Exists: Append Replace

Errors & Warnings

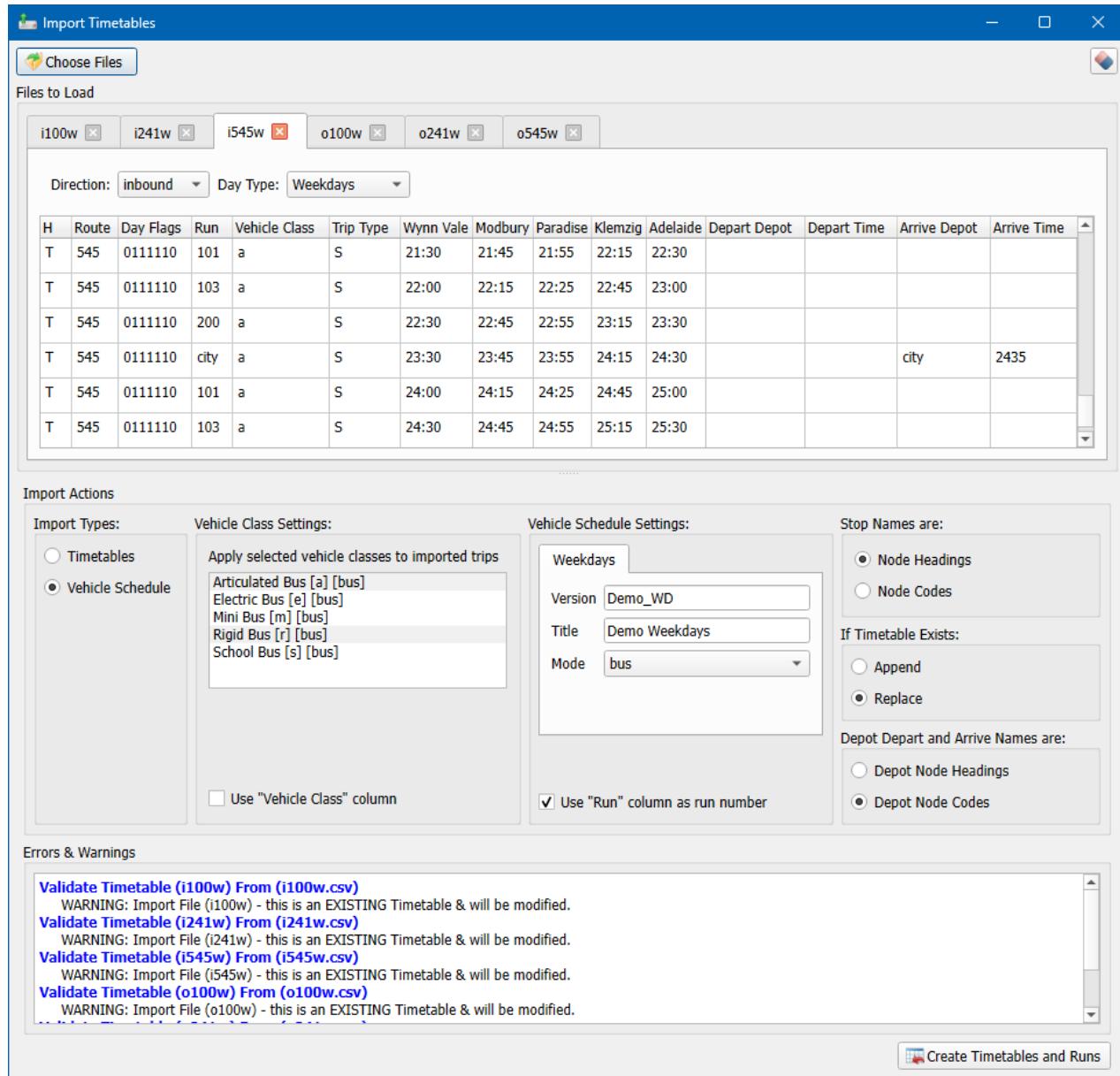
Validate Timetable (i100w) From (i100w.csv)
 WARNING: Import File (i100w) - this is an EXISTING Timetable & will be modified.
 WARNING: Existing PATH (i100) nodes do not align with given nodes.
 Will search for a path to match nodes or create path variation.

Validate Timetable (i241w) From (i241w.csv)
 WARNING: Import File (i241w) - this is an EXISTING Timetable & will be modified.

1. Select **Timetables** for the **Import Types** option.
2. Each loaded CSV timetable will allow the detected *Direction* or *Day Type* to be adjusted, if desired.
3. Under **Vehicle Class Settings**, you may select one or more vehicle classes to apply to all the imported trips. If the Vehicle Class column is detected, you can instead choose to apply the vehicle classes per trip from the data in that column by checking the *Use "Vehicle Class" column* option.

4. Under **Stop Names are**, you should choose whether the Stop Headings should be matched against *Node Headings* or *Node Codes*. The setting applies for all loaded timetables.
5. If a timetable of the same name already exists, the importer will perform the import according to the action specified under **If Timetable Exists**. The *Append* option will add new trips to the timetable without removing any trips, while the *Replace* option will delete all existing trips for that timetable before importing the new trips.
6. When ready to import, click **Import Timetables** in the lower right corner.

Importing Vehicle Schedules



The screenshot shows the 'Import Timetables' dialog box with the following details:

- Files to Load:** i100w, i241w, i545w, o100w, o241w, o545w.
- Direction:** inbound, **Day Type:** Weekdays.
- Import Actions:**
 - Import Types:** Vehicle Schedule (selected).
 - Vehicle Class Settings:** Apply selected vehicle classes to imported trips. Options: Articulated Bus [a] [bus], Electric Bus [e] [bus], Mini Bus [m] [bus], Rigid Bus [r] [bus], School Bus [s] [bus].
 - Vehicle Schedule Settings:** Weekdays, Version: Demo_WD, Title: Demo Weekdays, Mode: bus.
 - Stop Names are:** Node Headings (selected).
 - If Timetable Exists:** Replace (selected).
 - Depot Depart and Arrive Names are:** Depot Node Codes (selected).
 - Use "Vehicle Class" column:** Unchecked.
 - Use "Run" column as run number:** Checked.
- Errors & Warnings:**
 - Validate Timetable (i100w) From (i100w.csv)**: WARNING: Import File (i100w) - this is an EXISTING Timetable & will be modified.
 - Validate Timetable (i241w) From (i241w.csv)**: WARNING: Import File (i241w) - this is an EXISTING Timetable & will be modified.
 - Validate Timetable (i545w) From (i545w.csv)**: WARNING: Import File (i545w) - this is an EXISTING Timetable & will be modified.
 - Validate Timetable (o100w) From (o100w.csv)**: WARNING: Import File (o100w) - this is an EXISTING Timetable & will be modified.
- Create Timetables and Runs** button at the bottom right.

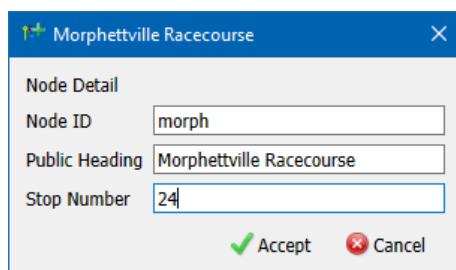
1. Select **Vehicle Schedule** for the **Import Types** option.
2. Each loaded CSV timetable will allow the detected *Direction* or *Day Type* to be adjusted, if desired.
3. Under **Vehicle Class Settings**, you may select one or more vehicle classes to apply to all the imported trips. If the Vehicle Class column is detected, you can instead choose to apply the vehicle classes per trip from the data in that column by checking the *Use "Vehicle Class" column* option.

When using the Vehicle Class column, ensure all trips to be linked as a single run are assigned at least one consistent vehicle class.

4. For **Vehicle Schedule Settings**, enter the name of the Vehicle Schedule Version to be imported (maximum 13 characters in length), the Title (description) for the Vehicle Schedule Version, and select the travel Mode to apply to the vehicle schedule and all imported timetables.
5. Check the *Use “Run” column as run number* if you would like the imported runs to be numbered according to the data found in the Run column. Otherwise, runs will be numbered sequentially.
6. Under **Stop Names are**, you should choose whether the Stop Headings should be matched against *Node Headings* or *Node Codes*. The setting applies for all loaded timetables.
7. If a timetable of the same name already exists, the importer will perform the import according to the action specified under **If Timetable Exists**. The *Append* option will add new trips to the timetable without removing any trips, while the *Replace* option will delete all existing trips for that timetable before importing the new trips.
8. Under **Depart Depot and Arrive Names are**, you should choose whether the Depot Depart/Arrive Names should be matched against *Depot Node Headings* or *Depot Node Codes*. The setting applies for all loaded timetables containing vehicle block columns.
9. When ready to import, click **Create Timetables and Runs** in the lower right corner.

Creating New Nodes

If a stop is not found during any import process, you can enter the *Node ID* and *Public heading* to create it along with the import process or cancel the process to create the stop prior to importing.



Node Detail	
Node ID	molph
Public Heading	Morphettville Racecourse
Stop Number	24

Accept Cancel