

# EXCEL AND CSV FILE HEADERS

This document describes the headers used to identify the data that is processed and created by the application. The headers are located in the first (hidden) rows of the Excel file, and form the top row of CSV files. Use UTF-8 character encoding and either tab or semi-colon as data delimiters. Quotation marks in the data are not necessary.

NFleet uses these headers to identify and process the data that is being imported. The headers are required for the import to function.

## Vehicles headers

Long headers (Excel)	Short headers (CSV)	Explanation
#NF-VEHICLE-NAME	VehID	The vehicle name - use a descriptive name, e.g. license number of the used vehicle.
#NF-VEHICLE-TYPE	VType	The vehicle type - for defining possible incompatibilities denote a vehicle class of your own choice (typically "car", "truck", "van" etc.). When naming the types you can use alphabets, numbers, dash and underscore. Do not use any other characters (e.g. space).
#NF-VEHICLE-INFO1	VInfo1	A text field for own notes
#NF-VEHICLE-CAPACITY1	VCap1	Vehicle capacity 1 - Up to three parallel capacities can be used, e.g. maximum number of carts, maximum weight of the cargo, maximum volume. The units need to be in full integers - use multiplied number if necessary (e.g. not 2.34 but 234). These need to be comparable to the capacities defined within the tasks.
#NF-VEHICLE-CAPACITY2	VCap2	Vehicle capacity 2 - see explanation above
#NF-VEHICLE-CAPACITY3	VCap3	Vehicle capacity 3 - see explanation above
#NF-VEHICLE-SPEED-PROFILE	VSpeedP	The maximum speed allowed for the vehicle. The data format needs to be "Max_Kmh", e.g. "Max80Kmh". You can use five different options: 40, 60, 80, 100 or 120 km/h. Note that only one speed profile per case is allowed at the moment.
#NF-VEHICLE-SPEED-FACTOR	VSpeedF	Use values below 1 to reduce the average speed of the vehicle. The speed limit or the maximum speed of the vehicle, whichever is the smallest, is multiplied by this number. For example: if the vehicle's speed profile is 80km/h, the speed limit on a road 40km/h and the vehicle's speed coefficient 0.7, the average speed of the vehicle on that road would be $40\text{km/h} * 0.7 = 28\text{km/h}$
#NF-VEHICLE-FIXEDCOST	VFixedC	The fixed cost for a vehicle that occurs when taken into use (has assigned tasks).
#NF-VEHICLE-KILOMETERCOST	VKmC	The cost for a vehicle per driven kilometer.
#NF-VEHICLE-HOURCOST	VHourC	The cost for a vehicle per hour in use.
#NF-VEHICLE-MAX-DRIVING-TIME	VMaxDrive	The maximum driving time for the driver of the specific vehicle (in hours). Use dot as a decimal separator.
#NF-VEHICLE-MAX-WORKING-TIME	VMaxWork	The maximum working time for the driver of the specific vehicle (in hours). Use dot as a decimal separator.
#NF-VEHICLE-PICKUP-ADDRESS	VPAdd	The street name and house number of the pickup location. If coordinates are preset this can be set to "(no)".
#NF-VEHICLE-PICKUP-POSTALCODE	VPPc	Postal code of the pickup location.
#NF-VEHICLE-PICKUP-CITY	VPCity	Name of the city of the pickup location. If coordinates are preset this can be set to "(no)".
#NF-VEHICLE-PICKUP-COUNTRY	VPCtry	Name of the country of the pickup location. If coordinates are preset this can be set to "(no)". Attention! The country name needs to be written in English.

	Long headers (Excel)	Short headers (CSV)	Explanation
	#NF-VEHICLE-PICKUP-LATITUDE	VPLat	Latitude coordinate of the pickup location in WGS 84 format, optional "(no)" if address data is present. A file downloaded after the optimization contains coordinates in addition to the address.
	#NF-VEHICLE-PICKUP-LONGITUDE	VPLon	Longitude coordinate of the pickup location in WGS 84 format, optional "(no)" if address data is present. A file downloaded after the optimization contains coordinates in addition to the address.
	#NF-VEHICLE-DELIVERY-ADDRESS	VDAdd	The street name and house number of the delivery location. If coordinates are preset this can be set to "(no)".
	#NF-VEHICLE-DELIVERY-POSTALCODE	VDPC	Postal code of the delivery location.
	#NF-VEHICLE-DELIVERY-CITY	VDCity	Name of the city of the delivery location. If coordinates are preset this can be set to "(no)".
	#NF-VEHICLE-DELIVERY-COUNTRY	VDCtry	Name of the country of the delivery location. If coordinates are preset this can be set to "(no)". Attention! The country name needs to be written in English.
	#NF-VEHICLE-DELIVERY-LATITUDE	VDLat	Latitude coordinate of the delivery location in WGS 84 format, optional "(no)" if address data is present. A file downloaded after the optimization contains coordinates in addition to the address.
	#NF-VEHICLE-DELIVERY-LONGITUDE	VDLon	Longitude coordinate of the delivery location in WGS 84 format, optional "(no)" if address data is present. A file downloaded after the optimization contains coordinates in addition to the address.
	#NF-VEHICLE-TIMEWINDOWSTART	VTWStart	Earliest time when the vehicle can be picked up for use in the pickup address. Format: dd.mm.yyyy hh:mm (in text format)
	#NF-VEHICLE-TIMEWINDOWEND	VTWEnd	Latest time when the vehicle can be returned to the delivery address. Format: dd.mm.yyyy hh:mm (in text format)
	#NF-VEHICLE-ACTIVITY-STATE	VAct	The activity state of a vehicle tells if the vehicle is allowed to be used in the optimization. Inactive vehicles are displayed on the map with grey markers, but no tasks will be given to them. Use values "Active", "Inactive" or "(no)". "(no)" means that the vehicle is active. If the vehicle has been made inactive in the application, the downloaded file will indicate this.
	#NF-VEHICLE-RELOCATE	VRel	Type "End" if the vehicle can be delivered to any vehicle delivery address. Otherwise type "(no)" or "None". This functionality is used when there are multiple depots and it is possible to choose an alternative delivery depot, if it allows more efficient routes.
	#NF-VEHICLE-CURRENT-LATITUDE	VCLat	Latitude coordinate of the current vehicle location in WGS 84 format. This is used to display the current location of the vehicle when doing continuous planning, i.e. updating the plans during the day.
	#NF-VEHICLE-CURRENT-LONGITUDE	VCLon	Longitude coordinate of the current vehicle location in WGS 84 format. This is used to display the current location of the vehicle when doing continuous planning, i.e. updating the plans during the day.
	#NF-VEHICLE-PICKUP-RESOLUTION	VPGeoRes	The pickup location's geocoding resolution. See <b>Geocoding Resolution and Confidence</b> .
	#NF-VEHICLE-DELIVERY-RESOLUTION	VDGeoRes	The delivery location's geocoding resolution. See <b>Geocoding Resolution and Confidence</b> .
	#NF-VEHICLE-PICKUP-CONFIDENCE	VPConf	The pickup location's geocoding confidence. See <b>Geocoding Resolution and Confidence</b> .
	#NF-VEHICLE-DELIVERY-CONFIDENCE	VDCConf	The delivery location's geocoding confidence. See <b>Geocoding Resolution and Confidence</b> .
	#NF-VEHICLE-	VCCol	Changed columns - returns the headers of the columns which were changed in the application.

Long headers (Excel)	Short headers (CSV)	Explanation
CHANGED-COLUMNS		

## Tasks headers

Long headers (Excel and CSV)	Short headers (CSV)	Explanation
#NF-TASK-ID	TaskID	Order ID / description - use a descriptive ID, for your own reference
#NF-TASK-IN-FO1	Info1	Text field 1 for own notes.
#NF-TASK-IN-FO2	Info2	Text field 2 for own notes.
#NF-TASK-IN-FO3	Info3	Text field 3 for own notes.
#NF-TASK-IN-FO4	Info4	Text field 4 for own notes.
#NF-TASK-CAPACITY1	Cap1	Amount (in units of capacity 1) - e.g. no. of carts
#NF-TASK-CAPACITY2	Cap2	Amount (in units of capacity 2) - e.g. total weight of the order
#NF-TASK-CAPACITY3	Cap3	Amount (in units of capacity 3) - e.g. total volume of the task (order).
#NF-TASK-PROFIT	Prio	The relative importance for the task. The optimization normally tends to pick up bigger tasks in capacity. The relative importance of smaller tasks can be increased by giving them higher priority values than the larger tasks.
#NF-TASK-PICKUP-ADDRESS	PAdd	The street name and house number of the pickup location. If coordinates are preset this can be set to "(no)".
#NF-TASK-PICKUP-POSTALCODE	PPc	The postal code of the pickup location.
#NF-TASK-PICKUP-CITY	PCity	Name of the city of the pickup location. If coordinates are preset this can be set to "(no)".
#NF-TASK-PICKUP-COUNTRY	PCtry	Name of the country of the pickup location. If coordinates are preset this can be set to "(no)". Attention! The country name needs to be written in English.
#NF-TASK-PICKUP-LATITUDE	PLat	Latitude coordinate of the pickup location in WGS 84 format, optional "(no)" if address data is present. A file downloaded after the optimization contains coordinates in addition to the address.
#NF-TASK-PICKUP-LONGITUDE	PLon	Longitude coordinate of the pickup location in WGS 84 format, optional "(no)" if address data is present. A file downloaded after the optimization contains coordinates in addition to the address.
#NF-TASK-PICKUP-SERVICETIME	PSerT	Time reserved for loading the order at the pickup location per one order (in minutes).
#NF-TASK-PICKUP-STOPPING-TIME	PStopT	Time reserved for arriving and leaving the location, for example time needed for parking the vehicle (in minutes). Used only once when multiple pickups are consecutively in the same location.
#NF-TASK-PICKUP-TIMEWINDOWSTART	PTWStart	Earliest time when the order can be picked up from the pickup address. Format: dd.mm.yyyy hh:mm (in text format)
#NF-TASK-PICKUP-TIMEWINDOWEND	PTWEnd	Latest time when the order can be picked up from the pickup address. Format: dd.mm.yyyy hh:mm (in text format)
#NF-TASK-DELIVERY-ADDRESS	DAdd	The street name and house number of the delivery location. If coordinates are preset this can be set to "(no)".
#NF-TASK-DELIVERY-POSTALCODE	DPc	Postal code of the delivery location.
#NF-TASK-DELIVERY-CITY	DCity	Name of the city of the delivery location. If coordinates are preset this can be set to "(no)".
#NF-TASK-DELIVERY-COUNTRY	DCtry	Name of the country of the delivery location. If coordinates are preset this can be set to "(no)". Attention! The country name needs to be written in English.

Long headers (Excel and CSV)	Short headers (CSV)	Explanation
COUNTRY		
#NF-TASK-DELIVERY-LATITUDE	DLat	Latitude coordinate of the delivery location in WGS 84 format, optional "(no)" if address data is present. A file downloaded after the optimization contains coordinates in addition to the address.
#NF-TASK-DELIVERY-LONGITUDE	DLon	Longitude coordinate of the delivery location in WGS 84 format, optional "(no)" if address data is present. A file downloaded after the optimization contains coordinates in addition to the address.
#NF-TASK-DELIVERY-SERVICETIME	DSerT	Time reserved for unloading the order at the delivery location per one order (in minutes).
#NF-TASK-DELIVERY-STOPPING-TIME	DStopT	Time reserved for arriving and leaving the location, for example time needed for parking the vehicle (in minutes). Used only once when multiple pickups are consecutively in the same location.
#NF-TASK-DELIVERY-TIMEWINDOWSTART	DTWStart	Earliest time when the order can be delivered to the delivery address. Format: dd.mm.yyyy hh:mm (in text format)
#NF-TASK-DELIVERY-TIMEWINDOWEND	DTWEnd	Latest time when the order can be delivered to the delivery address. Format: dd.mm.yyyy hh:mm (in text format)
#NF-TASK-INCOMPATIBILITIES	Incomp	Incompatible vehicle types - vehicle types that are not suitable to deliver this order. In such a case the vehicle types need to be specified beforehand (see "vehicle" section above) within the "Type of Vehicle" column in the vehicle sheet. Use comma to separate the types (if more than one).
#NF-TASK-COMPATIBILITIES	Comp	The only vehicle types that are suitable for delivering the order. This excludes all the other vehicle types for this order in the optimization. Cannot be used simultaneously with "incompatible vehicle types". Use comma to separate the types (if more than one).
#NF-TASK-DEPOT-INCOMPATIBILITIES	Depln-comp	The depot types which are not compatible with this task (either pickup or delivery). In such a case the depot types need to be specified beforehand (see "depot" section) within the "Type of depot" column in the depot sheet. Use comma to separate the types (if more than one).
#NF-TASK-DEPOT-COMPATIBILITIES	DepComp	The only depot types which are compatible with this task (either pickup or delivery). This excludes all other depot types for this task in the optimization. This cannot be used simultaneously with "incompatible depot types". Use comma to separate the types (if more than one).
#NF-TASK-ACTIVITY-STATE	TAct	The activity state of a task tells if the task is taken into the optimization. Inactive tasks are shown on the map with grey markers, but will not be placed on any route. Use values "Active", "Inactive" or "(no)". "(no)" means that the task is active. If a task has been made inactive in the application, the downloaded file will indicate this.
#NF-TASK-RELOCATE	TRel	Type "Pickup" if an alternative depot can be used for the order pickup. The locations of the alternative depots used are taken from the depot sheet (or if not given there, vehicle delivery addresses). Type "Delivery" if an alternative depot can be used for the order delivery. If neither is allowed, type "(no)" or "None". <b>NOTE!</b> "Pickup" and "Delivery" values cannot be used simultaneously in a same file.
#NF-TASK-VEHICLEID	TVehId	The "Vehicle name / registration number" of the vehicle which serves this task. NOTE! In previous version of the app the "Vehicle ID/Name" was the sequence number of the vehicle. This means that old Excel files do not work in the app without modifications.
#NF-TASK-PICKUP-SEQUENCENUMBER	PSeq	Sequence number of pickup - these will form an order how points are visited, for the vehicle in question. The vehicle ID must be stated explicitly. The same number can be used for two (or more) task events to state that these must be picked up next to each other, but their chronological order is then not fixed.
#NF-TASK-DELIVERY-SEQUENCENUMBER	DSeq	Sequence number of delivery - these will form an order how points are visited, for the vehicle in question. The vehicle ID must be stated explicitly. The same number can be used for two (or more) task events to state that these must be picked up next to each other, but their chronological order is then not fixed.
#NF-TASK-IS-LOCKED	IsLocked	Is locked? - The task pickup and delivery can be locked to its position. The accepted values are "(no)", "Pickup", "Both" and "vehicle". The corresponding sequence numbers and vehicle ID must be defined. The status of "is locked" means that the optimization process does not take those locked task events into account, except if "vehicle" is used. If e.g. the last locked task event has the sequence number 7, all the task events having the sequence number 7 or below are also considered locked. This can be used to freeze the optimized plan up until some designated point in time, so that running the optimization again will not change the plan for these locked task events.
#NF-TASK-PICKUP-ACTUALTIME	PATime	The actual time of the pickup - order can have an explicitly set arrival time. This will lock the task event to the vehicle AND set its arrival time to be specified. (Attention! Setting vehicle time to be in conflict with other set vehicle times (for example, arrival times in wrong order compared to sequence) can cause unexpected behaviour). The vehicle ID and the sequence number(s) must be stated explicitly. Format: dd.mm.yyyy hh:mm
#NF-TASK-DELIVERY-ACTUALTIME	DATime	The actual time of the delivery - order can have an explicitly set arrival time. This will lock the task event to the vehicle AND set its arrival time to be specified. (Attention! Setting vehicle time to be in conflict with other set vehicle times (for example, arrival times in wrong order compared to sequence) can cause unexpected behaviour). The vehicle ID and the sequence number(s) must be stated explicitly. Format: dd.mm.yyyy hh:mm
#NF-TASK-	PGeoRes	The pickup location's geocoding resolution. See <b>Geocoding Resolution and Confidence</b> .

Long headers (Excel and CSV)	Short headers (CSV)	Explanation
PICKUP-RESOLUTION		
#NF-TASK-DELIVERY-RESOLUTION	DGeoRes	The delivery location's geocoding resolution. See <b>Geocoding Resolution and Confidence</b> .
#NF-TASK-PICKUP-CONFIDENCE	PConf	The pickup location's geocoding confidence. See <b>Geocoding Resolution and Confidence</b> .
#NF-TASK-DELIVERY-CONFIDENCE	DConf	The delivery location's geocoding confidence. See <b>Geocoding Resolution and Confidence</b> .
#NF-TASK-CHANGED-COLUMNS	CCol	Changed columns - returns the headers of the columns which were changed in the application.

## Depot headers

Long headers (Excel and CSV)	Short headers (CSV)	Explanation
#NF-DEPOT-NAME	DepID	The name of the depot. Use a descriptive name for your own reference.
#NF-DEPOT-TYPE	Dep-Type	The type of depot - for defining possible incompatibilities denote a depot type of your own choice. When naming the types you can use alphabets, numbers, dash and underscore. Do not use any other characters (e.g. space).
#NF-DEPOT-INFO1	DepInfo1	A text field for own notes
#NF-DEPOT-CAPACITY1	Dep-Cap1	The capacity 1 of the depot - These need to be comparable to the capacities defined within the tasks and vehicles.
#NF-DEPOT-CAPACITY2	Dep-Cap2	The capacity 2 of the depot - These need to be comparable to the capacities defined within the tasks and vehicles.
#NF-DEPOT-CAPACITY3	Dep-Cap3	The capacity 3 of the depot - These need to be comparable to the capacities defined within the tasks and vehicles.
#NF-DEPOT-ADDRESS	DepAdd	The street name and house number of the depot. If coordinates are preset this can be set to "(no)".
#NF-DEPOT-POSTALCODE	DepPc	The postal code of the depot. If coordinates are preset this can be set to "(no)".
#NF-DEPOT-CITY	DepCity	The city in which the depot is located. If coordinates are preset this can be set to "(no)".
#NF-DEPOT-COUNTRY	DepCtry	The country in which the depot is located. If coordinates are preset this can be set to "(no)". Attention! The country name needs to be written in English.
#NF-DEPOT-LATITUDE	DepLat	Latitude coordinate of the depot in WGS 84 format, optional "(no)" if address data is present. A file downloaded after the optimization contains coordinates in addition to the address.
#NF-DEPOT-LONGITUDE	DepLon	Longitude coordinate of the depot in WGS 84 format, optional "(no)" if address data is present. A file downloaded after the optimization contains coordinates in addition to the address.
#NF-DEPOT-STOPPING-TIME	Dep-StopT	Stopping time at this depot in minutes. If the stopping time of a task and depot stopping time are not equal, the larger value will be used in the optimization.
#NF-DEPOT-CONFIDENCE	Dep-Conf	The depot location's geocoding confidence. See <b>Geocoding Resolution and Confidence</b> .
#NF-DEPOT-CHANGED-COLUMNS	DepCol	Changed columns - returns the headers of the columns which were changed in the application.
#NF-DEPOT-RESOLUTION	Dep-GeoRes	The depot location's geocoding resolution. See <b>Geocoding Resolution and Confidence</b> .

## Geocoding Resolution and Confidence

The resolution refers to how the geocoding was done. The resolution is given as a string of text in which each letter represents one part of how the geocoding was done. The text string can contain the following characters: **DCPFSHIAONM-**

Character	Meaning
D-----	coordinate
-C-----	City
--P-----	Postal code
---F-----	postal code after city (city not found, but postal code is)
----S-----	Street

-----H-----	House number
-----I-----	Inexact
-----A----	Ambiguous (several possibilities found)
-----O---	house number Out of range
-----N--	house number Not given
-----M-	house numbers Missing from street data

The confidence is an integer between 0 and 100 telling how reliable the geocoding was. In the following table all the possible alternatives are presented:

Resolution meaning	Resolution	Confidence	UI message
City, Street, HouseNumber	-C-- SH--	100	Exact address found with city and street.
PostalCode, Street, HouseNumber	--P- SH--	100	Exact address found with postal code and street.
Coordinate	D----- -	100	Location identified with coordinates.
City, Street, HouseNumber, Inexact	-C-- SHI-	90	Inexact address found with city.
PostalCode, Street, HouseNumber, Inexact	--P- SHI-	90	Inexact address found with postal code.
City, Street	-C--S- --	80	Address found with city, but house was not found.
PostalCode, Street	--P-S- -	80	Address found with postal code, but house was not found.
City, Street, Inexact	-C--S- I-	72	Inexact address found with city, but house was not found.
PostalCode, Street, Inexact	--P-S- I-	72	Inexact address found with postal code, but house was not found.
PostalCode, Street, HouseNumber, Ambiguous	--P- SH-A	60	Ambiguous street name in postal code area.
City, Street, HouseNumber, Ambiguous	-C-- SH-A	60	Ambiguous street name in city.
City, Street, HouseNumber, Inexact, Ambiguous	-C-- SHIA	54	Could not find exact address, and found ambiguous results in city.
PostalCode, Street, HouseNumber, Inexact, Ambiguous	--P- SHIA	54	Could not find exact address, and found ambiguous results in postal code area.
PostalCodeAfterCity, Street, HouseNumber	--- FSH--	50	Exact address found using postal code, but the given city was not identified.
PostalCode, Street, Ambiguous	--P-S- A	48	Ambiguous result in postal code area, and house could not be located.
City, Street, Ambiguous	-C--S- -A	48	Ambiguous result in city, and house could not be located.
PostalCodeAfterCity, Street, HouseNumber, Inexact	--- FSHI-	45	Inexact address found using postal code, but the given city was not identified.
PostalCode, Street, Inexact, Ambiguous	--P-S- IA	43	Ambiguous inexact result in postal code area, and house could not be located.
City, Street, Inexact, Ambiguous	-C--S- IA	43	Ambiguous inexact result in city, and house could not be located.
PostalCodeAfterCity, Street	---FS- -	40	Address found using postal code, but the given city was not identified and house was not found.
PostalCodeAfterCity, Street, Inexact	---FS- I-	36	Inexact address found using postal code, but the given city was not identified and house was not found.
PostalCodeAfterCity, Street, HouseNumber, Ambiguous	--- FSH-A	30	We could not find this address.
PostalCodeAfterCity, Street, HouseNumber, Inexact, Ambiguous	--- FSHIA	27	We could not find this address.
PostalCodeAfterCity, Street, Ambiguous	---FS- A	24	We could not find this address.
PostalCodeAfterCity, Street, Inexact, Ambiguous	---FS- IA	21	We could not find this address.
PostalCode	--P- -	16	We could not find this address.
City	-C----- -	16	We could not find this address.

Resolution meaning	Resolution	Confidence	UI message
PostalCode, Inexact	--P--- I-	14	We could not find this address.
City, Inexact	-C---- I-	14	We could not find this address.
Street, HouseNumber	---- SH--	12	We could not find this address.
Street, HouseNumber, Inexact	---- SHI-	11	We could not find this address.
Street	----S-- -	10	We could not find this address.
City, Ambiguous	-C----- A	9	We could not find this address.
PostalCode, Ambiguous	--P---- A	9	We could not find this address.
Street, Inexact	----S-I-	9	We could not find this address.
PostalCode, Inexact, Ambiguous	--P--- IA	8	We could not find this address.
City, Inexact, Ambiguous	-C---- IA	8	We could not find this address.
Street, HouseNumber, Ambiguous	---- SH-A	7	We could not find this address.
Street, HouseNumber, Inexact, Ambiguous	---- SHIA	6	We could not find this address.
Street, Ambiguous	----S-- A	6	We could not find this address.
Street, Inexact, Ambiguous	----S- IA	5	We could not find this address.
None	-----	0	We could not find this address.

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[info@nfleet.fi](mailto:info@nfleet.fi) · Pajatie 8, FI-40630 Jyväskylä, Finland.

[Twitter](#) · [YouTube](#) · [GitHub](#) · [LinkedIn](#)