

NFleet data model

Monday, 20 March 2023 11:58

Vehicles headers

Long headers (Excel)	Short headers (CSV)	Explanation 1	Explanation 2	Name	Short	i/o	Syntax
#NF-VEHICLE-NAME	VehID	The vehicle name - use a descriptive name, e.g. license number of the used vehicle.	<ul style="list-style-type: none"> Vehicle name / registration number - use a descriptive name, e.g. license number of the used vehicle. Do not use empty spaces in the name. 	Vehicle name	<ul style="list-style-type: none"> unique ID for each vehicle 	input	limited text
#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).	<ul style="list-style-type: none"> Type of vehicle - for defining possible incompatibilities denote a vehicle class of your own choice (typically "car", "truck", "van" etc.). You can use alphabets, numbers, dash and underscore in the name. 	Vehicle type	<ul style="list-style-type: none"> used with compatibility constraints - task can be set to allow certain types of vehicles, only alphabets, numbers, dash and underscore allowed NOTE: if used, define type for <u>every</u> vehicle 	input	limited text "(no)"
#NF-VEHICLE-IN-FO1	VInfo1	A text field for own notes	<ul style="list-style-type: none"> Info 1 - a text field for own notes 	Vehicle info	<ul style="list-style-type: none"> text field for free use 	input	text "(no)"
#NF-VEHICLE-CA-PACITY1	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.	<ul style="list-style-type: none"> Capacity 1 / Capacity 2 / Capacity 3 - 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. 	Vehicle capacity 1	<ul style="list-style-type: none"> transportation capacity of the vehicle up to three parallel capacities can be used, the vehicle can be fully loaded with each separately each capacity unit can be freely defined (e.g. weight limit has almost been reached but there's still plenty of available space for light packages) integers only (use numbers multiplied by 10 or 100 if capacities have decimal values) all vehicles and tasks need to have the same capacity structure 	input	integer "(no)"
#NF-VEHICLE-CA-PACITY2	VCap2	Vehicle capacity 2 - see explanation above		Vehicle capacity 2		input	integer "(no)"
#NF-VEHICLE-CA-PACITY3	VCap3	Vehicle capacity 3 - see explanation above		Vehicle capacity 3		input	integer "(no)"
#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.	<ul style="list-style-type: none"> Speed profile - The maximum speed allowed for the vehicle. Format: "Max_Kmh", e.g. "Max80Kmh". You can choose from five options: 40, 60, 80, 100 or 120 km/h. 	Speed profile	<ul style="list-style-type: none"> name of the speed profile used in optimization the profile utilizes different average driving speeds for different speed limits the available profiles are: <ul style="list-style-type: none"> xxx yyy zzz ... 	input	<ul style="list-style-type: none"> xxx yyy zzz ... "(no)" for default
#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, which ever 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 40km/h * 0.7 = 28km/h	<ul style="list-style-type: none"> Speed coefficient - Use values below 1 to reduce the average speed of the vehicle. You can find the table of effective speeds from the application in the "Settings" sidebar. 	Speed factor	<ul style="list-style-type: none"> multiplier for the overall driving speeds of the vehicle 	input	decimal "(no)"
#NF-VEHICLE-FIXEDCOST	VFxedC	The fixed cost for a vehicle that occurs when taken into use (has assigned tasks).	<ul style="list-style-type: none"> Fixed cost (in Euro) - The fixed cost for a vehicle that occurs when taken into use (has assigned tasks). 	Fixed cost	<ul style="list-style-type: none"> fixed cost when vehicle is taken into use (has assigned tasks) 	input	decimal Euro "(no)"
#NF-VEHICLE-KILOMETERCOST	VKmC	The cost for a vehicle per driven kilometer.	<ul style="list-style-type: none"> Cost € / km - The cost for a vehicle per driven kilometer. 	Cost per km	<ul style="list-style-type: none"> variable cost, per driven kilometer 	input	decimal Euro "(no)"
#NF-VEHICLE-HOURCOST	VHourC	The cost for a vehicle per hour in use.	<ul style="list-style-type: none"> Cost € / hour - The cost for a vehicle per hour in use. 	Cost per h	<ul style="list-style-type: none"> variable cost, per hour the vehicle is in any use 	input	decimal Euro "(no)"
#NF-VEHICLE-MAX-DRIVING-	VMaxDriv	The maximum driving time for the driver of the specific vehicle (in hours). Use dot as a decimal separator.	<ul style="list-style-type: none"> Maximal driving time (h) - The maximum time allowed for the vehicle to be driven in this plan. This only consists of the time the 	Max driving time	<ul style="list-style-type: none"> max time allowed for the vehicle to be driven 	input	decimal hours "(no)"

TIME			vehicle is being driven. As a default, this column is hidden. To unhide the column, select the columns K and N, right click and select "unhide".		<ul style="list-style-type: none"> only consists of the time the vehicle is being driven (not loading, unloading or waiting) 		
#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.	<ul style="list-style-type: none"> Maximal working time (h) - The maximum time allowed for the vehicle to be used. Consists of the driving time, loading and unloading and waiting. As a default, this column is hidden. To unhide the column, select the columns K and N, right click and select "unhide". 	Max working time	<ul style="list-style-type: none"> max time allowed for the vehicle to be used including driving, loading, unloading, waiting 	input	decimal hours "(no)"
#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)".	<ul style="list-style-type: none"> Address - Street name and house number. If coordinates are preset this can be set to "(no)". If you do not know the exact street address, you can use "(no)" if there is either a postal code or a city defined. 	Pickup street address - vehicle	<ul style="list-style-type: none"> street name and house number if "(no)" then geocoding will use rest of the address data all address data is omitted if coordinates are given 	input	text "(no)"
#NF-VEHICLE-PICKUP-POSTALCODE	VPPc	Postal code of the pickup location.	<ul style="list-style-type: none"> Postal code - Postal code of the location. 	Pickup postal code - vehicle	<ul style="list-style-type: none"> if "(no)" then geocoding will use rest of the address data min requirement is either postal code or city 	input	text, integer "(no)"
#NF-VEHICLE-PICKUP-CITY	VPCity	Name of the city of the pickup location. If coordinates are preset this can be set to "(no)".	<ul style="list-style-type: none"> City - Name of the city of the location. If coordinates are preset this can be set to "(no)". 	Pickup city - vehicle	<ul style="list-style-type: none"> if "(no)" then geocoding will use rest of the address data min requirement is either postal code or city 	input	text "(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.	<ul style="list-style-type: none"> Country - Name of the country. Note that the app currently accepts addresses or coordinates in Finland, Germany and Norway. Additionally, Czech Republic is supported but only with coordinates. If coordinates are preset this can be set to "(no)". Attention! The country name needs to be written in English. 	Pickup country - vehicle	<ul style="list-style-type: none"> in English 	input	text "(no)"
#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.	<ul style="list-style-type: none"> Coordinate (Latitude (N-S)) - Location coordinate in WGS 84 format, optional "(no)" if address data is present. A file downloaded after the optimization contains coordinates in addition to the address. 	Pickup latitude - vehicle	<ul style="list-style-type: none"> degrees in decimal format if "(no)" then address data is used and geocoded (if coordinates are given then address data will be omitted) 	input / output	decimal "(no)"
#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.	<ul style="list-style-type: none"> Coordinate (Longitude (W-E)) - Coordinate in WGS 84 format, as with latitude. 	Pickup longitude - vehicle		input / output	decimal "(no)"
#NF-VEHICLE-DELIVERY-ADDRESS	VDAAdd	The street name and house number of the delivery location. If coordinates are preset this can be set to "(no)".		Delivery street address - vehicle		input	text "(no)"
#NF-VEHICLE-DELIVERY-POSTALCODE	VDPc	Postal code of the delivery location.		Delivery postal code - vehicle		input	text, integer "(no)"
#NF-VEHICLE-DELIVERY-CITY	VDCity	Name of the city of the delivery location. If coordinates are preset this can be set to "(no)".		Delivery city - vehicle		input	text "(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.		Delivery country - vehicle		input	text "(no)"
#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.		Delivery latitude - vehicle		input / output	decimal "(no)"
#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.		Delivery longitude - vehicle		input / output	decimal "(no)"
#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)	<ul style="list-style-type: none"> Start of Time Window - Earliest time when the vehicle can be picked up for use in the pickup address. Format: dd.mm.yyyy hh:mm (in text format) 	Vehicle time window start	<ul style="list-style-type: none"> earliest time when the vehicle can be picked up for use in the pickup address 	input	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)	<ul style="list-style-type: none"> End of Time Window - Latest time when the vehicle can be returned to the delivery address. Format: dd.mm.yyyy hh:mm (in text format) 	Vehicle time window end	<ul style="list-style-type: none"> latest time when the vehicle can be returned to the delivery address 	input	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	<ul style="list-style-type: none"> Activity state - 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 	Vehicle activity state	<ul style="list-style-type: none"> if the vehicle is allowed to be used in the optimization 	input	"Active" (also "no") "Inactive"

		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.	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-RE-LOCATE	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.	<ul style="list-style-type: none"> Can be relocated? - 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. Note! In case you have defined depots in the excel, the alternative addresses used are the depots' locations. 	Relocated - vehicle	<ul style="list-style-type: none"> possibility to choose an alternative end location for the vehicle either one of the vehicle delivery locations or depot locations <ul style="list-style-type: none"> <i>pitäisikö olla vain depot-listan mukaan?</i> <p>Note! In case you have defined depots in the excel, the alternative addresses used are the depots' locations.</p> <ul style="list-style-type: none"> <i>tarkoittaako että silloin vain depotit ovat mahdollisia, eivät toimituspaikat?</i> 	input	"End" for relocation is allowed "(no)" or "None" for not allowed
#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.				input	
#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.				input	
#NF-VEHICLE-PICKUP-RESOLUTION	VPGeoRes	The pickup location's geocoding resolution. See Geocoding Resolution and Confidence.		Location resolution		output	
#NF-VEHICLE-DELIVERY-RESOLUTION	VDGeoRes	The delivery location's geocoding resolution. See Geocoding Resolution and Confidence.				output	
#NF-VEHICLE-PICKUP-CONFIDENCE	VPCConf	The pickup location's geocoding confidence. See Geocoding Resolution and Confidence.	<ul style="list-style-type: none"> Pickup confidence - After optimization in the downloaded file, this number tells, how successful was the geocoding of the pickup location. 	Location confidence		output	
#NF-VEHICLE-DELIVERY-CONFIDENCE	VDCConf	The delivery location's geocoding confidence. See Geocoding Resolution and Confidence.	<ul style="list-style-type: none"> Delivery confidence - After optimization in the downloaded file, this number tells, how successful was the geocoding of the delivery location. 			output	
#NF-VEHICLE-CHANGED-COLUMNS	VCCol	Changed columns - returns the headers of the columns which were changed in the application.	<ul style="list-style-type: none"> Changed columns - After optimization in the downloaded file, this points out the possible changes made in the web application. 	Changed data		output	

Tasks headers

Long headers (Excel and CSV)	Short headers (CSV)	Explanation 1	Explanation 2	Name	Short	i/o	Syntax
#NF-TASK-ID	TaskID	Order ID / description - use a descriptive ID, for your own reference	<ul style="list-style-type: none"> Order ID / description - use a descriptive ID, for your own reference. 	Task name	<ul style="list-style-type: none"> unique ID for each task 	input	limited text
#NF-TASK-INFO1	Info1	Text field 1 for own notes.	<ul style="list-style-type: none"> Info 1 / Info 2 / Info 3 / Info 4 - text fields for own notes. 	Task info 1	<ul style="list-style-type: none"> text field for free use 	input	limited text "(no)"
#NF-TASK-INFO2	Info2	Text field 2 for own notes.		Task info 2		input	limited text "(no)"
#NF-TASK-INFO3	Info3	Text field 3 for own notes.		Task info 3		input	limited text "(no)"
#NF-TASK-INFO4	Info4	Text field 4 for own notes.		Task info 4		input	limited text "(no)"
#NF-TASK-CAPACITY1	Cap1	Amount (in units of capacity 1) - e.g. no. of carts	<ul style="list-style-type: none"> Amount (in units of capacity 1) / Amount (in units of capacity 2) / Amount (in units of capacity 3) - e.g. no. of carts, total weight of the task (order), total volume of the task (order). 	Task capacity 1	<ul style="list-style-type: none"> capacity of the task up to three parallel capacities can be used each capacity unit can be freely defined integers only (use numbers multiplied by 10 or 100 if capacities have decimal values) all vehicles and tasks need to have the same capacity structure 	input	integer "(no)"

#NF-TASK-CAPACITY2	Cap2	Amount (in units of capacity 2) - e.g. total weight of the order		Task capacity 2		input	integer "(no)"
#NF-TASK-CAPACITY3	Cap3	Amount (in units of capacity 3) - e.g. total volume of the task (order).		Task capacity 3		input	integer "(no)"
#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.	<ul style="list-style-type: none"> Task priority - The relative importance for the task. The optimization normally tends to pick up bigger tasks in capacity. However, by giving tasks priority values the smaller tasks can be considered more important. 	Priority	<ul style="list-style-type: none"> <i>for preview features only</i> relative importance for the task larger number -> higher priority 	input	integer "(no)"
#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)".	<ul style="list-style-type: none"> Address, Postal code, City, Country - for where the task (order) is to be collected from. Changes to "(no)" if graphically edited in map view. If coordinates are preset these can be set to "(no)". 	Pickup street address	<ul style="list-style-type: none"> street name and house number if "(no)" then geocoding will use rest of the address data all address data is omitted if coordinates are given 	input	text "(no)"
#NF-TASK-PICKUP-POSTALCODE	PPc	The postal code of the pickup location.		Pickup postal code	<ul style="list-style-type: none"> if "(no)" then geocoding will use rest of the address data min requirement is either postal code or city 	input	text, integer "(no)"
#NF-TASK-PICKUP-CITY	PCity	Name of the city of the pickup location. If coordinates are preset this can be set to "(no)".		Pickup city	<ul style="list-style-type: none"> if "(no)" then geocoding will use rest of the address data min requirement is either postal code or city 	input	text "(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.		Pickup country	<ul style="list-style-type: none"> in English 	input	text "(no)"
#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.	<ul style="list-style-type: none"> Coordinate (Latitude (N-S)), Coordinate (Longitude (W-E)) - optional data, downloaded results will contain the coordinate points. 	Pickup latitude	<ul style="list-style-type: none"> degrees in decimal format if "(no)" then address data is used and geocoded (if coordinates are given then address data will be omitted) 	input / output	decimal "(no)"
#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.		Pickup longitude		input / output	decimal "(no)"
#NF-TASK-PICKUP-SERVICE TIME	PSerT	Time reserved for loading the order at the pickup location per one order (in minutes).	<ul style="list-style-type: none"> Service time (in minutes) - time reserved for loading the order at the pickup location (per one order). 	Pickup service time	<ul style="list-style-type: none"> loading time for (this) task 	input	decimal minutes "(no)"
#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.	<ul style="list-style-type: none"> Stopping time (in minutes) - time reserved for arriving and leaving the location (for example time needed for parking the vehicle). Used only once when multiple pickups are consecutively in the same location. 	Pickup stopping time	<ul style="list-style-type: none"> fixed stopping time in location if defined once anywhere in the data then the given time will apply to all tasks in that location if different values are given (to different tasks) then the largest will apply to all 	input	decimal minutes "(no)"
#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)	<ul style="list-style-type: none"> Start of time window - earliest allowed time to arrive at the location. Format: dd.mm.yyyy hh:mm (in text format) 	Pickup time window start	<ul style="list-style-type: none"> earliest allowed time to arrive at the location 	input	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)	<ul style="list-style-type: none"> End of time window - latest allowed time to arrive at the location. 	Pickup time window end	<ul style="list-style-type: none"> latest allowed time to arrive at the location vehicle can leave the location later than time window end (because of service and stopping time durations) 	input	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)".	<ul style="list-style-type: none"> Address, Postal code, City, Country, Coordinate (Latitude (N-S)), Coordinate (Longitude (W-E)) - for where the task (order) is to be delivered to. 	Delivery street address		input	
#NF-TASK-DELIVERY-POSTALCODE	DPc	Postal code of the delivery location.		Delivery postal code		input	
#NF-TASK-DELIVERY-CITY	DCity	Name of the city of the delivery location. If coordinates are preset this can be set to "(no)".		Delivery city		input	
#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.		Delivery country		input	

#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.		Delivery latitude		input / output	
#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.		Delivery longitude		input / output	
#NF-TASK-DELIVERY-SERVICE-TIME	DSerT	Time reserved for unloading the order at the delivery location per one order (in minutes).	<ul style="list-style-type: none"> Service time (in minutes) - time reserved for delivering the order at the delivery location (per one order). 	Delivery service time		input	decimal minutes "(no)"
#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.	<ul style="list-style-type: none"> Stopping time (in minutes) - time reserved for arriving and leaving the location (for example time needed for parking the vehicle). Used only once when multiple deliveries are consecutively in the same location. 	Delivery stopping time		input	decimal minutes "(no)"
#NF-TASK-DELIVERY-TIMEWINDOW-START	DTWStart	Earliest time when the order can be delivered to the delivery address. Format: dd.mm.yyyy hh:mm (in text format)	<ul style="list-style-type: none"> Start of time window - earliest allowed time to arrive at the location. 	Delivery time window start		input	dd.mm.yyyy hh:mm (in text format)
#NF-TASK-DELIVERY-TIMEWINDOW-END	DTWEnd	Latest time when the order can be delivered to the delivery address. Format: dd.mm.yyyy hh:mm (in text format)	<ul style="list-style-type: none"> End of time window - latest allowed time to arrive at the location. 	Delivery time window end		input	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).	<ul style="list-style-type: none"> Incompatible vehicle types - vehicle types that are not suitable for delivering 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 incompatible types exist. 	Incompatible vehicle types	<ul style="list-style-type: none"> the vehicle types that are NOT suitable for the task use <i>Vehicle type</i> values, one or several (separated with a comma, no blanks) if defined then <i>Compatible vehicle types</i> can not be used at the same time for that task 	input	limited text "(no)"
#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).	<ul style="list-style-type: none"> Compatible vehicle types - the only vehicle types that are suitable for delivering the order. This excludes all the other vehicle types for this order in the optimization. Use comma to separate the types if more than one compatible types exist. <p>NOTE! For a single order you can only use either "Incompatible vehicle types" or "Compatible vehicle types", but not both simultaneously. Use Incompatible vehicle types when there is only one or few vehicle types unsuitable for delivering the task. Use Compatible vehicle types when there is only one or few vehicle types which are suitable for the specific order.</p>	Compatible vehicle types	<ul style="list-style-type: none"> the ONLY vehicle types that are suitable for the task use <i>Vehicle type</i> values, one or several (separated with a comma, no blanks) if defined then <i>Incompatible vehicle types</i> can not be used at the same time for that task 	input	limited text "(no)"
#NF-TASK-DEPOT-INCOMPATIBILITIES	DepIncomp	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).	<ul style="list-style-type: none"> Incompatible depot types - 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). 	Incompatible depot types	<ul style="list-style-type: none"> the depot types that are NOT compatible with the task use <i>Depot type</i> values, one or several (separated with a comma, no blanks) if defined then <i>Compatible depot types</i> can not be used at the same time for that task 	input	limited text "(no)"
#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).	<ul style="list-style-type: none"> Compatible depot types - 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). <p>NOTE! For a single order you can only use either incompatibilities or compatibilities.</p>	Compatible depot types	<ul style="list-style-type: none"> the ONLY depot types that are compatible with the task use <i>Depot type</i> values, one or several (separated with a comma, no blanks) if defined then <i>Incompatible depot types</i> can not be used at the same time for that task 	input	limited text "(no)"
#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.	<ul style="list-style-type: none"> Activity state - 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. 	Task activity state	<ul style="list-style-type: none"> if the task is included in the optimization 	input	"Active" (also "(no)") "Inactive"
#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	<ul style="list-style-type: none"> Can be relocated? - Type "Pickup" if an alternative depot can be used for the order pickup. The locations of the alternative depots used are taken from the vehicle delivery addresses. Type "Delivery" if an alternative depot can be used for the order pickup. If neither is allowed, type "(no)" or "None". 	Relocated - task	<ul style="list-style-type: none"> if depots are defined they can act as additional possible pickup or delivery locations for the task "Pickup" - task pickup location can be one from the depot list or the original task pickup 	input	"Pickup" "Delivery" "(no)" or "None"

		"None". NOTE! "Pickup" and "Delivery" values cannot be used simultaneously in a same file.	NOTE! "Pickup" and "Delivery" values cannot be used simultaneously in a same file. NOTE! If depots are defined in the depot sheet, the depot addresses will work as the alternative locations.		location • "Delivery" - task delivery location can be one from the depot list or the original task delivery location • <i>toimiihan vain depot-listan paikkojen kanssa? - tulee helposti väärinymärryksiä</i> • (Type "Delivery" if an alternative depot can be used for the order pickup...) • for the whole plan, only either "Pickup" or "Delivery" can be used, not both - any task can be "None"		
#NF-TASK-VEHICLEID	TVehld	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.	• Vehicle ID/ Name - 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.	Task vehicle name	• <i>Vehicle name</i> that performs the task • usually from the optimization result • can be input if task is pre-assigned or locked to a specific vehicle (<i>Pickup sequence</i> and <i>Delivery sequence</i> must also be defined)	input / output	limited text "(no)"
#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.	• Sequence number of pickup / 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.	Pickup sequence	• pickup AND delivery sequence numbers form the order of events in the plan • usually from the optimization result • can be input if task is pre-assigned or locked to a specific vehicle (<i>Task vehicle name</i> must also be defined) • the same number can be used for two (or more) task events to state that these must happen next to each other, but their chronological order is then not fixed	input / output	integer
#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.		Delivery sequence		input / output	integer
#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.	• 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 number 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.	Is locked	• can be used as guidance and rules to optimization • task pickup and delivery can be locked to its sequence position • accepted values are • "(no)" - no locking, optimization will set the event sequence and vehicle • "Pickup" - optimization will set the delivery event • "Both" - the whole task is locked to its sequence position • "vehicle" - optimization will set pickup and delivery sequences but the vehicle is fixed as defined • corresponding sequence numbers and vehicle ID must be defined • <i>jos "vehicle" niin mitkä seq-arvot annetaan?</i> • <i>voiko olla yhtä aikaa eri tyyppeissä lukituksia eri taskeille, miten vaikuttaa seq-arvoihin?</i> • if not locked tasks are given sequence numbers then their actual locking status may be affected • 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	input / output	"(no)" "Pickup" "Both" "vehicle"

					<ul style="list-style-type: none"> entä jos suunnitelmassa on sotkettu taskeille erilaisia lukituksia? 		
#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	<ul style="list-style-type: none"> Actual time of pickup / delivery - The pickup and/or delivery can have an explicitly set arrival time. This will lock the task event to the vehicle AND set its arrival time to be as 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 	Actual time of pickup	<ul style="list-style-type: none"> can be used for tracking the plan in action - event tracking and updated ETA calculations for a previously created plan pickup and/or delivery can have an explicitly set arrival time - this will lock the task event to the vehicle AND set its arrival time to be as specified <ul style="list-style-type: none"> mitä tapahtuu aikaisemmille taskeille tässä lukituksessa - niillä on vehicle ja suunniteltu seq mutta ei välttämättä actual time? actual time voi tulla eri järjestyksessä kuin mitä suunnitelmassa oli eteneminen note: 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 vehicle ID and the sequence number(s) must be stated explicitly 	input	"(no)" 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		Actual time of delivery			
#NF-TASK-PICKUP-RESOLUTION	PGeoRes	The pickup location's geocoding resolution. See Geocoding Resolution and Confidence.					
#NF-TASK-DELIVERY-RESOLUTION	DGeoRes	The delivery location's geocoding resolution. See Geocoding Resolution and Confidence.					
#NF-TASK-PICKUP-CONFIDENCE	PConf	The pickup location's geocoding confidence. See Geocoding Resolution and Confidence.					
#NF-TASK-DELIVERY-CONFIDENCE	DConf	The delivery location's geocoding confidence. See Geocoding Resolution and Confidence.					
#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 1	Explanation 2
#NF-DEPOT-NAME	DepID	The name of the depot. Use a descriptive name for your own reference.	<ul style="list-style-type: none"> Depot name - 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).	<ul style="list-style-type: none"> Depot 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	Deplnfo1	A text field for own notes	<ul style="list-style-type: none"> Info 1 - A text field for own notes

#NF-DE-POT-CA-PACITY1	Dep-Cap1	The capacity 1 of the depot - These need to be comparable to the capacities defined within the tasks and vehicles.	<ul style="list-style-type: none"> Capacity 1 / Capacity 2 / Capacity 3 - Up to three parallel capacities can be used, e.g. maximum number of carts, maximum weight, 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 and vehicles.
#NF-DE-POT-CA-PACITY2	Dep-Cap2	The capacity 2 of the depot - These need to be comparable to the capacities defined within the tasks and vehicles.	
#NF-DE-POT-CA-PACITY3	Dep-Cap3	The capacity 3 of the depot - These need to be comparable to the capacities defined within the tasks and vehicles.	
#NF-DE-POT-AD-DRESS	DepAdd	The street name and house number of the depot. If coordinates are preset this can be set to "(no)".	<ul style="list-style-type: none"> Address - The street name and house number of the depot. If coordinates are preset this can be set to "(no)".
#NF-DE-POT-POSTALC-ODE	DepPc	The postal code of the depot. If coordinates are preset this can be set to "(no)".	<ul style="list-style-type: none"> Postal code - The postal code of the depot. If coordinates are preset this can be set to "(no)".
#NF-DE-POT-CITY	DepCity	The city in which the depot is located. If coordinates are preset this can be set to "(no)".	<ul style="list-style-type: none"> City - The city in which the depot is located. If coordinates are preset this can be set to "(no)".
#NF-DE-POT-COUN-TRY	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.	<ul style="list-style-type: none"> Country - 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-DE-POT-LAT-ITUDE	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.	<ul style="list-style-type: none"> Coordinate (Latitude (N-S)) - 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-DE-POT-LON-GITUDE	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.	<ul style="list-style-type: none"> Coordinate (Longitude (W-E)) - 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-DE-POT-STOP-PINGTIME	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.	<ul style="list-style-type: none"> Stopping time (in minutes) - Stopping time at this depot. If the stopping time of a task and depot stopping time are not equal, the larger value will be used in the optimization.
#NF-DE-POT-CON-FIDENCE	DepConf	The depot location's geocoding confidence. See Geocoding Resolution and Confidence.	<ul style="list-style-type: none"> Confidence - After optimization in the downloaded file, this number tells, how successful was the geocoding of the location.
#NF-DE-POT-CHANGED-COLUMNS	DepCol	Changed columns - returns the headers of the columns which were changed in the application.	<ul style="list-style-type: none"> Changed columns - After optimization in the downloaded file, this returns the headers of the columns which were changed in the application.
#NF-DE-POT-RES-OLUTION	Dep-GeoRes	The depot location's geocoding resolution. See Geocoding Resolution and Confidence.	<ul style="list-style-type: none"> Resolution - After optimization in the downloaded file, this tells, how the geocoding was made.

