

Optimization Options

The Optimize Options List

The **Optimize** button is used to initiate an optimization run for the schedule. The processing time for an optimization depends among other things, on the size of the schedule but is generally of the order of seconds to minutes.

You can choose to optimize the Vehicles, the Drivers (Duties) or both using the optimization settings buttons before clicking **Optimize**.

The  button opens a drop-down choice list of optimization settings:

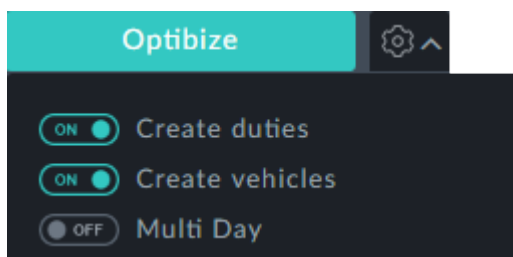
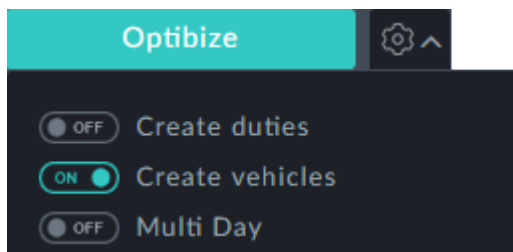


Figure 1-1: Default options for optimization

By default, the optimization will use the two checked items.

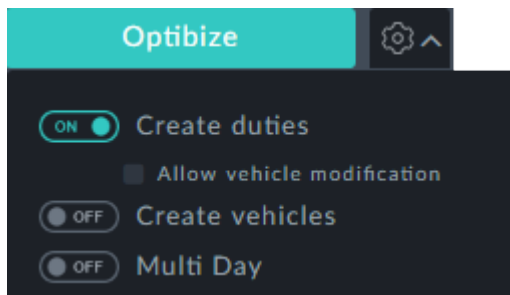
Using the Optimize and Associated Preferences buttons

Create vehicles



Create vehicles creates a vehicles-only schedule without a duties assignment. You can use this option for checking the minimum number of vehicles required for the schedule or for separately planning first the vehicles and then the duties.

Create Duties without the Allow vehicles modification option

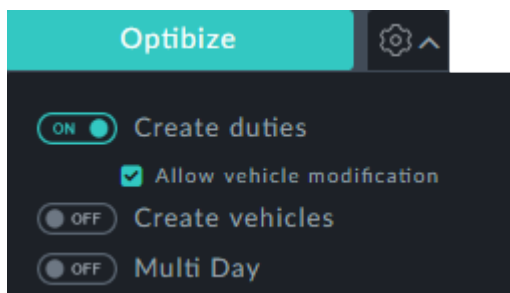


This option creates a Duties schedule based on a given Vehicle schedule. The Duties will be changed whereas the Vehicles will remain the same as in the schedule displayed currently on the Vehicle Gantt.



Note: A Vehicles schedule must always be created prior to creating a Duties schedule.

Create duties with the Allow vehicles modification option



In this case, Optibus OnSchedule™ performs iterative procedure follows:

- » Starting from the current Vehicles schedule (displayed on the Gantt), the system creates a Duties schedule. It may change the Vehicles schedule to improve the Duties schedule.
- » Using the adjusted Vehicles schedule, the system rebuilds the Duties schedule as in the previous step.

The foregoing process of

Use current Vehicles schedule

⇒ ***Create Duties schedule***

⇒ ***Modify Vehicles schedule***

⇒ ***Make modified Vehicles schedule the current Vehicles schedule***

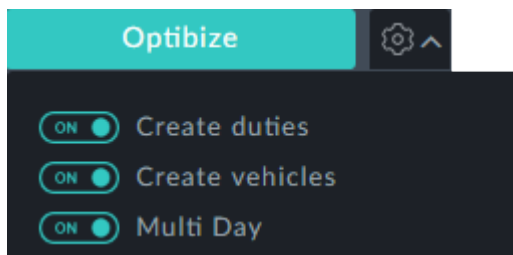
is repeated until best possible results have been achieved. The complete iterative process takes place in a matter of seconds.

Create vehicles and Create duties together

This is the default case shown in **Figure 1-1** above.

Both the Vehicles and Duties schedules are created in the iterative process described in the previous section, **Create duties with the Allow vehicles modification option**.

Multi day



Turning the **Multi day** option on together with any of the other options described above makes the optimization run for each day of the week in the current Dataset.