

# Creating a New Track

Users can upload a new track file in one of two ways:

1. [Uploading the track edge coordinates.](#)
2. [Uploading the curvature profile of the racing line.](#)

What follows is a step-by-step guide to doing each of those methods.

## Track Edge Coordinates

Thanks to Canopy's collocation solver, users are able to upload a set of x-y coordinates for the edges of the track and use the Generate Racing Line simulation to find the optimal racing line for their car (staying within the given track edges). Additionally, in the case of Dynamic Lap, this allows the solver to have freedom to optimise the racing line for every individual car setup. To do this, select *New Track* on the **Track Configurations** page. You will see that you are given options to enter all sorts of information, most of which you won't have. Select *Properties* next to the **Track** heading and deselect everything other than **Outline**. Now paste a list of values for each of the fields. The **x** and **y** lists (and optionally **z** if you wish to simulate track camber and gradient in Dynamic Lap: note that camber/elevation doesn't work in Quasi-Static Lap) for each side must be the same length as each other; lists for opposite sides needn't be the same length. The start/finish line is taken to join the first point on the left hand side of the track with the first point on the right hand side, so you may need to arrange your lists of x-y (and z) values such that they all start on the start/finish line.

Some tips for creating a new track:


- Ensure that the start and finish x-y (and z) values are in the same place for each track side.
- Unlike the car, z is positive up for tracks.
- Make sure there are plenty of points defining in and around each corner.
- Point density may be decreased on the straight, but it is recommend to have at least one point every 30m.
- The car front wheel centre isn't allowed to pass over the track edge. Where the car is allowed to cut the corner more you may like to move the track edge out slightly.
- The format doesn't need to include commas; these get added when you save. This makes it easy to paste a list from matlab or excel.


Create Track


✕ Cancel

Create

Import:

 Default

 Staged

 File

Name


Big Square Test

Custom Properties

Add

Track

▼

 Properties

Definition of the track.