

# Topo COURSE CREATOR



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# ***PC SYSTEM REQUIREMENTS***

## **Minimum System Requirements for Topo Course Creator:**

- Pentium class PC - 100MHz or better with 16MB RAM (*See also the note below*<sup>†</sup>).
- Windows 95/98/ME/2000/XP.
- DirectX version 8.0 or higher (8.1 or higher included).
- CD-ROM drive for installation of software.
- DirectX Compatible Video Card with 8MB V-RAM.
- Existing RacerMate training software

## **For Topo USA-RacerMate Edition Courses:**

- Requires DeLorme Topo USA - RacerMate Edition software.
- For CompuTrainer 3D courses: Requires CompuTrainer 3D version 3.0 build M924.0.0.1258 or higher (supplied).
- For Velotron 3D courses: Requires Velotron 3D version 1.0 build M924.0.0.1262 or higher (supplied).

<sup>†</sup>*Please check DeLorme Topo USA - RacerMate Edition documentation for system requirements specific to it.*

## Quick Start using RacerMate Course Creator

### Installation Instructions - Course Creator

1. Shut down any programs you may be running.
2. Insert the installation CD into your CD-ROM drive. Setup will begin when the drive door is closed.
3. From this menu select the option you wish to install and follow the instruction on the screen to install your software.
4. Your software is now installed. Launching the software will bring you to the Course Creator "What would you like to do?" menu. From this screen you select the function you would like to perform and click *Next*. Depending which selection you make you will either enter another screen or be asked to select a file.
5. Before you proceed with using the Course Creator software, you should verify the settings made in the Preferences Screen are correct, and install any 3D software updates (provided on this CD).

### **If the Install menu doesn't appear:**

1. If the autorun feature for your CD-ROM drive is disabled, click **Start**, then **Run**.
2. In the command line text box, type: **D:\Autorun.exe** (where D: is the letter of your CD-ROM drive) and then click OK
3. Continue as noted above, line 3.

### Uninstall Instructions - Course Creator

Course Creator can be easily uninstalled. This will remove the program files that were added at the time the software was first installed, but the uninstall process will not remove files added to the program after the software was installed; like, log files, course CSV files from the DeLorme software, etc. An option to remove these files is noted below.

1. Shut down any programs you may be running.
2. Go to the Program Group for Course Creator and click on the Uninstall link.
3. Follow the instruction to proceed with the uninstall
4. To verify all the files and folders are removed, double-click My Computer and then double-click the drive you installed the software (default being C:\Program Files\Course Creator). Right-click the Course Creator folder and left-click on delete.

### 3D Software - Update for Course Creator

You must update your version of 3D software for the Topo Course Creator software to work correctly. An update for both CompuTrainer 3D and Velotron 3D are provided on the Course Creator installation CD. Please be sure you select the correct version from the list, as failure to do may disable your current installation of 3D.

## **Setting Preferences**

The Preferences Option will allow you to set the parameters from which the software will function, especially in regard to where courses will be saved.

1. Select the Edit Preferences option in the “What would you like to do?” menu.
2. Set the default ‘**Export**’ paths. These have been preset to the default settings (established during the installation of your PC1 or 3D software) for the CompuTrainer, but verify they match the installation paths of your race software, since you may not have used factory default locations. These will be the path settings the software will use to save courses onto your PC.

**Note:** PC1(\*.crs) courses used for Velotron Coaching Software are stored by default in C:\Program Files\Velotron CS\Courses folder.

3. Set the default ‘**Export Smoothing**’ amount. This value will vary from course to course. DeLorme topographical export information may not contain correct altitude information based upon changes that occurred when a roadway was added to the topography. To solve this RacerMate can smooth (take away the highs and raise the lows) to essentially duplicate what the surveyor would have done when the road was made. Experimenting with this value may yield the best results. Range can be set from 0 to infinity, but start at zero and increase in steps of 10 until you are satisfied with the course. There is a point where smoothing will make the course entirely flat, which shouldn’t be the goal with this feature.
4. Set the **Export Options** for the DeLorme Software. These have been preset to default settings, but verify they match the *installation path* of the Topo Course Creator CSV folder. This setting will determine where the DeLorme software will export the CSV file used to create either the .crs or .3dc file. The default path is C:\Program Files\TopoCC\CSV Files.
5. Set the Resolution (in meters) for the DeLorme software Export feature. By default this is set to the optimum setting for the most detailed course. This will determine how often data will be sampled from the DeLorme software, but be aware that due to the complexity of the . You may experiment with this value to see how it affects your course.
6. Choose metric or leave unchecked to change the distance views in any screen or course editor.

When your preferences are set, you can now use Course Creator to generate courses from either DeLorme Topo USA - RacerMate Edition or from existing courses within the RacerMate training software.

## **Creating Courses - DeLorme Topo USA - RacerMate Edition**

Creating courses using the DeLorme Topo USA - RacerMate Edition is a two step process. First you **must** create the routes and export the course data from the Profile screen using the DeLorme Topo USA - RacerMate Edition Software. When you have done this, then you can create courses using Course Creator.

DeLorme added a few new features to their DeLorme Topo USA software for RacerMate. These include the Export Feature and a Bridging Feature. Details on how to use these features are listed in the DeLorme software manual, but will be briefly mentioned below.

To create a course from the Delorme Topo USA - RacerMate Edition:

1. Select **Create Course** for either 3D or PC1 and click **Next**.
2. Select DeLorme Topo USA file and click **Next**.
3. Select the appropriate *CSV file* created by the DeLorme Topo USA software. If necessary, browse to the folder where the CSV file is located. Once selected, click on Open button to build the course.
4. A confirmation dialog box will indicate the course file was created and where it was saved.
5. Your course should now be available to ride.

### **Important information regarding using Delorme Topo USA - RacerMate Edition**

- ◆ Topo USA routes can generate courses that defy the standard course building tools of our 3D software, so don't be surprised to see visuals on the 3D race screen you haven't seen before.
- ◆ You will not be able to edit all courses built using this Course Creator software within the 3D software. Doing so may produce the red "*Warning Zone*" mentioned in the course building tips section of the CompuTrainer 3D software manual.
- ◆ Courses with *\*out-and-back sections\** (returning on the same stretch of roadway) or *\*crossover\* courses* (a figure 8) will produce graphic errors in the 3D software. This is due to these courses breaking the rules that are set within the course creation interface of the 3D software. There is currently nothing that can be done to improve this. We recommend building these types of courses first into PC1 (.crs) courses and then use the *Course Import* feature within the 3D software.
- ◆ Topo USA - RacerMate Edition added a "bridging feature" to allow you to bridge over waterways. You may not realize a course needs a bridge until you ride it or run the course in 3D's *Demo Mode*. These will appear as sections you know should not be part of a real roadway (you will ride into what looks like a canal or creek bed). Make note of the milage when these occur, then add bridges in Topo USA's Profile display. Then export the newly edited course data. In addition, you can use the bridge feature to tunnel into hillsides, remove the top of a hill, or in any other way needed to change the course more to your liking.
- ◆ Topo USA - RacerMate Edition added a new Road Type. In Topo 4, the "Route tab" has 3 routing options: Road, Trail, Direct. In the RacerMate Edition there is one more option for creating routes: RacerMate. Though similar to the Road option, it will better adhere to the shape of the road (for speed and technical reasons the Road option doesn't always do this). According to DeLorme, you will need to place *\*stops\** along the route within 75 miles of each other. For example, if you create a 150 mile route, you will need to put in an extra stop about half way. Most users should put in stops anyway, as that is the easiest way to force the route down a particular road.

## **Creating Courses - DeLorme Topo USA - continued**

- ◆ You can create a route in Topo USA - RacerMate Edition using a GPS. Most GPS devices allow you to add waypoints and routes (a collection of waypoints), and manage them on the device. Topo USA can receive and send these waypoints and routes to and from the GPS device. The utility to do this can be found in the GPS tab, or the MapFiles tab - it's called the Exchange Wizard. The routes imported from the GPS will be point to point routes, so they will not follow the roads. A more likely scenario is to download a track from a GPS device. When most GPS devices run, they maintain a log of the locations they have been at, recorded at regular intervals that can be specified by the user. Topo USA can download the track from the device through the Exchange Wizard into a draw line. The user can create a profile on this line as easily as they can a route to create a CSV file.

For further information on this, and any other DeLorme feature, contact DeLorme Technical Support.

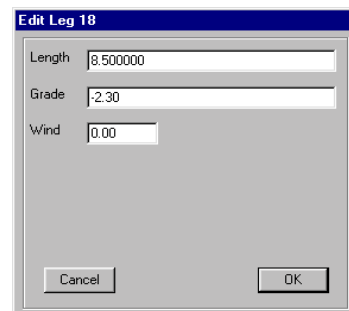
## **Creating Courses - Using an existing course**

You can create a course from an existing PC1 (.crs) or 3D (.3dc) course file. This is simply a save and edit function that first makes a copy of the original and then opens the course editor to allow you to edit the data. There has historically been no real advantage in making a copy of a 3D course due to the fact that 3D courses could not easily be edited. You had to delete sections of course to edit into the middle. The major advantage to this new Course Creator feature is that you are editing courses in a table format, instead of in the graphical course creation interface. For PC1 courses, there is no longer the need to use Notepad.

1. Select **Create a New Course** for 3D or PC1 and click **Next**.
2. Select '**An Existing Course**' and click **Next**.
3. Browse to the correct folder location, if needed, and then select the course you want to edit to make the new course. Then click **Open**.
4. In the **Course Editor**, double-click the line(s) you want to edit. After making the changes, click the  to close the editor.
5. A dialog box will appear to allow you to save the course by a new name.
6. Once saved, your new course is now available to ride.

### **Notes on creating courses using an Existing Course**


- ◆ Looped 3D courses cannot be edited for length or grade without first removing the closed loop. Length and Grade are disabled if the course is looped and you will only be able to edit these courses to add wind. Remove the closed loop in the 3D software first and then edit the course in Course Creator. Please be aware that this may affect the ease of re-closing the loop once edited.
- ◆ There are 5 columns of data in the course editor screen. These are: Leg number, Leg Length, Grade, Wind, and Accumulated Distance. When you double-click on a line of data, the Edit Leg display will appear. If the Length and Grade area are grayed out, then the course is looped and Wind is the only option you can edit.

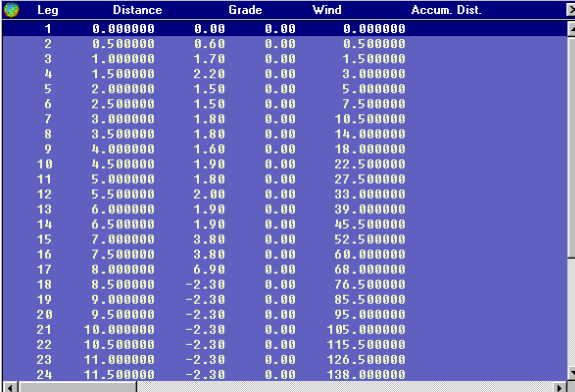


## Edit an Existing Course - CRS or 3DC files

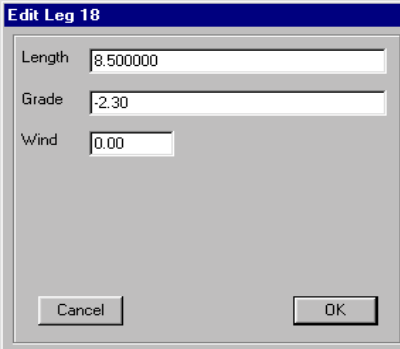
You can edit any existing RacerMate course using Course Creator's Course Editor except Coaching Software \*.erg files.

The Course Editor consists of 5 columns of data: Leg, Distance, Grade, Wind, and Accumulated Distance (see figure below). You can edit either \*.crs courses (used in PC1 and Coaching Software) or \*.3dc courses (used in CompuTrainer and Velotron 3D) using Course Creator. The routine is similar to *creating a new course using an existing course*, as previously described, where you can opt to save the edited course by a new name -- keeping the original intact.

1. Select **Edit an Existing Course**.
2. A Select File Dialog will appear. Select the correct '**Files of type**' option and browse, if needed, to the correct folder location to select the course you want to edit.
3. Select the course you want to edit to make the new course. Then click **Open**.
4. In the **Course Editor**, double-click the line(s) you want to edit, make the changes, and then click the  to close the editor (see figure below).
5. A dialog box will appear to allow you to save the course. Select the same file name to overwrite or type a new file name to make an entirely new course.
6. Once saved, your new course is now available to ride.



Leg	Distance	Grade	Wind	Accum. Dist.
1	0.000000	0.00	0.00	0.000000
2	0.500000	0.60	0.00	0.500000
3	1.000000	1.70	0.00	1.500000
4	1.500000	2.20	0.00	3.000000
5	2.000000	1.50	0.00	5.000000
6	2.500000	1.50	0.00	7.500000
7	3.000000	1.80	0.00	10.500000
8	3.500000	1.80	0.00	14.000000
9	4.000000	1.60	0.00	18.000000
10	4.500000	1.90	0.00	22.500000
11	5.000000	1.80	0.00	27.500000
12	5.500000	2.00	0.00	33.000000
13	6.000000	1.90	0.00	39.000000
14	6.500000	1.90	0.00	45.500000
15	7.000000	3.80	0.00	52.500000
16	7.500000	3.80	0.00	60.000000
17	8.000000	6.90	0.00	68.000000
18	8.500000	-2.30	0.00	76.500000
19	9.000000	-2.30	0.00	85.500000
20	9.500000	-2.30	0.00	95.000000
21	10.000000	-2.30	0.00	105.000000
22	10.500000	-2.30	0.00	115.500000
23	11.000000	-2.30	0.00	126.500000
24	11.500000	-2.30	0.00	138.000000



**Edit Leg 18**

Length:

Grade:

Wind:

### Notes on editing existing courses using Course Creator

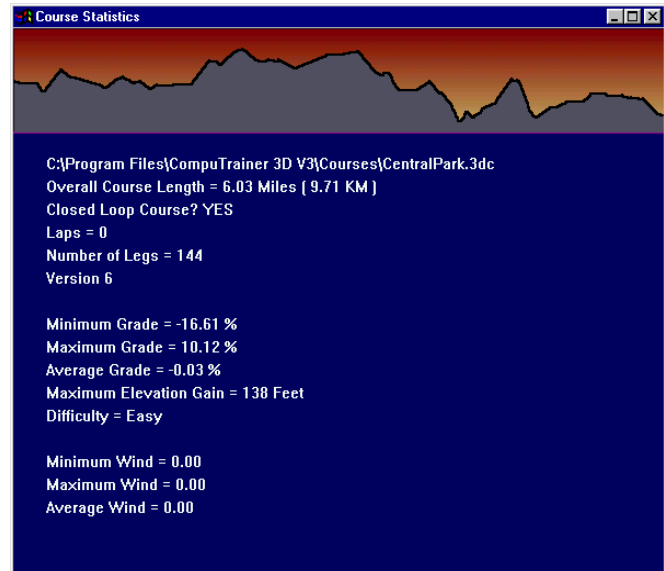
- ◆ Looped 3D courses cannot be edited for length or grade without first removing the closed loop. Length and Grade are disabled if the course is looped and you will only be able to edit these courses to add wind. Remove the closed loop in the 3D software first and then edit the course in Course Creator. Please be aware that this may affect the ease of re-closing the loop once edited.
- ◆ There are 5 columns of data in the course editor screen. These are: Leg number, Leg Length, Grade, Wind, and Accumulated Distance. When you double-click on a line of data, the Edit Leg display will appear. If the Length and Grade area are grayed out, then the course is a looped course and Wind is the only option you can edit.



## View Profile and Statistics of a Course - CRS or 3DC files

You can view the profile and statistics of an existing course using Course Creator. The Preview Screen contains the following data: Profile view, Overall Course Length, Closed Loop information, Total number of Legs, Grade and Max Elevation information, Wind information, and Calculated Difficulty Level.

1. Select '**View profile and statistics of an existing course**' and click Next.
2. A Select File Dialog will appear. Select the correct '*Files of type*' option and browse, if needed, to the correct folder location to select the course you want to view.
3. Select the course you want to view. Then click **Open**.
4. Use the Course Viewer to determine whether the course is one you would like to ride at your current fitness level, or wait until the RacerMate trainer increases your ability to do so.



### Notes on Course Viewer

- ◆ There are no user editable fields in the Course Viewer. This viewer is used only to give you information about the course.
- ◆ Course Difficulty was determined by using the Average Grade. The range is:
  - Very Easy = AVG GRADE below 0.0%
  - Easy = AVG GRADE 0% - 4%
  - Medium - AVG GRADE 4% - 8 %
  - Hard - AVG GRADE 8% -10%
  - Very Hard - AVG GRADE 10% - or higher
- ◆ Maximum Elevation Gain is the total sum of the lowest to the highest grade as calculated in the individual courses.
- ◆ Courses with no wind were created that way. You can add wind to any course by using the Course Editor within Course Creator.
- ◆ The Metric Preference does not affect this screen. Both English and Metric distance.

## **Troubleshooting**

The DeLorme software is supported by Delorme. Go to [www.delorme.com/support](http://www.delorme.com/support) for assistance with Topo USA - RacerMate Edition. Be sure to indicate the version of Topo USA version you are using is the Topo USA - RacerMate Edition when contacting DeLorme.

The Course Creator software is supported by RacerMate, Inc. Go to [www.computrainer.com](http://www.computrainer.com) and click on the Software Support link for help.

The general rule of thumb is this:

Course plotting and Export to RacerMate CSV is handled by DeLorme technical support. Generating the actual PC1 and 3D courses for RacerMate software is handled by RacerMate technical support. If you are not sure who to contact -- contact RacerMate first. If we determine the problem should be handled by DeLorme, we will put you in contact with DeLorme.

### **Who to contact**

RacerMate Topo Course Creator  
[service@computrainer.com](mailto:service@computrainer.com) -or- 800-522-3610

DeLorme Topo USA - RacerMate Edition  
[support@delorme.com](mailto:support@delorme.com) -or- [www.delorme.com/support](http://www.delorme.com/support)

### **Known Issues**

- ◆ The 3D software cannot duplicate all conditions known in the real world. For instance; courses that travel the same roadway more than once, or that cross over themselves in a figure 8 pattern will produce graphic anomalies. These are known issues and should not be reported as bugs. The types of things you may see are:
  - Missing trees and scenery - When a road travels back on itself, the 3D software cancels out the surrounding scenery.
  - Roadway shimmer or duplication - When a roadway travels back on itself, the 3D software overlays another road on top of the existing road. If all data was exact to the millimeter, this wouldn't be a problem, but in fact there is no easy way to assure this. What you will see is two roads fighting for the same space, but just a hair off from each other.
  - Trees or signs in the sky - Because some scenery is cancelled out, the signs and trees don't always get cancelled out, but don't have anything visible to attach themselves to. As you can see, the trees have no roots.
- ◆ Courses exported to .crs format are ASCII text files and can be quite large. Windows currently has a record viewing limitation of 32,000 lines of data. 100+ mile long courses made using Topo USA and then made into .crs files may exceed this limit, and as such may slow down, or even halt the attempt to Import these into the 3D software (as noted on page 6). RacerMate will attempt to overwrite this problem and update the software on the CompuTrainer or Velotron web site.

### **Software updates**

Go to [www.computrainer.com](http://www.computrainer.com) -or- [www.velotron.com](http://www.velotron.com) to download updates to your Course Creator software when available.

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