Tutorial 4 – Communication between 2 controllers

In this short tutorial we explain how to let 2 controllers to communicate during stage 3 of the competition.

Both Torcs and the championship patch don't provide a communication channel that allows controllers to communicate during a race. For stage 3 of the competition, it is for example important to know where your team member is positioned on the leaderboard. Based on this information one can decide to change or stick with the current racing strategy of the team.

Shared folder

On the contest server, a shared folder is created where a private directory is made available for each group. The path to the shared folder is: /Users/ci_course/torcs/shared_folder. The name of the directory that is reserved for each group is the submission token that was given to each group.

Important: If your token contains the character "/" (forward slash), you should remove the forward slash from your token. If your token is AbC,dEfG/HkL:m==P, your directory in the shared folder will have the name AbC,dEfGHkL:m==P. The path to your private directory on the server will be: /Users/ci_course/torcs/shared_folder/AbC,dEfGHkL:m==P.

You are allowed to create files in your directory to allow your drivers to communicate through. After each run on the server, you need to clean up each directory by removing any files that were created during the previous run.

Permissions

The permissions are set to Read and Write (0666).

Log files

Since there are two controllers (from the same team) who may either be reading from or writing to a file at the same time, it is important to manage this task well. The following two links are included to give you an idea of how to create and access files. You are allowed to use any other method of file you feel is appropriate for this task.

https://docs.oracle.com/javase/tutorial/essential/io/file.html#common

https://docs.oracle.com/javase/tutorial/essential/io/rafs.html