
Installation Requirements

- Windows Operating System. We have only tested using windows 7 64-bit, it may not work on other platforms. The project, however, is built on top of Visual Studio 2008 win32 platform. We do not provide porting to 64-bit.
- Visual Studio 2008
- Python (install windows x86 MSI Installer (2.6.6) (sig) from <http://www.python.org/download/releases/2.6.6/>). Do not use the Python26 provided in the lib folder. This folder comes from the original cartwheel-3d. Do not temper with it either since it provides necessary materials to enable compiling the project in debug mode.

LocoTest Installation Procedure

- Extract locotestlib.zip and locotest.zip into the same workspace (please use a workspace which contains no spaces in its path since the linker in visual studio 2008 cannot handle spaces within file paths)
- Open the locotest solution with visual studio 2008
- set core as the startup project
- LocoTest is implemented on top of four different simulation engines (ODE, PhysX, Bullet, and Vortex). If you do not want to use a specific simulation engine, you need to comment the line which defines the simulation engine in compileconfig.h located in the root of the solution folder in windows explorer, or under Solution Items in Visual Studio 2008 Solution Explorer. By doing this, the compiler will skip all the compilation related to a specific engine.
- Build the solution either in release or debug mode (debug mode runs slower)

Note:

- To be able to run Vortex, you will need a license from CMLabs (<http://www.vxsim.com/>)

Configuring The walking Controller

In windows explorer, you can find a file to configure the controller ("locotest\controllerconfig.txt"). Below are the detailed description of the content of the file :

- first line => integer: the number of characters to be simulated
- second line => 'o', 'oq', 'p', 'p3', 'b', or 'v': the simulation engine which is used in the simulation ('o' for ODE, 'oq' for ODE-Quick, 'p' for PhysX 2.8.4, 'p3' for PhysX 3.0, 'b' for Bullet, and 'v' for Vortex)
- Third line => double: the timestep of the simulation in seconds
- The remainder of the file contains a set of walking styles. Each walking style consists of four lines which define the name of the walking style, the desired speed, the desired duration for one walking cycle (i.e. pace), and the desired stepwidth. A walking style can be chosen by uncommenting the name and the set of parameters of the walking style.