

The character tools of Extreme Tux Racer and Bunny Hill 0.1

Note: Now the keyframes are built and adjusted on per-character basis. The consequence is that each character gets its own set of keyframes. They are placed in the particular character folder. The folder can contain the following files:

- shape.lst - the file for building the character
- preview.png - an image for the entrance screen
- start.lst - the keyframe for the intro mode
- finish.lst - neutral keyframe for the final stage
- wonrace.lst - the same but used in case that the race was successful
- lostrace.lst - that should be clear

The animations rules should be part of the character, too, but that will be implemented later.

Starting the tools

For running the character tools you have to start the program by

```
./etr --char folder keyframe
```

where folder is the character folder (e.g. „samuel“) and keyframe one of the frame descriptions in this folder (e.g. „wonrace.lst“). Probably it's a good idea to create a special test folder.

The tool modes

There are 3 modes:

- char mode - for shaping the figure
- frame mode - for editing a single frame of a keyframe sequence
- sequence mode - running the keyframe with real time

After starting the tools you are in char mode.

View

In char mode you can rotate and move the figure (see tables below). Also you can zoom in and out.

In frame mode it doesn't make sense to move or rotate the figure freely because the position as well as the rotations are adjusted by the frames. To get another view we have to move and rotate the camera whereas the figure keeps the specified adjustments. It's not easy to orientate oneself by changing the camera position and direction, but it might be helpful to use <1> ... <8>. That sets the camera on fixed positions around the reference point (0, 0, 0).

Keyboard function in the different modes:

	char mode	frame mode	sequence mode
<PAGE_DOWN> <PAGE_UP> <HOME> <END>	select node	select frame	
<CRSR_DOWN> <CRSR_UP>	select transformation	select joint	
<SPACE>	select vector component		
<CRSR_LEFT> <CRSR_RIGHT>	change value of selected component	rotate joint	
<1> ... <4> <1> ... <8>	set standard orientations	set standard views	
<TAB>	go to frame mode	go to char mode	back to frame mode
<ESCAPE>	quit program	quit program	back to frame mode
<ENTER>		start sequence	repeat sequence
<M>	show / hide material	show / hide material	
<H>	toggle highlighting	toggle highlighting	
<R>	reload character		
<U>	reset current node		
<-> <+> <=>	zoom		
<S>	save character	save keyframe seq.	
<A><INST>		add, insert frame	
		delete frame	
<CTRL> + <C>		copy	
<CTRL> + <V>		paste	
<C>		clear current frame	
<P>		copy previous frame to current frame	
<0> (zero)		set current value to 0.0	
<F1> <F2>		change camera rotation	
<F3> <F4>		change camera distance	

Mouse functions:

	char mode	frame mode	sequence mode
WHEEL	zoom	zoom	
LEFT BUTTON	rotate figure		
RIGHT BUTTON	move figure		