

MotionEditor

Program to edit keyframe files Adjusted version for use with RoboNewbie

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date of description: 5.2.2013, description by Monika Domanska

Installation and program start:

System requirements :

- (Java 7 SE Runtime Environment, not needed, if Java 7 SE Development Kit is installed as required for RoboNewbie)
- Java3D

<http://www.oracle.com/technetwork/java/javasebusiness/downloads/java-archive-downloads-java-client-419417.html#java3d-1.5.1-oth-JPR>

Installation:

MotionEditor is given as a zipped folder and contains the executable file MotionEditor.jar. There is not any installation needed, just unzip it and start the program with a double click on file MotionEditor.jar.

Usage of MotionEditor (adjusted Version for RoboNewbie):

A general knowledge of RoboNewbie is assumed.

The MotionEditor is used to create, change and save movements modelled as keyframe sequences, so that they could be executed with RoboNewbie.

A movement consists of keyframes aligned by transitions to a sequence. A keyframe defines a single posture of the robot, and a transition determines the time between two postures.

They are developed on two tabs of the MotionEditor-GUI: *MotionNet* and *Joints*.

Create:

MotionNet is the place to create keyframes (right mouse button) and transitions (right mouse button on a keyframe). To edit keyframes or transitions, they must be marked (left mouse button) in *MotionNet*.

Edit:

A marked keyframe can be edited in two ways:

- 1) In the graphical representation it can be kneaded into the desired posture with the mouse.
- 2) In the tab *Joints* single joint angles can be set to specified values.

The first keyframe, labeled always with „S“, can not be saved and therefore it should not be edited. The purpose of „S“ is to enable the definition of the first transition, means that „S“ represents the unknown state of the robot before the execution of the movement.

Keyframes can be copied and pasted on *MotionNet* (right mouse button).

A marked transition also can be edited on *Joints*, there the transition time is set. The condition is always ignored by RoboNewbie.

Save:

To use a keyframe sequence in RoboNewbie, save it as a .txt-file in the directory:
„[RoboNewbie-root]/keyframes“

For testing the sequence, choose the filename „test.txt“ and run the RoboNewbie Agent_KeyframeDeveloper.