This addon for Blender lets you move objects and bones in the viewport and record their motion as keyframes. The time slider advances and keyframes are inserted (at frequencies that you set) when you move the objects, the addon pauses itself when you are not moving the objects. This can be used to create an animation directly, by animating in real time or in slow motion. It can also be used to create an animation sketch.

For animation cleanup, there are buttons that allow using the time slider to select/deselect/delete keyframes for location, rotation, and scale. This lets you swipe the time slider over ranges of keyframes to select/deselect/delete them while viewing the animation at the same time.

Smooth Follow makes an object follow the mouse pointer in a smooth trajectory. This motion can also be recorded.

The addon also has buttons for duplicating the previous and next keyframe for location, rotation, and scale, and a button for displaying information about keyframes under the time slider.

This addon can be used together with the Motion Trail addon by Bart Crouch in order to adjust the motion path of an object after animating it.
**INSTALLING**

Put the file `real_time_animation.py` into
[your blender installation directory/blender version number]/scripts/addons
Start Blender and enable the addon in File >> User Preferences >> Addons >> Animation. The addon should appear in the 3D Viewport left-side menu. Close the User Preferences window in Blender after enabling the addon to avoid lag.

**ADDON MENU**

---

**Recording section**

**Pause.** How slowly to advance the time slider while recording animation. Use for animating in slow motion.

**L, R, S buttons.** Record animation for object location and/or rotation and/or scale.

**Keyframe spacing numbers (right under L, R, S buttons).** These set the spacing between automatically inserted keyframes for location, rotation, scale.

**Prev and Next buttons.** Duplicate the previous or next keyframe for location, rotation, scale.

**Sel, Dsel, Del buttons.** These buttons let you use the time slider to select (Sel) / deselect (Dsel) / delete (Del) keyframes for location, rotation, scale. When in pose mode, only keyframes for currently selected bones are affected.

**Stop All.** Deactivate all buttons.

---

**Keyframe info section**

**Keyframe Info button.** Show information about keyframes under the time slider for currently selected objects. The info appears in the text field above the button. In pose mode for an armature, shows info for only the currently selected bones.
Smooth follow section

**Follow.** How closely objects should follow the mouse pointer, 0 to 100.

**X, Y, Z numbers.** These are the X, Y, Z vector components for the smooth follow direction vector. If all 0, the object moves but doesn't rotate.

**Smooth Follow button.** Activate smooth follow. After clicking this button, hit left Ctrl on your keyboard to start/pause the motion.

The addon works in Object Mode and Pose Mode. In Pose Mode it works for bones such as controller bones. It doesn't work for bones that have IK applied to them since the output coordinates of IK bones don't update in real time.

Clicking some buttons deactivates other buttons for efficiency, convenience, or safety reasons.

RECORDING LOCATION, ROTATION, SCALE

The concept is based on the feature in Blender where you push the automatic keyframe insertion button, let the animation play, and move an object while keyframes are recorded. This addon lets you set the interval between the keyframes and the rate at which the time slider advances. It automatically advances the time slider and inserts keyframes when you move objects, and automatically pauses when you stop moving the objects. Hit the “L” button to record location, hit the “R” button to record rotation, hit the “S” button to record scale. A green check appears on a button when it is activated.

For example, select an object, click “L”, and move the object in the viewport. Afterwards you can record another “motion layer” of the object rotating as it moves, etc.

Another way this can be used is to create an animation sketch. Create a temporary object like an empty, and move it while recording its motion to create a sketch of how the animation should play out over time. Then you can animate the scene based on the sketch.

To avoid lag during recording, remember to close the User Preferences window in Blender while using the addon.

ANIMATION CLEANUP AND ADJUSTMENT

You can select objects in object mode or bones in pose mode, then activate “Sel”/“Dsel”/“Del” buttons to use the time slider to select/deselect/delete keyframes for location, rotation, and scale. The purpose of selecting ranges of keyframes is so that you can do various adjustments on them, for example in Blender's Graph Editor.

SMOOTH FOLLOW

Smooth Follow makes objects move and rotate to follow your mouse pointer. An object moves in a smooth trajectory as if attached by a “rubber band” to your mouse pointer. The object moves...
in a plane that is parallel to the current viewport and that passes through the object’s current location.

After clicking the “Smooth Follow” button to activate smooth follow, hit left Ctrl on your keyboard to start the motion. Hit left Ctrl again to pause, so you can adjust the viewport, etc. To record the smooth follow motion, activate the “L” and (optionally) “R” buttons when using it.

Higher values for the “Follow” factor make the object follow your mouse more closely. It’s a percentage ranging from 0 to 100.

The three values above the “Smooth Follow” button set the components of the object’s forward vector, to determine how the object rotates towards your mouse pointer. For example setting X=0, Y=0, Z=1 makes the object’s local Z vector always point towards your mouse. If you set X=0, Y=0, Z=0 the object will not rotate when following the mouse, and you don’t need to activate “R” in this case to record its motion.

Smooth Follow can be used together with the Shrinkwrap constraint to make an object stick to a surface while following your mouse.