501

THE eLEARNING GUILD'S

ONLINE FORUMS℠

Add Value to You and Your e-Learning with Fast and Easy Virtual Agents

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Successful Techniques and Strategies for Navigating Turbulent Times – Fast, Cheap, and Effective e-Learning

Online Forum Session 501 Reference

All materials are available online at http://subquark.com and access to Enercity Park is provided to all forum participants. To build on that land, join the **ELearning Guild in Second Life** group “inworld”.

There are also additional places free to use for meetings.

Principles and Tools:

Two underlying principles guide the approach presented in this session: **rapid development** and **low cost**.

Filming in Second Life, and within any computer-generated imagery (CGI), is known as *machinima*.

This session introduces several tools specific to filming in Second Life in case you are interested in experimenting with them before attending the session. These tools include Filming Path, Fraps, and Sizer.

The **Second Life viewer** is needed to access the virtual world that we will be using as a film studio for creating footage to incorporate into our eLearning.

Filming Path is an "inworld" filming system that helps to create smooth camera pans and camera dolly shots.

Fraps is a real-time video-capturing application for Windows. Other Mac-based programs accomplish similar results (see the Fraps section).

Sizer is a freeware utility for Windows that helps to properly size the Second Life viewer window for filming.

Additional tools will also be discussed, and guides and sample files will be made available online for the case study. Video tutorials will be posted that cover most aspects of the session.

In this session, audio is recorded separately to allow for faster development. This decision impacts filming and video editing efficiency, allows for greater flexibility of eLearning content edits, uses existing voice-over talent, and uses the same footage with different audio in several different places (for example, as part of a process flow and then as a question). **WavePad** is used for illustrative purposes, but there are many options available, and you may have a tool that you are already comfortable using. The principles remain the same regardless of the software used.

Windows Movie Maker is used to edit the video in keeping with the theme of implementing these techniques on a very limited budget. **iMovie** works very well, too. If you have more sophisticated software, such as Avid, Sony Vegas, or Adobe Premiere, you will find this straightforward.

Adobe Flash and **HTML** are used to pull it all together for delivery. Video and audio import settings are discussed, and sample files will be provided to use as templates and guides.

A quality microphone can make a large difference in your end result. The **Blue Snowball** is an outstanding microphone that is easy to use (USB) and yields very good results. http://www.bluemic.com/products/snowball

Tool: Filming Path

Location: Inworld

Filming Path Studios, Mortons Gully (207, 26, 35) or

http://slurl.com/secondlife/Mortons%20Gully/224/32/42

nand Nerd's Flexi Fun, Lasiocampa (153, 222, 29) or

http://slurl.com/secondlife/Lasiocampa/153/223/29

Cost: $1500 L

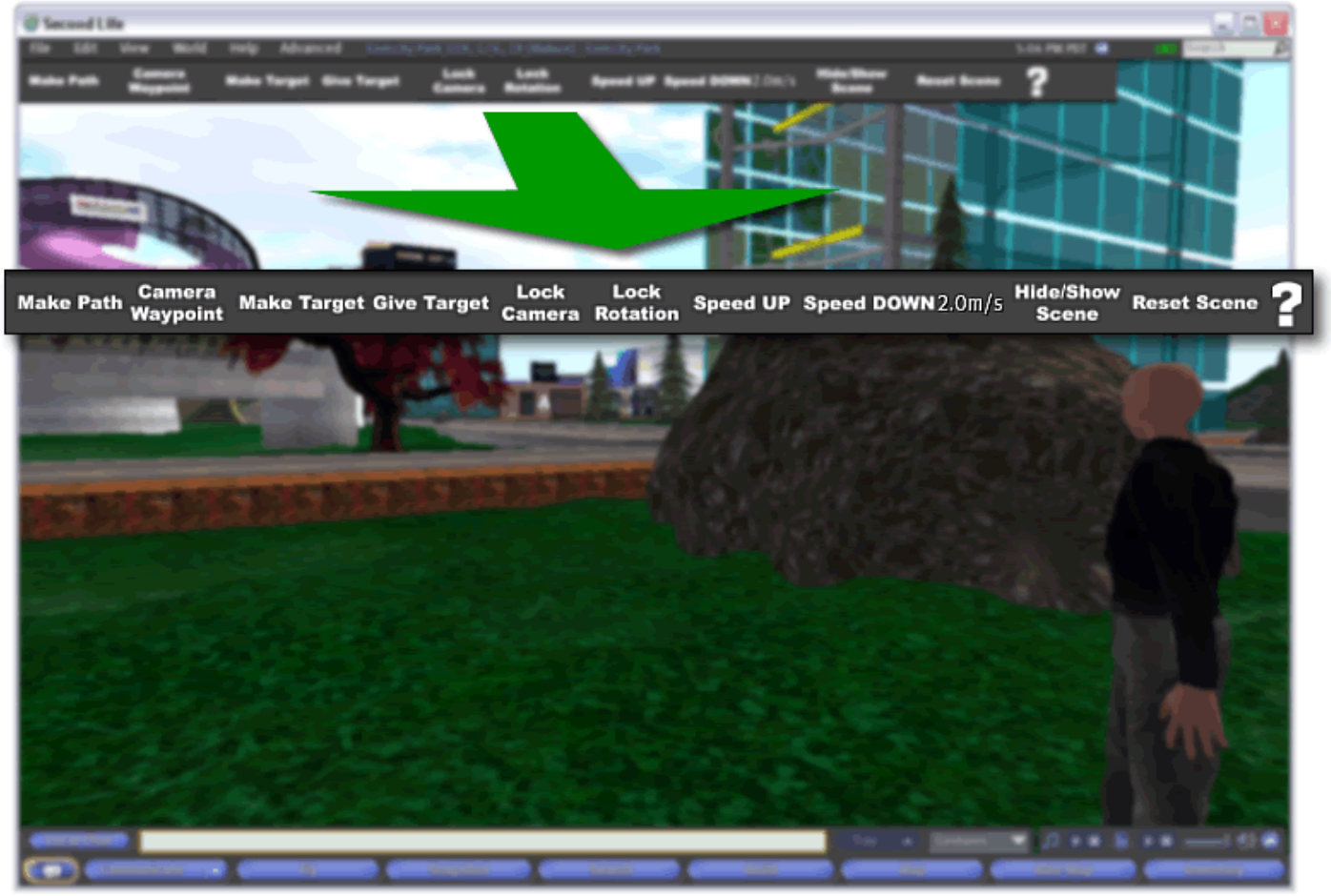
Alternative: Alt-Zoom Camera

Location: Inworld

Cost: Free

Directions for Using Filming Path:

1) Attach the Filming Path heads-up display (listed as FP HUD in your inventory).



2) Set up your camera dolly track by clicking **Make Path** (the text will be green when Make Path is on and white when it is off).

3) Walk and/or fly to create your waypoints.

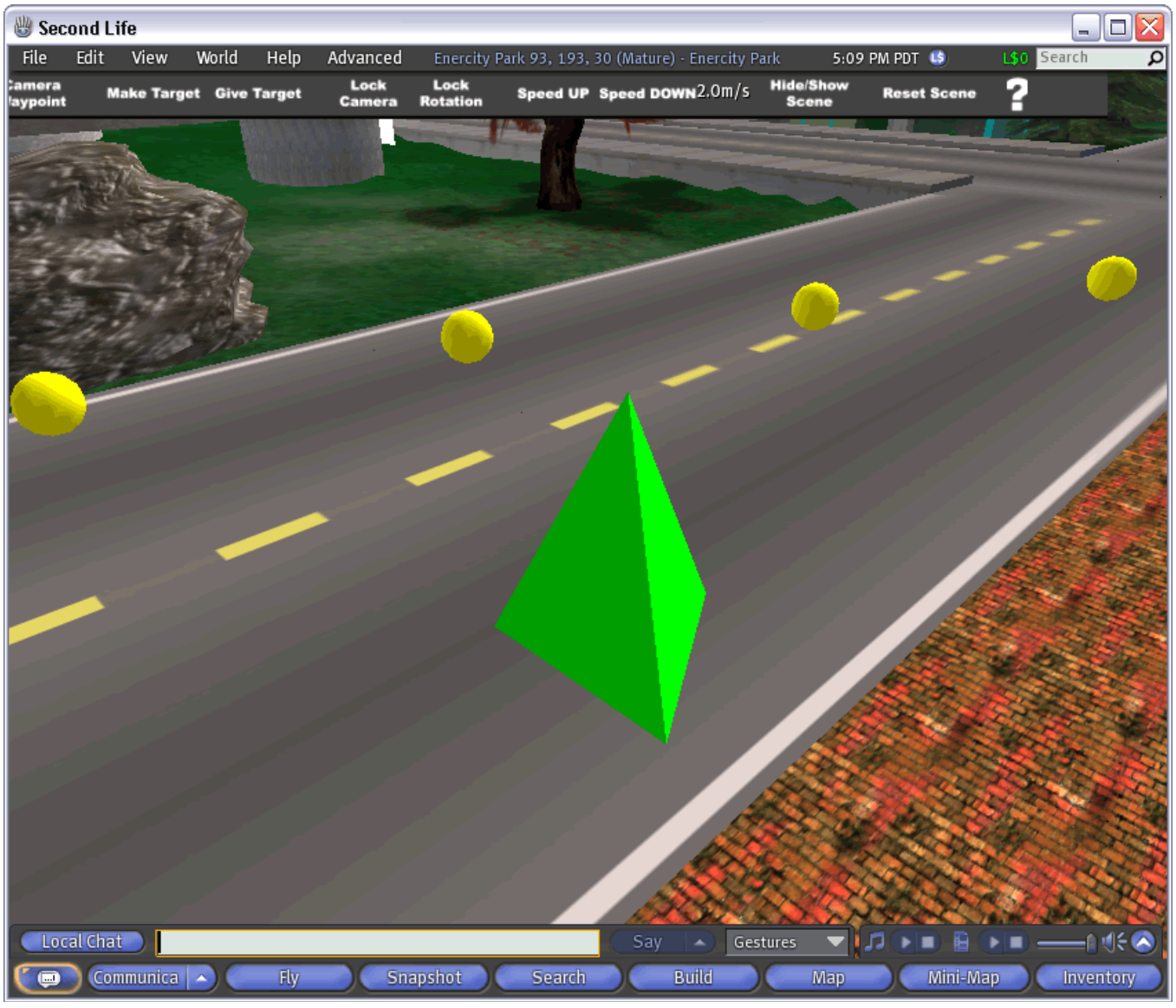
4) When you are done, click **Make Path** again to stop creating waypoints.

5) You can edit the path by moving the waypoints individually. To do so, right-click a waypoint, and then click **Edit**. To delete a waypoint, simply click that waypoint once.

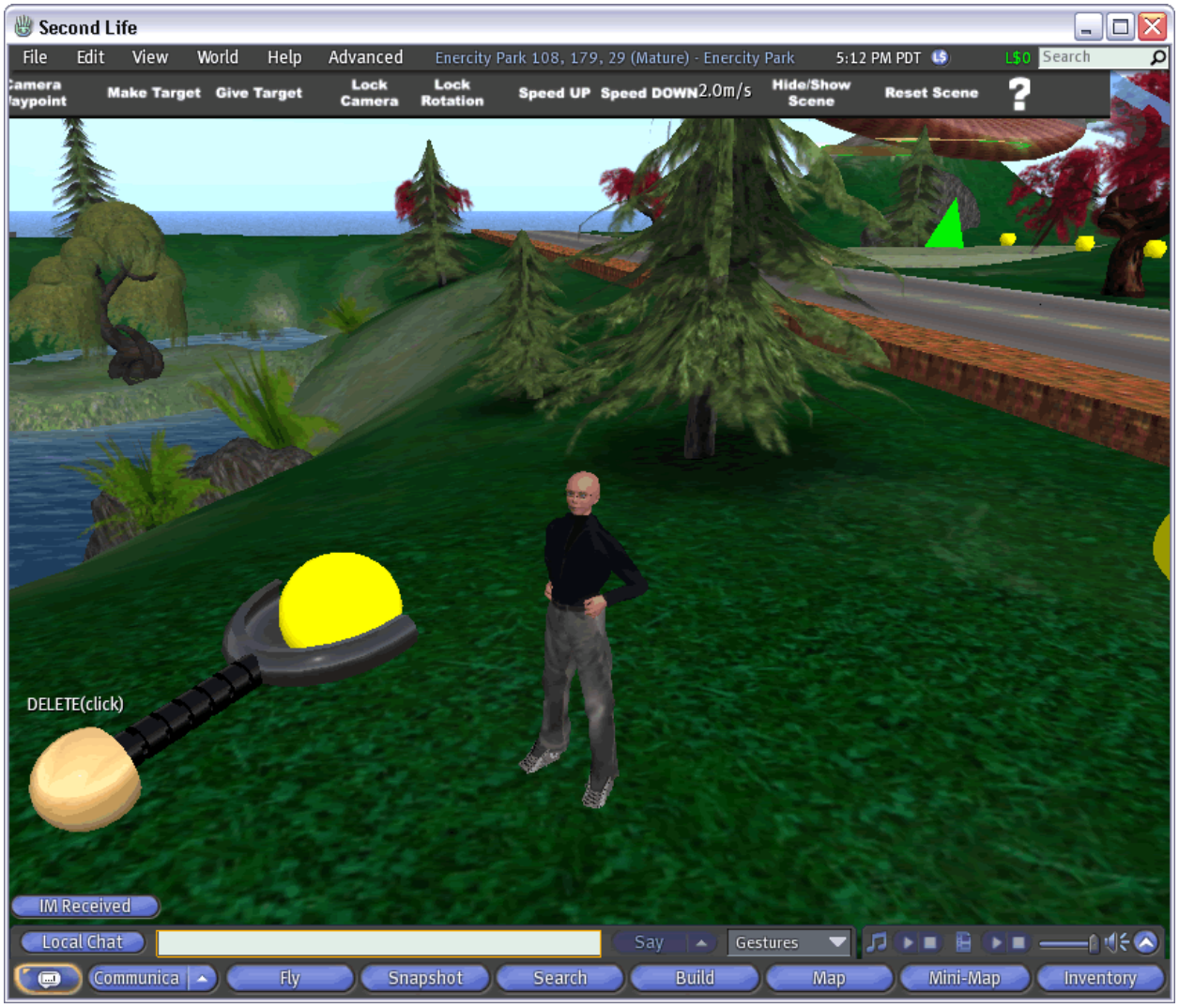
6) To “process” the track, click **Process**. This will turn off Make Path if it is still on. “Processing” polls the waypoints and creates the camera dolly seat. When the camera dolly seat is done receiving the path coordinates, it will alert you with chat.

7) To set a camera target, move to where you want the camera to focus and click **Make Target**. A green tetrahedron target will appear.

8) The position of the target may be edited, if necessary. Click the target to update its coordinates to the camera dolly seat. The camera dolly seat will automatically face the target once the position has been received.



9) Test the path by clicking the camera dolly seat one time. The seat will now move along the camera dolly path.



10) To adjust the dolly speed, click **Speed UP** or **Speed DOWN** from the HUD and play the path again by clicking the camera dolly seat once it has returned to its starting position. The number displayed to the right of Speed DOWN is the current speed listed in meters per second.

11) To hide your path, click **Hide/Show Scene** to hide the waypoints and target.

12) You are now ready to use the camera dolly path. To start, sit on the seat. The HUD will hide itself and you will see a 10-second countdown before the camera dolly seat moves. Here comes the trickiest part:

- With Fraps started, press **F9** to start recording; the number turns red and will not appear in your footage.
- In the viewer, enter “Mouselook” and then press **Esc** to exit Mouselook.
- Hide the viewer interface by pressing **Ctrl-Alt-F1** or **Cmd-Opt-F1**.

13) Review your raw footage and if you need to make updates, stand up from the seat, click **Hide/Show Scene** to show waypoints and targets. Edit the dolly track as you did above. Click the wooden ball on the end of the camera dolly seat to delete the current camera. When you are done, process the track again and another camera seat will appear.

14) Once you are happy with your raw footage, clear your scene by clicking **Reset Scene**. It's easy to forget the waypoints and targets since they will still be invisible. Be a great resident by not prim littering!

Additional Filming Path Tips:

You can make a camera dolly path anywhere within a sim (region). However, the Filming Path camera cannot cross sim boundaries.

You can create a maximum of 130 waypoints, due to memory limitations in the script. Click **WAYPOINT COUNT** to see how many waypoints you have.

Filming Path HUD Definitions:

Process - After your camera track is setup, this polls all of your waypoints and creates your camera dolly seat.

Make Path - When turned on, simply walking and/or flying creates the waypoints that define your camera dolly path. These appear as yellow spheres.

Camera Waypoint - Limited to 10 meters from the avatar. Create a waypoint at the current camera position.

Make Target - Creates the target that the camera will focus on. To send the target's position to the camera, simply click the target. This target appears as a tetrahedron whose position can be edited.

Give Target - Creates a mobile "targeter" as a tetrahedron. The actor clicks the targeter, and the camera tracks the actor as he moves and keeps him in center frame.

Lock Camera - Keeps the camera from moving, even if a path has been defined.

Lock Rotation - Keeps the camera from rotating but lets it move along a path. This is used for panning across a scene.

Speed UP/ Speed DOWN - Increases or decreases the speed of the camera along the path.

> **Tip:** Always test your dolly path for its speed and adjust as needed. It is worthwhile to do full test runs before starting Fraps.

Hide/Show Scene - When your scene is setup, click this to hide or show your waypoints and target.

Reset Scene - The deletes everything. Be sure to do this only when you are done and have reviewed your raw footage. Please use Reset Scene to remove the filming prims (even if not visible, hidden prims still exist).

> **Tip:** To view hidden prims, press **Ctrl-Alt-t** to show them as red objects that can then be selected.

Tool: Fraps (Windows)

Location: http://www.fraps.com

Cost: $37 (trial version available)

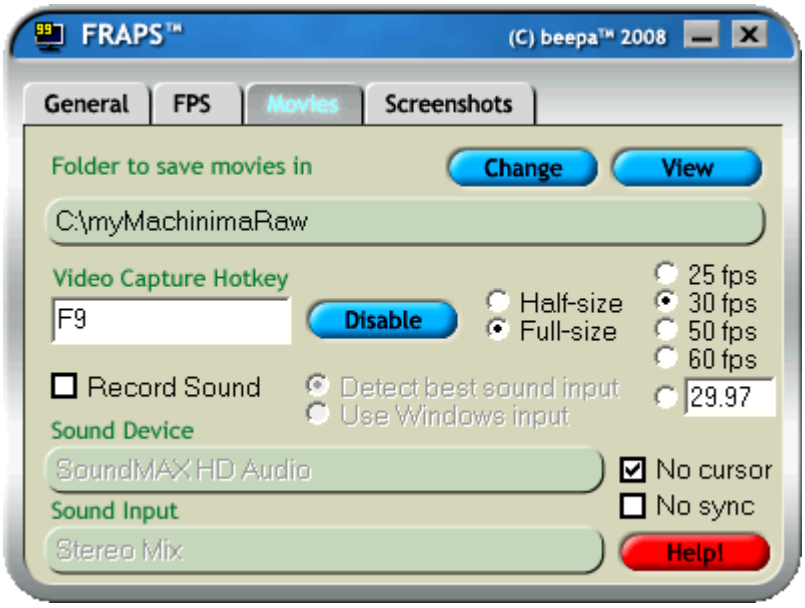
Mac alternative: Snapz Pro X 2

Location: http://www.ambrosiasw.com/utilities/snapzprox

Cost: $69 (demo available)

Directions for Using Fraps:

1) Start Fraps.



2) Create or select a folder to store your raw movie files. The files will be very large, and the real-time capture process benefits from having a fast hard drive.

3) Select **Full-size**.

4) Set your frame rate to 30 if you want to match the NSTC standard. You can experiment with different rates and may find that a rate of 15 is suitable. This will reduce file size and the performance impact of filming significantly. Frame rate depends on your end use. If you are incorporating video into Flash, you can specify anything you like. Just match your Flash frame rate to your video rate.

5) Select **Record Sound** if you will be narrating live or recording your actors. I have found that although you lose the lip synching of Second Life, your filming and editing will be far faster. This is an important point to consider when balancing the available development time with the quality of the end product. If you have voice-over talent that you use regularly, this may factor in as well.

Tip: Enabling voice has little impact on the performance of Second Life. Voice is hosted on separate servers.

During installation, your sound device should have been detected by Fraps. Further support is available on the Fraps website.

Note: When Fraps is running, a yellow number will be displayed indicating current frame rate. This rate will typically be higher than your selected frame rate and can be used as a guide to any “lag” you may be experiencing in Second Life. The number will not be recorded in your video.

Tip: Pressing **Ctrl-Shift-1** or **Cmd-Shift-1** in Second Life will open simulator statistics, including inworld frame rate and time dilation. If time dilation is below 0.98, movement will be noticeably “laggy”.

6) When you are ready to record, press **F9**. The yellow numbers turn red and the frame rate becomes the selected rate (or less if you are lagging).

To hide the Second Life viewer interface, press **Ctrl-Alt-F1** or **Cmd-Opt-F1**.

Tool: Sizer (Windows)

Location: http://www.brianapps.net/sizer.html

Cost: Freeware

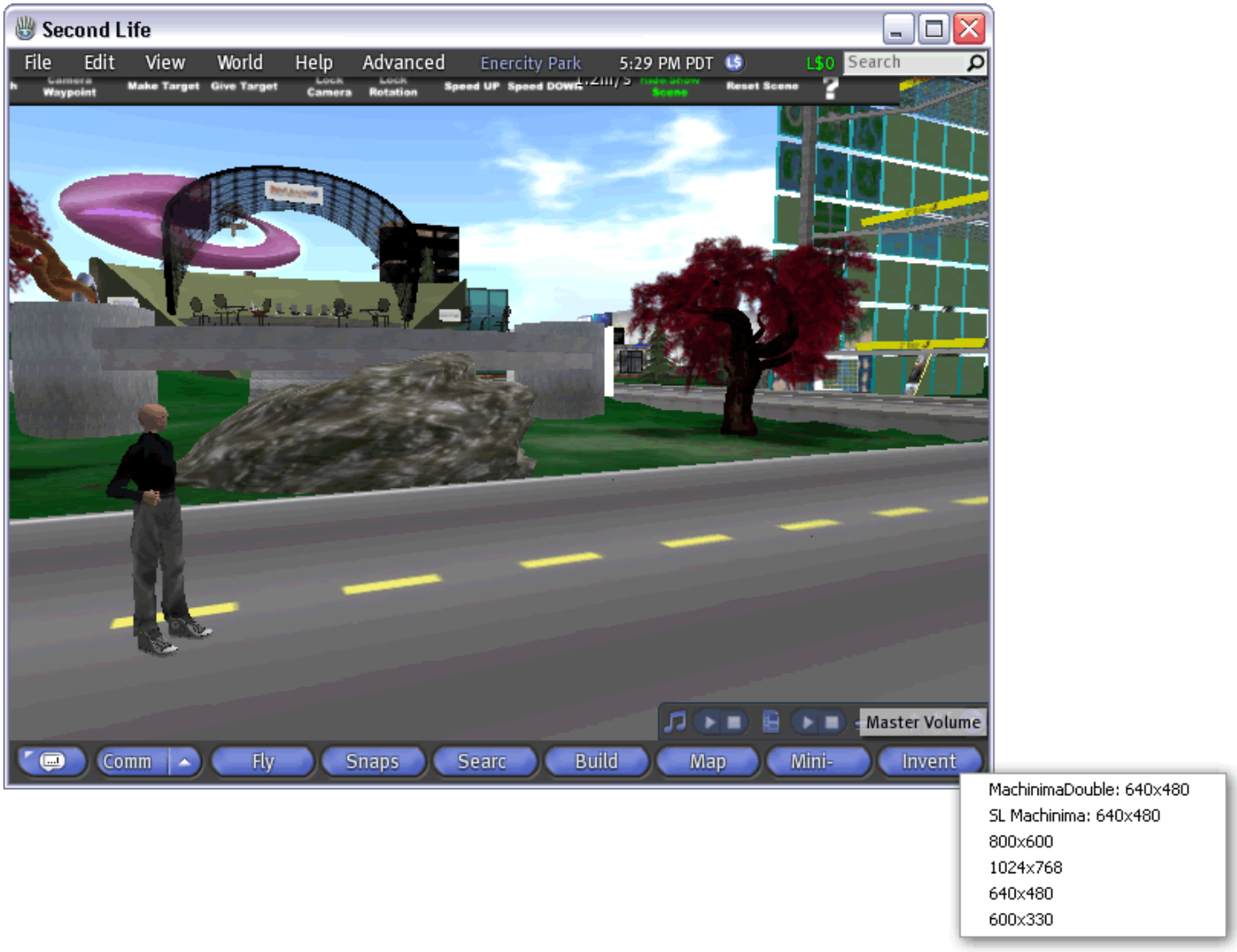
Approach for Second Life Filming:

Determine the dimensions you will need to use in your eLearning Flash pieces. By knowing the exact dimensions of your video, you will prevent it from being resized and distorted. Typically, you know what sizes you use for various types of interactions. Take that into consideration when planning (scripting) out your lesson for the addition of video.

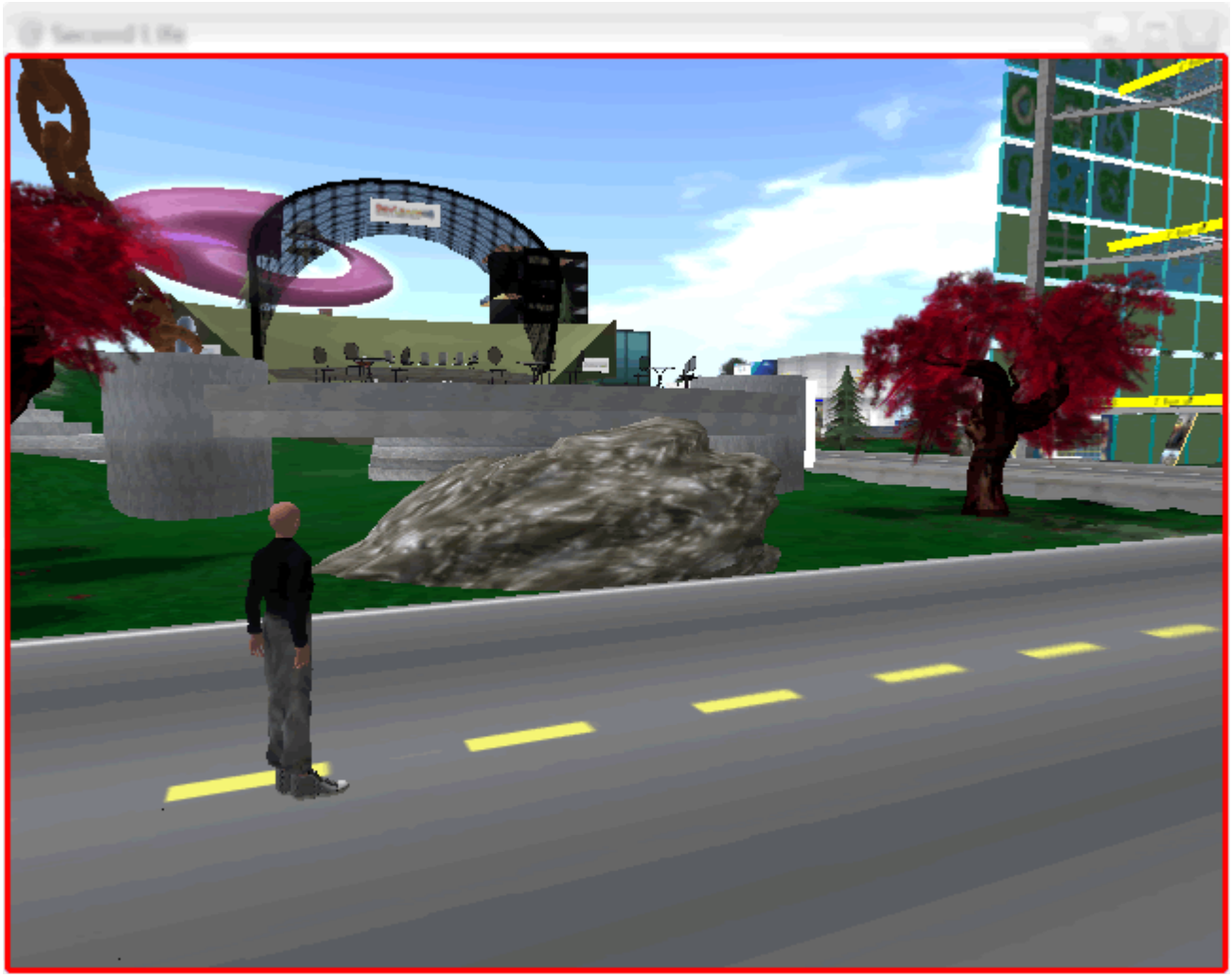
Directions for Using Sizer:

1) Start Sizer.

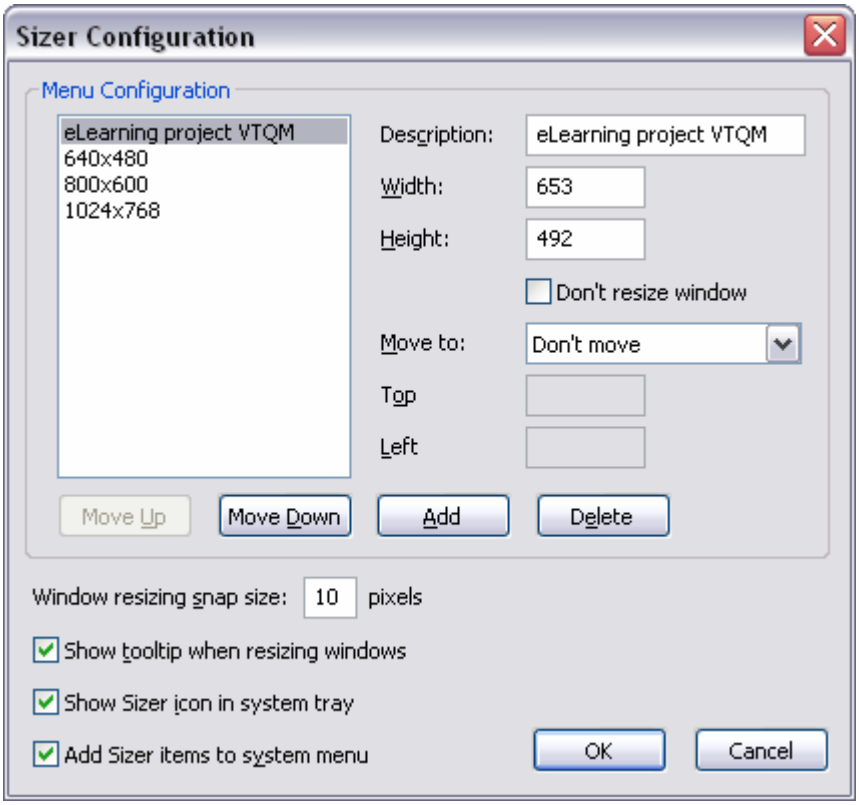
2) Click and drag the lower right corner. The dimensions will be displayed as a tooltip as you drag.



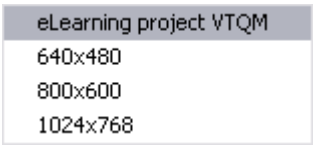
3) Take a screenshot (press **Alt-Print-Scrn** or **Command-Shift-4-Spacebar**) and paste it into your graphics program of choice. You will need to “measure” the actual window within the application. The dimensions displayed by Sizer include the “chrome” of the application. That chrome is not captured by Fraps, so you will need to experiment to find the size that correlates with the size you need in your Flash pieces.



4) Once you find the size you need, you can save it with Sizer for future use. This saves significant time in creating subsequent video footage. Configure Sizer by right-clicking the tray icon and selecting **Configure Sizer**. Enter a meaningful name and your dimensions, and that's it!



Now you can retrieve that size anytime by starting Sizer, right-clicking your window, and selecting the appropriate size.



Note from the Developer of Sizer:

Sizer is not supported under Windows Vista. There are issues installing the program and using interactive sizing. An update may be released at some stage but this won't happen in the immediate future. Please do not report issues with Vista until a version that supports it has been released.