

# NUS School of Computing

## AY 2013/14 Semester 2

### CS4340 Digital Special Effects: Final Project

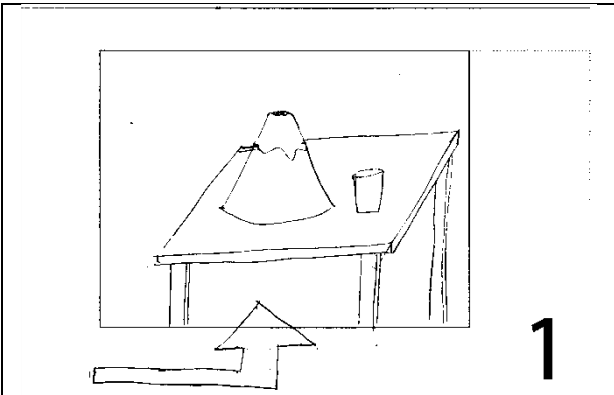
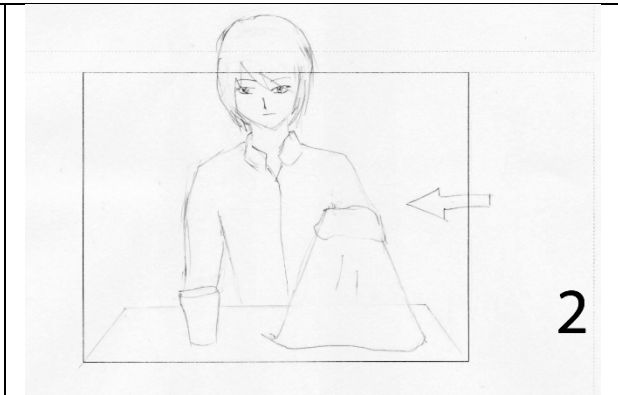
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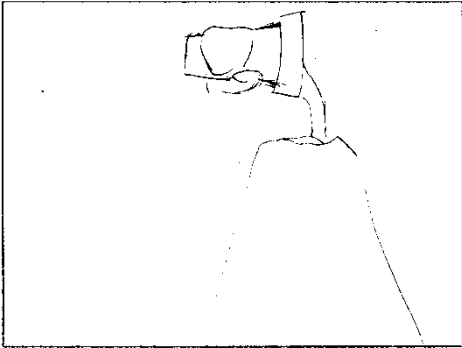
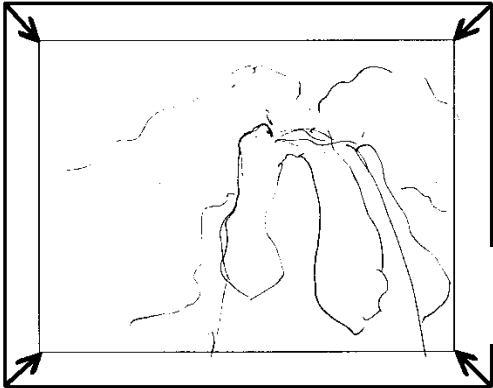
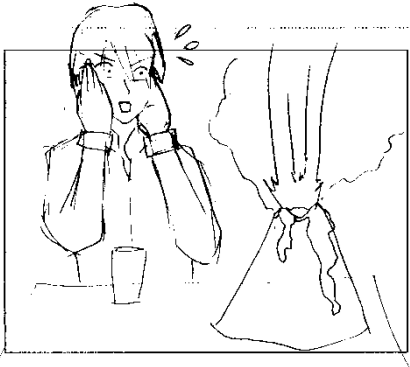
As in previous years, the Final Project in this semester will be focused, and yet still allow for creativity. Please read through this document, and plan ahead with your teammates. Use the IVLE Forum to ask questions (so that other students will benefit; they are likely to have the same questions as you), or to give suggestions.

In this Final Project, you are to produce a video containing the visual effects as depicted in the storyboard below. The main effect is that of a CG volcano inserted into real video footage, and the protagonist, whom we will call Lab Guy, playing around with it. Your video should begin with a title page showing your group's name, and the words "CS4340 Digital Special Effects". Display this title page for a few seconds, then immediately cut to Panel 1 of the storyboard. No further preamble is required or necessary. The focus of this Final Project lies in the visual effects, not in the plot of the story. There is therefore no need to situate the VFX in a coherent and logical storyline.

Your video should depict all the key characters, actions, and effects in the storyboard, including camera shots and moves. Panels 1 through 7 should occupy at least 20 seconds in your video. After Panel 7, you may further extend the video for at least another 10 seconds, but not more than 30 seconds, with additional actions and visual effects as your creativity guides you. For instance, you may show Lab Guy acquire some super power and using it (e.g. jumping into the volcano to put it out). Let your imagination fly here, as you will be awarded marks for your creativity.

### Storyboard

|   |   |
|---|---|
|    |               |
| <p>POV shot of Lab Guy walking towards a table, on which sits a small volcano and a cup. The camera should dolly in and around the volcano, because Lab Guy is examining it from side to side. At this moment, the volcano appears cold and still; it is not smoking nor shaking.</p> | <p>Medium shot showing Lab Guy stopping to inspect the volcano, and contemplating what to do.</p> |

|  |  |
|--|--|
|  <p>3</p>   |  <p>4</p>  |
| <p>Medium shot. Lab Guy lifts up the volcano, turns it around for closer inspection, and puts it down.</p>   | <p>Lab Guy lifts up the cup, which already contains some liquid.</p>   |
|  <p>5</p>  |  <p>6</p>   |
| <p>Close up shot. Lab Guy pours the liquid into the volcano.</p>   | <p>Close-up shot showing the volcano starting to shake and smoke. Lava begins to ooze out from the top of the volcano. Zoom or dolly out to panel 7 mid shot.</p>  |
|  <p>7</p>   | <p>Panel intentionally left blank</p> <p>8</p>   |
| <p>The eruption gets stronger. Fire, smoke and lava gush out of the volcano. Lab Guy appears shocked, and is frantically thinking of a way to stop the eruption.</p> <p><u>This ends the individual VFX portion.</u></p> | <p><u>As a group</u>, decide: Either (a) Lab Guy sucks in all the smoke and fire. Fire, smoke and lava may be seen streaming into Lab Guy's mouth. After a while, eruptions stops.<br/>OR (b) Lab Guy blows cold air onto the volcano. After a while, the volcano is frozen and eruption stops.</p> <p>Choose your own camera shot and movement to best convey (a) or (b). Draw the panel.</p> |

9. Continue to extend the story for another 10 to 30 seconds. The volcano may erupt again, or may do something else. Additional characters may be introduced. Use your creativity to create additional visual effects. Draw the storyboard for your extension.

## Tasks

- Shoot the raw footages as a group. You need to act out the character Lab Guy and adhere to the camera views and movements shown in Panels 1 to 7 as much as possible. Dialogue, if any, should be kept to a minimum.
- Individually, each member of the group will create the CG volcano and animate it (shake, emit smoke, lava and fire). The model of the CG volcano will be provided to you; you are required to use this model, and no other. Each individual will be assessed on his/her creation of the VFX depicted in the storyboard from panels 1 to 7.
- Now choose one of these individual VFX video and extend it from Panel 8 onwards as a group project. Continue the story as your group decides.
- Each group should submit a Project Proposal for your video extension, ie. what happens from Panel 8 onwards. This Proposal should contain the following:
  - Your group's name, members' names, and matric numbers.
  - A one-line description of the VFX to be achieved, e.g. "Jumping into a live volcano", if you decide to let Lab Guy jump into the volcano to stop the eruption.
  - A synopsis: in one paragraph, elaborate on the effect. Describe its novelty. It is best to do one major effect rather than many small ones.
  - Storyboard from Panel 8 onwards.
  - Production notes: describe the visual elements needed to achieve the effect; describe how to create the visual elements, and how these are combined together to achieve the effect. For example, shooting Lab Guy acting in front of green screen, matchmove table for insertion of volcano, creating CG lava, and compositing these layers.
  - Roles of each group member: distribute the tasks evenly among all members of your group, and say who is to do what.
  - Production schedule: using a table or timeline, describe the tasks in pre-production (e.g. making or acquiring a miniature, or other props), production (where and when to shoot the raw footages, including footage for the "Making of" video), and post-production (e.g. compositing, CG modeling and animation).
- Submit a Progress Update. This is a concise summary of the work done to date, the problems encountered and how you intend to overcome them. Also include a schedule for the remaining work to be done. If your effects deviated significantly from the original one stated in your Proposal, then submit a new storyboard and synopsis as well. Along with this, submit any raw footages you have captured, or partially edited videos, to demonstrate your progress.

- Also produce a “Making of” video (no more than 3 minutes long) that explains the key steps in creating your video extension. You could narrate the steps, or use subtitles, or both. But at least one of these must be present. If you show screen recordings of how you used, say, Maya, to create your effect, please speed up these screen shots lest it gets boring to watch. With careful planning, you can overlap your shooting of raw footages for both the effects and “Making of” video during production so as to save time.

### May’s and May-not’s

| May’s  | May-not’s   |
|--|---|
| You may dress Lab Guy in any way you like; there’s no need to dress him/her as shown in the Storyboard.  | You may not substitute Lab Guy with a CG character or miniature or puppet. Lab Guy must be a real human actor.  |
| You may situate the entire scene outdoor or indoor. If outdoor, then find a table to place the volcano and cup.  | You may not replace the model of the CG volcano given to you. You must use the model provided.  |
| In Panel 5, the liquid pouring out may be CG liquid or real water. The liquid may be in any color. The cup may be CG or real.  | The table must be real, not CG. And the volcano must be CG, not real.   |
| You may study videos of real volcano eruptions to get inspired. Examples: <a href="http://www.youtube.com/watch?v=R0Zbj7S22zs">www.youtube.com/watch?v=R0Zbj7S22zs</a><br><a href="http://www.youtube.com/watch?v=-N3YoHGpITI">www.youtube.com/watch?v=-N3YoHGpITI</a> | In Panel 7, the mid shot must show both the volcano erupting and Lab Guy in the scene.  |
| Audio is optional, but adding it will likely impress the judges during the competition.<br><br>Having, or not having, audio will not affect your grade.  | Don’t depict excessive violence, or blood and gore in your video. Avoid sexual content or themes, racist, vulgar or other objectionable material. Don’t use your video to make political or religious statements. |

### Grading Criteria and Competition

Your project will be judged according to these criteria:

- Realism in the visual effects, including secondary effects, such as Lab Guy’s face and the table being illuminated by the volcano fire.
- Creativity: Camera work (shot types, camera movements), Novelty
- Technical difficulty in creating the effects.

All group videos will automatically be entered into a competition for the Best VFX Award. A panel of judges will decide using their own criteria (unfortunately, these criteria are not known in advance). Prizes will be given to the winning groups. However, this competition has no bearing on your academic grade. We will be participating in SoC Steps this year. Please also read the PPT slides, as listed in IVLE Workbin, for what you need to do for SoC Steps.

## Submission and Deadlines

|                        | Item   | Deadline                      | Remarks  |
|------------------------|--|-------------------------------|--|
| <b>Each group</b>      | Project Proposal   | Sunday, 9 Mar.,<br>23:59 hrs  | Name your file <group_name>-proposal.pdf. Use only PDF format.   |
| <b>Each group</b>      | Progress Update  | Sunday, 30 Mar,<br>23:59 hrs  | Name your file <group_name>-update.zip. In this zip file, include a PDF file describing your progress, as well as any videos to demonstrate your progress. |
| <b>Each individual</b> | VFX video for Panels 1 to 7 of the storyboard.                           | Friday, 18 Apr.,<br>23:59 hrs | Name your file <your_name>.mp4. Please use mp4 format and H.264 compression.   |
| <b>Each group</b>      | VFX video containing Panels 1 to 7, plus your continuation of the story. | Friday, 18 Apr.,<br>23:59 hrs | Name your file <group_name>-effects.mp4. Please use mp4 format and H.264 compression.  |
| <b>Each group</b>      | "Making of" video  | Sunday, 20 Apr.,<br>23:59 hrs | Name your file <group_name>-making-of.mp4. Please use mp4 format and H.264 compression.  |

### Remarks:

- Submit your files via IVLE into the appropriate Workbin folder.
- Please use MPEG4 file format, and H.264 compression. Do not use AVI format, as these tend to be too large.
- IVLE limits each file to 300Mb. If you really can't keep to this limit, then put your video in Dropbox and provide the link.
- Use a consistent aspect ratio throughout your video capture, editing, and final comp to avoid distorting the scene or characters.
- Try to use high definition, e.g. 1080p. The lowest acceptable resolution is VGA: 640x480.

**ENJOY!**