After receiving feedback about your pre-proposals in class on Wednesday, it will be time to create a formal final project proposal.

This proposal will become a sort of contract between us that describes what you plan to do for your final project in the course. By approving it, I agree that completion of the project as described will satisfy the course requirements.

That being said, there is still some flexibility in this process. Final projects can and will be altered and amended throughout the final six weeks of the term based on discoveries you make along the way. Some things will be harder than you expected, some easier. The catch is that any alterations to your final project must also be approved. This generally happens via email.

All this formality is not intended to slow you down, nor is it just a way to get you to practice jumping through hoops. It is designed to introduce you to the critical concept of pre-production, and it allows me to manage a class full of students doing different things and still be able to fairly evaluate everyone's work at the end of the term.

**MILESTONE 2 due Friday March 28th by NOON in my CS office mailbox (first floor ASH) or via email (as a PDF document)**

All written portions should be typed (and proofread and spell-checked), and you should retain copies of all drawn materials as these may not be returned to you immediately.

The final project proposal should contain:

- The title of your project
- The approximate duration of the movie, in seconds
- A written abstract (see milestone 1 sheet)
- A written treatment
- The frame rate, aspect ratio, and spatial resolution of your film
- A storyboard
- A small number of reference images
- A model list
- A model packet for every model.

**DETAILS**

Don't sweat the title, just pick something.

The abstract and treatment should revised (if necessary) versions of the ones from your pre-proposal. Please address whatever comments you receive on Wednesday.

The frame rate depends entirely on the specifics of your project. Full animated shorts that should have smooth motion will be generally at either 24 or 30 frames per second.

The aspect ratio/spatial resolution of your film is the ratio of screen width to height. It could be 1.33 (640x480), 1.85 (640x346), or 2.35 (640x272), or something else. These sizes can be set in the render globals and camera attributes windows. This is an important choice: the aspect ratio greatly impacts your available staging options.
The storyboard should effectively communicate the visual composition and action of each shot. Any given shot might require more than one storyboard drawing to make the action clear. Don't get bogged down in your (in)ability to draw - the point of storyboards is to explore the visual possibilities quickly. Some example storyboards to use as reference:

From "Film Directing Shot by Shot" (Steven D. Katz)

From A Bug's Life

From Tower 37 (drawn by Chris Bishop).
Your reference image(s) are intended to communicate what your final film will actually look like. If you have good storyboards, then you might want to think of reference images as storyboards that have been fleshed out in color. Use any means you wish to create color. Some good choices are pastels, paint, watercolors, or digital tools like Painter or Photoshop. If you work digitally and can't print out a good color image, you can refer me to a URL so I can look at the image(s) online.

A model list is just that: a list of all the different 3D models that must be built for your project. Give them each names (you will have to anyway when you build them on the computer).

A "model packet" is a drawing or set of drawings that shows what an object looks like from different views, with specific details necessary for construction. The drawings don't have to be drawings - if the object you wish to model can be photographed go ahead and use photographs. The images in model packets need to be annotated, showing important details relevant for modeling or animation. For instance, a model packet of Luxo Jr. would identify the four different nodes in the hierarchy in addition to simply showing what they look like. Some example model packets:

A simple robotic vehicle (Uprising early concept art, Jesse Lonergan)

Some characters from Uprising (David Cahill, Chris Bishop)
Model Packet for Flik's Harvester (A Bug's Life)