CS 232: Computer Modeling and Shading **Spring 2001**
Project one: Soda Can

The goal of this project is to have you build a highly-detailed polygonal model of a soda can. Your model must:

- Be one surface built up of single-sided polygons that share vertices (unless you also build the tab, in which case it can be two distinct surfaces),
- Be built to actual size,
- Use a high enough polygon count so that your model appears smooth without being absurdly dense.

Some tips:

- Start by spending a half hour with a soda can, ruler, paper, and pencil. Measure every relevant detail of the can and write down what you discover.
- Try to identify symmetries in the model and plan an approach to building it that exploits those symmetries.
- Figure out which pieces must be built together, and which pieces can be built separately and later combined.
- Rough out your model to test your ideas. Make sure they are going to work before you put in the time to get the dimensions perfect.
- Save your work often, and make sure you use different file names so you can return to an earlier version if you need to.
- Use the layering and hiding capabilities of Modeler to help you work on small sections at a time.

I will use the statistics window (w) as well as the point merging tool to analyze the quality of your models. The things I **don't** want to find are:

- Non-planar polygons
- 1 and 2-vertex polygons
- Unshared and unused vertices
- Duplicate points
- Absurd point and/or poly counts

You should use these tools **before** I do and make sure your models are good!

DUE Thursday February 22nd at the beginning of class

Put your models in the **Soda Cans Go Here** folder on e-work.

There is also a reading assignment from the syllabus that needs to be completed by the 22nd as well. It's long, but it's full of useful information that should help you in building your cans:

LW 3.1-3.7, 3.10-3.15 (up to other tools), LW 4.7-4.11 (up to flex tools), LW 4.11-4.30 (flex tools and others), LW 4.32-4.33 (up to qemLOSS2), LW chapter 5 (auto geometry), LW chapter 6 (adding/subtracting),