

SMARTcart Tutorial

SMARTcart is a software application that allows you to create simple thematic maps using principles of map design that are presented in the lecture slides. It is intended to be user-friendly and easy to use, so that you can focus on map design instead of focusing on how to use complicated mapping software. Rules of map design have been programmed into SMARTcart, allowing it to evaluate the decisions you make in the map design process. There are virtually no default settings in this application – *you* will make all decisions regarding options that are available to be specified.

SMARTcart evaluates the appropriateness of your decisions by calculating and displaying scores. The *overall score* reflects the design of the entire map; scores for all map elements are averaged into a number ranging from 0-100. The *map element scores* reflect your decisions in regard to each individual map element, with scores ranging from 0-100. The *rule scores* reflect your decisions in regard to each rule associated with each map element - scores range from 0-100. When you begin working with SMARTcart, you will have access to the overall, map element, and rule scores. You can alter access to scores in the Administrative Controls Window, which is accessed via the Administrative Controls link in the lower-left of the user interface – the password is *smartcart*.

1. Launch SMARTcart: Go to the Start Menu, choose Programs, and select SMARTcart 1.0.
2. Notice the “blank page” on the right side of the interface. This is where your thematic map will appear.
3. On the left side of the interface is the score panel, where your scores will be displayed and updated in real time. The Administrative Controls link at the bottom of the score panel can be used by instructors to specify which scores are visible, and to alter the weighting schemes used to calculate scores.
4. The Region and Theme section allows you to choose from two geographic regions, each with two possible themes. Select a geographic region, and then select a theme. You are free to choose any combination of region and theme that is available.
5. View metadata for the selected region and theme by clicking the Metadata button. Metadata is information about the map data you will be using. You will need to refer to this metadata when making decisions about certain map elements.
6. The Map Elements Control Panel section allows you to create, manipulate, and remove map elements. Click on several of the tabs in the Map Elements Control Panel and look at the contents of each panel. Notice that each panel has an Apply button. You’ll need to click the Apply button in order to apply any options you change when working with map elements. The word “Apply” will turn red whenever changes are waiting to be applied.
7. Add a Frame Line to the page: Click on the Frame Line tab, check the Show button, select a Line Width of 3 pixels, select any Page Inset value, and click the

- Apply button. Line width refers to the thickness of the line, while page inset refers to the frame line's distance from the edge of the page.
8. Add a Mapped Area to the page: Click on the Mapped Area tab, check the Show button, and then click the Apply button. Map elements (except for the frame line) are placed randomly, near the center of the page when they are added for the first time.
 9. Map elements (except for the frame line) can be moved on the page by clicking on them with the LEFT mouse button, and dragging. Move the mapped area that you just added, and notice that your scores change as you move. Map elements cannot be moved off of the page.
 10. The Mapped Area, Legend, and North Arrow can be resized on the page by clicking on them with the RIGHT mouse button, and dragging toward or away from you. Resize the mapped area.
 11. Notice that your map element scores for the frame line and mapped area are less than perfect (100 is perfect). Think about the rules for the frame line and mapped area that were presented in the lecture. View the rules associated with each map element by clicking the Rules button located on the map element's panel. You should be able to improve your map element scores by applying these rules.
 12. Notice that the overall score is very low. This is primarily because the overall score is an average of the map element scores for all seven map elements, but only two map elements have been added thus far. It is also partly because the map element scores for the frame line and mapped area are less than perfect. Pay closer attention to your map element scores (as opposed to the overall score) until you've made decisions regarding all map elements, at which point, the overall score will have greater meaning.
 13. Click the Start Again button to delete your current settings and begin a new session.

Your goal is to create a simple, clear map that effectively communicates its theme. Your overall score will increase as you approach this goal. You should follow the general rules that were given in the PowerPoint slide show:

1. More important map elements should stand out; less important elements should not attract as much attention.
2. The overall design should be well balanced.

You should also follow the specific rules for each individual map element that were given in the PowerPoint slide show. Add and specify map elements in the order that was recommended in the slide show, and take advantage of the Rules buttons.