



## Objective

Show your first functional prototype. In this version you must take into account:

- The layout of your visualization;
- The implementation of **(at least)** two idioms;
- That the different idioms must present some interactivity at an individual level;
- The several idioms must “play well together”, being linked, using brushing, etc. (whatever is relevant). Rule of Thumb: this is one visualization not two or three separate ones on the same screen.
- The consistency between different idioms (text size and font, color, etc.).

ULTIMATE GOAL: at the end of this Checkpoint, you have a functional version of your visualization mainly consisting of the creation of the layout and the implementation of at least two of the idioms you have selected on Checkpoint III.

## Requirements

Create your functional visualization prototype based on feedback you received regarding your sketch (Checkpoint III) and the first version of that prototype, presented at Lab 9. In this functional prototype, **focus on the structure of the visualization interface**: make sure you organize the visual space into different areas according to each idiom you have previously selected.

Also, **you must implement at least two of the idioms**, even if their look and feel still do not *perfectly* match the final aesthetics you have planned for your visualization. You have to use the real data you have gathered (Checkpoint II).

**Make sure that your idioms are interactive.** They need to provide the means for some interaction (e.g. a chord diagram must highlight relationships for items selected, a bar chart must show some behaviour when moving over a bar, etc.).

Keep in mind that **your views must be linked in meaningful ways**, so think about how the data is shared by the views and how each view can inform the remaining of the interactions taking place (ex: when you select an item in view X, how will you let views W and Z know so that they can select the same item?). This must be implemented in an extensible way (i.e., when you have five idioms and not two, the mechanisms you implement here should still work to link all of them).

Also, **the idioms need to look coherent** (similar text fonts, colours, ...). We want a coherent system, not a patchwork quilt of visualization techniques. In addition, remember that, even if you are

implementing only a few idioms, you must leave space for the others. So, where they will ultimately appear, **include a sketch image (you can take these from CP111) of the missing idioms**. Use the expected size/aspect ratio. In short, we're **expecting to see the layout the final prototype will have**.

## Deliverables

Create a **3-page document using the provided template** and submit it online, **inside a zip file including both the document and the video, in Moodle**, until two days before your class (ex: classes on Monday must submit until Friday end of day)

The **document** should describe and illustrate:

- The layout of your visualization.
- The idioms you have implemented and their functionality (including interactivity).

The **video** should have a **maximum of 2min** (h.264 codec, MP4 format) demonstrating the current state of your prototype. These two minutes count towards your total 5min for the presentation (the video must be presented in class). This video should be self-contained (understandable on its own).

Finally, prepare a **5-minute PowerPoint presentation (not Keynote, LibreOffice or similar) using the provided template** that summarizes the aspects you stated in the document, to present in class. This presentation includes the showing of the video you submitted on Moodle (described above), which in effect is probably the easiest and most efficient way to show/explain what you've done.

## Penalties

- Documents over 3 pages long: **1 grade point penalty per extra page**.
- Zip with document and video uploaded after the deadline: **0.5 grade points per hour of delay**.
- Document template altered (wider margins, smaller font, etc.): 1 grade point penalty.
- Videos over time: **1 grade point** (and you will be stopped in your tracks...)

## Tasks to perform during the lab

Present your presentation and video to the class. The professor (and your colleagues...) will provide feedback.

## Grading

Your work will be graded according to the following parameters:

- **Layout** (The visual space is organized into areas according to the selected idioms);
- (At least) **Two idioms have been implemented**;
- **Interaction** (Individual idioms present relevant interactivity);
- **Integration** (properly linked views);
- Consistency between different idioms;
- **General look & feel of your visualization**.
- **Presentation quality**

## Additional Notes

After you deliver your document and presentation, your work will be graded. **HOWEVER**, this grade **can be improved by up to two grade points** if you correct any faults pointed out by the professor and submit **a revised version of the document and a new version of the video** HIGHLIGHTING THOSE CHANGES up to one week after this checkpoint.