Bugs and annoyances

Input/output

- When you save the current state of an animation using `File->Export` on the graph panel some of the information might not be saved. In particular, weights and labels are saved, but highlighting is not (since it is not equivalent to an actual color change of a node or edge).

Text editing (of programs or graphs)[1]

- Tabs for graphs and algorithms are often hard to deal with: (a) if you reread a graph or algorithm, it appears twice; (b) you can only run an algorithm on a graph if the tabs for the two appear at the top of the window at the same time – although the tabs bar can be "scrolled", this may be impossible if there are other intervening graphs and algorithms.
- If you attempt to do anything in the text window (File menu or tabs) while an algorithm is running, Galant hangs; it appears that you can quit it from the file menu of the graph window, however.

Graph editing (in graph panel or via keyboard shortcuts)

- It is not possible to change the thickness of an edge or node boundary directly from the editor or an algorithm nor is it possible to change the fill color of a node. The only way to change these properties is via highlighting, selecting, and marking nodes/edges during the animation.
- A change in color of an edge does not appear to take place while the edge is selected for editing – its color stays blue during that time. Only when focus is no longer on the edge does it change color.
- If a node is selected for editing (other than immediately on creation) its weight is set to 0 when the spinner shows up. Initially a node has no weight at all; this should continue to be the case unless the user specifies a weight.
- If user attempts to change weight/label of a node/edge and clicks on the graph panel in the middle of the operation, the change is lost. There is no "ok" prompt as with color.
- When user creates a new edge via keyboard shortcut, there is no obvious way to enter the weight and label.

Compilation and execution

- The macro preprocessor is oblivious to comments. Thus, the placement or contents of a comment may cause it to throw an exception. Such exceptions have been known to occur when comments appear inside functions or contain constructions that are subject to macro expansion. For example, sometimes the word `for` in a comment causes problems.
- Every once in a while an exception occurs when an error-free algorithm is executed or when Galant intitally fires up, but it is possible to step through the animation normally after hitting the Continue button.
- The `function` construct appears not to work if the arguments or return value are arrays (or lists?). Macro expansion for this construct is complex.
- Compiler error messages can be cryptic (but at least they refer to the correct line numbers). Because of the macro preprocessing, it may be necessary to look at the console to get an idea of what is causing a particular error.
- There is no way for the user to change anything about the display while stepping through the animation, such as, for example, changing visibility of labels and weights, or positions of nodes to make important features more visible.

[1] Galant's editor is primitive, but programs can easily be edited externally. Text representations of graphs can either be edited or generated externally.

- There is no way for the animation program to specify that labels and/o weights should be displayed or hidden.
- There is no way to execute the animation in a continuous fashion with a controllable speed. The current workaround is the use of arrow keys as keyboard shortcuts for stepping forward or backward – these can be held down to generate multiple steps in rapid succession, but the user must click on the graph panel before starting the animation; for some reason, there is no reaction to the shortcuts if the first mouse click is on one of the arrows at the bottom of the graph window.