Schedule Analyzer module specification

Application overview

This application will be a part of the Flow Opt project – specifically it will be a module, which will provide a grapical way to analyze and compare selected attributes of schedules.

User interface

User can compare generated schedules by creating 2D graphs on which user can select which two of schedule's attributes (metrics) will be displayed.

All opened graphs will be displayed tiled to the table. Number of columns and thus the default size of graphs can be set in application settings. Anyone graph can be zoomed to detail view, then miniatures of other graphs will be tiled at the bottom of the application window.

In the other part of main window the table of all schedules and its metrics is displayed.
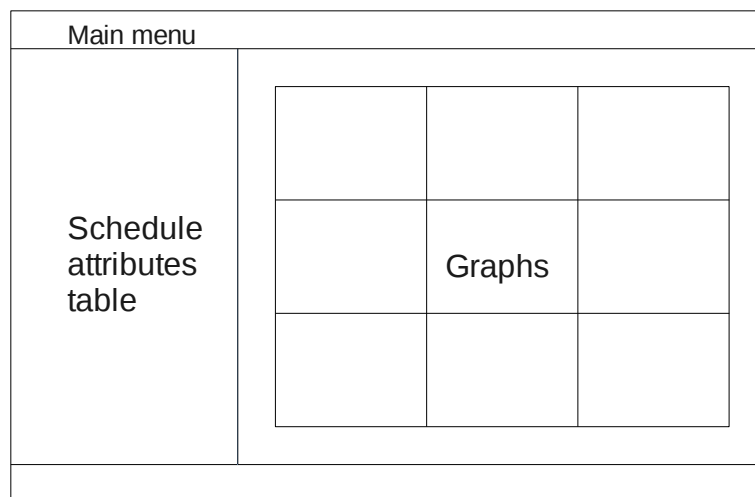
Application window with tiled graphs
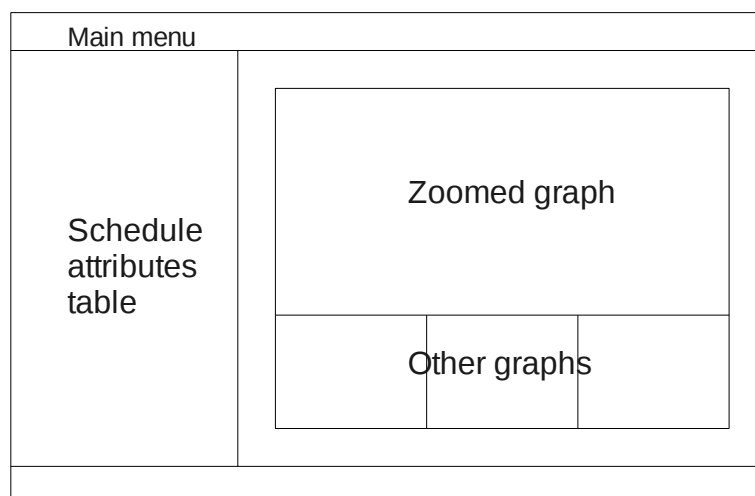
Application window with zoomed graph

Manipulation on graphs

User can manipulate all graphs together or only the selected one. When user manipulate all graphs together, all its actions have effect in all opened graphs where they are applicable.

- ## **Schedule selection**

User can select schedules by common graphical way using mouse or by defining explicit criteria (mathematical formula based on known metrics). All selected schedules will be highlighted in all graphs and also in the table of attributes.

- ## **Metric selection and definition**

Some basic schedule metrics will be provided by application (e.g. resource usability, length of schedule, price ...). Also user can define its own derived metrics. Derived metric is any formula using only basic metrics and mathematical operations (+,-,*,/). For each graph user can specify any pair of metrics to display.

Application will be prepared for adding of an implementation of new metric as a new module.

- ## **Setting the scale factor**

User can set both the scale factor and bounds of any graphs axis. Scales will be adjusted also in all other graphs with the same metric, so user can easily aim all graphs to the region of its interest.

Output

Graphs can be saved as an image (?image format?). Table of schedules can be saved as a PDF document.

State of the application (opened schedules and graphs) can be saved for later load.