Documentation for the software

Schedule Helper

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Annotation.

Schedule helper downloads information about available schedule for the subjects from the University Information System (SIS) and displays it to the user. It visualizes the process of selecting the subject time slots and outputs the result.

Specification.

The program offers graphical interface for the user which accepts information about the faculty, the semester number, the year number and subject code or codes. The program allows the user to download the schedule from last three years due to SIS rules. It accepts subject codes separated by semicolon. It allows the user to add subjects from different faculties onto the same visualization panel. The program prevents the user from adding schedule from different years or semesters to the same panel by disabling input fields for these parameters.

The visualization panel contains the table of buttons associated with the subject time slots. The buttons are placed horizontally, sorted by the start time from left to right, by the day where they take place from the top to the bottom. Dark blue background colour of a button means it is associated with a lecture time slot, light blue colour is for a practice time slot. Clicking on the button means the user selects the associated time slot to the schedule, which turns the background colour of a button to red. When a button's background colour turns to grey, it means the time slot has a logical or time collision with some of previously selected slots. Logical collision means that the user cannot add to the final schedule more than one practice and one lecture of a subject. The program allows the user to select different subjects which take place at the same time since SIS allows that.

The program offers an option of saving the selected schedule to a text file.

Input specification.

The program needs a configuration file "faculties.txt" containing information about faculties. Each line of the file contains faculty code, tab, faculty name, new line character. The file should be placed in the same directory as the executable file.

To download and display a subject or a set of subjects from the same faculty, user needs to select the

faculty from a drop-down list, enter year when the academic year has started, choose semester from the second drop-down list, enter subject codes separated by semicolon and press the "Add" button.

To add subjects to the filled schedule panel, repeat the actions except for entering the year and choosing a semester, which are fixed if the panel contains information about subjects.

To clean the schedule panel, press "Start over" button.

To save the final schedule, go to File -> Save, choose a text file to write the output to.

To get a short instruction, go to Help -> Show how-to.

Output specification.

The program downloads the information about the schedule and represents it on the panel as a table of buttons. A button contains text with a short description of a subject. If the text is too long, place the mouse on the button and a hint with the full text will appear. The text contains subject name, language in which it is taught and the name of the teacher.

A button may have four different colours. Dark blue means the button is associated with a lecture, light blue means association with a practise. Red colour means, the subject time slot was selected, grey colour means that the associated subject's time slot should not be chosen due to collisions.

Text output contains information about selected time slots separated by a new line. The time slot is described by the name of a subject, the type of a subject (lecture or practice), the place where it is taught, the name of the teacher, time and language.

Possible improvements.

To improve the convenience of user interface, the program could provide information about subjects so the user would not have to type in subject codes. It could also provide information whether the capacity of a lecture or practice is not overloaded yet.

Conclusion.

Schedule helper provides a visualization of choosing a consistent schedule for a semester.