

The Saluki Scheduler

User Manual

CS 499

Developed by:

Andrew Beussink

Adam Estel

Ohtsuki Motomu

Bert Sanders

Abigail Young

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Installation

The Saluki Scheduler requires the following:

Linux based OS

Apache with Php

MySQL with Php plugins

Installation is done by copying the directory into the appropriate Apache web directory. Open up a terminal, change to the web directory that contains the Saluki Scheduler files, and execute the following commands:

```
chown <apache_user>:<apache_user> files
```

```
chown <apache_user>:<apache_user> smarty/templates_c
```

```
gedit config.php
```

In config.php, you need to edit the \$http_location line to be:

```
$http_location = "<webserver_path_to_saluki_scheduler>";
```

Next you need to import the docs/scheduling.sql file into a MySQL database called scheduling, and create a localhost user in MySQL called scheduling.

You should now delete the docs directory, as it is a potential security hazard.

The Saluki Scheduler should now be ready to go.

A note for System Admins: If the Saluki Scheduler does not seem to be working properly, you can safely empty all tables in the scheduling database to restore the Saluki Scheduler to initial settings. This will, however, remove any currently saved schedules.

Portal Page

The portal page for the scheduling program is the main access point for the program. From this page you can create new conferences as well as review, edit, and download old conference schedules.

The portal page is headed by a banner that says "Welcome to Saluki Scheduler!" Below that is a "Create New Conference" link. Clicking this link will take you to the new conference page and will initiate the creation of a new conference.

Below the new conferences link is the area where any existing conferences will appear. If a conferences section does not appear, there are currently no conferences in the database. If there is an existing conferences section, you can review, edit, or download individual conferences by selecting the appropriate link to the right of the conference description.

Creating a New Conference

In the new conference page you can enter the settings which will be used to generate your conference in the database. The first field on the new conference page is the name. The *Conference Name* field is for user reference only and has no impact on the schedule generating process. It has a maximum length of 255 characters. Some example input values are: 'Spring 2008 PTC', or 'Midterm Conference Fall 09'.

Next is the *Conference Description* field. Again, this value will not affect schedule generation, but it will allow you to provide a more detailed description of a conference. An example input value is 'The spring 2008 parent-teacher conference for Brehm Preparatory School.'

The next two fields assign important variables which are used in generating the schedule. The *Meeting Length* field sets the length of each meeting in the conference. It accepts an integer value which represents the meeting duration in minutes.

The *Time Between Meetings* field sets the amount of time which separates the end of one meeting from the beginning of the next meeting. It accepts an integer value which represents the break time in minutes. Example input values of '25' for meeting length and '5' for time between meetings will generate a conference with 25 minute long meetings separated by 5 minute breaks. The time between meetings has a default value of '0' if left blank.

The *Start Date* field and the *End Date* field accept the starting date and time and the ending date and time for the conference. They have the same input format of D-Mmm-YYYY HH:MM:SS XM where D represents the date given as a number from 1 to 31, Mmm represents the three letter abbreviation for the month beginning with a capital letter, YYYY represents the four digit value for the year, HH represents the two digit hour value, MM the two digit minute value, SS the two digit second value, and XM is replaced by either AM or PM. The example value '9-Dec-2008 01:00:00 PM' represents 1 o'clock in the afternoon on December 9th, 2008.

By clicking on the calendar icon to the right of the input box, you can access the DateTime Picker pop-up window which allows you to select a time from a calendar. First enter the desired time into the boxes below the calendar and select AM or PM from the drop down menu. Next, select the correct year by clicking on the arrows to the right or left of the current year value to move it up or down, and then select the correct month from the drop down menu in the top-left corner of the window. Finally select the desired date by clicking on it in the calendar. **Note:** the date must be picked last because clicking on it will close the window and enter the selected information in the input box.

The last three fields are the file inputs. These fields must have the file path of the associated input files as described in the input file section of this manual. You can use the browse button next to each of these fields to locate the appropriate file on your file system.

At the bottom of the new conference page are the 'Continue' and 'Save and Exit' buttons. The continue button allows you to further define your conference by adding intermissions and teacher limitations and eventually generate your conference schedule. The save and exit button stores the currently entered values in the database and returns you to the portal page. **Note:** if you decide to save and exit, a schedule will not be generated and you will be unable to review the conference or download output

files until you complete the scheduling process through the edit page.

Editing a Conference

The edit conference page has the same input fields and requirements as the new conference page with two key differences in the functionality it provides.

The first difference is that when you edit a conference the current values for all of the fields except for the file inputs are automatically entered. The input files are saved, and should only be re-uploaded if changes have been made to the files since the last time they were uploaded.

The second key difference is that editing a conference with an already generated schedule deletes the old schedule from the database and overwrites any changed values. Schedule exceptions must also be re-entered after a conference is edited. If you select continue after editing, then you will eventually (re)generate a conference schedule which can be reviewed and downloaded, but if you save and exit then the schedule will not be generated.

Input File Formats

The Saluki Scheduler accepts input file in .csv format. Because of the structure of this format, you should refrain from entering commas into the fields, as this may cause the file to be interpreted incorrectly.

The Input files are as follows:

Student List

Each row of the student list file should contain the information for one student. The first column is for the student's id, the second is the student's first name and the third the student's last name. This information cannot contain any commas. The first row should not contain any student information; it may contain column titles or be blank. There should be no blank rows until the end of the file, or the information following a blank row will not be processed.

Example:

Student ID	First Name	Last Name
231	Jimmy	Johnson
232	Rebecca	Williams
<i>(end of file)</i>		

Teacher List

The teacher list is similar in format to the student list. Each row of the teacher list file should contain the information for one teacher. The first column is for the teacher's id, the second is the teacher's first name and the third the teacher's last name. The first row should not contain any teacher information; it may contain column titles or be blank. This information cannot contain any commas. There should be no blank rows until the end of the file, or the information following a blank row will not be processed.

Example:

Teacher ID	First Name	Last Name
40	Shirley	Smith
41	Harold	Anders
<i>(end of file)</i>		

Class List

Each row in the class list file should contain one teacher's id, followed by the student id's of the students the teacher needs to meet with. The first column is for the teacher's id, with the subsequent columns for student id's. There is no limit for the number of student id's that a row can contain. The first row should not contain any student information; it may contain column titles or be blank. This information cannot contain any commas. There should be no blank rows until the end of the file or the information following a blank row will not be processed.

Example:

Teacher ID	Student ID	Student ID	Student ID	...
40	231	205		...
41	227	232		...
<i>(end of file)</i>				

Exceptions Page

The exceptions page is the second page in the scheduling sequence. From this page you can set times that are blacked out and set times that specific teachers are unable to meet.

The top half of the exceptions page is for setting designated break times, such as lunches and breaks between days for multi-day meetings. To schedule a break, begin by entering a name for the break. Then set the start time for the break by clicking on the small calendar symbol next to the *Start Time* field. Set the time in the boxes at the bottom, and then submit the start time by clicking on the appropriate date. Repeat the same procedure in the *End Time* field to set the end time for the break. To submit the break to the system, click the submit button that immediately follows the *End Time* field on the top half of the page. The break will be stored in the database and will appear below the submit button for your review. If there is a mistake in the break, or it needs to be removed for any other reason, simply select the remove link next to the description and that break will be removed. **Note:** breaks may

not be outside the conference start time or end time, and breaks may not overlap.

The bottom half of the page is dedicated to setting teacher specific breaks. If, for example, teacher Jane Doe is not available from 2:00 pm – 3:00 pm on one of the conference days, you would use this section to specify that. Begin by selecting the teacher's name from the dropdown list. Then, set the start time for the break by clicking on the small calendar symbol next to the *Start Time* field. Set the time in the boxes at the bottom, and then submit the start time by clicking on the appropriate date. Repeat the same procedure in the *End Time* field to set the end time for the break. To submit the break to the system click the submit button that immediately follows the *End Time* field on the bottom half of the page. If there is a mistake in the break, or it needs to be removed for any other reason, simply select the remove link next to the description and that break will be removed. **Note:** breaks may not be outside the conference start time or end time, and breaks for a teacher may not overlap.

Once all desired breaks have been entered you are ready to generate the schedule by clicking the "Generate Schedule" button. If you are not yet ready to generate the schedule you may save all the data that has been entered thus far and return to the portal page by clicking save and exit.

Modifying the Schedule

The Modify Schedule Page contains a preview of the Schedule. It is organized with the Teachers along the top, the meeting times along the left side, and the students are listed under the Teacher at the appropriate time slot. When there is no meeting in a teacher's time slot, the space will be blank. When the teacher is unavailable, the time slot will indicate this with the text 'Unavailable'. When a time slot is not available because of a conference wide intermission, the intermission's name will be displayed in that time slot.

Under each student's name is a drop down list. This menu allows you to choose a time to move that student's meeting to, or to lock the student's meeting in at that time.

Once you have selected new times for any student schedules that need moved, clicking the Reschedule link will check your selections for errors, such as trying to move two meetings to the same time slot. The schedule will then be re-processed, and a new schedule will appear on the screen after a few moments.

If you wish to come back to the schedule later, you can click 'Save and Exit.' The Schedule will be saved, and you can review it at any time by clicking the Review link on the Portal page. If you are happy with the schedule, you can click the Download link to go to the download page.

Downloading Files

Click a pull down menu to see the names of teachers and students who have a schedules in the current conference. Select a name and click the appropriate download button to download the schedule for a specific teacher or student.

Click the download button located on the bottom of the download page to download a full schedule.

Click the download button next to the Student or Teacher list to download a batch file, which is a zip archive. The zip file will contain all of the files for the students or teachers who have meetings in the current conference.

The format of each file is shown below.

Teacher

File Name:

<conference id><teacher's last name><first character of teacher's first name><teacher id>.csv.

		Teacher Name
Meeting Start	Meeting End	Student Name
Meeting Start	Meeting End	Student Name
(end of file)		

Student

File Name

<conference id><student's last name><first character of student's first name><student id>.csv.

		Student Name	
Meeting Start	Meeting End	Teacher Name	
Meeting Start	Meeting End	Teacher Name	
(end of file)			

Full Schedule

File Name: <conference id>full.csv.

		Teacher Name	Teacher Name	...
Meeting Start	Meeting End	Student Name	Student Name	...
Meeting Start	Meeting End	Student Name	Student Name	...
(end of file)				

Batch of teacher files

File Name: <conference id>teachers.zip

Batch of student files

File Name: <conference id>students.zip