ICSP Scheduler User Guide

Jared – Manager, Requirements Analyst, User Doc

Maria – System Architect, Quality Control

Syd – Build Master, User Interface Specialist

Jim – Programmer, Tester, Back-End Engineer

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1. Overview

Welcome to the ICSP Scheduler. This platform was created with the International Cultural Service Program In mind, but could be used/re-fit for a broader range of scheduling contexts!

Let's take a look at how it works, we'll start by showing you a few simple steps to get our platform installed on your computer.

1.1 – Installation

For Windows:

Simply install the folder available at https://github.com/malaura/ICSPScheduler/tree/develop/Executable/ICSPS
This folder will contain the executable needed and the Students folder, Template.csv, and a few other files you can ignore. Once you have downloaded this folder you can click on ICSPS and the app will launch.

On Mac:

Because our customer is a specified Windows user, an executable was not created. You will need to have three things installed for our platform to run

-python3
-pip
-tkinter (comes with python3)

-IntervalTree

to do this open up your **terminal**

cd dir/you/want/to/cloneinto/
pip3 install IntervalTree
git clone https://github.com/malaura/ICSPScheduler
cd ICSPScheduler/
python3 main.py <-to run the app

1.2 – General

Our program compiles schedules in one convenient place. The user can view and assign individuals for a given request; if their obligations don't conflict. The schedule collection process can be thought of in three simple steps.

a. **Excel templates are sent to the students by the platform user via e-mail or other. (*template.csv* is included in the download zip)**

b. **The students then easily input their weekly and one-time schedule obligations, save it, then send the file back to the platform user**

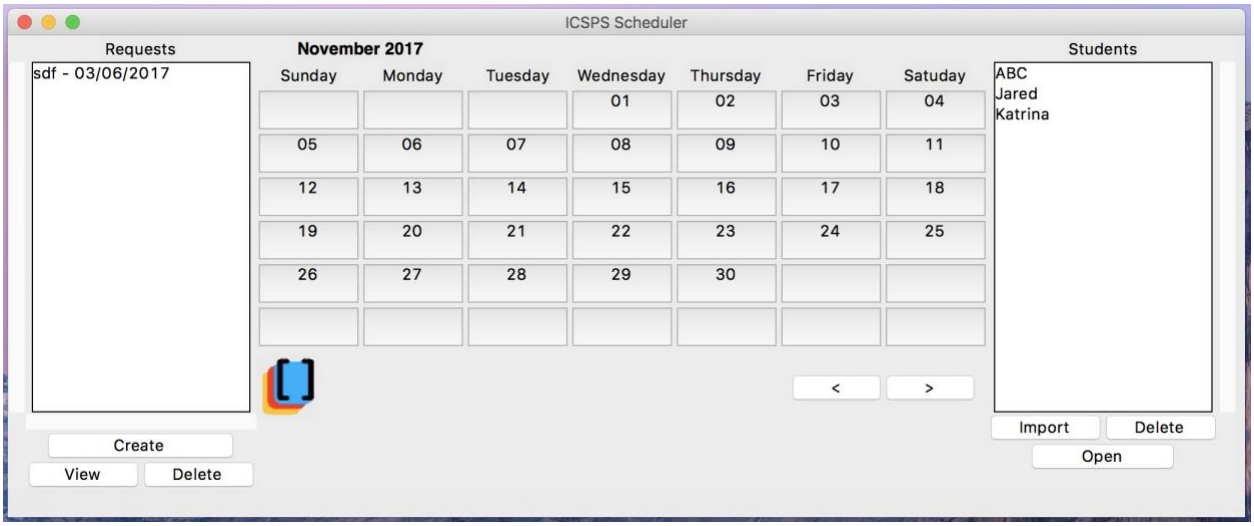
c. **The .csv files generated from the excel template are imported into our platform via placing them in the 'Students' directory (located in the same directory as the executable).**

After this is done you can create a request though the platform, and assign individuals, with no schedule conflicts, to that task. A request is simply a one day event created through the platform

with a start time, end time, location, buffer (travel to location) time, and currently scheduled students. We'll get into this a little later, let's get an idea about how the User Interface works

1.3 – User Interface

When executing our platform, you first thing to appear will be the schedule page. Here, you'll get a view of the schedule organized into months, the student schedules loaded into the program, and a quick view of all requests.



note **The User Should not attempt to open more than one window in addition to the schedule page.**

On the left, you'll notice the window labeled 'Request', This lists all dates which contain a confirmed request. In the middle, you'll notice a monthly calendar view. Conveniently use the '<' and '>' buttons in the bottom right of the calendar to scroll though the months. You'll quickly notice that dates which contain a request are highlight red. We'll explore the schedule page more momentarily. Let's explore in detail how to make and import schedules!

2. Student Schedules

When you request that students (or others) send in their schedules to be compiled; Each row of the spread sheet filled out (besides the top header row) will represent an obligation. The platform will use this information to decide who is available for a request; we'll discuss that later. First, let's take a detailed look at the input to one of these templates.

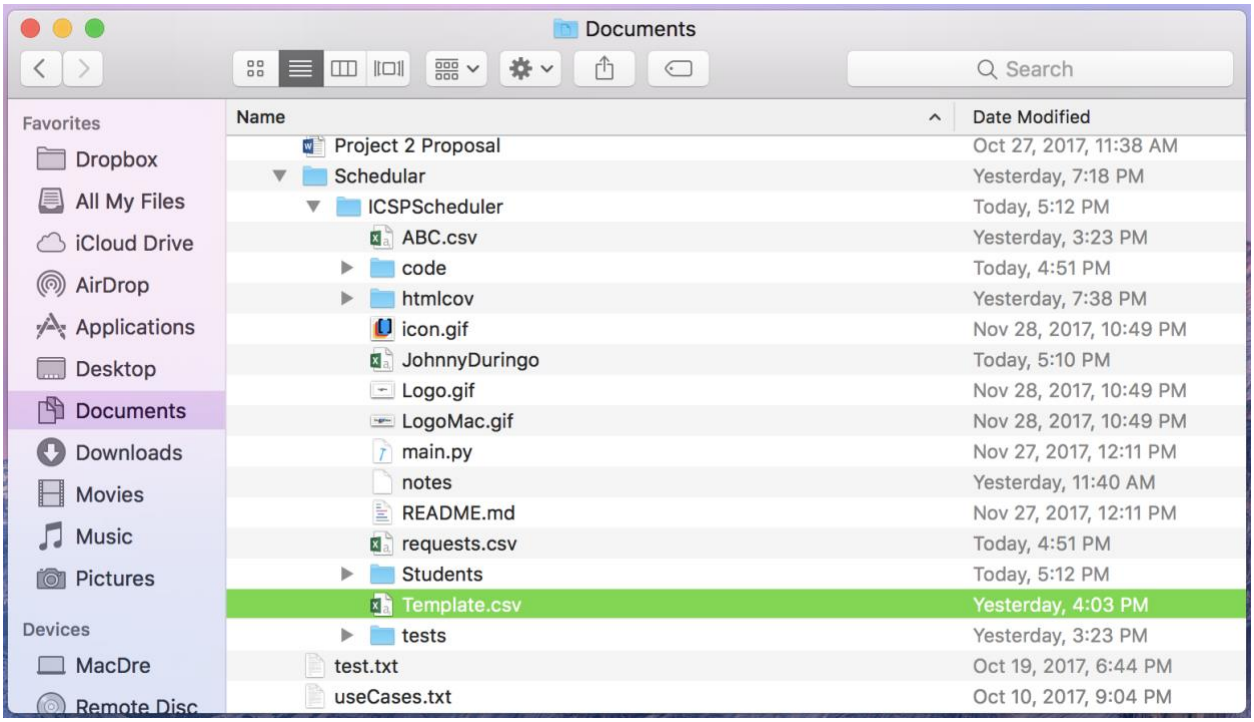
2.1 – Formatting of excel sheet

There is a specific format of the generated .csv that the system will except as a valid schedule.

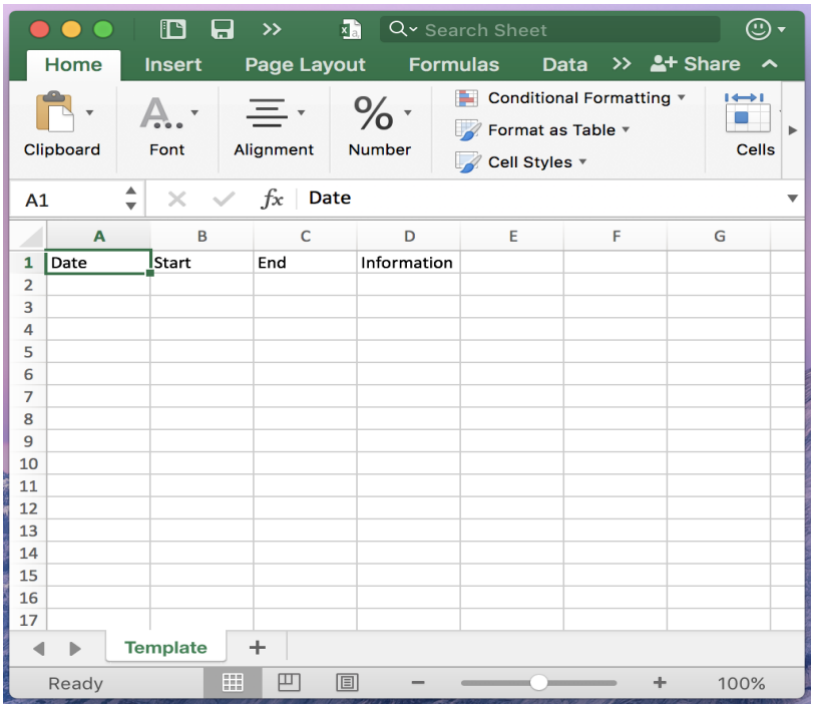
If there is an error with that file, the system will display a prompt telling you which files are formatted incorrectly; Until they are fixed, or moved out of the 'Students' directory, the platform will NOT continue.

***note* if you're not going to use the template provided to create a schedule you must have exactly 'Date', 'Start', 'End', and 'Information' in the first four columns of the top-row header, trailing white-space will not be accepted.**

Let's walk through a quick example of what it might look like to create a schedule and put it in the scheduler. Before starting the application, open up the ICSPS Scheduler Directory, locate and open the *template.csv* file in excel.



You should see something like this …



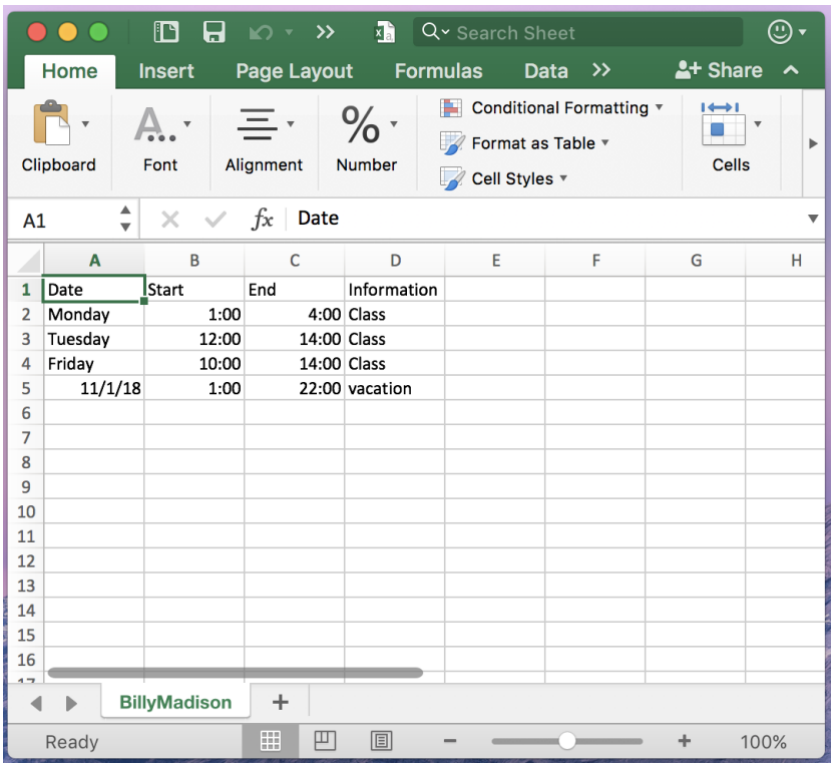
You'll notice that there is a column for 'Date', 'Start', 'End', and 'Information' for each obligation an individual has, they will fill out a row with the following information.

In the 'Date' column, you may enter a specific date '01/11/2018' (excel may autocorrect to something like 1/11/18; this is okay) this means that the obligation is *only* on that specified date. However, if you list {Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday} This means that the obligation is *weekly* and the platform will treat it as such.

In the 'Start' and 'End' column, you can input when each obligation begins and ends in terms of *military* time. This means <0 - 23>:<0 - 59> Is acceptable input for both columns. Naturally, the end time must be *after* (This can be easy to mess up in military time) the start time or the system will throw an error.

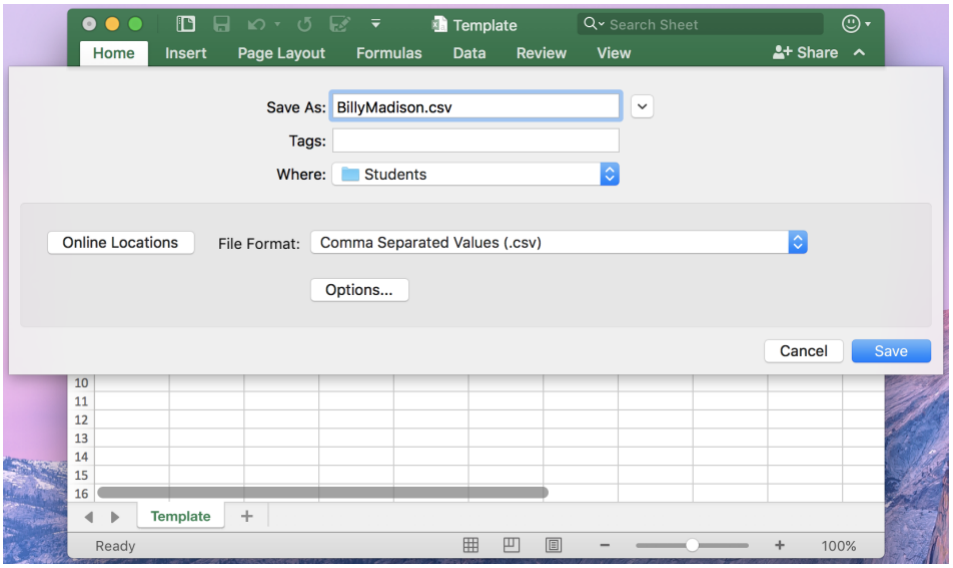
The 'Information' column is just for general use to describe the obligation; It will not affect any decisions made by the system in terms of the scheduling. This can take *any* string of alphanumeric characters as input.

Here's my example



	A	B	C	D
1	Date	Start	End	Information
2	Monday	1:00	4:00	Class
3	Tuesday	12:00	14:00	Class
4	Friday	10:00	14:00	Class
5	11/1/18	1:00	22:00	vacation

Now that you've got some information in the template, and you're sure the format is correct including the spelling of the days, and the format of the date with *no trailing white space.* Click on *file->save as.*



Make sure to save the file as the name you wish to see in the platform AND (important) save the file as a .csv (comma separated value) file.

Now that it is saved, you can move the file you just created into ICSPS Scheduler/Students directory; If you didn't save it here initially.

Once this step is completed, you're ready to open up the platform. Click on the executable (or run 'python3 main.py' on the command line for macOSX) and you open the schedule window. If the file was formatted right and the system didn't throw a format error, you'll now notice the schedule you just created in the right-hand side in the 'Students' section.

Yay! You've just created your first schedule!

2.2 – Loading student schedules by placing .csv file into 'Students' directory

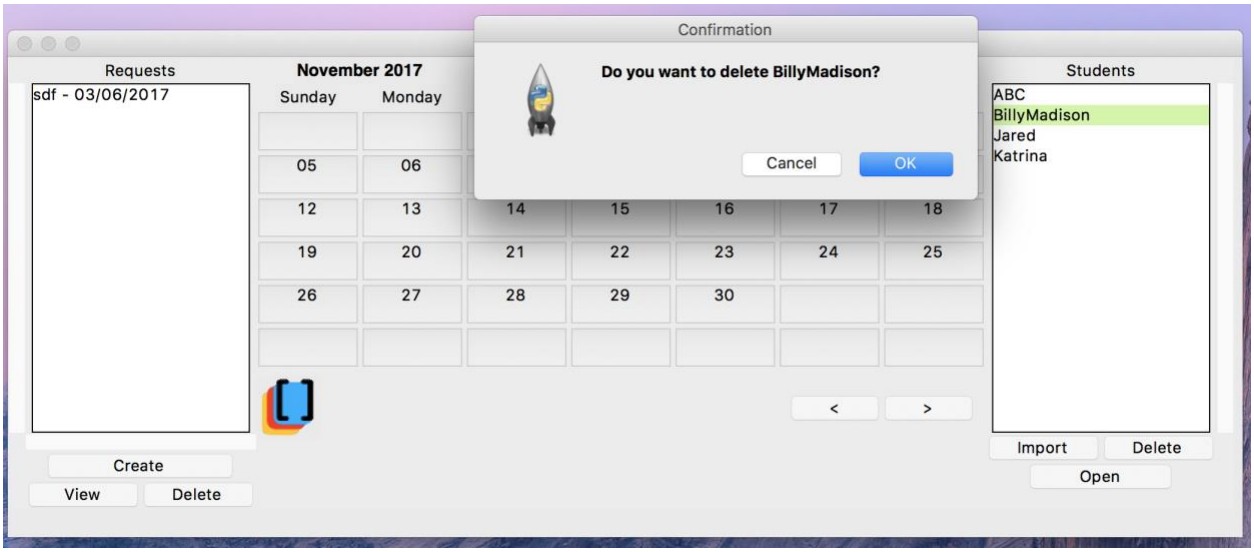
As you start receiving <individual>.csv files from the individuals, place them in the /path/to/ISCPSheduler/Students directory as you did above. These schedules will be loaded into the platform each time you execute it.

2.3 – Adding a .csv from file path in the platform.

If you're already in the platform and want to add a single <individual>.csv schedule file located somewhere else in you file system, simply click the 'import' button located below the 'student' view on the schedule page. This will open up your file browser; locate the file, and click 'open'. If the file is formatted correctly, it will now appear in the 'student' window, easy!

2.4 – Deleting a student schedule

Deleting a schedule is easy. Simply click on the name of the schedule you would like to get rid of in the 'student' section, and then proceed to click 'Delete' below. This will display and confirmation window



click yes, and boom! The schedule has been deleted and will no longer appear in the platform or your file browser.

2.5 – Editing a student schedule

If a student (individual) changes his/her schedule and you don't want to create a whole new one; close the application, open the .csv from the Students directory, modify, and save it. The next time you open the platform the changes will be made

To view the students schedule, easily highlight the students name in the schedule page's student section and click 'open', this will open the student's schedule in excel

***note* for best performance, do not make edits while the platform is open.**

Now that you're an expert on schedule's let's take look at the other core functionality of our platform, the request.

3. Requests

The requests represent the core of the problem we are aiming to solve with this platform. Once the schedules are compiled. The user can input the information defining a request/task that one of the individuals is to be assigned.

Our platform allows the user to see who's available for the based upon the given schedules and lets the user assign the task to one of the individuals.

3.1 – Viewing contents of a request

When first launched, our platform includes a few example Requests for which you can easily delete when you decide to.

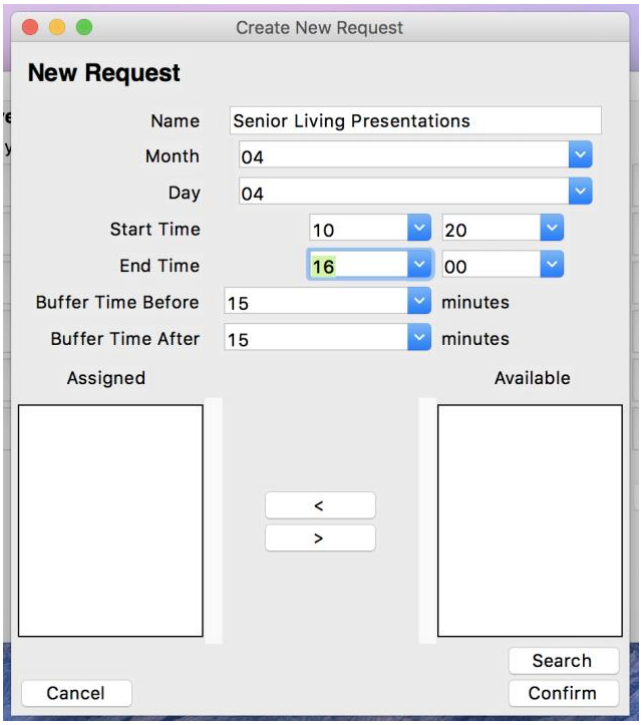
Let's use these examples to see how we can view the contents of a request. On the left-hand side of the calendar, you'll notice the 'Request' view.

This contains a list of all dates which contain a request. Use the '<' and '>' buttons to scroll to one of the dates which will be highlighted red in the calendar. If you click on the highlighted date in the calendar, you'll encounter the request quick view window.

This will list the contents defined by you when a request is created, how convenient!

3.2 – Creating a request

Creating your own request is simple as well. Let's try it out by clicking the 'Create' button located on the lower left-hand side. This will cause the request create window to appear.



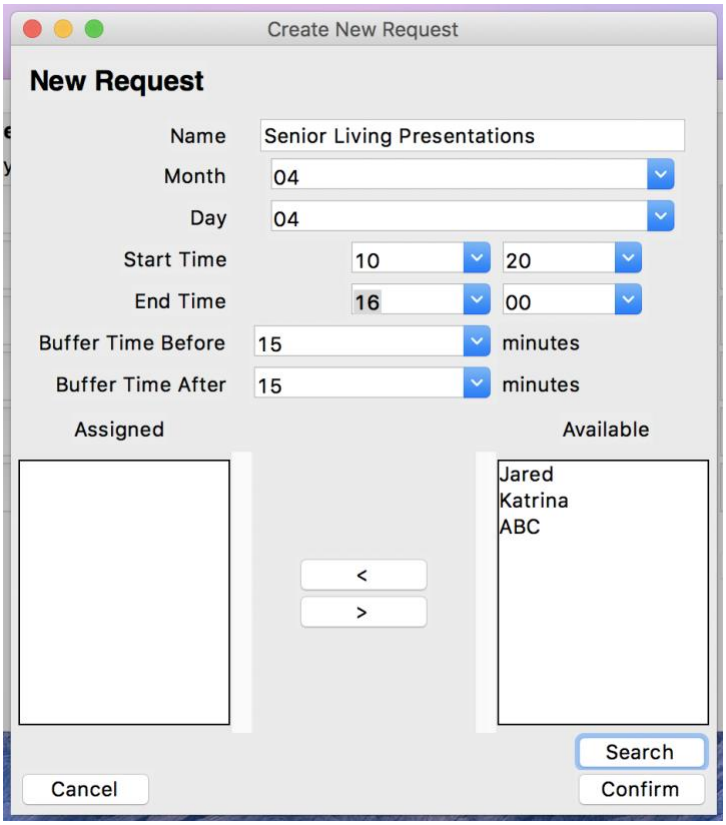
In this window, you'll notice a field which allows you to enter a name, this will accept any string of alphanumeric characters as input.

Below this you'll see simple drop-down menus which will allow you to specify the Date, Start/End time and Buffer (travel) time to the request. Once you've filled out these drop-down menu's we will have gotten to the core functionality of the platform.

3.3 – Assigning a student to a request

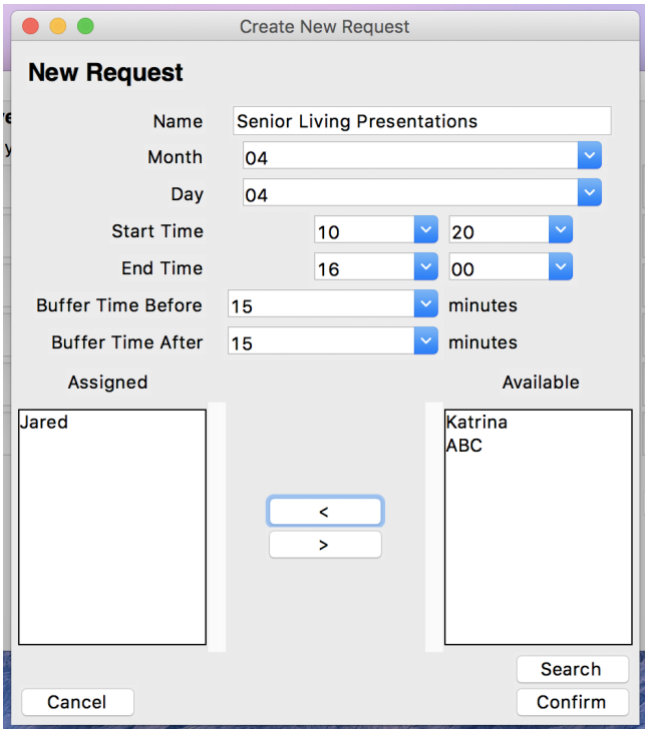
The main reason our platform was created was so that you wouldn't have to compile a bunch of random schedules together into some other platform, or sift through 30 schedules to find somebody who is available. Now, once you've defined a request, viewing available students or individuals is as easy as the click of a button.

Let's try it out! Click the 'search' button once the fields are finished and you'll notice a list of schedule names are generated in the bottom, right-hand box.



These are all available individuals for that request. To assign one of them to the task, you'll just need to highlight the desired individual by clicking, then click the '<' button conveniently

located between the two boxes, you'll notice the name switch from the right-hand block to the left. The student is now assigned to this task and it will be reflected in their schedule!



3.4 – Removing a student from a request

you probably noticed the '>' arrow as well. Intuitively, if you selected the wrong student, you can highlight them on the left side and move them back to the right, unassigned, side. This removes the student from the request.

3.5 – Deleting a request.

Lastly, you can delete a request the same way you delete a student schedule. Highlight the Date in the block and click delete, then confirm. it's gone!

This concludes the User Guide for our ICSPS Scheduler,

We hope you like our platform!