

Scheduler

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Overview

Scheduler is a program written to help automate the process of scheduling volunteers for church activities. It is written to be accessible via browser so that it may be easily used from an office, from home or even from cell phones. The code is written to allow you to:

- Define a list of volunteer positions that need to be filled and when the volunteer should arrive.
- Define a list of volunteers. Volunteers may specify:
 - Days when they are unavailable.

- Days when they would prefer to serve (say for instance, their daughter would be visiting and they would like to serve communion together).
- Positions that they would like to volunteer for.
- How they wish to be contacted (email, text, or both).
- Generate schedules for a given date range.
- View schedules for a given date range.
- Send requests to volunteers (via email or text message) to ask them to update their information before a new schedule is generated.
- Send a personalized list of service dates to volunteers (via email or text).
- Send reminders (via email or text) to volunteers who are scheduled to serve within the next week.

Note that for sending messages, Scheduler uses Gmail to send email and the service Twilio for sending SMS text messages. Twilio was chosen because of their reputation, programming support, and low cost. They bill only for messages sent—there is no membership or monthly fee required.

Quick Start

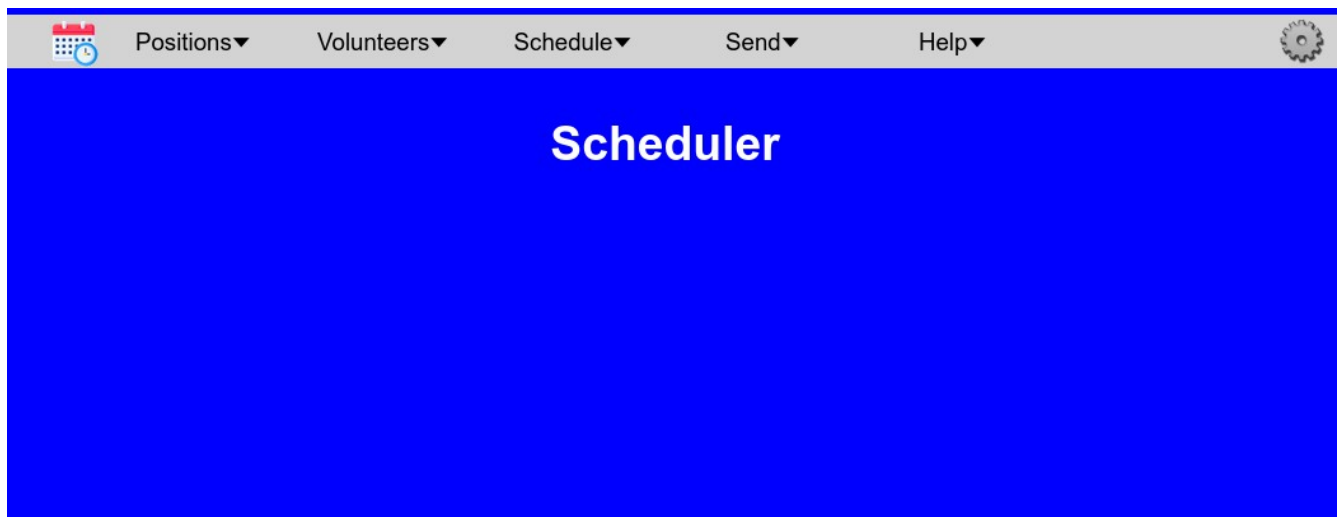
Here is a quick summary of the steps in getting started, with more detail following:

1. At the login screen, use the default login name of “volunteer” and the password “dates”.
2. From the main menu, select **Positions** and define an entry for each position that is needed. Note that for each position you can indicate how many people are needed to fill that role on a given date.
3. From the main menu, select **Volunteers** and from that page, make an entry for each person who wishes to volunteer. For each person you can enter their name, email, phone number, how they prefer to be contacted, position(s) that they wish to volunteer for (selected from the previously defined list) and optionally any dates for which they are not available, or dates when they would prefer to be chosen to volunteer.
4. If you wish to allow individuals to update their information before generating a schedule, select **Send** from the menu bar, and select **Send Info Update Requests** from the drop-down menu. This will send email and or text messages to each volunteer asking them to update their information and providing them a browser link that they can use to make the updates.
5. When ready to generate a schedule, select **Schedule** from the menu bar and select the **Generate Schedule** item from the drop-down menu. This will direct you to a page where you may specify the dates to generate the schedule for. A schedule will be generated and you will be directed to the “View Schedule” page. If all positions were filled, the program will send personal schedules to each person in the schedule, with the dates when they are requested to serve and the positions that they will fill.


6. If the schedule has some positions which were not filled, you will need to fill them manually and once the schedule is complete, you can select the **Send** and **Send Schedules** items on the menu bar to send schedules to each volunteer.
7. To send reminders to volunteers each week, simply click **Send** and then **Send Weekly Reminders** from the drop-down menu. Each person who is scheduled to volunteer that week will receive a reminder via text or email.


And now in a little more detail...


To begin using Scheduler for the first time, start by connecting to the web page, which should look something like this:





In the top left corner is the Scheduler icon. Clicking on this icon will return you to the home page. As your first time using the system, you should begin by clicking on the **Positions** menu item, and select the **Add Positions** entry. This will direct you to a screen that looks like this:


 Positions▼

 Volunteers▼

 Schedule▼

 Send▼

 Help▼



Add Volunteer Positions

Position:

Day Needed: Sunday ▼

Start time for service needed: 10 : 45 AM

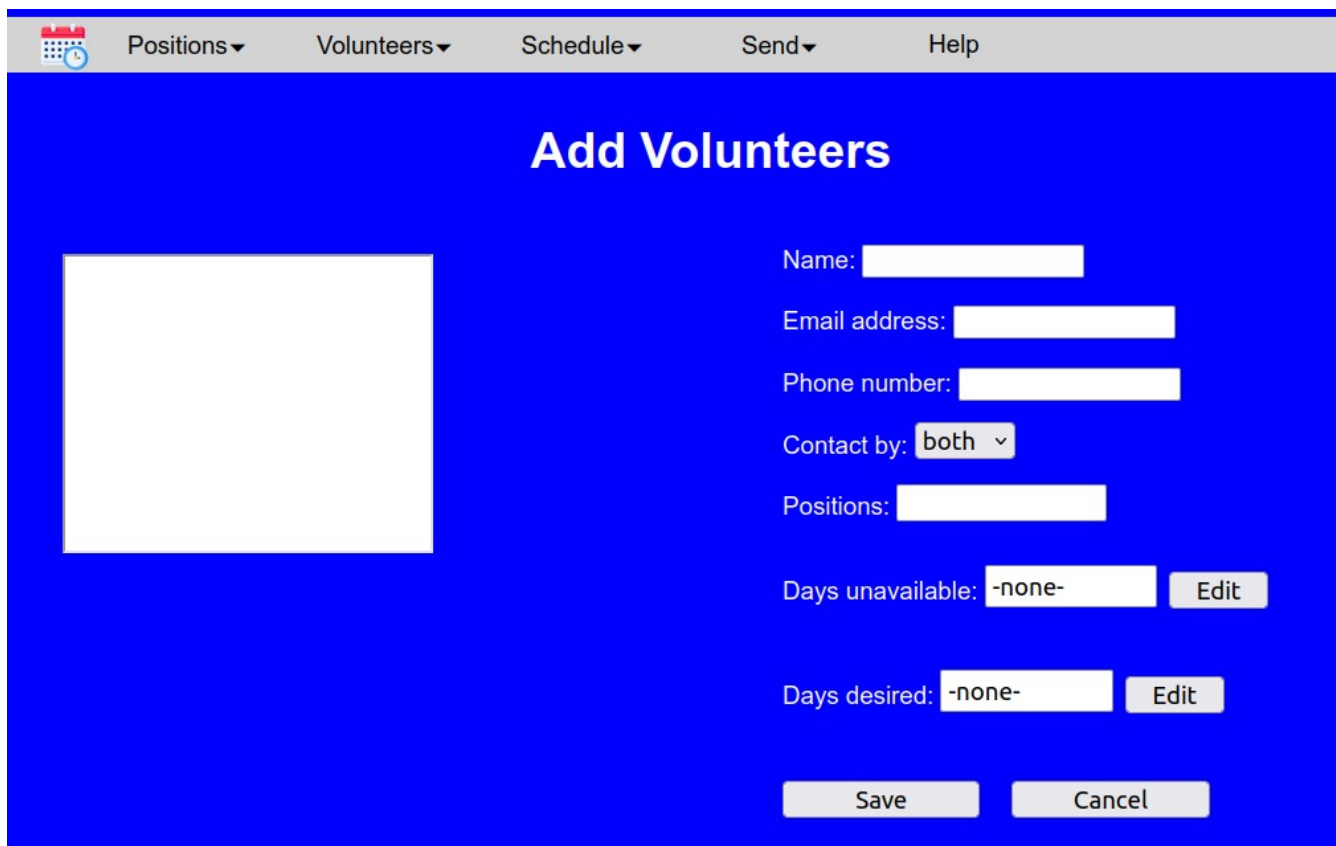
End time for service needed: 10 : 50 AM

Number of volunteers needed: 1 ▼

Save Position

The box on the left will show the names of volunteer positions, but initially, it is empty. From this screen you will define the positions that need to be scheduled. Note that the positions have a start and end time. The reason for this is so that (if desired) a person could serve in two different positions during a service, so long as they don't overlap. For example, a person might serve as a greeter who stands at the front door to welcome people as they arrive, but later will be reading a scripture during the service. By assigning approximate start and end times for the position, it makes it possible to schedule these events. When you have filled in the appropriate fields, click the **Save Position** button to add that position to the list. Continue adding and saving entries into the table until all of the positions that need to be scheduled have been defined.

Next you will want to enter all of the volunteers. To do so, click on **Volunteers** in the menu bar at the top of the screen and select the **Add Volunteers** entry from the drop-down menu. It will direct you to a screen that looks like this:

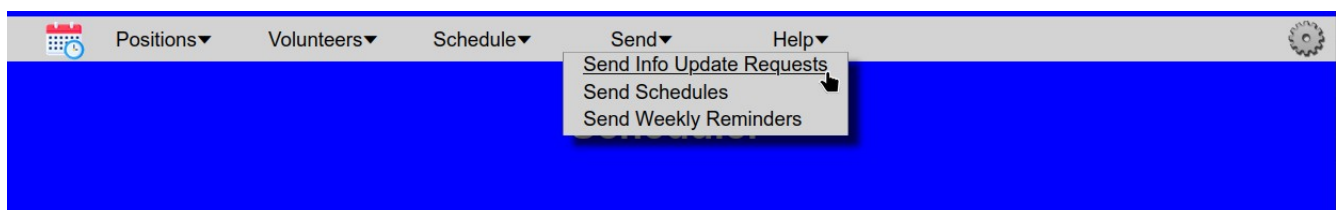


The screenshot shows a software interface with a blue header bar containing a calendar icon and menu items: Positions, Volunteers, Schedule, Send, and Help. The main area has a blue background with the title 'Add Volunteers' in white. On the left is a large white square placeholder for a photo. On the right are input fields for Name, Email address, Phone number, Contact by (a dropdown menu showing 'both'), Positions, Days unavailable (a dropdown menu showing '-none-'), and Days desired (a dropdown menu showing '-none-'). Each of the last three fields has an 'Edit' button next to it. At the bottom right are 'Save' and 'Cancel' buttons.

From here you can enter the information for each volunteer. If possible provide both email address and the phone number to receive texts and select whether the Scheduler program should contact this person by text, by email, or both. The “Positions” entry will include the position titles that you provided while building the positions table. Make sure that you select at least one of the positions for the person to volunteer for. Multiple selections from the list are possible by holding down the control key while you make a selection.

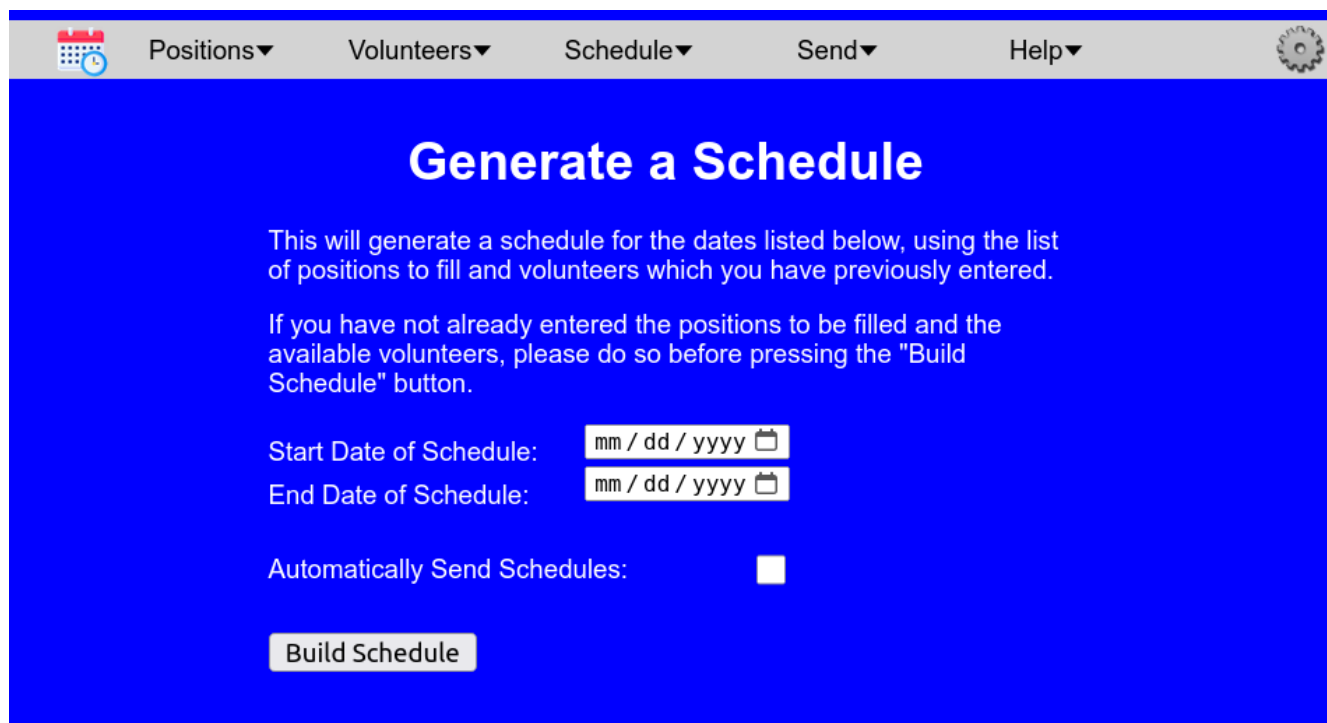
When you have entered the information for a volunteer, click the save button. The program will save the information and clear the fields so that you may enter another volunteer. Continue adding volunteers until all volunteer names have been entered.

At this point, you may wish to give your volunteers the opportunity to review the information and possibly update it. You may send out requests to all of the volunteers in your list asking them to to update their information by clicking on the **Send** item on the menu bar and selecting **Send Info Update Requests** from the drop-down menu.



Each person from the volunteer list will receive an email or text asking if they need to update their information, along with a link which will let them update their information.

Once all of the volunteer information has been verified, you are ready to generate a schedule. To do so, select **Schedule** from the menu bar and select **Generate Schedule** from the drop-down menu. You will be directed to a screen like this, that asks you to enter the first and last dates to include in the new schedule.

The screenshot shows a web application interface with a blue header bar. The header contains a calendar icon, a navigation menu with 'Positions', 'Volunteers', 'Schedule', 'Send', and 'Help' (each with a dropdown arrow), and a gear icon for settings. The main content area has a blue background with the title 'Generate a Schedule' in white. Below the title, there is instructional text in white: 'This will generate a schedule for the dates listed below, using the list of positions to fill and volunteers which you have previously entered.' and 'If you have not already entered the positions to be filled and the available volunteers, please do so before pressing the "Build Schedule" button.' There are two date input fields, each with a placeholder 'mm / dd / yyyy' and a calendar icon. Below these is a checkbox labeled 'Automatically Send Schedules:'. At the bottom is a white button with the text 'Build Schedule'.

From this screen, enter the starting and ending dates. You may enter numbers into the mm / dd / yyyy fields or click the calendar icon to be provided with a calendar for selecting the dates. Note that the dates are inclusive, so if, for example, you select 01/05/2025 and 01/26/2025 as the starting and ending dates, both of those dates will be scheduled (if those are weekdays that you have positions to fill). If you would like for Scheduler to send an email or text to everyone who gets scheduled with the dates when they are scheduled to serve, click the “Automatically Send Schedules” box. When you have finished, press the Build Schedule button.

Scheduler will then calculate the dates when positions need to be filled and try to find a volunteer to serve in each position for each of those dates. When it has finished, it will show you the schedule that it generated. The screen will look something like this:

[Positions](#)[Volunteers▼](#)[Schedule▼](#)[Send▼](#)[Help](#)

View Schedule

Here is the current schedule for **2025-01-05** through **2025-01-26**

Scheduling complete, volunteers are being notified.

2025-01-05

communion

FriendlyFred

greeter

NewGuy

scripture reader

Garry Taylor

techBooth

Tech Savy

2025-01-12

communion

Smiley

greeter

FriendlyFred

scripture reader

EasyReader

techBooth

Tech Savy

2025-01-19

If Scheduler was able to fill all of the slots, it will display the message saying “Scheduling complete” if you chose to send the volunteers their new schedules, it will also say “volunteers are being notified,” and all of the people in the schedule will receive a message telling them the dates that they are scheduled to serve and the positions that they will be filling.

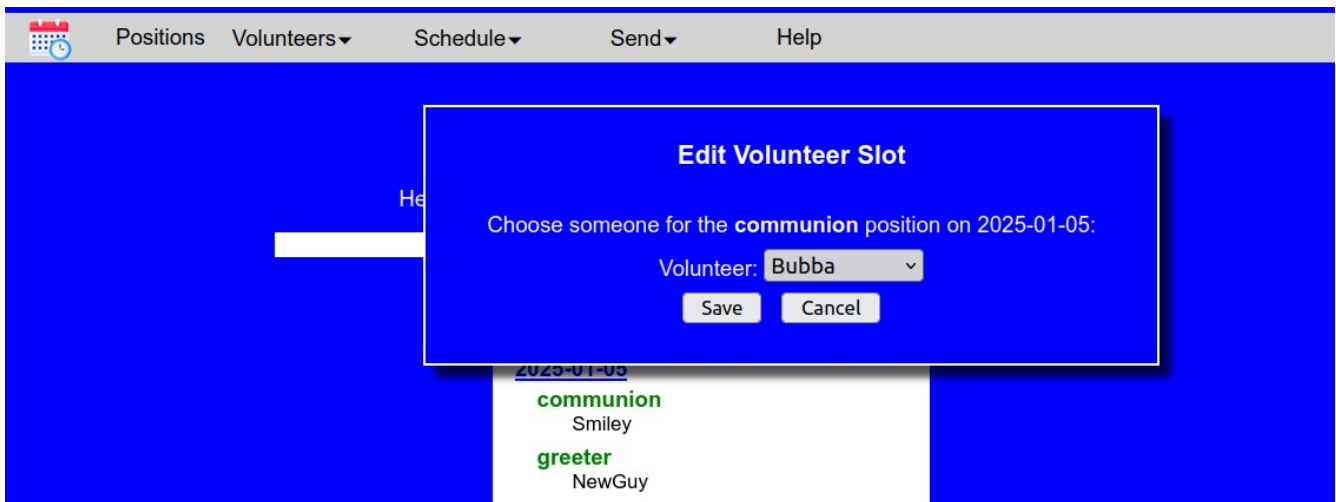
If the Scheduler was not able to fill all of the slots, the screen will look like this:

The screenshot shows a web application interface with a blue background. At the top is a grey navigation bar with a calendar icon and the following links: Positions, Volunteers (with a dropdown arrow), Schedule (with a dropdown arrow), Send (with a dropdown arrow), and Help. Below the navigation bar, the title 'View Schedule' is centered in large white text. Underneath the title, a line of text reads: 'Here is the current schedule for 2025-01-05 through 2025-01-26'. A red-bordered box contains the message: 'Please note that not all positions may have been filled.' In the center of the page is a white rectangular box containing the following schedule details:

2025-01-05
communion
Smiley
greeter
NewGuy
nursery
—unfilled—
scripture reader
EasyReader
techBooth
Bubba

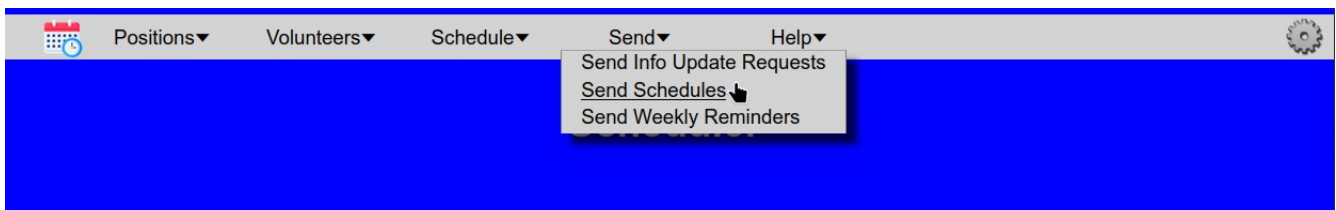
2025-01-12
communion
Some One
greeter
NewGuy
nursery
—unfilled—
scripture reader
Garry Taylor

with the message indicating that all slots were not filled. Note that if this occurs, Scheduler will not automatically send out schedule notices to the volunteers, since some changes may first need to be made to the schedule. If this occurs, you may need to manually edit the schedule. To do so, click on the name (or “—unfilled—”) and an edit box will pop up showing you the names of all volunteers who offered to work in this position.

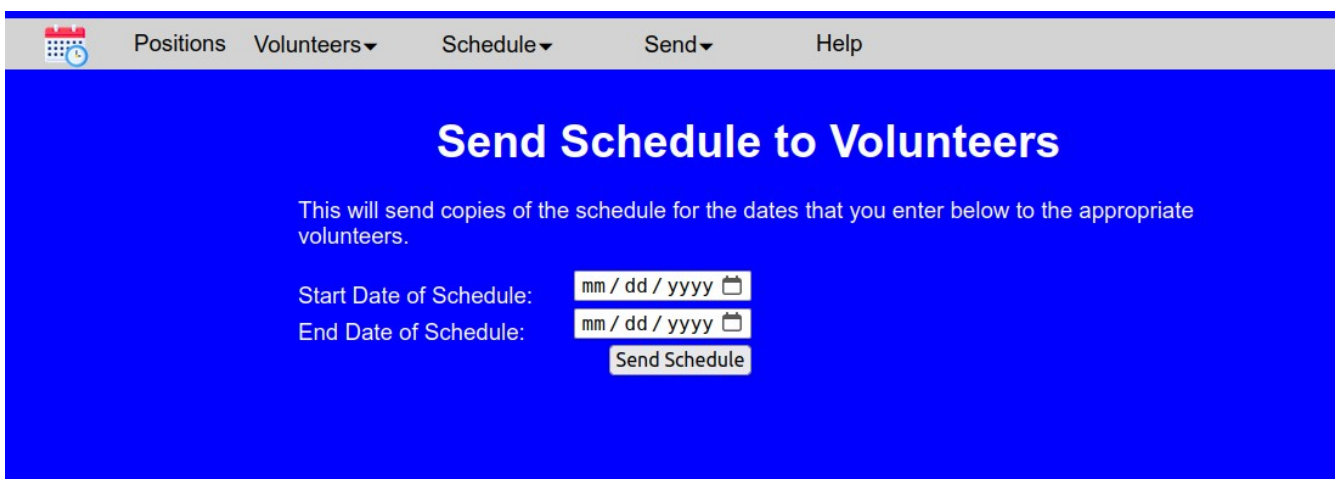


Pick one of the names from the drop-down list of volunteers and press the **Save** button to save the change to the schedule.

When you have completed the changes to the schedule, you may then want to send the personal schedules to each of the volunteers. To do so, select **Send** from the menu bar and click the **Send Schedules** entry.

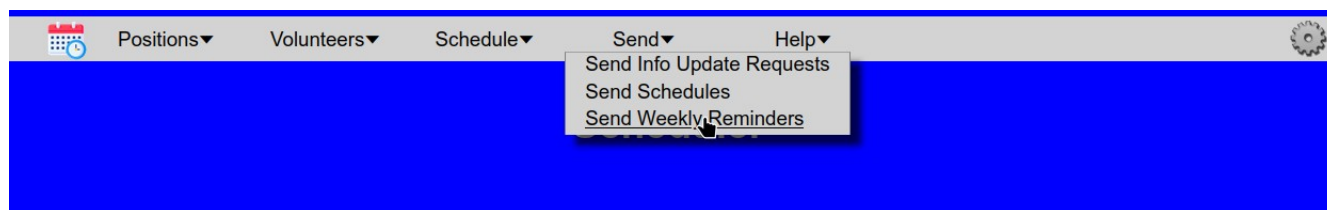


You will be redirected to this screen, where you can enter the start and end dates of the schedule that you wish to send out.



Select the starting and ending dates and then press the Send Schedule button to send out the personal schedules to each volunteer who was scheduled.

Each week, you may wish to send out reminders to the volunteers who are scheduled to work that week. To do so, click the **Send** entry on menu bar and then select **Send Weekly Reminders**.



This will cause Scheduler to send out a reminder to each person scheduled to work that week, reminding them of the position that they will be filling and when they are needed. Note that Scheduler keeps track of who it has sent reminders to, so if you accidentally do this more than once in a week, it will not send out duplicate reminders. (Note that, if you desire, you can configure Schedule to send these reminders automatically each week.)

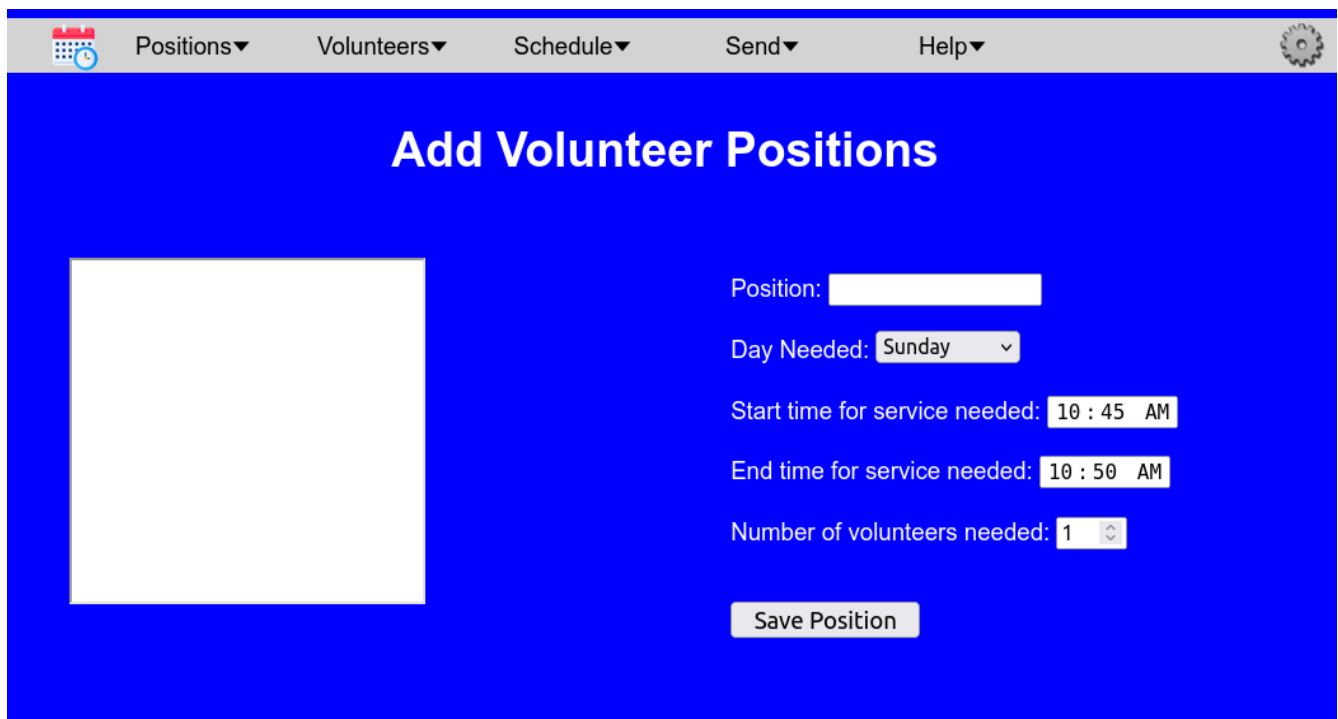
Tasks

Positions

Positions are the roles that need to be filled by volunteers. Scheduler allows you to define a position by name, specifying the time and day of the week that the position needs to be filled. It also allows you to specify the number of volunteers needed to fill the role. So, for instance, you may need only one person to fill the role of “Scripture Reader”, but you may need four volunteers to assist with communion.

Adding Positions


To add positions to the list, select on the **Positions** menu item, and select the **Add Positions** entry. This will direct you to a screen that looks like this:

The screenshot shows a web application interface with a blue header bar. On the left of the header is a calendar icon. To its right are five menu items: 'Positions', 'Volunteers', 'Schedule', 'Send', and 'Help', each followed by a downward-pointing triangle. On the far right of the header is a gear icon. Below the header, the main content area has a blue background. At the top center of this area is the title 'Add Volunteer Positions' in white. On the left side of the main area is a large, empty white rectangular box. To the right of this box are several input fields: a text field labeled 'Position:', a dropdown menu labeled 'Day Needed:' with 'Sunday' selected, two time input fields labeled 'Start time for service needed:' and 'End time for service needed:' with values '10 : 45 AM' and '10 : 50 AM' respectively, and a spinner box labeled 'Number of volunteers needed:' with the value '1'. At the bottom right of the form is a button labeled 'Save Position'.

The box on the left will contain the names of any positions which were previously defined. To add a new position, simply fill out the fields on the right. In the “Position:” field, enter the name that you wish to use for this position, for example “Greeter”. Note that the positions have a start and end time. The reason for this is so that (if desired) a person could serve in two different positions during a service, so long as the tasks don’t overlap. For example, a person might serve as a Greeter who stands at the front door to welcome people as they arrive, but later , during the service, the same person could read scripture. By assigning approximate start and end times for the position, it makes it possible to schedule these events. When all fields are entered, press the **Save Position** button. A popup box will confirm that you wish to add the value. Once the value is added, the position will be added to the list on the left and the fields will be reset so that you may enter a new position value, if you wish.

Editing Positions

You can edit the list of positions to change the values of existing entries, or to remove entries from the list. To edit positions, select **Positions** from the menu bar and then select the **Edit Positions** entry. You will be directed to a screen similar to this:




Positions▼

Volunteers▼

Schedule▼

Send▼

Help▼



Edit Volunteer Positions

Communion Servers

Greeters

Media

Safety/Smile

Scripture Readerr

Ushers

Position: Communion Servers

Day Needed: Sunday ▼

Start time for service needed: 11 : 25 AM


End time for service needed: 11 : 40 AM

Number of volunteers needed: 4 ▼

Save Changes

Delete Position

As you can see in this example, there was a typo in the name of the “Scripture Reader” position. To correct it, click on the entry in the box on the left.



Positions▼

Volunteers▼

Schedule▼

Send▼

Help

Edit Volunteer Positions

Communion Assistant

Greeter

Scripture Readerr

Position: Scripture Readerr

Day Needed: Sunday ▼

Time when service needed: 10 : 45 AM

Number of volunteers needed: 1 ▼

Save Changes

Delete Position

Positions▼ Volunteers▼ Schedule▼ Send▼ Help▼

Edit Volunteer Positions

- Communion Servers
- Greeters
- Media
- Safety/Smile
- Scripture Readerr**
- Ushers

Position: Scripture Readerr

Day Needed: Sunday ▼

Start time for service needed: 10 : 50 AM

End time for service needed: 10 : 55 AM

Number of volunteers needed: 1

Save Changes Delete Position

As you can see, the fields on the right are updated to show the values for this position. Correct the title in the “Position:” field, and then press the **Save Changes** button. You will be prompted to confirm the save, and if you press the **Save Changes** button, the list will be updated to reflect the change.

Positions▼ Volunteers▼ Schedule▼ Send▼ Help▼

Edit Volunteer Positions

- Communion Servers**
- Greeters
- Media
- Safety/Smile
- Scripture Reader
- Ushers

Position: Communion Servers

Day Needed: Sunday ▼

Start time for service needed: 11 : 25 AM

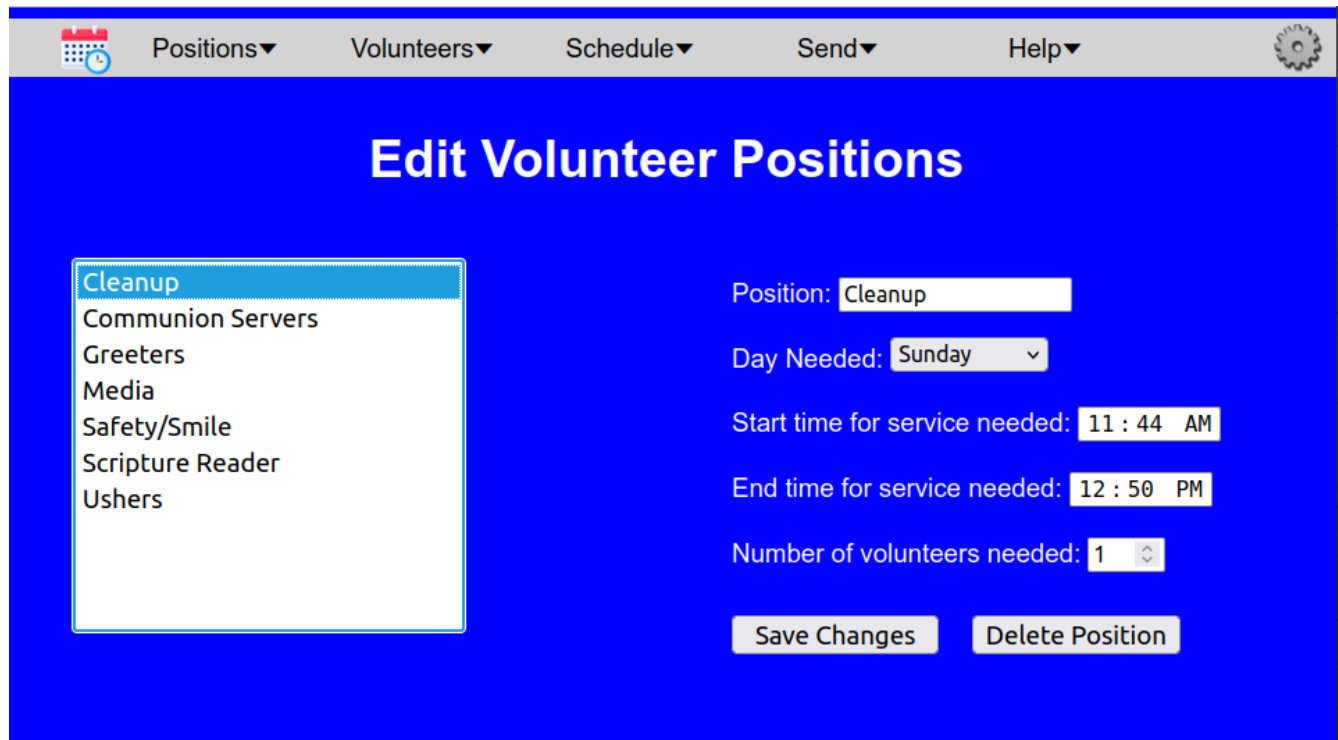
End time for service needed: 11 : 40 AM

Number of volunteers needed: 4

Save Changes Delete Position



Deleting Positions

If you need to remove a position from the schedule, select **Positions** from the menu bar and then select the **Edit Positions** entry. You will be directed to a screen similar to this:



The screenshot shows a web application interface with a blue background. At the top is a grey navigation bar with a calendar icon, a clock icon, and menu items: 'Positions' (with a dropdown arrow), 'Volunteers' (with a dropdown arrow), 'Schedule' (with a dropdown arrow), 'Send' (with a dropdown arrow), and 'Help' (with a dropdown arrow). A gear icon for settings is on the far right. The main heading 'Edit Volunteer Positions' is centered in white. On the left, a white box contains a list of position names: 'Cleanup' (highlighted with a blue bar), 'Communion Servers', 'Greeters', 'Media', 'Safety/Smile', 'Scripture Reader', and 'Ushers'. On the right, there are input fields: 'Position:' with a text box containing 'Cleanup', 'Day Needed:' with a dropdown menu showing 'Sunday', 'Start time for service needed:' with a text box containing '11 : 44 AM', 'End time for service needed:' with a text box containing '12 : 50 PM', and 'Number of volunteers needed:' with a spinner box showing '1'. At the bottom right are two buttons: 'Save Changes' and 'Delete Position'.

Select the entry that you wish to remove from the list on the left, and then press the **Delete Position** button. When prompted if you wish to delete this entry, select “Yes”. The position will be removed, and the list will be updated to reflect the change.

[Positions▼](#)[Volunteers▼](#)[Schedule▼](#)[Send▼](#)[Help▼](#)

Edit Volunteer Positions

Communion Servers
Greeters
Media
Safety/Smile
Scripture Reader
Ushers

Position:

Day Needed:

Start time for service needed:

End time for service needed:


Number of volunteers needed:

Volunteers


Volunteers is a list of the people who have signed up to fill the various roles in the schedule. With Scheduler, each volunteer can specify days when they are unable to volunteer, and they may also specify days when they specifically wish to volunteer. For each volunteer, the email address and the cell phone number of the volunteer are tracked, along with how the volunteer wishes to be contacted (by email, text, or both). The Scheduler program will use those values to send copies of the schedule to volunteers, along with reminders for when they are scheduled to serve.

Adding Volunteers

To add names to the volunteer list, click on **Volunteers** in the menu bar at the top of the screen and select the **Add Volunteers** entry from the drop-down menu. It will direct you to a screen that looks like this:

 Positions▼ Volunteers▼ Schedule▼ Send▼ Help

Add Volunteers



Name:

Email address:

Phone number:

Contact by: both ▼

Positions:

Days unavailable: -none- Edit

Days desired: -none- Edit

Save Cancel

From here you can enter the information for each volunteer. If possible provide both email address and the phone number to receive texts and select whether the Scheduler program should contact this person by text, by email, or both. The “Positions” entry will include the position titles that you provided while building the positions table. Make sure that you select at least one of the positions for the person to volunteer for. Multiple selections from the list are possible by holding down the control key while you make a selection.

If the person has dates which they are unavailable to serve, or dates for which they would specifically like to serve, you may enter those in the “Days unavailable” or “Days desired” fields by pressing the Edit button next to that field. For more information on entering the dates, see the [Editing Dates](#) section.

When you have entered the information for a volunteer, click the save button. The program will save the information and clear the fields so that you may enter another volunteer. Continue adding volunteers until all volunteer names have been entered.

Editing the Volunteer List

To edit an entry in the volunteer list, click the **Volunteers** entry in the menu bar and select the **Edit Volunteers** item. You will be directed to a screen like this:

Edit Volunteers List

John Simpson
Mike Johnson
Tom Watson

Name: **John Simpson**

Email address: **john@work.com**

Phone number: **270-555-1234**

Contact by: **email** ▾


Positions: **Greeter**

Days unavailable: **-none-**

Days desired: **-none-**

Edit **Delete**

The box on the list will show a list of all volunteers entered into the system. To edit a volunteer, click on the name in the left hand box, and the fields will update to reflect that person's entries. For this example lets say Mike Johnson needs his entry changed so that he is only notified by email. First, click on the entry for Mike Johnson. You will see the screen updates to show his information:

 Positions▼ Volunteers▼ Schedule▼ Send▼ Help

Edit Volunteers List

John Simpson

Mike Johnson

Tom Watson

Name: **Mike Johnson**

Email address: **mike@home.com**

Phone number: **270-555-1212**

Contact by: **both** ▼

Positions:

Communion Assistant
Scripture Reader

Days unavailable: **-none-**

Days desired: **-none-**

EditDelete

You can see that the “Contact by” field for Mike is currently set to “both”. To change it, press the Edit button. The screen will switch to one like this:

 Positions▼ Volunteers▼ Schedule▼ Send▼ Help

Edit Information for Mike Johnson

Name:

Email address:

Phone number:

Contact by:

Positions:

Communion Assistant

Greeter

Scripture Reader

Days unavailable:

Days desired:

All of these fields are now editable. So to change the contact method, click the down arrow beside “both” and click on the “email” entry. When you are finished, press the button, and when prompted, click to save the changes. You will then be returned to the “Edit Volunteers List”

screen.

Edit Information for Mike Johnson

Name:

Email address:

Phone number:

Contact by:

Positions:

Days unavailable:

Days desired:

Editing Dates

The date fields allow you to enter dates when someone is unavailable to volunteer, or someone wishes to volunteer on a specific date. Let's say from our previous example, that Mike is going to be unavailable on January 1st. To make this change, select Mike's entry as described above, and on the edit screen, click the button next to "Days unavailable:". A popup box like this will appear:

Dates When Mike Johnson is Unavailable:

Add date: mm / dd / yyyy

Positions: **Communion Assistant**
Greeter
Scripture Reader

Days unavailable: -none-

The box on the left will contain any days which Mike had previously listed as unavailable. If you wish to remove any of those dates, simply select it, and press the button. To add January 1st to the list, click in the field next to “Add date”. Depending upon your browser, you will have the option of either entering the values in the “mm / dd / yyyy” fields, or be presented with a calendar from which you can select a date.

Dates When Mike Johnson is Unavailable:

Add date: mm / dd / yyyy

Positions: **Communion Assistant**
Greeter
Scripture Reader

Days unavailable: -none-

January 2025

Sun	Mon	Tue	Wed	Thu	Fri	Sat
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	1
2	3	4	5	6	7	8

When the date is chosen, press and the date will be added to the list on the left.

Dates When Mike Johnson is Unavailable:

2025-01-01


Add date: mm / dd / yyyy  Add

Delete selected dates

Ok

Cancel

Continue editing the dates. When you are finished, press **Ok** and the changes will be copied to the date field on the edit screen.

 Positions▼ Volunteers▼ Schedule▼ Send▼ Help

Edit Information for Mike Johnson

Name: Mike Johnson

Email address: mike@home.com

Phone number: 270-555-1212

Contact by: both ▼

Positions:

Communion AssistantGreeterScripture Reader

Days unavailable: 2025-01-01 Edit

Days desired: -none- Edit

Save

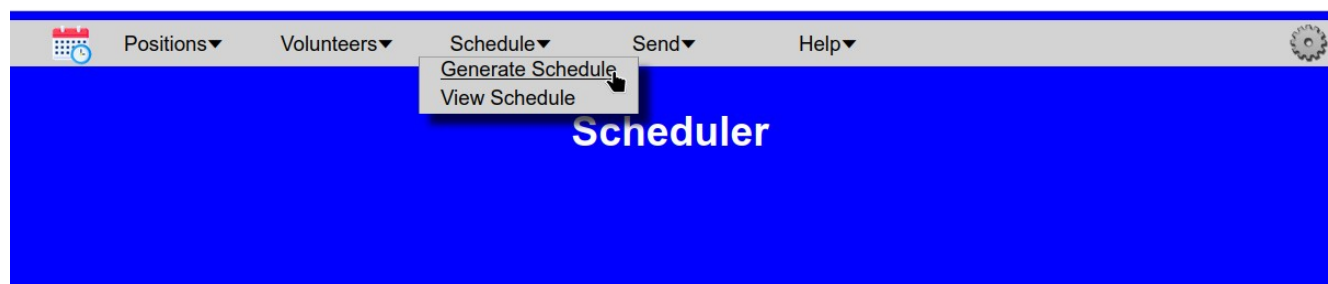
Cancel

Scheduling

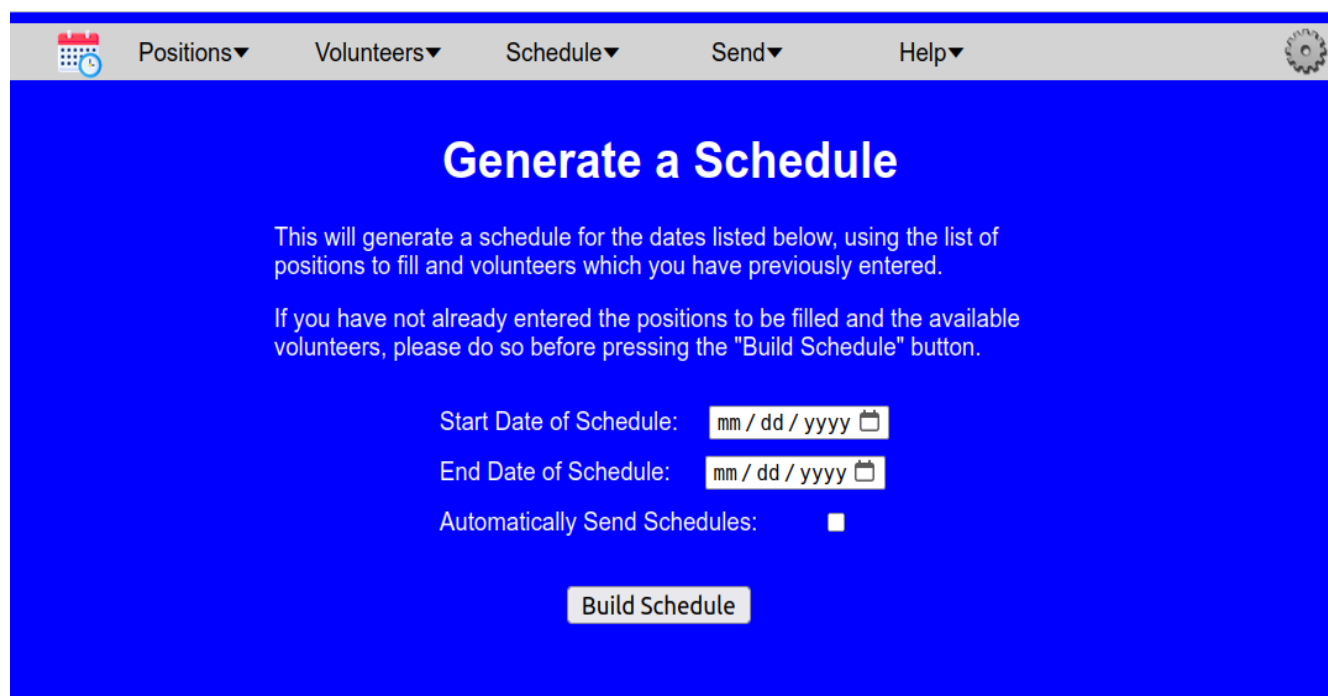
When positions have been created and volunteers entered, you are ready to generate a schedule. From the Schedule menu you can create new schedules, view schedules, and edit existing schedules.

Generating Schedules

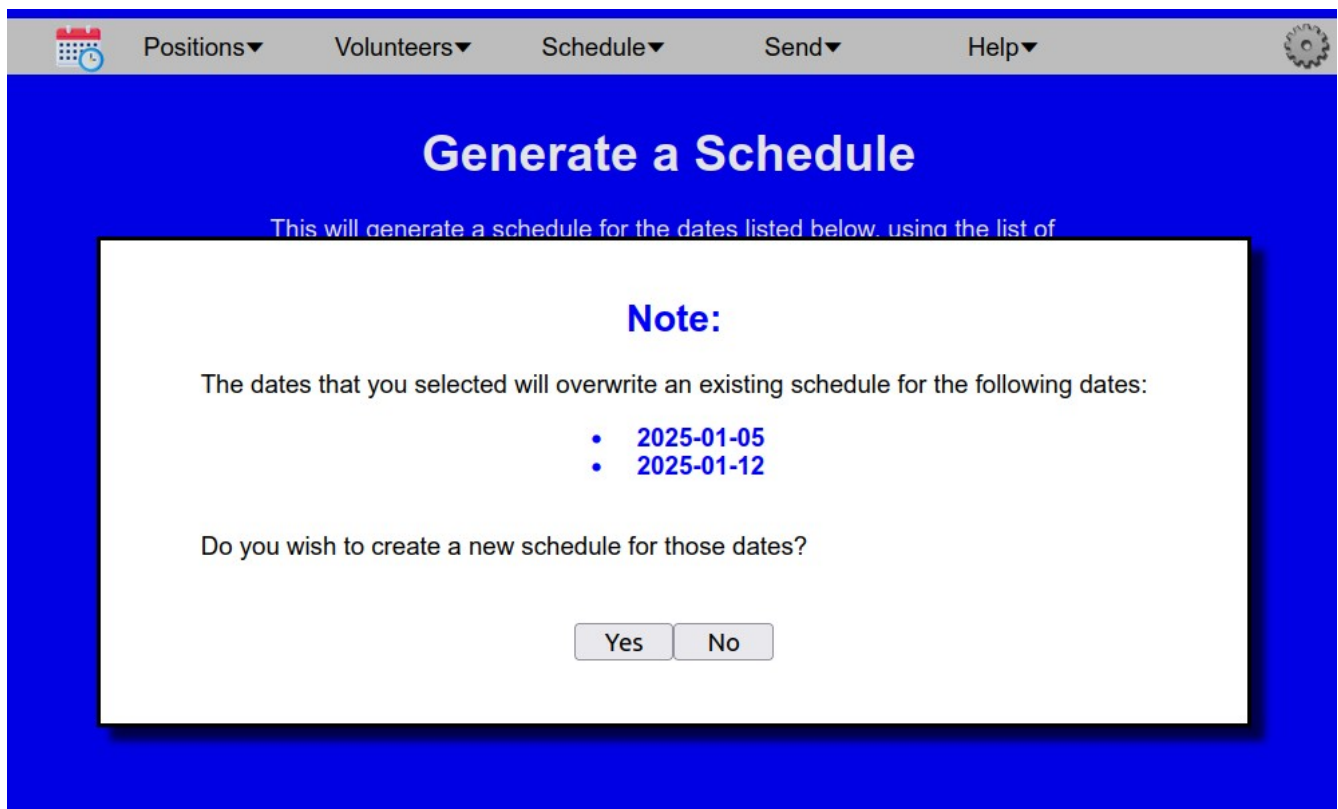
To do so, select **Schedule** from the menu and then select **Generate Schedule**.



You will be presented with the following screen:

A screenshot of the 'Generate a Schedule' screen. The screen has a blue background. At the top is a grey navigation bar with the same menu items as the previous screenshot. The main heading is 'Generate a Schedule' in large white text. Below the heading is a paragraph of text: 'This will generate a schedule for the dates listed below, using the list of positions to fill and volunteers which you have previously entered.' followed by 'If you have not already entered the positions to be filled and the available volunteers, please do so before pressing the "Build Schedule" button.' Below this text are three input fields: 'Start Date of Schedule:' with a date picker showing 'mm / dd / yyyy', 'End Date of Schedule:' with a date picker showing 'mm / dd / yyyy', and 'Automatically Send Schedules:' with a checkbox. At the bottom is a 'Build Schedule' button.

Scheduler will build a schedule using the start date and end date that you provide on this screen. Note that the start date and end dates are inclusive, so if you selected 01/01/2025 as the start date and 01/02/2025 as the end date, the schedule would include both Jan. 1, 2025 and Jan. 2, 2025. The schedule that it generates will overwrite any previously existing schedule that may have existed on those dates. Because of this, before generating the schedule, if it finds an existing schedule for one or more of the dates, it will display a warning screen like this:



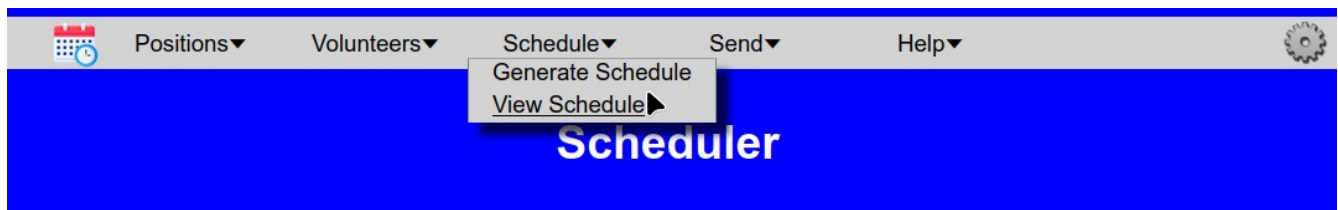
giving you the option to overwrite the previous schedule if you desire.

The initial screen also provides you the option of automatically sending schedules to each person who is scheduled to volunteer in the new schedule that it generates. The schedules will be sent to each volunteer by either text or email, as was indicated in their volunteer preferences. The message sent will include the dates and roles that that person has been selected for each position that they are scheduled for within the newly generated schedule.


Once you have entered the start and dates, click the [Build Schedule](#) button and a new schedule will be generated and you will be directed to the **View Schedule** page.

Viewing Schedules

The **View Schedule** page lets you see the schedules that have been set for any range of dates that you specify. To view a schedule, select **Schedule** from the main menu, and the **View Schedule**



This will take you to the **View Schedule** screen:




Positions▼

Volunteers▼

Schedule▼

Send▼


Help▼




View Schedule

For which days would you like to see the schedule?

Start Date of Schedule:


mm / dd / yyyy 

End Date of Schedule:

mm / dd / yyyy 

Show Schedule

From here you can enter range for the particular dates of the schedule that you would like to see. As with generating a schedule, the date values that you enter here are inclusive. When you have entered values for the start and end dates, press the Show Schedule button. It will then show you the schedule for the dates. It should look something like this:




Positions▼

Volunteers▼

Schedule▼

Send▼

Help▼



View Schedule

Here is the current schedule for 2025-01-01 through 2025-01-31

2025-01-05
Communion Servers
Carl Good
Gus Geoffries
Marty Gavens
Vicki Jackson
Greeters
Gus Geoffries
Marty Gavens
Mary Fallon
Violet Barns
Media
Roxanne Charles
Safety/Smile
Sam Barnett
Scripture Reader
Ellen Jones
Ushers
Bert Lincoln
Rob Hunter

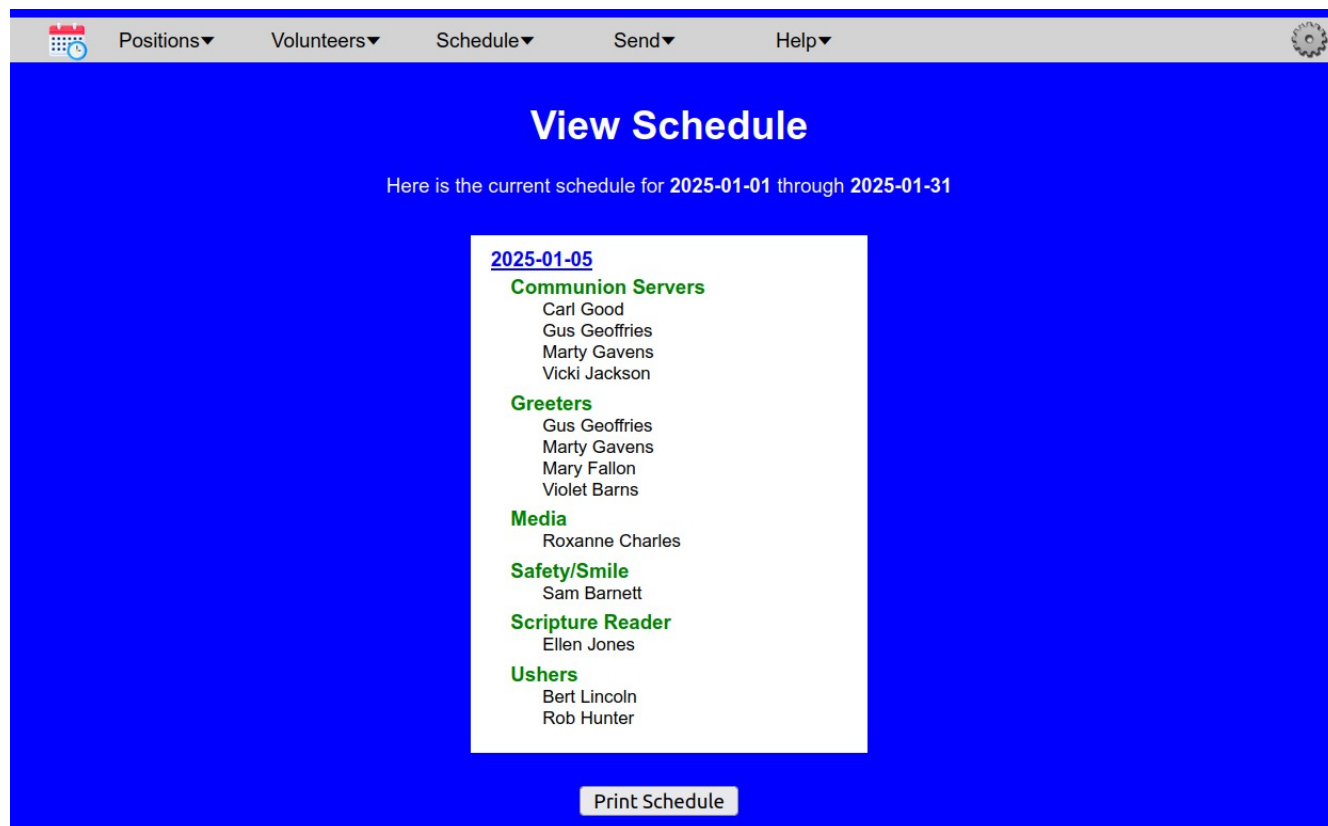
Print Schedule

The top of the screen shows the range of dates displayed. The white box in the center shows the dates, positions, and the volunteers scheduled to serve in those positions. The box in the center can be

scrolled to let you see the volunteers on all of the requested dates. If you would like to have a printed copy of the schedule, simply press the **Print Schedule** button at the bottom of the screen.

Editing the Schedule

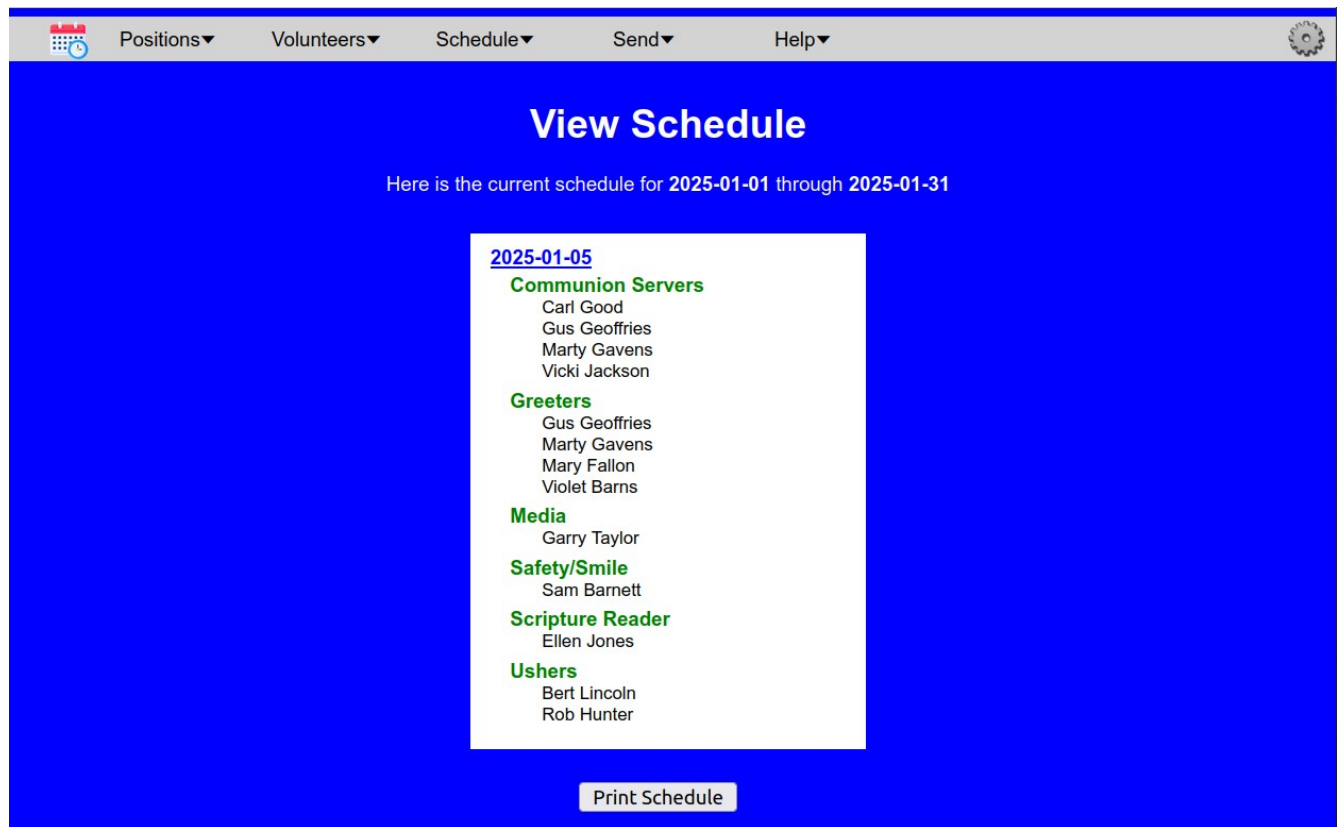
Be aware that when you are viewing the schedule, you have the ability to change the person scheduled for each slot. Let's say that after generating our schedule above, Roxanne Charles got sick and sent word that she would be unable to serve on Jan. 5th. You can edit the schedule to put someone else in that slot. To start, go to the **View Schedule** page, and select dates which will show the date you need to change (in our example, 01-05-2025). Your screen should look something like this:



Then use the mouse to click on name of the person you need to change (in this example, Roxanne Charles). The screen will update to show you the **Edit Volunteer Slot** box:

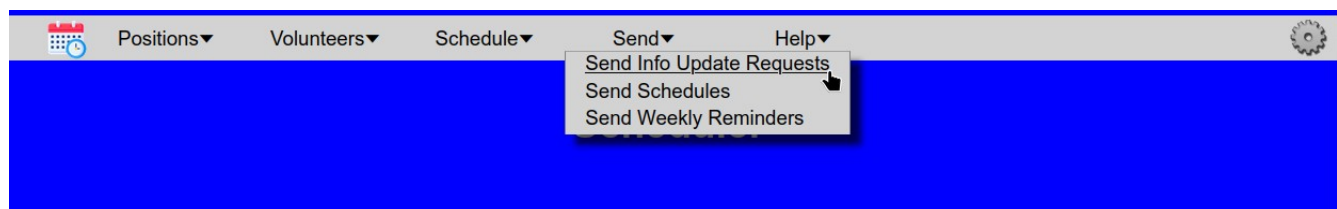


Here you will see the date and position to be filled, along with a list of volunteers who have signed up to work in this position. From the drop-down box, select the name of the person to fill this position, and then click the **Save** button to make the change to the schedule. The schedule will then be updated to reflect the change:



Send Updates

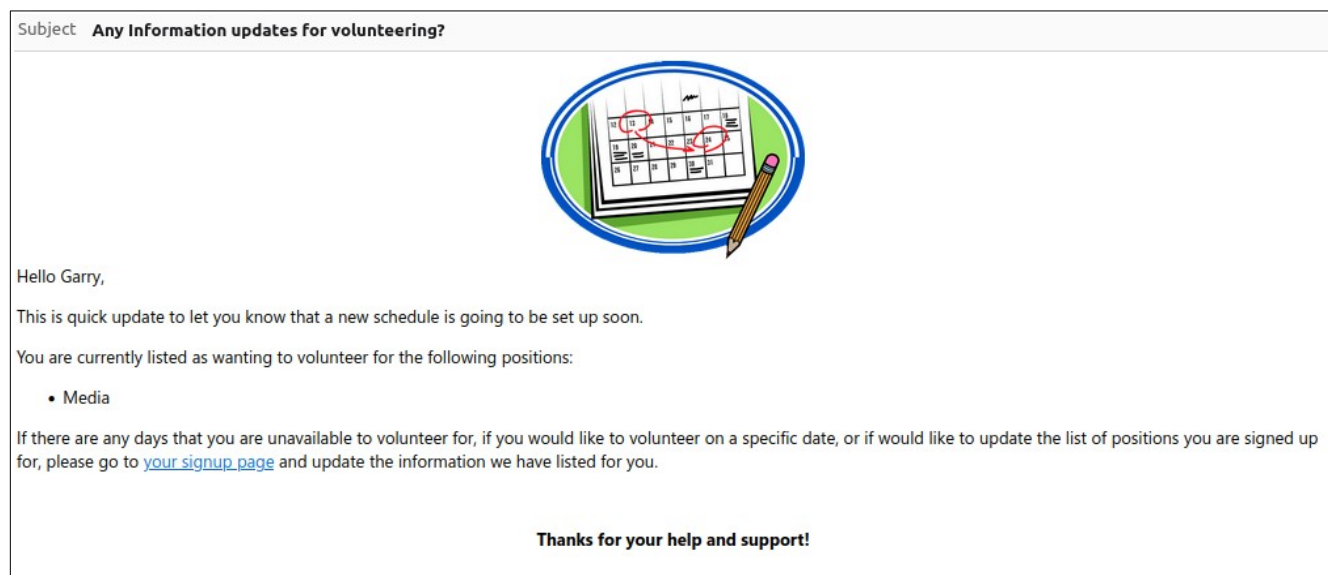
The Scheduler program not only schedules volunteers, but also allows you to send communications to your volunteers so that everyone is up to date with the latest scheduling. Scheduler allows three different types of communications, which may be sent by SMS text, email, or both, based on each volunteer's preferences. The types of communication are volunteer information update requests, individual schedules, and service reminders. These are all found under the **Send Updates** menu entry.



Sending Information Update Requests

For the Scheduler program to do a good job of scheduling volunteers into needed positions, it needs to have an up-to-date list of days when a volunteer will not be available, or days when they may specifically want to work. For that reason, Scheduler allows you to send out requests to volunteers,

asking them to update their information. You may wish to use this feature before generating a new schedule. The **Send Info Update Requests** menu item will send out a notification to each volunteer, using SMS text, email, or both as they prefer. The request will look something like this:



The notice will show the positions that they have signed up for and provides a link that they can use to go into the Scheduler program and update their information. (Note that when using this link, the volunteer will not be able to access anything other than their information.)

Sending Schedules

The schedules will be sent to each volunteer by either text or email, as was indicated in their volunteer preferences. The message sent will include the dates and roles that that person has been selected for each position that they are scheduled for within the specified dates. So, for instance, if Garry were scheduled to serve in the “Media” position on April 6th and April 20th, he would receive an email like this:

Subject **New Schedule for 04-06-2025 – 04-27-2025**



Hello Garry

A new schedule has been made, and you are scheduled to serve on the following dates:

- **04-06-2025** — **Media** at 10:30
- **04-20-2025** — **Media** at 10:30

You may download these dates to your calendar by clicking [here](#).

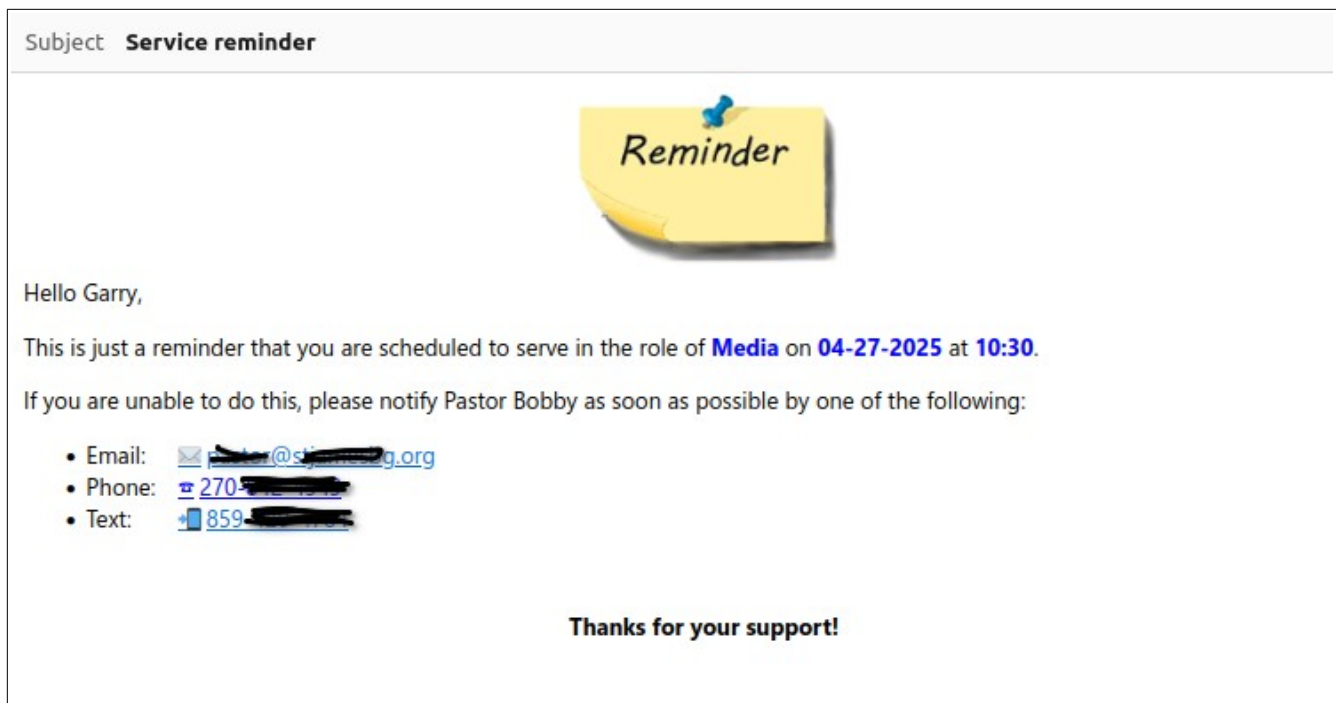
If you are unable to serve on any of these dates, please notify Pastor Bobby as soon as possible by one of the following:

- Email: bobby@bobby.org
- Phone: [1234567890](tel:1234567890)
- Text: [1234567890](sms:1234567890)

Thanks for your support!

Sending Weekly Reminders

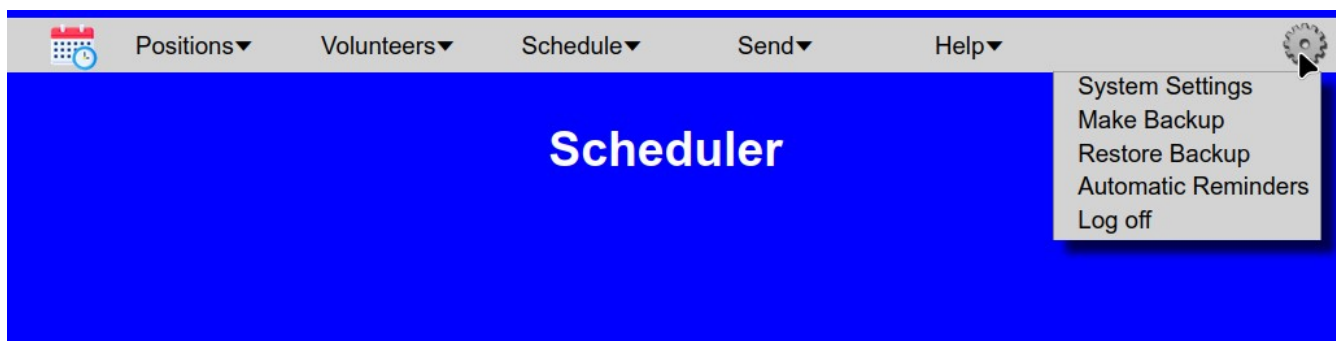
Scheduler can send out a reminder to everyone who is scheduled to work in the next 6 days to remind them of their schedule. To do so, select the **Send Weekly Reminder** menu option. Each person who is scheduled to volunteer that week will receive a message via SMS text or email (based on their preference) reminding them of their scheduled time. Scheduler will keep track of everyone that it has sent reminders to this week, so that you do not have to worry about sending someone multiple reminders by mistake. The message will look something like this:



If you would like to have Scheduler send these reminders automatically, you can do so by selecting **Automatic Reminders** under the Administrative options.

Administrative

There are several administrative tasks associated with Scheduler that you may need to run from time to time. These include system settings, making and restoring backups, and setting up automatic weekly reminders. All of these tasks are accessed by clicking on the gear icon in the top right corner of the screen:



Backups

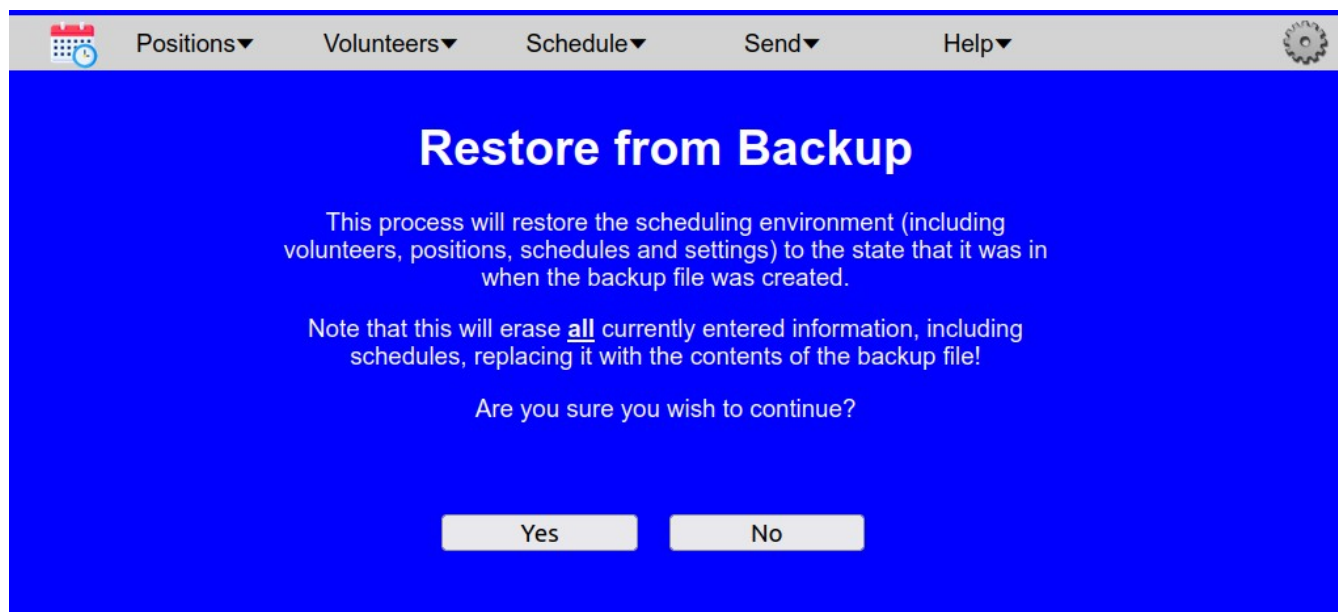
Once you have configured Scheduler and entered all of your positions and volunteers, you should probably use the backup feature of Scheduler to let you save the information that you have entered in a secure location. Scheduler allows you to both make and restore backups from your browser, so that you can keep the backups separate from the machine where Scheduler is running.

Making Backups

To make backups, click the **Make Backup** menu entry. Scheduler will then make a backup file and send it to your browser as a download. The backup file will contain all positions, volunteers, configuration, and schedulers that are stored in the system. Using your browser, simply select the name and location that you want to give the backup file and the backup will download to your computer.

Restoring From Backups

To restore your Scheduler system to a prior state from a backup, click the **Restore Backup** entry. Scheduler will show you this warning screen to remind you that running a restore will replace everything currently in the Scheduler program with the contents of the backup file.



Press to continue with the restore. Your browser will then prompt you to select the backup file that should be used for the restore. Select the file and Scheduler will upload the file and restore the system to its previous state.

Automatic Reminders

Scheduler can send weekly reminders out to each volunteer who is scheduled to volunteer that week, if you desire. To do so, click on the gear icon in the top right corner of the screen and select the **Weekly Reminders** entry. You will be redirected to this screen:

Positions▼ Volunteers▼ Schedule▼ Send▼ Help▼

Automatically Send Reminders

Scheduler can automatically send reminders each week to the people who are scheduled to volunteer that week. If you wish to make use of that feature, select the checkbox below and choose the day of the week and the time for when you wish the reminders to be sent.

☒ Send automatic reminders

Send reminders every: Sunday ▼

Send the reminders at: 12 : 00 AM



Save Changes

To have Scheduler send reminders, click the “Send automatic reminders” checkbox, and then set the day of the week and time when you would like the reminders to be sent. When you are finished, press the [Save Changes](#) button.

System Settings

The Scheduler program can create and print Schedules without having to access any outside service, but to send messages to volunteers, Scheduler uses Gmail to send email, and uses the service Twilio to send text messages. Note that, while Gmail is free, Twilio is a paid service that requires you to set up an account and charges for each text message sent. The **System Settings** page is where you enter information that Scheduler will use when sending messages using these services. If you choose not to set up these features, please leave the mobile phone or email entries blank when setting up the volunteers.

When you select **System Settings** you will see a screen like this:


[Positions▼](#)
[Volunteers▼](#)
[Schedule▼](#)
[Send▼](#)
[Help▼](#)


System Settings

Exercise caution when modifying the values below as incorrect values may stop the system from working properly. When you are finished, press **Save** to save your changes, or **Cancel** to ignore the changes and return to the main menu.

Gmail Settings:

EmailServer:

EmailPort:

EmailUID:

EmailPWD:

EmailSender:

Twilio Settings:

TwilioAcct:

TwilioAuth:

TwilioPhone:

Administrator Contact Info:

Admin Name:

Admin Email:

Admin Phone:

Admin Text:

Administrator Login Info:

Admin Login Name:

Admin Password:

though initially, most of the fields will be blank. The first five entries are values used in setting up Scheduler so that it can send mail through Gmail. The next three entries are values needed to send SMS text messages via Twilio. The next four entries are values that will be placed into outgoing messages, indicating the name of the person who manages the scheduling, and that person's phone number, text number, and email address. And the last two entries let you set the user name and password to use for logging in. They default to a login name of "volunteer" and a password of "dates".

Entering Gmail information

The first two entries, **EmailServer** and **EmailPort** are the SMTP server values associated with Google Mail. Currently these values are **smtp.gmail.com** and 587, but these values are not hard-coded, as Google could choose to change them at some point. The value in the **EmailSender** slot will be used as the name of the person sending the messages that are sent from Scheduler. For the remaining two fields, **EmailUID**, **EmailPWD**, you will need to set up a dedicated Google mail (Gmail) account for Scheduler to use and then set up an app password for that account.

Setting up a Gmail account for Scheduler

Google allows you to set up accounts for free, but you may also want to consider setting up a Google Workspace account. Google provides free access to Google Workspace to qualifying nonprofit organizations. For setting up just a basic Google account, their current instructions are:

Important: Before you set up a new Gmail account, make sure to sign out of your current Gmail account. [Learn how to sign out of Gmail.](#)

1. From your device, go to the [Google Account sign in page](#).
(<https://accounts.google.com/signin>)
2. Click **Create account**.
3. In the drop down, select if the account is for your:
 - Personal use
 - Child
 - Work or business
4. To set up your account, follow the steps on the screen.

When you have selected the Google account that Scheduler will use for sending email, enter the account name (like [ourScheduler@gmail.com](#)) into the **EmailUID** field on the **System Settings** page.

Setting up an app password for Scheduler

you then need to set up an **app password** for the account. This will be the password that Scheduler uses to login to Gmail to send messages. To set up the app password, do the following:

1. Go to <https://myaccount.google.com> and login with the account that Scheduler will be using.
2. In the left hand menu, select “Security”.
3. Scroll down to the “How you sign in to Google” section.
4. Look for the line that says “2-Step Verification”. Notice whether it says 2-Step Verification is on or off. Your screen should look something like this:

Google Account

Search Google Account

?

S

Home

Personal info

Data & privacy

Security

People & sharing

Payments & subscriptions

About

Security

Settings and recommendations to help you keep your account secure

You have security recommendations

Recommended actions found in the Security Checkup

Protect your account

Recent security activity

New sign-in on Linux

5:37 PM · Kentucky, USA

>

Review security activity

How you sign in to Google

Make sure you can always access your Google Account by keeping this information up to date

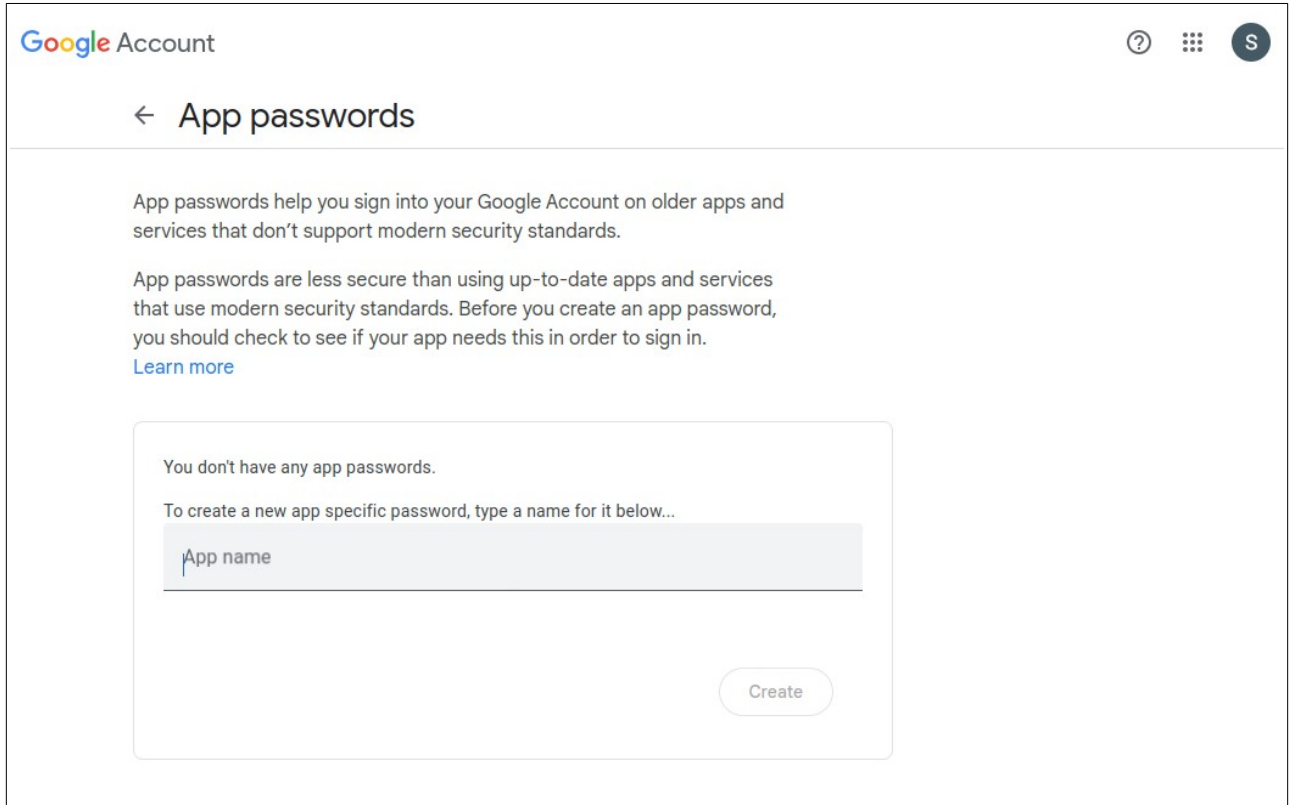
2-Step Verification

2-Step Verification is off

>

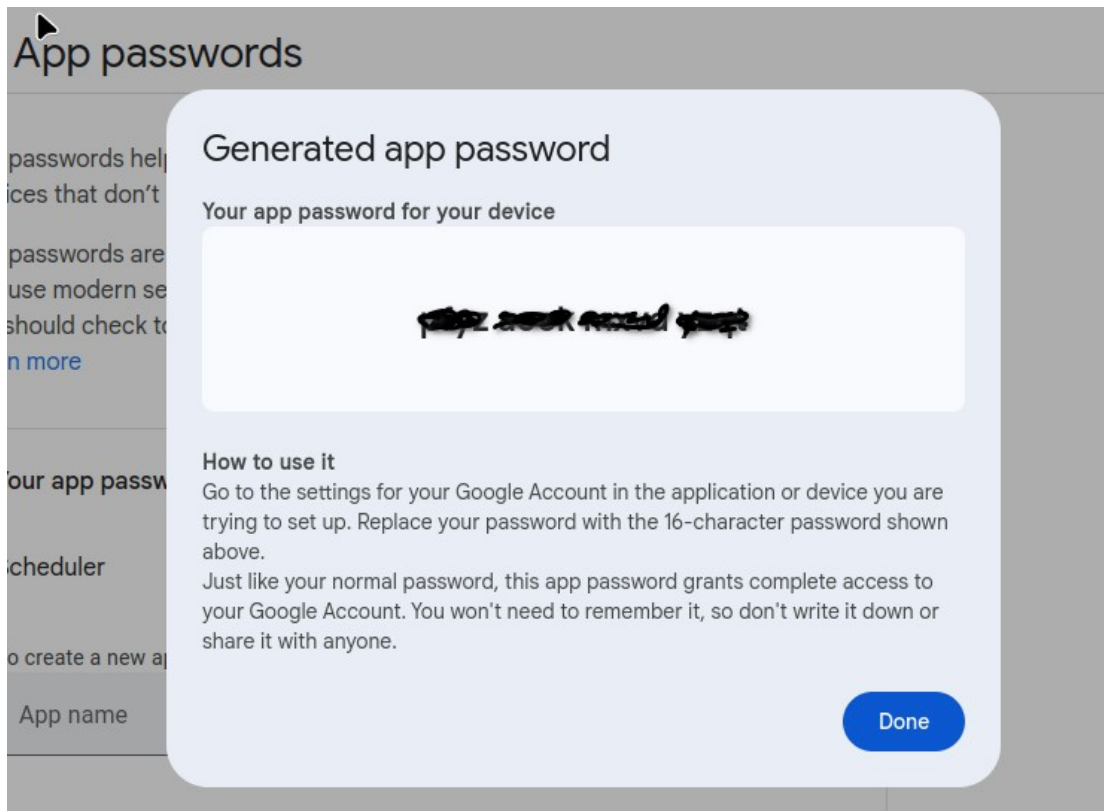
If it is off, click on the right arrow at the end of the line and follow the prompts to turn on 2-Step Verification.

5. Now go to <https://myaccount.google.com/apppasswords>. You will see a screen like this:



The screenshot shows the 'App passwords' page in a Google Account. At the top, it says 'Google Account' with a help icon, a grid icon, and a profile icon. Below that is a back arrow and the title 'App passwords'. The main text explains that app passwords help sign into older apps and services that don't support modern security standards. It also notes that app passwords are less secure than up-to-date apps and services that use modern security standards, and advises checking if an app needs this to sign in. A link 'Learn more' is provided. Below this is a box stating 'You don't have any app passwords.' and 'To create a new app specific password, type a name for it below...'. There is a text input field labeled 'App name' and a 'Create' button.

Enter the name for this app (“Scheduler”, for instance) and click **Create**. You will then see a screen like this:

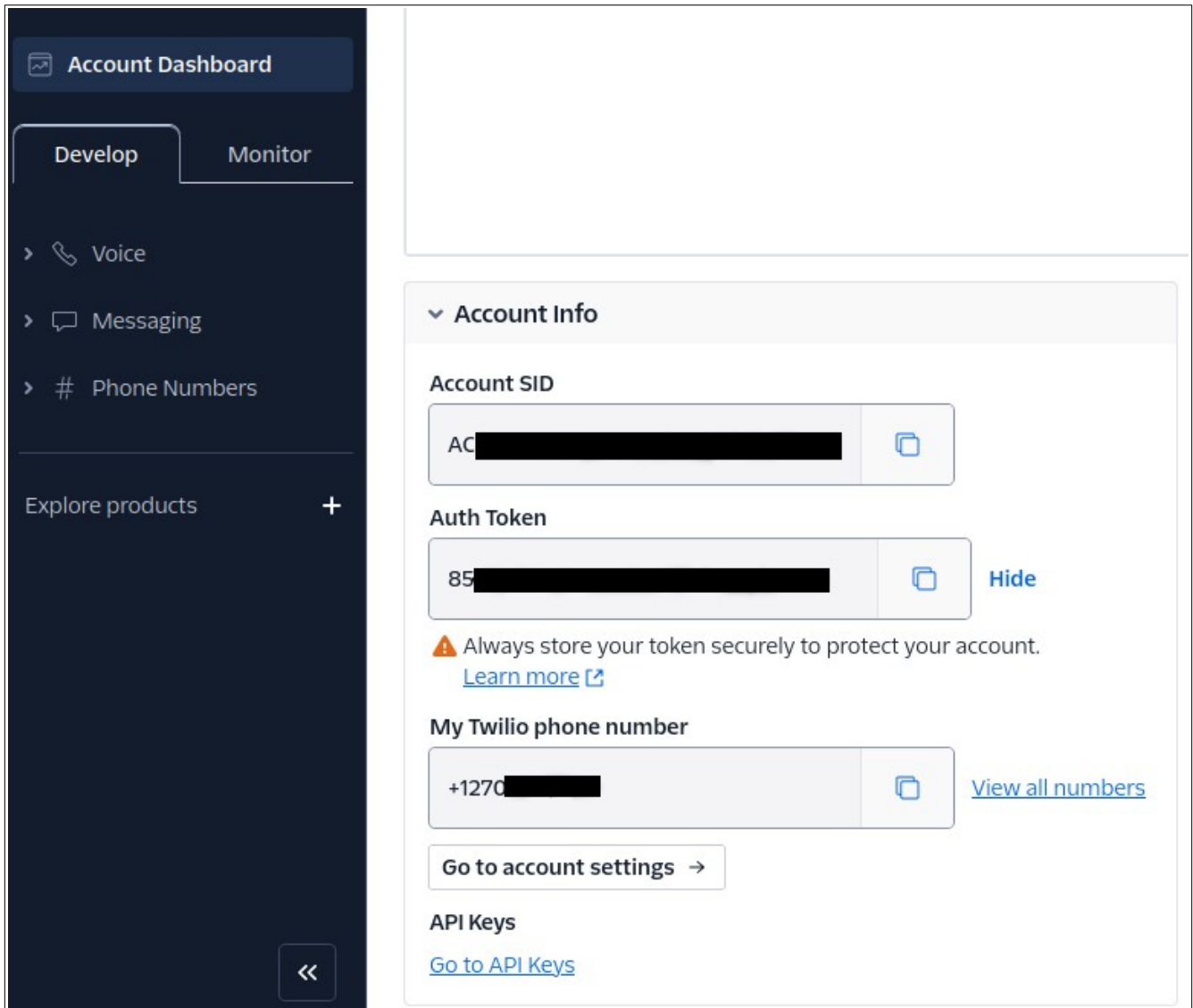


The screenshot shows the 'App passwords' page with a modal dialog box titled 'Generated app password'. The dialog box contains the text 'Your app password for your device' and a 16-character password: '1234567890123456'. Below the password, there is a section titled 'How to use it' which explains that the user should go to the settings for their Google Account in the application or device they are trying to set up, replace their password with the 16-character password shown above, and that the app password grants complete access to their Google Account. A 'Done' button is at the bottom right of the dialog box.

6. Make note of the 16 character app password. This is the value that will go into the **EmailPWD** field in the **System Settings** page in Scheduler.

Twilio Information

The information that Scheduler needs for sending messages via Twilio can be found on the Twilio Account Dashboard. When you login to your Twilio account dashboard page and scroll down until you see the **Account Info** section. It should look something like this:



The screenshot displays the Twilio Account Dashboard. On the left is a dark sidebar with the 'Account Dashboard' header and tabs for 'Develop' and 'Monitor'. Below these are links for 'Voice', 'Messaging', and 'Phone Numbers', followed by an 'Explore products' section with a plus icon. The main content area on the right features the 'Account Info' section. It contains three input fields: 'Account SID' (starting with 'AC'), 'Auth Token' (starting with '85'), and 'My Twilio phone number' (starting with '+1270'). Each field has a copy icon to its right. Below the 'Auth Token' field is a warning icon and text: 'Always store your token securely to protect your account.' with a 'Learn more' link. Below the 'My Twilio phone number' field is a 'View all numbers' link. At the bottom of the 'Account Info' section is a 'Go to account settings' button with a right arrow. Below this is an 'API Keys' section with a 'Go to API Keys' link. A double-left arrow button is located at the bottom of the sidebar.

Copy the value from the **Account SID** field and enter it into the **TwilioAcct** field in the Scheduler **System Settings** page. Similarly, copy the **Auth Token** value to the **TwilioAuth** field, and copy the **My Twilio phone number** value to the **Twilio Phone** field.

Administrator Contact Info

The messages that Scheduler sends out ask people to contact the person in charge of running Scheduler, in the event that they have questions or problems. The last four lines allow you to provide information about who volunteers should contact, and how they may contact that person.