

Add Student Photos to FileWave for Apple Classroom

Student photos can appear in Apple Classroom when FileWave can build a URL for each student's large and small image from roster identifiers. The filename, roster value, web-server path, and FileWave URL template must all match exactly.

Requirements

1. Prepare a large and small version of each student photo.
2. Name each image with the same student identifier supplied by the SIS or Apple School Manager roster.
3. Use `%user_identifier%` for the roster identifier and `%size%` for `large` or `small` in the FileWave URL template.
4. Host the images on a stable internal HTTPS web server.
5. Protect the image directory and limit access to the networks and users that need it.
6. Enter and test the resulting URL template in FileWave Central preferences.

Images

Before processing hundreds of files, ask the school photographer whether it can deliver the required names and sizes. Also check how the student information system (SIS) or library system already stores photos; an existing managed image export may save substantial preparation work.

Image Name

Student image files have three requirements.

- `%user_identifier%` = SIS/Student ID
- `%size%` = large or small
- extension = png or jpg

`%user_identifier%`

If I was looking at ASM (Apple School Manager), and my students were showing with IDs like S0001, S0002 etc.

Search Person Number Only

Be Careful: Apple School Manager lists "Person Number" and "Person ID" and you want to use "Person Number" when naming the images

As of the writing of this document, Apple has specified small and large versions of images are needed, but not the size.

Small: 675x1024 pixels
Large: 2700x4100 pixels

Web Server

- A directory containing the prepared student images
- An application that returns an image for the requested identifier and size

This article documents the simpler directory method. A scripted application can use the same URL pattern, but its implementation and access controls depend on the chosen web platform.

If you do not already operate an image service, start with a protected directory and test a few students before expanding the workflow.

Directory

In this setup you typically have a flat structure (meaning images are not in folders, just one folder will all student images in it), and would look something like:

Filename	Size
 S0001-large.jpg	4.5 MB
 S0001-small.jpg	592.6 KB
 S0002-large.jpg	4.6 MB
 S0002-small.jpg	419.6 KB
 S0003-large.jpg	4.9 MB
 S0003-small.jpg	672.5 KB
 S0004-large.jpg	5.5 MB
 S0004-small.jpg	649.4 KB
 S0005-large.jpg	4.6 MB
 S0005-small.jpg	588.7 KB
 S0006-large.jpg	4.0 MB
 S0006-small.jpg	417.6 KB
 S0007-large.jpg	4.2 MB
 S0007-small.jpg	466.5 KB
 S0008-large.jpg	3.0 MB
 S0008-small.jpg	334.6 KB
 S0009-large.jpg	4.8 MB
 S0009-small.jpg	620.5 KB
 S0010-large.jpg	3.0 MB
 S0010-small.jpg	324.3 KB
 S0011-large.jpg	4.2 MB
 S0011-small.jpg	405.6 KB
 S0012-large.jpg	4.5 MB
 S0012-small.jpg	490.4 KB
 S0013-large.jpg	5.1 MB
 S0013-small.jpg	529.6 KB
 S0014-large.jpg	3.0 MB
 S0014-small.jpg	431.1 KB
 S0015-large.jpg	4.8 MB
 S0015-small.jpg	506.4 KB

Setup for your web server will vary depending on which one you selected. But if you can navigate via a browser to a URL similar to

```
https://fwusa.filewave.com/images/stu/S0001-small.jpg
```

Then you are ready to move on

Security

Student images are personally identifiable pieces of information and are important to maintain privacy. You will want to give reasonable assurance that you have done your best to prevent these images being released into the wild.

Below could be considered minimum recommendation, but always make things as secure as you can. Setup will vary depending on the web server selected, so please refer to best practice or hardening guides of the respective server solution.

Internal only

This web server should not be accessible from outside your network. So using the main district web server, a computer sitting in a Firewall's DMZ or a hosted server are all insecure solutions.

You could start up a virtual machine running a free linux OS, enable server.app's webserver on an macOS computer, or use windows. Whichever you do, use something that will always have the same IP/domain name, and is always running.

HTTPS

These days there are few excuses for not doing https. Certificates are cheap or free, and using a secure connections helps prevent data interception from source to destination. Just do https (Port 443/TCP), and even disable http (Port 80/TCP)

Password Protected

Many web servers can enable password protection for a whole site or even just a section of a site. If using apache an .htaccess file similar to this:

```
AuthType Basic
AuthName "Protected Student pictures"
AuthBasicProvider file
AuthUserFile /var/www/.htpasswd
Require valid-user
```

Can be placed inside the student images folder to password protect it.

(see <https://httpd.apache.org/docs/current/howto/htaccess.html> for more info on apache .htaccess files including setup and use)

And a user can be created by something like:

```
htpasswd -c /var/www/.htpasswd picture_user
```

Note: that the password file is the same /var/www/.htpasswd in both .htaccess and htpasswd (see <https://httpd.apache.org/docs/current/programs/htpasswd.html> for usage).

Constructing the URL for Admin Preferences

If we were able to access the images via browser at a URL like

`https://fwusa.filewave.com/images/stu/S0001-small.jpg`

Then we can use that as our template

`https://fwusa.filewave.com/images/stu/S0001-small.jpg`

`https://fwusa.filewave.com/images/stu/S0001-small.jpg`

%size%

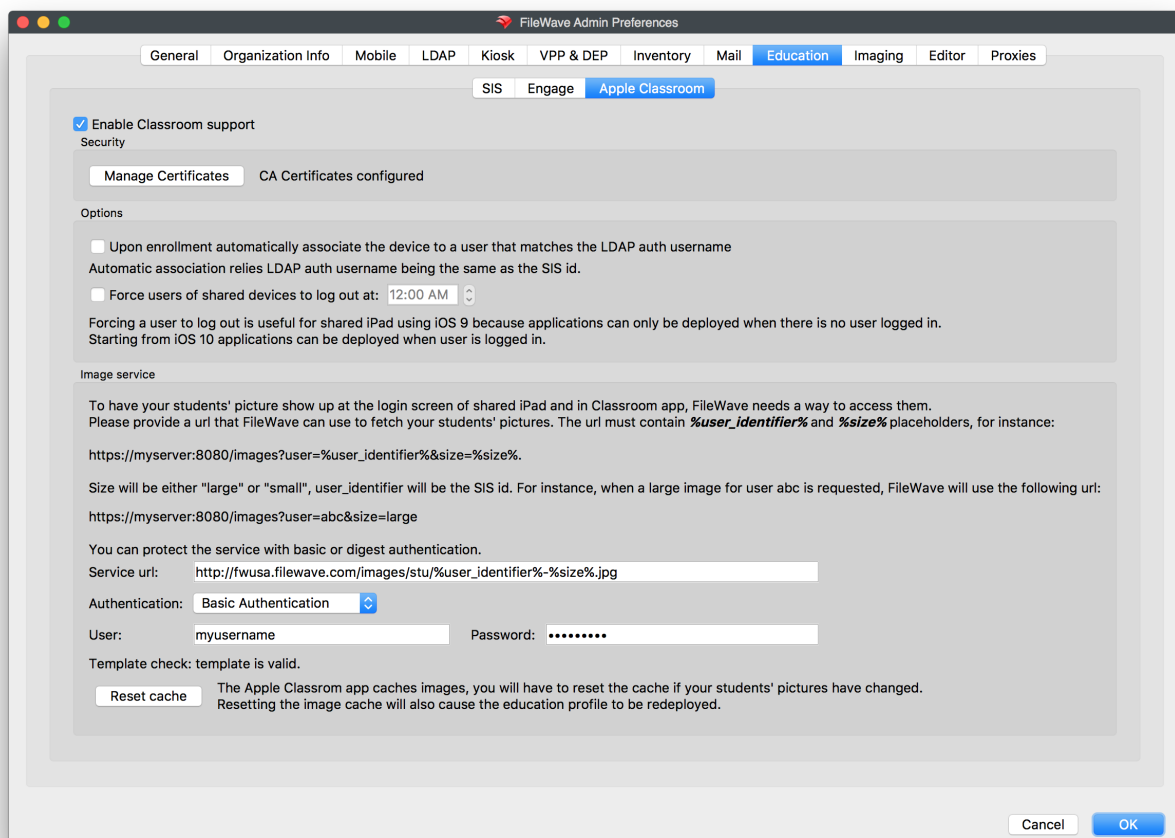
%user_identifier%

extension

Would become:

`https://fwusa.filewave.com/images/stu/%user_identifier%-%size%.jpg`

Note how the - needed to stay in the URL, and that it was an https server.



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