

# The Auto Download Function Explained

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Lately we have been receiving a lot of calls trying to understand how the auto download function works with our 1080PX series of digital signage players. I'll try to explain it as well as I can.

First, this is necessary in order to update content anywhere these devices get deployed. Since you don't have access to someone else's network, you need a way to update content. This is not for people who are "pushing" content to the units. In order to push content, you must have direct access to it. If the players are behind a firewall, you don't have access to it unless you use port forwarding or set up a single IP address as a DMZ address (both of which are rarely ever allowed on most networks).

In order for the content to be updated, we had to use a method where the content needed to be accessible from anywhere. The best place for that to happen is the internet. As long as you configure your 1080PX to be able to access the local network and the local network is connected to the internet, you have the first step completed.

The protocol we use for updating is FTP. FTP is a common protocol for transferring files without much overhead and pretty good error checking. The next step is to set up an FTP server on the internet. This article is not about telling you how to set up an FTP server but more about the methods that need to be used to communicate with your 1080PX.

You will need at least 1 account on the FTP server in order to manage your network. It may take more than 1 (depending on how you want to group your content). In the configuration for your 1080PX, you will need the IP address of the FTP server you want it to connect to and the path to the folder where your content is located (don't use the root to store your content if possible). The 1080PX has a section that is dedicated to remote FTP connectivity. It will need IP Address, login, password, path and port (standard FTP is port 21).

After this information is filled out and saved, the unit will begin to connect to the remote FTP site. When it does this, 2 things will happen. First, it is looking for a very specific file called d[MAC Address].txt (substitute the actual MAC Address of the unit here without the brackets, ie d0013fe479846.txt). If it does not find this file, absolutely nothing happens to the player. It continues to operate normally. This file is a control file that tells the 1080PX to do something. If it isn't there, there is nothing to do. This file does 5 things:

1. Set the interval of how often to check in
2. Download in the foreground or background
3. Time to activate the content that has been downloaded
4. What to do with the current files on the unit
5. The file list to download

There is another document that details how to actually set up the d[MAC].txt file so this is just to help you understand the concept.

The second thing the 1080PX does when it connects to the FTP site is that it will write a status file for the unit. It is called s[MAC].txt. It gives us information as to what the unit was doing when it checked it. It can tell us if it is playing, downloading, playing and downloading or if it is stopped. It also has a timestamp from the unit and the time zone offset the unit has. By checking the remote FTP timestamp (generated by the FTP server) you can tell the last time the unit has uploaded this file for a way to monitor how long it has been since the last upload.

When checking for the d[MAC] file, if the 1080PX finds it, it begins immediately executing it. It will **ERASE** the file from the remote FTP. If the file does not get erased, it will continue to execute it and this will cause a network bottleneck and the player performance would suffer. So don't be surprised that when you put the file on the remote FTP and it disappears. That just means that it is working.

You will have to create a d[MAC] file for every unit you want to update. Create them on your local computer and then connect to the remote FTP site and put them in the appropriate folder. You also need to make sure that you have pushed your new content up before you upload the d[MAC] file.

If you want to have the 1080PX download its content in the background, it is VERY slow. If you need the content updated quickly, make sure to download in the foreground.

I hope this has explained the concept of having the 1080PX to pull the content rather than to push it. The unit will always be looking for the d[MAC] file but if it isn't there, nothing will be effected, it just keeps doing what it is supposed to do.