How to use the built-in Fusion function in Dreamoc HD3 and Dreamoc POP3

Please note that by using any of the Dreamoc Fusion beta releases, you automatically agree to the Terms and Conditions described in the "TERMS.pdf" document included in those releases.

To enable fusion on POP3 or HD3, you must first upgrade the firmware on each screen. This is done via the SD card.
IMPORTANT: Do not turn off the Dreamoc while it is upgrading firmware!

This is how to upgrade the firmware:
1. Prepare an SD card by formatting it to FAT32.
2. Download the latest Fusion firmware version on support.realfiction.com
3. Unzip the compressed files.
4. Navigate to the folder PKG, and copy the file "upgrade_loader.pkg" to the root of the SD card, together with the "Fusion_testcontent.mp4" file. It is a good idea to have a movie on the same card, as you can then easily see/hear when the upgrade is complete = the movie starts playing.
5. Make sure power is turned off on the Dreamoc.
6. Insert the SD card and turn on power.
7. Wait for the Dreamoc to upgrade. This will take a couple of minutes. The upgrade is complete when the movie starts playing. If there is no movie on the card, an error icon will appear instead, indicating that there is no movie on SD card and no signal on HDMI input.
8. Repeat steps **5-7** on all Dreamoc displays, using the same SD card.

Now these Dreamoc displays can be configured to run in fusion mode.

This is how to configure a fusion installation:
1. Make sure all displays are connected to a DHCP enabled router. (A simple hub or switch should also do it, at least once the devices have established IP addresses – which can also be configured manually in each config file).
2. Navigate to the "CONFIG FILE" folder and open the "config.xml" file using a simple text editor program like notepad or TextEdit. (The "Config_file_where_to_edit_v1005.pdf" document shows you exactly where to edit the XML file with green color markings)
3. Make sure <dhcp_options> is set to "**on**" (unless you wish to manually assign this).
4. Set light and sound settings as you want them. This is important as these settings will overwrite any manual settings every time you power up the fusion installation.

5. Under <fusion_options> set the first display to be "**fusion_master**".
6. The fusion master needs to know how many slaves to look for. This is set by editing the number in <slave_device>. For an installation with 3 displays, this number should be set to **2** = 1 master, **2** slaves.
7. The <video_play_timeout> setting is a safety timer, that will automatically reboot the system, if playback stops for some reason. The number to input is seconds, and you must input a number that is 65 seconds longer than the length of your video. Example: If your fusion video is 1 minute and 2 seconds long, your setting here should be "**127**" (62+65=127). Too short a setting will reboot the system before the movie reaches the end. Too long a setting will result in an unnecessary long pause, if playback is interrupted and a reboot is needed.
8. The <watchdog_timeout> is a second timer, needed to make sure that the system will always recover automatically from any potential errors in playback. This setting needs to be a least 30 seconds longer than the previous video_play_timeout. Example: With the above setting of 127 seconds, your watchdog_timeout should be set to "**157**" (127+30=157).
9. Save this config.xml file to the root of the SD card for the master display, together with the movie for that display. IMPORTANT: Only 1 movie is allowed per display when running Fusion, and all movies should have the exact same duration.
10. Edit and save another config.xml file for the slaves. If light and sound settings should be identical, you can use the same file for all slaves. Simply change <fusion_options> to "**fusion_slave**".
11. When all displays hold an SD card with a config file and a movie, 1 being master and the rest being slaves, turn on power simultaneously on all displays.
12. While fusion connection is being established, the master display will show the message "Discovering slave devices… Found:" followed by the number of slaves it has found so far. (NOTE: You might not see the final count, as playback will start as soon as possible.) The slaves will show "Waiting for connection…" until they are found. Once a slave is found, its screen will turn black – waiting for the order to start playing. Once the master has found all slaves, its screen will also turn black, and playback will begin.
13. Once connection is established (takes 1-2 minutes) the displays will start to play in sync = FUSION :)
14. NOTE: When the movies loop there will be a pause of 8 seconds. To avoid seeing this pause too often, it is recommended to create movie files with several loops of the animation, resulting in a longer duration

and therefore a rarer pause.

We recommend .mp4 format with a maximum bitrate of 40Mbps.

TEST CONTENT:
In order to make it easy for you to test your setup, we have included a small set of test files for you. The folder "TEST CONTENT" contains what you need to test a setup with **3 displays = 1 master and 2 slaves**.

1. In the folder "TEST CONTENT" you will find 2 folders named "MASTER" and "SLAVE".
2. Copy the <u>contents</u> of the "MASTER" folder onto the root of a FAT32 formatted SD card. Do NOT copy the folder as well. Config file and movie needs to be located in the root of the card.
3. Copy the contents of the "SLAVE" folder onto the root of 2 different FAT32 formatted SD cards. One for each of your 2 slaves.
4. Insert the cards into each Dreamoc POP3 or HD3 display, making sure they are all connected by RJ45 cables to the same DHCP enabled router.
5. Switch on all the displays and wait a couple of minutes.
6. You should then see the 3 displays each playing a simple test movie with numbers counting and a song playing. The numbers and the song makes it easy to see if they play in sync.