Cisco Digital Media System: Cisco Digital Signage

Adding New Fonts to the Cisco Digital Media Player

Overview

The Cisco Digital Media Player (DMP) firmware version 2.43.1 offers a finite selection of pre-set fonts. This means that some of the fonts traditionally used by designers may not be represented in the HTML code.

Specifically, any language represented by a double byte or higher character set is not supported natively on the DMP. This means that anything outside of the Unicode range of U+0000 to U+007F will not display correctly.

This guide outlines a manual procedure that you can follow to add new fonts to the DMP.

Requirements and Assumptions

For this procedure to work, you need to have a Linux machine. Ubuntu Linux was used for this guide, but any other distribution can be used as long as the following list of programs are installed, and the path for each is configured correctly inside the *fonts.sh* script (refer to "Upload Procedure" section for script details):

- ttmkfdir
- mkfontdir
- fc-cache

This guide assumes that you have a basic knowledge of Linux—how to transfer files to the Linux computer, create directories and files, and run scripts.

A DMP with free memory space on the internal SD card is necessary.

The DMP should already be enabled to upload information to the internal memory using a FTP client.

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Upload Procedure

1. Create a directory in your Linux machine, and call it *NewFonts.*
2. Upload the TrueType fonts (.ttf) that you are interested in displaying into this *NewFonts* directory.
3. Create a script called *fonts.sh*[1] one level up from the *NewFonts* directory:

   Code for fonts.sh

```
#!/bin/bash
if [ ! -n "$1" ]
then
   echo "Usage: $0 DIRECTORY_WITH_NEW_FONTS"
fi
if [ ! -d "$1" ]
then
   echo "ERROR: Directory not found."
   exit 1
fi
/usr/bin/ttmkfdir -d $1 -o $1/fonts.scale
/usr/bin/mkfontdir $1
/usr/bin/fc-cache $1
```

4. Run *fonts.sh*[2] with the *NewFonts* directory as an input parameter, such as: *./fonts.sh NewFonts.*
5. The script will create two new files: *fonts.dir* and *fonts.scale*. Both will be placed in the *NewFonts* directory.
6. Connect and log in to the DMP using a FTP client.
7. If it doesn't exist already, create a directory called *unifonts* inside */tmp/ftproot/usb_1/fonts*[3]*.*
8. Copy all content in the *NewFonts* directory into */tmp/ftproot/usb_1/fonts/unifonts/.*
9. Reboot the DMP once the upload is complete.
10. Now you can reference the new fonts in the HTML/JS code the same way as any of the pre-set DMP fonts.

Final Notes

It is important to note the following:

- New fonts can be copyright protected. You must check if you require a license to use each new font you select before uploading it to the DMP. Customers are responsible for obtaining any necessary font licenses.
- Each new font that is uploaded to the DMP consumes internal memory space. To allow for enough memory for your videos and presentations, it is good to limit the number of new fonts you upload to just those that are necessary.

Contacts

For technical assistance, contact cs-dms@cisco.com.

[1] *Fonts.sh* is a script that will create the necessary files to render the new fonts in the DMP.
[2] Make sure your new file has execution privileges. To confirm, run chmod +x fonts.sh.
[3] Normally when you log in to the DMP using a FTP client you should be located at /tmp/ftproot/.

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