MiL

Media Hash List – Quick Start Guide

Version 0.2.0

2016-05-20

First steps

- **Download**
  Download the command line tools for Media Hash List from
  http://pomfort.com/download

- **Extract**
  Extract the downloaded ZIP file .

- **Install the binaries on your system**
  (Replace the <MHL_TOOLS_FOLDER> placeholder with the extracted folder path)

  - Windows:

    - In Explorer navigate to `<MHL_TOOLS_FOLDER>/Windows/`

    - Copy the `mhl.exe` to `C:\Windows\System32\`

  - Mac:

    - In the Finder navigate to `<MHL_TOOLS_FOLDER>/Mac/`

    - Double click the installer: `Install MHL Tool.pkg`

  - Linux

    - Open a shell

    - Type the following at the command prompt:

      - `cd <MHL_TOOLS_FOLDER>/Linux/`

      - `sudo cp mhl /usr/bin`

- **Check installation**
  On every system you now see an usage message from the MHL Tool if you type `mhl --version` (Linux and Mac) or `mhl.exe --version` (Windows) in a terminal window or prompt:

  ```
  $ mhl --version
  Version: 0.2.0 (Build: xxx)
  ```

Examples

In the following we give a few examples how the `mhl` command can be used in conjunction to create and verify MHL files.

Creating a Media Hash List for contents of a folder

Change to the directory where the files are located and execute the following command. A new MHL file will be created.

```
$ mhl seal -t md5 *
```

Creating a Media Hash List for files FILE_A and FILE_B

Change to the directory where the files are located and execute the following command. A new MHL file will be created alongside the files.

```
$ mhl seal -t md5 FILE_A FILE_B
```

Verifying a MHL file

Change to the directory where the MHL file is located and execute the following command.

```
$ mhl verify -f FILE.mhl
```

Help and more usage information

More information is available with the help command:

```
$ mhl help
```

MHL files

Media Hash List file structure

MHL files are a human-readable XML format. They contain information about each sealed file together with creator info. An XML Schema for Media Hash List is available at http://mediahashlist.org/.

Below is an example of a basic MHL file.

```xml
<?xml version="1.0" encoding="UTF-8"?>
<hashlist version="1.0">

    <creatorinfo>
        <name>Franz Klammer</name>
        <username>fkl</username>
        <hostname>workst10.local</hostname>
        <tool>mhl ver. 0.1.27</tool>
        <startdate>2013-07-15T09:22:39Z</startdate>
        <finishdate>2013-07-15T09:22:40Z</finishdate>
    </creatorinfo>

    <hash>
        <file>A001R1KL/A001C002_111011_R1KL.mov</file>
        <size>164257195</size>
        <lastmodificationdate>2012-08-23T10:51:20Z</lastmodificationdate>
        <md5>6eb41a9981060d311325cc266e654d40</md5>
        <hashdate>2013-07-15T09:22:39Z</hashdate>
    </hash>
    <hash>
        <file>A001R1KL/A001C003_111011_R1KL.mov</file>
        <size>166497735</size>
        <lastmodificationdate>2012-08-23T10:51:20Z</lastmodificationdate>
        <md5>03b17a4947f338bab9b25f82e1571373</md5>
        <hashdate>2013-07-15T09:22:39Z</hashdate>
    </hash>

    [...]

</hashlist>
```

Media Hash List file naming

The MHL tool names the created MHL file as follows:

<foldername>_<date>_<time>.mhl

where the placeholders are substituted with the following:

- <foldername> – name of the current directory, e.g. 'Movies'
- <date> – current date in format YYYY-MM-DD, e.g. '2013-05-10'
- <time> – current time in format HHMMSS, e.g. '111527'

The current directory is the folder you were in when calling the MHL tool.

Media Hash List file location

The MHL tool requires the MHL file to be placed along the path of the referenced file. This allows for an easy discovery when looking for an MHL file for a specific file.

For example, when creating a MHL file for the file

```
/Example/Movies/Clip1.mov
```

the MHL file can be put in the following locations:

```
/Example/Movies/

/Example/

/
```

By default, the MHL file is located in the current directory you were in when calling the MHL tool (see section 'MHL file naming' above). You can manually specify the location of the MHL file, by passing the '--output-path' option to the MHL tool.