

Use grep to search for the .mp3 files:

```
(kali@kali)-[~/Illegal_Download_Case/Reference_Files]
$ grep -F '.mp3' file_directory_original.csv | cut -f 1,2
r/r 54027-128-4:      Users/Kamryn/AppData/Roaming/Microsoft/Windows/Recent/Contraband
.mp3.lnk
r/r 206278-128-4:     Users/Kamryn/AppData/Roaming/Microsoft/Windows/Recent/Sample-1.m
p3.lnk
r/r 79927-128-4:      Users/Kamryn/AppData/Roaming/uTorrent/Contraband.mp3.torrent
r/r 79927-128-5:      Users/Kamryn/AppData/Roaming/uTorrent/Contraband.mp3.torrent:Zon
e.Identifier
r/r 206281-128-1:     Users/Kamryn/AppData/Roaming/uTorrent/Sample-1.mp3.torrent
r/r 79968-128-1:      Users/Kamryn/Documents/Reference/Work/Contraband.mp3
r/r 80800-128-1:      Users/Kamryn/Documents/Reference/Work/Sample-1.mp3
r/r 80800-128-3:      Users/Kamryn/Documents/Reference/Work/Sample-1.mp3:Zone.Identifi
er
r/r 205963-128-5:     Users/Kamryn/Downloads/Sample-1.mp3
r/r 205963-128-7:     Users/Kamryn/Downloads/Sample-1.mp3:Zone.Identifier
r/r 52901-128-4:      Users/Kamryn/Downloads/Torrent-Sources/Contraband.mp3
r/r 207115-128-1:     Users/Kamryn/Downloads/Torrent-Sources/Sample-1.mp3
r/r 207115-128-3:     Users/Kamryn/Downloads/Torrent-Sources/Sample-1.mp3:Zone.Identif
ier
r/r 55634-128-4:      Users/Kamryn/Downloads/Torrents/Contraband.mp3.torrent
r/r 55634-128-5:      Users/Kamryn/Downloads/Torrents/Contraband.mp3.torrent:Zone.Iden
tifier
r/r 206280-128-4:     Users/Kamryn/Downloads/Torrents/Sample-1.mp3.torrent
r/r 73536-128-4:      Program Files/WindowsApps/Microsoft.XboxApp_48.72.4001.0_x64__8w
ekyb3d8bbwe/Assets/AchievementUnlocked.mp3
r/r 73536-128-4:      Program Files/WindowsApps/Microsoft.XboxGamingOverlay_5.521.2012
.0_x64__8wekyb3d8bbwe/Assets/Sounds/AchievementUnlocked.mp3
r/r 103530-128-4:     Program Files/WindowsApps/Microsoft.XboxGamingOverlay_5.521.2012
.0_x64__8wekyb3d8bbwe/Assets/Sounds/Group_Voice_Entry_Me_SetA_v1.mp3
r/r 103531-128-4:     Program Files/WindowsApps/Microsoft.XboxGamingOverlay_5.521.2012
.0_x64__8wekyb3d8bbwe/Assets/Sounds/Group_Voice_Entry_Others_SetA_v1.mp3
r/r 103532-128-4:     Program Files/WindowsApps/Microsoft.XboxGamingOverlay_5.521.2012
.0_x64__8wekyb3d8bbwe/Assets/Sounds/Group_Voice_Exit_Me_SetA_v1.mp3
r/r 103533-128-4:     Program Files/WindowsApps/Microsoft.XboxGamingOverlay_5.521.2012
.0_x64__8wekyb3d8bbwe/Assets/Sounds/Group_Voice_Exit_Others_SetA_v1.mp3
r/r 103534-128-4:     Program Files/WindowsApps/Microsoft.XboxGamingOverlay_5.521.2012
.0_x64__8wekyb3d8bbwe/Assets/Sounds/Message_Notification_SetA_v14_v2.mp3
```

Use icat to extract .mp3 files:

```
(kali@kali)-[~/Illegal_Download_Case/Reference_Files]
$ mkdir ../Exports/MP3_Files
mkdir: created directory '../Exports/MP3_Files'

(kali@kali)-[~/Illegal_Download_Case/Reference_Files]
$ icat -o 104448 ../Case_Materials/Disk_Image_ID-20210327.001 205963-128-5 >> ../Expor
ts/MP3_Files/Sample-1.mp3

(kali@kali)-[~/Illegal_Download_Case/Reference_Files]
$ icat -o 104448 ../Case_Materials/Disk_Image_ID-20210327.001 52901-128-4 >> ../Export
s/MP3_Files/Contraband.mp3

(kali@kali)-[~/Illegal_Download_Case/Reference_Files]
$
```

Verify you have genuine copies:

Said to skip

Use MD5deep to compare MD5 hash to one in hash_reference.txt:

```
(kali㉿kali)-[~/Illegal_Download_Case/Exports/MP3_Files]
$ md5deep Sample-1.mp3 -brewM ../.. /Case_Materials/hash_reference.txt
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 1
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 2
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 3
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 5
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 6
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 7
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 9
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 10
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 11
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 13
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 14
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 16
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 17
b387e8334b3db0346cdfa14511f6913d Sample-1.mp3 matched Sample-1.mp3
```

```
(kali㉿kali)-[~/Illegal_Download_Case/Exports/MP3_Files]
$ md5deep Contraband.mp3 -brewM ../.. /Case_Materials/hash_reference.txt
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 1
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 2
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 3
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 5
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 6
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 7
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 9
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 10
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 11
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 13
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 14
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 16
md5deep: ../.. /Case_Materials/hash_reference.txt: No hash found in line 17
f9d82438ed446e43cbd06adf74bc875b Contraband.mp3 matched Contraband.mp3
```

Use exiftool to see metadata of .mp3 files:

```
(kali㉿kali)-[~/Illegal_Download_Case/Exports/MP3_Files]
$ exiftool /media/kali/E8DE4350DE4315EA/Users/Kamryn/Downloads/Sample-1.mp3
ExifTool Version Number      : 12.67
File Name                    : Sample-1.mp3
Directory                    : /media/kali/E8DE4350DE4315EA/Users/Kamryn/Downloads
File Size                     : 65 kB
File Modification Date/Time   : 2021:03:21 16:40:28-04:00
File Access Date/Time        : 2021:03:27 10:16:11-04:00
File Inode Change Date/Time   : 2021:03:21 16:40:54-04:00
File Permissions              : -rwxrwxrwx
File Type                    : MP3
File Type Extension          : mp3
MIME Type                    : audio/mpeg
MPEG Audio Version           : 1
Audio Layer                  : 3
Audio Bitrate                : 128 kbps
Sample Rate                  : 48000
Channel Mode                 : Stereo
MS Stereo                    : Off
Intensity Stereo             : Off
Copyright Flag               : False
Original Media               : False
Emphasis                     : None
Encoder                      : LAME3.97
Lame VBR Quality             : 4
Lame Quality                 : 2
Lame Method                  : CBR
Lame Low Pass Filter         : 17 kHz
Lame Bitrate                 : 128 kbps
Lame Stereo Mode             : Stereo
ID3 Size                     : 4227
Publisher                    : Beat Step
Year                         : 2021
Title                       : New_Movie_Sample-1
Comment                     : Sample to be presented at upcoming meeting
Date/Time Original           : 2021
Duration                     : 3.77 s (approx)
```

```
(kali㉿kali)-[~/Illegal_Download_Case/Exports/MP3_Files]
$ exiftool /media/kali/E8DE4350DE4315EA/Users/Kamryn/Downloads/Torrent-Sources/Contraband.mp3
ExifTool Version Number      : 12.67
File Name                    : Contraband.mp3
Directory                   : /media/kali/E8DE4350DE4315EA/Users/Kamryn/Downloads/To
rrent-Sources
File Size                    : 30 kB
File Modification Date/Time  : 2021:03:27 10:13:44-04:00
File Access Date/Time       : 2021:03:27 10:25:43-04:00
File Inode Change Date/Time  : 2021:03:27 10:25:44-04:00
File Permissions             : -rwxrwxrwx
File Type                   : MP3
File Type Extension         : mp3
MIME Type                   : audio/mpeg
MPEG Audio Version          : 1
Audio Layer                 : 3
Audio Bitrate               : 128 kbps
Sample Rate                 : 48000
Channel Mode                : Stereo
MS Stereo                   : Off
Intensity Stereo            : Off
Copyright Flag              : False
Original Media              : False
Emphasis                    : None
Encoder                     : LAME3.97
Lame VBR Quality            : 4
Lame Quality                : 2
Lame Method                 : CBR
Lame Low Pass Filter        : 17 kHz
Lame Bitrate                : 128 kbps
Lame Stereo Mode            : Stereo
Duration                    : 1.85 s (approx)
```

Use strings to find out which file has the binary structure:

```
(kali㉿kali)-[~/Illegal_Download_Case/Exports/MP3_Files]
$ strings -t x -f * | grep 'Beat Step'
Contraband.mp3:      e0 Created by Beat Step
Sample-1.mp3:       15 Beat StepTYER
```

Use hexedit to verify output of strings:

```
Processing triggers for man-db (2.12.0-1) ...

(kali㉿kali)-[~/Illegal_Download_Case/Exports/MP3_Files]
$ hexedit Sample-1.mp3

(kali㉿kali)-[~/Illegal_Download_Case/Exports/MP3_Files]
$ hexedit Contraband.mp3

(kali㉿kali)-[~/Illegal_Download_Case/Exports/MP3_Files]
$
```

A command line interface will open:

