

NAME

modify_bagit - Modify a BagIt archive, according to RFC 8493 (and beyond)

SYNOPSIS

modify_bagit **(-b|-i)** *input_folder* [**-v** *bagit_version*]

modify_bagit -h | -x

DESCRIPTION

Bash AVpres is a collection of Bash scripts for audio-visual preservation. One of these small programs is **modify_bagit**. It allows to modify the BagIt version, according to the "BagIt File Packaging Format", as designed by the Library of Congress in the U.S.A. and standardised under RFC 8493. It also supports hash algorithms which are beyond RFC 8493.

Bash version 3.2 or later is strongly recommended. We advise to use the current version 5.2.

OPTIONS**BASIC OPTIONS**

-b *input_folder*, **--bagit=***input_folder*
input folder

This replaces the *input_folder* by its BagIt archive, containing the original folder, and is faster.

-i *input_folder*, **--input=***input_folder*
input folder

-v *bagit_version*, **--version=***bagit_version*
RFC 8493 defines BagIt version 1.0 and **modify_bagit** uses this by default.

For compatibility reasons, however, the values from 0.93 to 0.97 are also considered valid and supported.

ADVANCED OPTIONS

The script needs an external command to compute recursively the hash checksums of all elements inside the folder.

--sha512='/bin/sha512sum'
SHA-512 command

--md5='/bin/md5sum'
MD5 command

--sha1='/bin/sha1sum'
SHA-1 command

--sha256='/bin/sha256sum'
SHA-256 command

--crc32='/bin/crc32'
CRC-32 command

--xxh32='/bin/xxhsum -H32'
xxHash 32 command

--xxh64='/bin/xxhsum -H64'
xxHash 64 command

--xxh128='/bin/xxhsum -H128'
xxHash 128 command

INFORMATIVE OPTIONS

-h, --help
display a help message

-x, --options

display the advanced options with their default arguments

NOTES

Currently **modify_bagit** allows only to modify only the version of a BagIt archive. Other possibilities, such as to modify the algorithm of a BagIt archive, are currently beta tested and may follow in future releases.

BAGIT ARCHIVE STRUCTURE

The structure of a BagIt archive is:

```
bagit.txt
data/<archive_content>
manifest-<algorithm>.txt
[bag-info.txt]
[fetch.txt]
[tagmanifest-<algorithm>.txt]
```

Only the 'bagit.txt' and 'manifest-<algorithm>.txt' files are mandatory, in addition to the 'data' folder, which contains the actual content of the archive.

According to RFC 8493, the 'bag-info.txt' and 'tagmanifest-<algorithm>.txt' files are optional and **modify_bagit** updates 'tagmanifest-<algorithm>.txt' when present in the BagIt archive folder.

CONFIGURATION FILE

An external configuration file

```
${HOME}/.config/AVpres/Bash_AVpres/modify_bagit.txt
```

can be defined, allowing the script to import alternate default values for the following options:

```
bagit_version
md5
sha1
sha256
sha512
crc32
xxh32
xxh64
xxh128
```

LOG FILES

Temporary log files are stored at

```
/tmp/AVpres/modify_bagit.XXXXXXXXXX
```

The log files can be used for debugging, for example by running **cat** on the address prompted with fatal error messages:

```
cat /tmp/AVpres/modify_bagit.XXXXXXXXXX
```

SEE ALSO

RFC 8493, "The BagIt File Packaging Format (V1.0)", October 2018
<https://www.rfc-editor.org/info/rfc8493>

RFC 1321, "The MD5 Message-Digest Algorithm", April 1992
<https://www.rfc-editor.org/info/rfc1321>

RFC 3174, "US Secure Hash Algorithm (SHA1)", September 2001
<https://www.rfc-editor.org/info/rfc3174>

"Descriptions of SHA-256, SHA-384, and SHA-512"
<https://web.archive.org/web/20130526224224/http://csrc.nist.gov/groups/STM/cavp/documents/shs/sha256-384-512.pdf>

make_bagit(1), undo_bagit(1), update_bagit(1) and verify_bagit(1).

md5sum(1), sha1sum(1), sha256sum(1), sha512sum(1) and xxhsum(1).

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