Bashmatic Usage Docs (v3.6.1)

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NOTICE: shdoc documentation is auto-extracted from the Bashmatic Sources.

File `lib/yarn.sh`

- yarn_install()
- yarn_sha()

`yarn_install()`

Installs YARN via npm if not found; then runs yarn install Note that yarn install is skipped if package.json and yarn.lock haven't changed since the last run of yarn install.

`yarn_sha()`

Prints to STDOUT the SHA based on package.json and yarn.lock

File `lib/dropbox.sh`

function dropbox.ignore {

Set file to be ignored by Dropbox

See also

- https://help.dropbox.com/files-folders/restore-delete/ignored-files

`dropbox.unignore()`

Set a file or directorhy to be ignored by Dropbox

See also

- https://help.dropbox.com/files-folders/restore-delete/ignored-files

---

File `lib/file.sh`

- dir.find()
- ls.mb()
- ls.gb()

file.temp()

Creates a temporary file and returns it as STDOUT # shellcheck disable=SC2120

file.normalize-files()

This function will rename all files passed to it as follows: spaces are replaced by dashes, non printable characters are removed, and the filename is lower cased.

Example

```
file.normalize-files "My Word Document.docx"
# my-word-document.docx
```

file.first-is-newer-than-second()

A super verbose shortcut to [[file -nt file2]]

file.ask.if-exists()

Ask the user whether to overwrite the file

file.install-with-backup()

Installs a given file into a provided destination, while making a backup of the destination if it already exists.

Example

```
file.install-with-backup conf/.psqlrc ~/.psqlrc backup-strategy-function
```

Arguments

- @arg1 File to backup
- @arg2 Destination
- @arg3 [optional] Shortname of the optional backup strategy: 'bak' or 'folder'.

file.last-modified-date()

Prints the file's last modified date

file.last-modified-year()

Prints the year of the file's last modified date

file.last-modified-millis()

Prints the file's last modified date expressed as millisecondsd

file.size()

Returns the file size in bytes

file.size.mb()

Prints the file size expressed in Mb (and up to 1 decimal point)

file.size.gb()

Prints the file size expressed in Gb (and up to 1 decimal point)

file.list.filter-existing()

For each argument prints only those that represent existing files

file.list.filter-non-empty()

For each argument prints only those that represent non-emtpy files

file.count.lines()

Prints the number of lines in the file

file.count.words()

Prints the number of lines in the file

file.find()

Invokes UNIX find command searching for files (not folders) matching the first argument in the name.

dir.find()

Invokes UNIX find command searching for folders (not files) matching the first argument in the name.

ls.mb()

Prints all folders sorted by size, and size printed in Mb

ls.gb()

Prints all folders sorted by size, and size printed in Gb

File lib/url.sh

url.cert.is-valid()

Returns 0 if the certificate is valid of the domain passed as an argument.

Arguments

- @arg0 domain or a complete https url

url.cert.domain()

Prints the common name for which the SSL certificate is registered

Example

```
 url.cert.domain google.com
*.google.com
```

url.host.is-valid()

Returns 0 when the argument is a valid Internet host resolvable via DNS. Otherwise returns 255 and prints an error to STDERR.

url.cert.info()

Returns the SSL information about the remote certificate

File lib/pids.sh

- top-most-program()

pids.stop-by-listen-tcp-ports()

Finds any PID listening on one of the provided ports and stop thems.

Example

```
pids.stop-by-listen-tcp-ports 4232 9578 "${PORT}"
```

pid.stop-if-listening-on-port()

Finds any PID listening the one port and an optional protocol (tcp/udp)

Example

```
pid.stop-if-listening-on-port 3000 tcp
pid.stop-if-listening-on-port 8126 udp
```

top-most-program()

walks the process tree up the chain until it finds the top process, whose parent PID is 1. Returns that process's arg list.

File lib/bashit.sh

- bashit-prompt-terraform()
- bashit-install()

bashit-prompt-terraform()

Possible Bash It Powerline Prompt Modules

aws_profile battery clock command_number cwd dirstack gcloud go history_number hostname in_toolbox in_vim k8s_context last_status node python_venv ruby scm shlvl terraform user_info wd

bashit-install()

Installs Bash-It Framework

File lib/array.sh

array.has-element()

Returns "true" if the first argument is a member of the array passed as the second argument:

Example

```
$ declare -a array=("a string" test2000 moo)
if [[ $(array.has-element "a string" "${array[@]}") == "true" ]]; then
  ...
fi
```

array.includes()

Similar to array.has-elements, but does not print anything, just returns 0 if includes, 1 if not.

array.join()

Joins a given array with a custom string.

Example

```
$ declare -a array=(one two three)
$ array.join "," "${array[@]}"
$ array.join " -> " true "${array[@]}"
-> one
-> two
-> three
```

Arguments

- @arg1
- @arg2
- @arg3 .

array.sort()

Sorts the array alphanumerically and prints it to STDOUT

Example

```
declare -a unsorted=(hello begin again again)
local sorted="$(array.sort "${unsorted[@]}")"
```

array.sort-numeric()

Sorts the array numerically and prints it to STDOUT

Example

```
declare -a unsorted=(1 2 34 45 6)
local sorted="$(array.sort-numeric "${unsorted[@]}")"
```

array.min()

Returns a minimum integer from an array. Non-numeric elements are ignored and skipped over. Negative numbers are supported, but non-integers are not.

Example

```
$ declare -a array=(10 20 30 -5 5)
$ array.min "," "${array[@]}"
-5
```

array.force-range()

Given a numeric argument, and an additional array of numbers, determines the min/max range of the array and prints out the number if it's within the range of array's min and max. Otherwise prints out either min or max.

Example

```
$ array.force-range 26 0 100
```

```
# => 26
$ array.force-range 26 60 100
# => 60
```

array.max()

Returns a maximum integer from an array. Non-numeric elements are ignored and skipped over. Negative numbers are supported, but non-integers are not.

Example

```
$ declare -a array=(10 20 30 -5 5)
$ array.min "," "${array[@]}"
30
```

array.uniq()

Sorts and uniqs the array and prints it to STDOUT

Example

```
declare -a unsorted=(hello hello hello goodbye)
local uniqued="$(array.sort-numeric "${unsorted[@]}")"
```

array.from.command()

Creates an array variable, where each element is a line from a command output, which includes any spaces.

Example

```
    array.from.command music_files "find . -type f -name '*.mp3'"
    echo "You have ${#music[@]} music files."
```

File lib/asciidoc.sh

Provides helper functions for dealing with asciidoc format.

- asciidoc.rouge-themes()

asciidoc.rouge-themes()

Installs gem "rouge" and prints all available themes

File lib/output-utils.sh

is-dbg()

Checks if we have debug mode enabled

dbg()

Local debugging helper, activate it with `export BASHMATIC_DEBUG=1`

teletype()

Print a message one character at a time. If the first argument is numeric (or a float) it is interpreted as the floationg point delay in seconds between characters. The default is 30ms (so 0.03). The rest of the arguments are single-line sentences between which teletype prints a newline.

File lib/audio.sh

lib/audio.sh

Audio conversions routines.

audio.file.frequency()

Given a music audio file, determine its frequency.

audio.make.mp3s()

Given a folder of MP3 files, and an optional KHz specification, perform a sequential conversion from AIF/WAV format to MP3.

Example

```
audio.wav-to-mp3 [ file.wav | file.aif | file.aiff ] [ file.mp3 ]
```

audio.make.mp3()

Converts one AIF/WAV file to high-rez 320 Kbps MP3

audio.file.mp3-to-wav()

Decodes a folder with MP3 files back into WAV

audio.dir.mp3-to-wav()

assume a folder with a bunch of MP3s in subfolders

Example

```
same folder structure but under /Volumes/SDCARD.
```

.audio.karaoke.format()

Rename function for one filename to another. This particular function deals with files of this format: Downloaded from karaoke-version.com:

Example

```
.audio.karaoke.format
"Michael_Jackson_Billie_Jean(Drum_Backing_Track_(Drum_only))_248921.wav"
=> michael_jackson_billie_jean--drum_backing_track-drum_only.wav
```

audio.dir.rename-wavs()

This function receives a format specification, and an optional directory as a second argument. Format specification is meant to map to a function .audio.<format>.format that’s used as follows: .audio.<format>.format "file-name" => "new file name"</format></format>

Example

```
audio.dir.rename-wavs karaoke ~/Karaoke
```

audio.dir.rename-karaoke-wavs()

Renames wav files in the current folder (or the folder passed as an argument, based on the naming scheme downloaded from karaoke-version.com

Example

```
audio.dir.rename-karaoke-wavs "~/Karaoke"
```

File lib/menus.sh

lib/menus.sh

: A generic menu select from a list of values. Works even if the list is longer than the screen height. Arrows left/right can be used as Page Up/Down

- menu.select()

menu.select()

: A generic menu select from a list of values. Works even if the list is longer than the screen height. Arrows left/right can be used as Page Up/Down

Example

```
selections=(
  "Selection A"
  "Selection B"
  "Selection C"
)
menu-select "Please make a choice:" selected_choice "${selections[@]}"
echo "You chose: $selected_choice"
```

File lib/brew.sh

- package.is-installed()
- brew.bundle.document()

package.is-installed()

For each passed argument checks if it's installed.

brew.bundle.document()

Add descriptions to all packages and casks listed int the Brewfile

---

File lib/output.sh

- output.screen-width.actual()
- output.screen-height.actual()
- section()

output.screen-width.actual()

OS-independent way to determine screen width.

output.screen-height.actual()

OS-independent way to determine screen height.

section()

Prints a "arrow-like" line using powerline characters

Arguments

- @arg1 Width (optional) — only intepretered as width if the first argument is a number.
- @args Text to print

File lib/usage.sh

- usage-widget()

usage-widget()

This is a massive hack and I am ashemed to have written it. With that out of the way, here we go. This command generates a pretty usage box for a tool or another command.

Example

```
usage-widget [-]<width> \                          # box width. If it starts with "-"
forces cache wipe.
    "command [flags] <arg1 ... >" \                # <-- USAGE
    "This command is beyond description." \        # <-- DESCRIPTION
    "[®]string" \                                  # <-- This and subsequent lines may
optionally start with "®" symbol,
    "[®]string" \                                  #     which will turn them into sub-
headings:
    "[®]string" \
    "[®]string"
 usage-widget 90 \
    "command [flags] <arg1 ... >" \
    "This command is beyond description." \
    "®examples" \
    "Some examples will follow" \
    "And others won't."
 ┌──────────────────────────────────────────────────────────────────────────────────────
──────────────────────────────────────────────────────────────────────────────────────
──┐
 │  USAGE:           command [flags] <arg1 ... >
 │
 ├──────────────────────────────────────────────────────────────────────────────────────
──────────────────────────────────────────────────────────────────────────────────────
──┤
 │  DESCRIPTION:     This command is beyond description.
 │
 ├──────────────────────────────────────────────────────────────────────────────────────
──────────────────────────────────────────────────────────────────────────────────────
──┤
 │
 │
 │  EXAMPLES:
 │
 │                   Some examples will follow
 │
 │                   And others won't.
 │
 └──────────────────────────────────────────────────────────────────────────────────────
──────────────────────────────────────────────────────────────────────────────────────
──┘
```

File `lib/file-helpers.sh`

- .file.make_executable()

`.file.make_executable()`

Makes a file executable but only if it already contains a "bang" line at the top.

File `lib/video.sh`

lib/video.sh

Video conversions routines.

- .destination-file-name()
- .video.convert.compress-shrinkwrap()
- .video.convert.compress-11()
- .video.convert.compress-12()
- .video.convert.compress-13()
- .video.convert.compress-21()
- .video.convert.compress-22()
- .video.convert.compress-23()
- .video.convert.compress-3()
- video.filename.encoded()
- video.install.dependencies()
- video.encode()
- video.squeeze()

`.destination-file-name()`

Generate a destination file name for the compressed items.

`.video.convert.compress-shrinkwrap()`

Named after the author of a similar tool that does this:

`.video.convert.compress-11()`

Given two arguments (from), (to), performs a video recompression

.video.convert.compress-12()

Given two arguments (from), (to), performs a video recompression

.video.convert.compress-13()

Given two arguments (from), (to), performs a video recompression

.video.convert.compress-21()

Given two arguments (from), (to), performs a video recompression

.video.convert.compress-22()

Given two arguments (from), (to), performs a video recompression

.video.convert.compress-23()

Given two arguments (from), (to), performs a video recompression

.video.convert.compress-3()

Given two arguments (from), (to), performs a video recompression

video.filename.encoded()

Given the source file passed as an argument, and the name of the encoding algorithm, prints the name of the destination file (which will be lower-caseed, no spaces, and contain the algorithm)

video.install.dependencies()

Installs ffmpeg and other dependencies

video.encode()

Given two arguments (from), (to), performs a video recompression according to the algorithm in the second argument.

Example

```
            video.encode bigfile.mov 13 smallerfile.mkv
@arg1 File to convert
@arg2 Name of the algorithm, defaults to 11
@arg3 Optional output file
```

video.squeeze()

File `lib/path.sh`

Utilities for managing the $PATH variable

`path.strip-slash()`

Removes a trailing slash from an argument path

`path.dirs()`

Prints a new-line separated list of paths in PATH

Arguments

- @arg1 A path to split, defaults to $PATH

`path.dirs.size()`

Prints the tatal number of paths in the path argument, which defaults to $PATH

`path.dirs.uniq()`

Prints all folders in $PATH, one per line, removing any duplicates, Does not mutate the $PATH

`path.dirs.delete()`

Deletes any number of folders from the PATH passed as the first string argument (defaults to $PATH). Does not mutate the $PATH, just prints the result to STDOUT

Arguments

- @arg1 String representation of a PATH, eg "/bin:/usr/bin:/usr/local/bin"
- @arg2 An array of paths to be removed from the PATH

`path.uniq()`

Removes duplicates from the $PATH (or argument) and prints the results in the PATH format (column-joined). DOES NOT mutate the actual $PATH

`PATH.uniqify()`

Using sed and tr uniq the PATH without re-sorting it.

`path.append()`

Appends a new directory to the $PATH and prints the result to STDOUT, Does NOT mutate the actual $PATH

`path.prepend()`

Prepends a new directory to the $PATH and prints to STDOUT, If one of the arguments is already in the PATH, it's moved to the front. DOES NOT mutate the actual $PATH

`path.mutate.uniq()`

Removes any duplicates from $PATH and exports it.

`path.mutate.delete()`

Deletes paths from the PATH provided on the command line

`path.mutate.append()`

Appends valid directories to those in the PATH, and exports the new value of the PATH

`path.mutate.prepend()`

Prepends valid directories to those in the PATH, and exports the new value of the PATH

`path.absolute()`

Returns an absolute version of a given path

File `lib/osx.sh`

OSX Specific Helpers and Utilities

`osx.app.is-installed()`

Checks if a given parameter matches any of the installed applications under /Applications and ~/Applications

By the default prints the matched application. Pass `-q` as a second argument to disable output.

Example

```
 osx.app.is-installed safari
Safari.app
 osx.app.is-installed safari -q && echo installed
installed
 osx.app.is-installed microsoft -c
6
```

Arguments

- **$1** (a): string value to match (case insentively) for an app name
- $2.. additional arguments to the last invocation of `grep`

Exit codes

- **0**: if match was found
- **1**: if not

`osx.detect-cpu()`

This function checks the architecture of the CPU, but also is able to detect when M1 system is running under Rosetta.

Example

```
local -a ostype=( $(osx.detect-cpu) )
local cpu=${ostype[0]}
local emulation="${ostype[1]}"
```

File `lib/datadog.sh`

lib/datadog.sh

Datadog Agent Functions

`dd-start()`

This function starts datadog agent, if it's not already running.

File `lib/bashmatic.sh`

`bashmatic.is-developer()`

True if .envrc.local file is present. We take it as a sign you may be developing bashmatic.

`bashmatic.is-installed()`

This function returns 1 if bashmatic is installed in the location pointed to by ${BASHMATIC_HOME} or the first argument.

Arguments

- $1 The location to check for bashmatic instead of ${BASHMATIC_HOME}

File `lib/db.sh`

- db.actions.run-multiple()
- db.actions.pga()

db.config.parse()

Returns a space-separated values of db host, db name, username and password

Example

```
db.config.set-file ~/.db/database.yml
db.config.parse development
#=> hostname dbname dbuser dbpass
declare -a params=($(db.config.parse development))
echo ${params[0]} # host
```

db.psql.connect()

Connect to one of the databases named in the YAML file, and optionally pass additional arguments to psql. Informational messages are sent to STDERR.

Example

```
db.psql.connect production
db.psql.connect production -c 'show all'
```

db.psql.connect.just-data()

Similar to the db.psql.connect, but outputs just the raw data with no headers.a

Example

```
db.psql.connect.just-data production -c 'select datname from pg_database;'
```

db.psql.connect.table-settings-set()

Set per-table settings, such as autovacuum, eg:

Example

```
db.psql.connect.table-settings-set prod users autovacuum_analyze_threshold 1000000
db.psql.connect.table-settings-set prod users autovacuum_analyze_scale_factor 0
```

db.psql.db-settings()

Print out PostgreSQL settings for a connection specified by args

Example

```
db.psql.db-settings -h localhost -U postgres appdb
```

db.psql.connect.db-settings-pretty()

Print out PostgreSQL settings for a named connection

Example

```
db.psql.connect.db-settings-pretty primary
```

Arguments

- @arg1 dbname database entry name in ~/.db/database.yml

db.psql.connect.db-settings-toml()

Print out PostgreSQL settings for a named connection using TOML/ini format.

Example

```
db.psql.connect.db-settings-toml primary > primary.ini
```

Arguments

- @arg1 dbname database entry name in ~/.db/database.yml

db.actions.run-multiple()

Executes multiple commands by passing them to psql each with -c flag. This allows, for instance, setting session values, and running commands such as VACUUM which can not run within an implicit transaction started when joining multiple statements with ";"

Example

```
$ db -q run my_database 'set default_statistics_target to 10; show
default_statistics_target; vacuum users'
ERROR:  VACUUM cannot run inside a transaction block
```

db.actions.pga()

Installs (if needed) pg_activity and starts it up against the connection

---

File lib/shdoc.sh

lib/shdoc.sh

Helpers to install gawk and shdoc properly.0

see ${BASHMATIC_HOME}/lib/shdoc.md for an example of how to use SHDOC. and also project's github page.

- gawk.install()

gawk.install()

Installs gawk into /usr/local/bin/gawk

File lib/git.sh

- git.cfgu()
- git.repo()
- git.repo.readme-url()
- git.cfg.get()

git.cfgu()

Sets or gets user values from global gitconfig.

Example

```
git.cfgu email
git.cfgu email kigster@gmail.com
git.cfgu
```

git.repo()

Reads the remote of a repo by name provided as an argument (or defaults to "origin") and opens it in the browser.

Example

```
git clone git@github.com:kigster/bashmatic.git
cd bashmatic
source init.sh
git.open
git.open origin # same thing
```

Arguments

- **$1** (optional): name of the remote to open, defaults to "orogin"

git.repo.readme-url()

Returns a URL on Github website that points to the . README on the current branch.

git.cfg.get()

Prints the value from github config

Example

```
  git.cfg.get github.token user.name user.email
dsf09098f09ds8f0s98df09809
John Doe
jonny@hotmail.com
```

Arguments

@arg1 [local	global] which config to look at (defaults to global)

- @arg2... tokens to print

File lib/package.sh

package.ensure.is-installed()

fr

package.ensure.commmand-available()

Example

```
In this example we skip installation if `gem` exists and in the PATH.
Oherwise we install the package and retry, and return if not found
```

File lib/time.sh

date.now.with-time()

Prints the complete date with time up to milliseconds

Example

```
2022-05-03 14:29:52.302
```

time.with-duration.start()

Starts a time for a given name space

Example

```
time.with-duration.start moofie
# ... time passes
time.with-duration.end   moofie 'Moofie is now this old: '
# ... time passes
time.with-duration.end   moofie 'Moofie is now very old: '
time.with-duration.clear moofie
```

time.with-duration()

Runs the given command and prints the time it took

Example

```
time.with-duration quiet "{ sleep 1; ls -al; sleep 2; date; sleep 1; }"
time.with-duration quiet verbose "{ sleep 1; ls -al; sleep 2; date; sleep 1; }"
```

Arguments

- @arg1 [quiet] to silence command output
- @arg2 [verbose] to print the command before running the
- @arg3 [secret] do not print the command before running it (in case sensitive)

time.a-command()

This function receives a command to execute as an argument. The command is executed as 'eval "$@"'; meanwhile the start/end times are measured, and the following string is printed at the end: eg. "4 minutes 24.345 seconds"

Arguments

- @args Command to run

File lib/shasum.sh

SHA Functions

SHASUM related functions, that compute SHA for a single file, collection of files, or entire directories.

shasum.set-command()

Override the default SHA command and alogirthm Default is shasum -a 256

shasum.set-algo()

Override the default SHA algorithm

Example

```
$ shasum.set-algo 256
```

shasum.sha()

Compute SHA for all given files, ignore STDERR NOTE: first few arguments will be passed to the shasum command, or whatever you set via shasum.set-command.

shasum.sha-only()

Print SHA ONLY removing the file components

shasum.sha-only-stdin()

Print SHA ONLY removing the file components

shasum.to-hash()

Example

```
$ declare -A file_shas
$ shasum.to-hash file_shas $(find . -type f -maxdepth 2)
$ echo "Total of ${#file_shas[@]} files in the hash"
```

shasum.all-files()

For a given array of files, sort them, take a SHA of each file, and return a single SHA finger-printing this set of files. # NOTE: the files are sorted prior to hashing, so the return SHA should ONLY change when files are either changed, or added/removed. Only computes SHA of the files provided, does not recurse into folders

Example

```
$ shasum.all-files *.cpp
```

shasum.all-files-in-dir()

For a given directory and an optional file pattern, use `find` to grab every single file (that matches optional pattern) and return a single SHA

Example

```
$ shasum.all-files-in-dir . '*.pdf'
cc35aad389e61942c75e111f1eddbe634d74b4b1
```

sha()

sha256

File lib/runtime-config.sh

is.dry-run.on()

Returns 0 when dry-run flag was set, 1 otherwise.

Example

```
set.dry-run.on
is.dry-run.on || rm -f ${temp}
```

is.dry-run.off()

Returns 0 when dry-run flag was set, 1 otherwise.

Example

```
set.dry-run.off
is.dry-run.on || rm -f ${temp}
```

set.dry-run.on()

Returns 0 when dry-run flag was set, 1 otherwise.

Example

```
set.dry-run.on
```

```
is.dry-run.on || run "ls -al"
```

set.dry-run.off()

Returns 1 when dry-run flag was set, 0 otherwise.

Example

```
set.dry-run.on
is.dry-run.on || run "ls -al"
```

File lib/memory.sh

memory.size-to-bytes()

Pass in a value eg. 32GB or 16M and it returns back the number of bytes

memory.bytes-to-units()

This function receives up to three arguments:

Arguments

- @arg1 A number of bytes to convert into a more human-friendly format
- @arg2 An optional printf format string, defaults to '%.1f'
- @arg3 An optional suffix ('b' or "B" or none at all)

File lib/color.sh

color.current-background()

Prints the background color of the terminal, assuming terminal responds to the escape sequence. More info: https://stackoverflow.com/questions/2507337/how-to-determine-a-terminals-background-color

---

File `lib/pg.sh`

`pg.is-running()`

Returns true if PostgreSQL is running locally

`pg.running.server-binaries()`

if one or more PostgreSQL instances is running locally, prints each server's binary postgres file path

`pg.running.data-dirs()`

For each running server prints the data directory

`pg.server-in-path.version()`

Grab the version from `postgres` binary in the PATH and remove fractional sub-version

---

File `lib/7z.sh`

lib/7z.sh

p7zip conversions routines.

`7z.archive()`

This function receives as the first argument the name of the archive, and then a list of folders to compress into that archive AND remove them once they have been successfully archived.

Example

```
> ls -1F
data/
src/
models/
```

```
examples/
```

File `lib/dir.sh`

This file contains many useful functions for handling directories, sync'ing and copying from and to directories, and so on.

`dir.with-file()`

Returns the first folder above the given that contains a file.

Arguments

- @arg1 file without the path to search for, eg ".envrc"
- @arg2 Starting file path to seartch

`dir.short-home()`

Replaces the first part of the directory that matches ${HOME} with '~/'

`dir.rsync-to()`

Rsyncs the files from a "from" directory specified by the first argument, to the to directory specified by the second.

Arguments

- @arg1 The source locl directory
- @arg2 The destination locl directory
- @arg3 optional `--sudo`: runs rsync in sudo mode. Careful!
- @arg4 Any additional arguments to rsync such as --verbose

`dir.rsync-from-mac()`

This is a variation on the above that preserves extended attributes of the source files, such as icons for direcories. When copying a folder from the Mac OS-X this is recommended.

dir.rsync-from-mac-verbose()

This is a variation on the above that preserves extended attributes of the source files, such as icons for direcories, and add --verbose to rsync flags so that you can the files being synced.

File lib/config.sh

config.get-format()

Get current format

config.set-file()

Set the default config file

config.get-file()

Get the file name

config.dig()

Reads the value from a two-level configuration hash

Arguments

- @arg1 hash key
- @arg2 hash sub-key

config.dig.pretty()

Uses `jq` utility to format JSON with color, supports partial

File lib/flatten.sh

flatten-file()

Given a long path to a file, possibly with spaces in cluded and a desintation as a second argument, generates a flat pathname and copies the first argument there.

Example

```
    tree -Q "33 Retro Synth/"
    "33 Retro Synth/"
     ├── "001 Retro Synth - A Synth Primer.en.srt"
     ├── "001 Retro Synth - A Synth Primer.mp4"
     ├── "002 Retro Synth - Oscillator.en.srt"
     └── "002 Retro Synth - Oscillator.mp4"

    flatten-file "33 Retro Synth/001 Retro Synth - A Synth Primer.mp4"
@arg1 -n | --dry-run (optional)
@arg2 source path
@arg3 dest paths
```

File lib/nvm.sh

nvm.is-valid-dir()

Returns true if NVM_DIR is correctly set, OR if a directory passed as an argument contains nvm.sh

nvm.detect()

Returns success and exports NVM_DIR whenver nvm.sh is found underneath any of the possible locations tried.

nvm.install()

Installs NVM via Curl if not already installed.

nvm.load()

Loadd

File `lib/net.sh`

`net.is-host-port-protocol-open()`

Uses pingless connection to check if a remote port is open Requires sudo for UDP

Arguments

- @arg1 host
- @arg2 port
- @arg3 [optional] protocol (defaults to "tcp", supports also "udp")

`net.host.ip()`

Resolves the IP address of a host and returns a single IP. If the host has multiple IP addresses, it returns the last one, sorted numerically.

`net.host.ips()`

Resolves the IP addresses of a host and returns them as a space-separated list suitable for insertion into a shell array.

`net.hosts.ips()`

Resolves the IP addresses of a list of hosts and returns them as a space-separated list suitable for insertion into a shell array.

File `lib/files-normalize.sh`

`files.normalize-tree()`

Renames files matching the input parameters to `find` by replacing spaces with dashes and lower casing the file.

File `lib/is.sh`

Various validations and asserts that can be chained and be explicit in a DSL-like way.

`__is.validation.error()`

Invoke a validation on the value, and process the invalid case using a customizable error handler.

Arguments

- @arg1 func Validation function name to invoke
- @arg2 var Value under the test
- @arg4 error_func Error function to call when validation fails

Exit codes

- **0**: if validation passes

`is-validations()`

Returns the list of validation functions available

`__is.validation.ignore-error()`

Private function that ignores errors

`__is.validation.report-error()`

Private function that ignores errors

`is.not-blank()`

is.not-blank <arg></arg>

`is.blank()`

is.blank <arg></arg>

`is.empty()`

is.empty <arg></arg>

`is.not-a-blank-var()`

is.not-a-blank-var <var-name></var-name>

`is.a-non-empty-file()`

is.a-non-empty-file <file></file>

`is.an-empty-file()`

is.an-empty-file <file></file>

`is.a-directory()`

is.a-directory <dir></dir>

`is.an-existing-file()`

is.an-existing-file <file></file>

`is.a-function.invoke()`

if the argument passed is a value function, invoke it

`is.a-function()`

verifies that the argument is a valid shell function

`is.a-variable()`

verifies that the argument is a valid and defined variable

`is.a-non-empty-array()`

verifies that the argument is a non-empty array

`is.sourced-in()`

verifies that the argument is a valid and defined variable

`is.a-script()`

returns success if the current script is executing in a subshell

`is.integer()`

returns success if the argument is an integer

See also

- https://stackoverflow.com/questions/806906/how-do-i-test-if-a-variable-is-a-number-in-bash

`is.an-integer()`

returns success if the argument is an integer

`is.numeric()`

returns success if the argument is numeric, eg. float

`is.command()`

returns success if the argument is a valid command found in the $PATH

`is.a-command()`

returns success if the argument is a valid command found in the $PATH

`is.missing()`

returns success if the command passed as an argument is not in $PATH

`is.alias()`

returns success if the argument is a current alias

`is.zero()`

returns success if the argument is a numerical zero

`is.non.zero()`

returns success if the argument is not a zero

`whenever()`

a convenient DSL for validating things

Example

```
whenever /var/log/postgresql.log is.an-empty-file && {
   touch /var/log/postgresql.log
}
```

File `lib/util.sh`

Miscellaneous utilities.

- system.uname()
- util.random-number()
- util.generate-password()
- util.random-string.of-length()

system.uname()

Finds the exact absolute path of the `uname` utility on a unix file system.

util.random-number()

Generates a random number up to 1000000

util.generate-password()

Generates a password of a given length

util.random-string.of-length()

Generates a random string of a given length

File lib/runtime.sh

run.print-variables()

Adds a variable to the list of the variables to be obfuscated

run.inspect-vars()

Prints values of all variables starting with prefixes in args

---

File lib/pdf.sh

Bashmatic Utilities for PDF file handling

Install and uses GhostScript to manipulate PDFs.

pdf.combine()

Combine multiple PDFs into a single one using ghostscript.

Example

```
pdf.combine ~/merged.pdf 'my-book-chapter*'
```

Arguments

- **$1** (pathname): to the merged file
- **...** (the): rest of the PDF files to combine

File `lib/ruby.sh`

- ruby.fix-git-smart()

`ruby.fix-git-smart()`

Patch git smart to remove File.exists?() and replace with File.exist?()

File `bin/install-direnv`

Add direnv hook to shell RC files

- direnv.register()

`direnv.register()`

Add direnv hook to shell RC files

File `bin/install-psqlrc`

- get.version.from.file()
- main()

`get.version.from.file()`

: Get the version of the psqlrc file

`main()`

: Main function to install the psqlrc file if it is not installed

---

File bin/regen-usage-docs

Regenerates USAGE.adoc && USAGE.pdf

File bin/pdf-reduce

- pdf.do.shrink()

pdf.do.shrink()

shrinkgs PDF

File bin/ruby-check

- rb.ruby.report()
- rb.ruby.describe()
- rb.jemalloc.detect-or-exit()
- rb.jemalloc.stats()
- rb.jemalloc.detect-quiet()
- rb.jemalloc.detect-loud()
- usage()

rb.ruby.report()

prints the info about current version of ruby

rb.ruby.describe()

Prints ruby version under test

rb.jemalloc.detect-or-exit()

detects jemalloc or exits

rb.jemalloc.stats()

prints jemalloc statistics if jemalloc is available

rb.jemalloc.detect-quiet()

returns 0 if jemalloc was detected or 1 otherwise

rb.jemalloc.detect-loud()

detects if jemalloc is linked and if so prints the info to output

usage()

Prints the help screen and exits

File bin/scheck

- manual-install()

manual-install()

Manually Download and Install ShellCheck

File bin/install-ruby-interactive

- ruby.detect-version()
- ruby.install()

ruby.detect-version()

This is perhaps the main function that attempts to guess which version we should be installing, assuming one wasn't provided as an CLI argument. The functions scans the current and all of the parent directories for the file .ruby-version

ruby.install()

Actually install Ruby, invoking OS-specific pre-install configurations.

File bin/version-detector

- version-of()

`version-of()`

This function attempts to deal with various arbitrary strings that various programs produce when asked for their versions. Extracting an actual version out of
of it is not a simple task. This function covers perhaps high 90% of all executables, and returns just the version without any additional text.

Example

```
* $ ruby --version
    ruby 3.3.6 (2024-11-05 revision 75015d4c1f) [arm64-darwin24]
```

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