

DevOrSysAdminScripts

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Abstract

Some “small” useful scripts for enhancing development or system-administrators tasks

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Code lines: 6950 total lines, 6284 not empty lines, 666 empty lines.

Contents

1	Files tree	3
2	Listing of files	6
2.1	build_and_checks_dependencies/build_and_checks.exec.sh.tpl . . .	6
2.2	build_and_checks_dependencies/build_md_from_printable_md.exec.sh	9
2.3	build_and_checks_dependencies/check_shell_scripts_beginnings.lib.sh	11
2.4	build_and_checks_dependencies/check_URLs.lib.sh	12
2.5	build_and_checks_dependencies/common_build_and_checks.exec.sh	14
2.6	build_and_checks_dependencies/common_build_and_checks.exec.sh.tpl	28
2.7	build_and_checks_dependencies/comparisons.lib.sh	41
2.8	build_and_checks_dependencies/create_PDF.exec.sh	45
2.9	build_and_checks_dependencies/generate_from_template.lib.sh . .	54
2.10	build_and_checks_dependencies/get_common_text_glob_patterns.lib.sh	56
2.11	build_and_checks_dependencies/grammar_and_spell_check.lib.sh .	58
2.12	build_and_checks_dependencies/licenses_templates/build_licenses_templates.exec.sh	60
2.13	build_and_checks_dependencies/licenses_templates/license_file_header_AGPLv3+.tpl	68

2.14	build_and_checks_dependencies/licenses_templates/license_file_header_GPLv3+.tpl	69
2.15	build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.tpl	69
2.16	build_and_checks_dependencies/lines_counts.lib.sh	70
2.17	build_and_checks_dependencies/lines_filters.lib.sh	72
2.18	build_and_checks_dependencies/lines_maps.lib.sh	78
2.19	build_and_checks_dependencies/overwrite_if_not_equal.lib.sh	80
2.20	build_and_checks_dependencies/python_black_complement.lib.sh	82
2.21	build_and_checks_dependencies/python_isort_complement.lib.sh	83
2.22	build_and_checks_dependencies/split_score.exec.php	84
2.23	build_and_checks_dependencies/split_score.lib.php	85
2.24	build_and_checks_dependencies/strings_functions.lib.sh	87
2.25	build_and_checks_dependencies/too_long_code_lines.lib.sh	94
2.26	build_and_checks_dependencies/update_common_build_and_checks.exec.sh	96
2.27	build_and_checks_dependencies/update_or_check_files_names_listing.exec.sh	99
2.28	build_and_checks_variables/.gitignore	102
2.29	build_and_checks_variables/bandit.ini	102
2.30	build_and_checks_variables/bandit_baseline.json	102
2.31	build_and_checks_variables/DevOrSysAdminScripts.html.tpl	102
2.32	build_and_checks_variables/DevOrSysAdminScripts.tex.tpl	107
2.33	build_and_checks_variables/files_listing.tex.tpl	110
2.34	build_and_checks_variables/files_names_listing.txt	125
2.35	build_and_checks_variables/licenses_notes.txt	127
2.36	build_and_checks_variables/phpmd_baseline.xml	127
2.37	build_and_checks_variables/pylintrc.toml	128
2.38	build_and_checks_variables/repository_data.txt	128
2.39	build_and_checks_variables/ruff.toml	130
2.40	build_and_checks_variables/shellcheck.ini	131
2.41	build_and_checks_variables/shellcheck_notes.txt	131
2.42	build_and_checks.exec.sh	132
2.43	COPYING	134
2.44	COPYING.LESSER	149
2.45	git_helpers/git_checks.lib.sh	153
2.46	git_helpers/post-commit	155
2.47	git_helpers/post_commit_renaming_comment.lib.sh	156
2.48	git_helpers/pre-commit	163
2.49	LiensUtiles.txt	165
2.50	README.md.tpl	165
2.51	unicode.lib.php	167
2.52	upgrade_build_and_checks.exec.sh	174
2.53	wget_sha512.lib.sh	175

1 Files tree

```
.
├── build_and_checks_dependencies
│   ├── build_and_checks.exec.sh.tpl
│   ├── build_md_from_printable_md.exec.sh
│   ├── check_shell_scripts_beginnings.lib.sh
│   ├── check_URLs.lib.sh
│   ├── common_build_and_checks.exec.sh
│   ├── common_build_and_checks.exec.sh.tpl
│   ├── comparisons.lib.sh
│   ├── create_PDF.exec.sh
│   ├── generate_from_template.lib.sh
│   ├── get_common_text_glob_patterns.lib.sh
│   ├── grammar_and_spell_check.lib.sh
│   └── licenses_templates
│       ├── build_licenses_templates.exec.sh
│       ├── license_file_header_AGPLv3+.tpl
│       ├── license_file_header_GPLv3+.tpl
│       └── license_file_header_LGPLv3+.tpl
├── lines_counts.lib.sh
├── lines_filters.lib.sh
├── lines_maps.lib.sh
├── overwrite_if_not_equal.lib.sh
├── python_black_complement.lib.sh
├── python_isort_complement.lib.sh
├── split_score.exec.php
├── split_score.lib.php
├── strings_functions.lib.sh
├── too_long_code_lines.lib.sh
├── update_common_build_and_checks.exec.sh
├── update_or_check_files_names_listing.exec.sh
├── build_and_checks.exec.sh
└── build_and_checks_variables
    ├── bandit_baseline.json
    ├── bandit.ini
    ├── DevOrSysAdminScripts.html.tpl
    ├── DevOrSysAdminScripts.tex
    ├── DevOrSysAdminScripts.tex.tpl
    ├── files_listing.tex.tpl
    ├── files_names_listing.txt
    ├── .gitignore
    ├── licenses_notes.txt
    ├── phpmd_baseline.xml
    ├── pylintrc.toml
    └── repository_data.txt
```

```

├── ruff.toml
├── shellcheck.ini
├── shellcheck_notes.txt
├── COPYING
├── COPYING.LESSER
├── DevOrSysAdminScripts.html
├── DevOrSysAdminScripts.pdf
├── git_helpers
│   ├── git_checks.lib.sh
│   ├── post-commit
│   ├── post_commit_renaming_comment.lib.sh
│   └── pre-commit
├── LiensUtiles.txt
├── README.html
├── README.md
├── README.md.tpl
├── .ruff_cache
├── unicode.lib.php
├── upgrade_build_and_checks.exec.sh
└── wget_sha512.lib.sh

```

6 directories, 58 files

```

[ 12K Feb 19 16:09] ./
├── [4.0K Feb 19 16:09] build_and_checks_dependencies/
│   ├── [3.7K Feb 19 15:54] build_and_checks.exec.sh.tpl*
│   ├── [3.0K Feb 19 15:33] build_md_from_printable_md.exec.sh*
│   ├── [2.1K Feb 15 11:34] check_shell_scripts_beginnings.lib.sh
│   ├── [2.8K Feb 19 14:54] check_URLs.lib.sh
│   ├── [ 23K Feb 19 15:57] common_build_and_checks.exec.sh*
│   ├── [ 19K Feb 18 16:15] common_build_and_checks.exec.sh.tpl
│   ├── [4.6K Feb 19 15:09] comparisons.lib.sh
│   ├── [ 14K Feb 19 15:45] create_PDF.exec.sh*
│   ├── [3.2K Feb 19 15:55] generate_from_template.lib.sh
│   ├── [2.0K Feb 19 15:19] get_common_text_glob_patterns.lib.sh
│   ├── [1.9K Feb 19 14:43] grammar_and_spell_check.lib.sh
│   ├── [4.0K Feb 19 15:41] licenses_templates/
│   │   ├── [ 13K Feb 19 15:41] build_licenses_templates.exec.sh*
│   │   ├── [ 728 Dec 30 19:32] license_file_header_AGPLv3+.tpl
│   │   ├── [ 707 Dec 27 21:48] license_file_header_GPLv3+.tpl
│   │   └── [ 728 Dec 27 21:48] license_file_header_LGPLv3+.tpl
│   ├── [2.7K Feb 17 18:48] lines_counts.lib.sh
│   ├── [6.8K Feb 19 15:49] lines_filters.lib.sh
│   ├── [2.7K Feb 19 14:47] lines_maps.lib.sh
│   ├── [1.8K Feb 19 15:01] overwrite_if_not_equal.lib.sh
│   └── [1.4K Jan 24 18:32] python_black_complement.lib.sh

```

```

| [1.7K Feb 19 15:37] python_isort_complement.lib.sh
| [1.6K Feb 3 17:57] split_score.exec.php
| [1.9K Feb 3 20:11] split_score.lib.php
| [12K Feb 19 14:48] strings_functions.lib.sh
| [2.5K Feb 19 14:53] too_long_code_lines.lib.sh
| [4.1K Feb 19 16:09] update_common_build_and_checks.exec.sh*
| [3.8K Feb 18 16:22] *
| update_or_check_files_names_listing.exec.sh**
| [3.8K Feb 19 15:57] build_and_checks.exec.sh*
| [4.0K Feb 19 16:09] build_and_checks_variables/
| [15 Jan 5 20:00] bandit_baseline.json
| [25 Jan 5 18:49] bandit.ini
| [5.2K Feb 14 15:05] DevOrSysAdminScripts.html.tpl
| [22K Feb 19 16:02] DevOrSysAdminScripts.tex
| [3.8K Feb 14 15:04] DevOrSysAdminScripts.tex.tpl
| [12K Feb 18 16:27] files_listing.tex.tpl
| [3.8K Feb 16 18:43] files_names_listing.txt
| [24 Jan 15 22:26] .gitignore
| [1.2K Feb 14 15:04] licenses_notes.txt
| [926 Feb 13 20:48] phpmd_baseline.xml
| [173 Jan 30 19:40] pylintrc.toml
| [3.5K Feb 16 15:47] repository_data.txt
| [159 Feb 14 15:02] ruff.toml
| [2.0K Feb 18 15:52] shellcheck_notes.txt
| [34K May 6 2024] COPYING
| [7.5K Dec 27 21:48] COPYING.LESSER
| [274K Feb 19 16:02] DevOrSysAdminScripts.html
| [270K Feb 19 16:02] DevOrSysAdminScripts.pdf
| [4.0K Feb 19 16:02] git_helpers/
| [3.4K Feb 19 15:04] git_checks.lib.sh
| [1.2K Feb 14 17:57] post-commit
| [13K Feb 19 16:02] post_commit_renaming_comment.lib.sh
| [1.4K Feb 8 16:41] pre-commit
| [830 Dec 29 19:10] LiensUtiles.txt
| [3.6K Feb 16 17:08] README.html
| [3.5K Feb 16 17:08] README.md
| [3.6K Feb 16 16:59] README.md.tpl
| [4.0K Feb 14 13:01] .ruff_cache/
| [9.1K Feb 12 19:57] unicode.lib.php
| [1.4K Feb 3 14:19] upgrade_build_and_checks.exec.sh*
| [1.4K Feb 19 14:41] wget_sha512.lib.sh

```

6 directories, 57 files

2 Listing of files

This repository is dual licensed. All the Bash scripts source code is covered by GPLv3+. All the PHP scripts source code is covered by LGPLv3+.

The text of the licenses is available at: <https://www.gnu.org/licenses/>.
The git repository of this source code is also available at: <https://github.com/LLyaudet/DevOrSysAdminScripts/>.

Here is a listing of the dependencies of the code in this repository:

- The following dependencies are GPLv3+ licensed:
basename, bash (and its builtins), cat, chmod, cp, cut, date, diff, dirname, find, grep, head, mkdir, mv, realpath, rm, sed, sha512sum, shellcheck, sort, tail, wc, wget, xargs
- The following dependencies are GPLv2+ licensed:
more, pandoc, pdftex, pdflatex, tree
- The following dependencies are GPLv2 licensed:
git, pylint
- The following dependencies are LGPLv2.1+ licensed:
notify-send
- The following dependencies are MIT licensed:
black, isort, mypy, ruff
- The following dependencies are Apache-2.0 licensed:
bandit
- The following dependencies are BSD-3-Clause licensed:
phpmd
- php is licensed under PHP License v3.01
- tex is licensed under Knuth license
- pcregrep has a custom license from Cambridge University

Remark: Some commands listed under GPLv3+ are POSIX and can have different implementations under another license; for example, utils coreutils is MIT licensed, whilst GNU coreutils is GPLv3+ licensed.

2.1 build_and_checks_dependencies/build_and_checks.exec.sh.tpl

```
1 #!/usr/bin/env bash
2 # This file is part of DevOrSysAdminScripts library.
3 #
4 # DevOrSysAdminScripts is free software:
5 # you can redistribute it and/or modify it under the terms
6 # of the GNU General Public License
```

```

7 # as published by the Free Software Foundation,
8 # either version 3 of the License,
9 # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,
13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24 # The file "build_and_checks.exec.sh.tpl" was renamed from
25 # "build_and_checks.sh.tpl" to "build_and_checks.exec.sh.tpl".
26 # The file "build_and_checks.exec.sh" generated from the file
27 # "build_and_checks.sh.tpl" or "build_and_checks.exec.sh.tpl"
28 # was renamed from
29 # "build_and_checks.sh" to "build_and_checks.exec.sh".
30
31 build_and_checks() {
32     local LFBFL_working_directory="."
33     if [[ -n "$1" ]]; then
34         LFBFL_working_directory="$1"
35     fi
36     readonly LFBFL_working_directory
37
38     local LFBFL_verbose=""
39     if [[ "$*" == *--verbose* ]]; then
40         echo "$0 $*"
41         LFBFL_verbose="--verbose"
42     fi
43     readonly LFBFL_verbose
44
45     source ./wget_sha512.lib.sh
46
47     LFBFL_subdir="build_and_checks_dependencies"
48     mkdir -p "${LFBFL_subdir}/licenses_templates"
49     mkdir -p "build_and_checks_variables/temp"
50     if ! [[ -f "build_and_checks_variables/.gitignore" ]]; then
51         {
52             echo "temp/"

```

```

53     echo ""
54 } > "build_and_checks_variables/.gitignore"
55 fi
56
57 # LFBFL_dependencies_raw_content_download_URL
58 local LFBFL_dependencies_URL
59 LFBFL_dependencies_URL="https://raw.githubusercontent.com/LLyaudet/"
60 LFBFL_dependencies_URL+="DevOrSysAdminScripts/main/${LFBFL_subdir}"
61 readonly LFBFL_dependencies_URL
62
63 declare -r LFBFL_common_file_name="common_build_and_checks.exec.sh"
64 # LFBFL_script_download_URL
65 declare -r\
66     LFBFL_script="${LFBFL_dependencies_URL}/${LFBFL_common_file_name}"
67 declare -r\
68     LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_common_file_name}"
69 @sha512_common_build_and_checks.exec.sh@
70 wget_sha512 "${LFBFL_file_path}" "${LFBFL_script}"\
71     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
72 chmod +x "${LFBFL_file_path}"
73
74 "${LFBFL_file_path}" "${LFBFL_working_directory}"\
75     "${LFBFL_dependencies_URL}" "${LFBFL_verbose}"
76 }
77
78 if [[ "$*" == *--fixed_point_build* ]]; then
79     echo "--fixed_point_build"
80     source "./build_and_checks_dependencies/lines_filters.lib.sh"
81     LFBFL_working_directory="."
82     if [[ -n "$1" ]]; then
83         LFBFL_working_directory="$1"
84     fi
85     LFBFL_variables_directory="${LFBFL_working_directory}/"
86     LFBFL_variables_directory+="build_and_checks_variables"
87     LFBFL_data_file_name="${LFBFL_variables_directory}/"
88     LFBFL_data_file_name+="repository_data.txt"
89     grep_variable "${LFBFL_data_file_name}" repository_name
90     # Touching the 3 following files first let us iterate
91     # upgrade_build_and_checks 2 times instead of 3 to reach
92     # a fixed point.
93     touch "${LFBFL_variables_directory}/${repository_name}.tex"
94     touch "${LFBFL_working_directory}/${repository_name}.pdf"
95     touch "${LFBFL_working_directory}/${repository_name}.html"
96     # The two iterations of build_and_checks needs to complete
97     # during the same minute to have a fixed point.
98     build_and_checks "$@"

```



```

99     # build_and_checks "$@" second iteration below
100     # Then calling this script without --fixed_point_build should not
101     # yield any new superficial modifications.
102 fi
103
104 build_and_checks "$@"

```

2.2 build_and_checks_dependencies/build_md_from_printable_md.exec.sh

```

1  #!/usr/bin/env bash
2  # This file is part of DevOrSysAdminScripts library.
3  #
4  # DevOrSysAdminScripts is free software:
5  # you can redistribute it and/or modify it under the terms
6  # of the GNU General Public License
7  # as published by the Free Software Foundation,
8  # either version 3 of the License,
9  # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,
13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "build_md_from_printable_md.sh"
25 # to "build_md_from_printable_md.exec.sh".
26
27 LFBFL_subdir="build_and_checks_dependencies"
28 # shellcheck source=overwrite_if_not_equal.lib.sh
29 source "${LFBFL_subdir}/overwrite_if_not_equal.lib.sh"
30
31 build_md_from_printable_md() {
32     declare -i LFBFL_verbose=0
33     if [[ "$*" == *--verbose* ]]; then
34         echo "$0 $*"
35         LFBFL_verbose=1
36     fi
37     readonly LFBFL_verbose

```

```

38
39 # Remove line returns here to keep lines short.
40 local LFBFL_sed_expression
41 LFBFL_sed_expression='s/(\[[a-zA-Z0-9:-]*\]: [^\n\\]*)\\\n/\1/Mg'
42 LFBFL_sed_expression+=';s/(<http[^\n\\]*)\\\n/\1/Mg'
43 LFBFL_sed_expression+=';s/(- <http[^\n\\]*)\\\n/\1/Mg'
44 readonly LFBFL_sed_expression
45 # Since Markdown can contain code, it is limited to Markdown URLs.
46 # Hence it is way more complicated than 's/\\\n//Mg' expression
47 # in other files.
48 # Another downside is that more than one pass is needed.
49
50 declare -i LFBFL_cd_result
51 pushd .
52 if [[ -n "$1" ]];
53 then
54     if [[ LFBFL_verbose -eq 1 ]]; then
55         echo "Moving to directory: $1"
56     fi
57     cd "$1" || {
58         LFBFL_cd_result=$?
59         echo "build_md_from_printable_md no such directory"
60         # shellcheck disable=SC2248
61         return ${LFBFL_cd_result}
62     }
63 fi
64
65 local LFBFL_base_name="README"
66 if [[ -n "$2" ]];
67 then
68     if [[ LFBFL_verbose -eq 1 ]]; then
69         echo "Searching md file: $2"
70     fi
71     LFBFL_base_name="$2"
72 fi
73 readonly LFBFL_base_name
74
75 if [[ -f "${LFBFL_base_name}.md.tpl" ]];
76 then
77     sed -Ez -e "${LFBFL_sed_expression}"\
78         -e "${LFBFL_sed_expression}"\
79         -e "${LFBFL_sed_expression}"\
80         -e "${LFBFL_sed_expression}"\
81         "${LFBFL_base_name}.md.tpl"\
82         > "${LFBFL_base_name}.md.temp"
83     overwrite_if_not_equal "${LFBFL_base_name}.md"\

```

```

84     "${LFBFL_base_name}.md.temp"
85 else
86     echo "No file ${LFBFL_base_name}.md.tpl"
87 fi
88
89 pandoc -f markdown "${LFBFL_base_name}.md"\
90 > "${LFBFL_base_name}.html.temp"
91 overwrite_if_not_equal "${LFBFL_base_name}.html"\
92 "${LFBFL_base_name}.html.temp"
93
94 declare -i LFBFL_popd_result
95 popd || {
96     LFBFL_popd_result=$?
97     echo "build_md_from_printable_md no popd"
98     # shellcheck disable=SC2248
99     return ${LFBFL_popd_result}
100 }
101 }
102
103 build_md_from_printable_md "$@"

```

2.3 build_and_checks_dependencies/check_shell_scripts_beginnings.lib.sh

```

1  #!/usr/bin/env bash
2  # This file is part of DevOrSysAdminScripts library.
3  #
4  # DevOrSysAdminScripts is free software:
5  # you can redistribute it and/or modify it under the terms
6  # of the GNU General Public License
7  # as published by the Free Software Foundation,
8  # either version 3 of the License,
9  # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,
13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet

```

```

24 # This file was renamed from "check_shell_scripts_beginnings.sh"
25 # to "check_shell_scripts_beginnings.lib.sh".
26
27 declare -gr LFBFL_SHELL_SCRIPT_BEGINNING="#!/usr/bin/env bash"
28
29 check_one_shell_script_beginning() {
30     # declare -r LFBFL_file_name=$(basename "$1")
31     # if [[ "${LFBFL_file_name}" =~ license_file_header_.*\.sh ]]; then
32     #     return 0
33     # fi
34     # diff <(head -n 1 "$1") <(echo '#!/usr/bin/env bash')
35     # -----
36     # is of course slower than
37     # -----
38     # diff <(head -n 1 "$1") <(echo '#!/usr/bin/env bash')
39     # -----
40     # is of course slower than
41     # -----
42     declare -r LFBFL_head=$(head -n 1 "$1")
43     [[ "${LFBFL_head}" == "${LFBFL_SHELL_SCRIPT_BEGINNING}" ]]\
44     || echo "$1:File has wrong shell script beginning."
45 }
46
47 check_shell_scripts_beginnings() {
48     shopt -s globstar
49     local LFBFL_file_name
50     local LFBFL_head
51     for LFBFL_file_name in **/*.sh; do
52         LFBFL_head=$(head -n 1 "${LFBFL_file_name}")
53         [[ "${LFBFL_head}" == "${LFBFL_SHELL_SCRIPT_BEGINNING}" ]]\|\
54         echo "${LFBFL_file_name}:File has wrong shell script beginning."
55     done
56 }

```

2.4 build_and_checks_dependencies/check_URLs.lib.sh

```

1 #!/usr/bin/env bash
2 # This file is part of DevOrSysAdminScripts library.
3 #
4 # DevOrSysAdminScripts is free software:
5 # you can redistribute it and/or modify it under the terms
6 # of the GNU General Public License
7 # as published by the Free Software Foundation,
8 # either version 3 of the License,
9 # or (at your option) any later version.
10 #

```

```

11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,
13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "check_URLs.sh" to "check_URLs.lib.sh".
25
26 LFBFL_subdir="build_and_checks_dependencies"
27 # shellcheck source=get_common_text_glob_patterns.lib.sh
28 source "${LFBFL_subdir}/get_common_text_glob_patterns.lib.sh"
29 # shellcheck source=lines_filters.lib.sh
30 source "${LFBFL_subdir}/lines_filters.lib.sh"
31
32 check_URLs() {
33     declare -i LFBFL_verbose=0
34     if [[ "$*" == *--verbose* ]]; then
35         echo "$0 $*"
36         LFBFL_verbose=1
37     fi
38     readonly LFBFL_verbose
39
40     if [[ ! -o pipefail ]]; then
41         [[ LFBFL_verbose -eq 1 ]] && echo "pipefail option activated"
42         set -o pipefail
43         trap 'set +o pipefail' RETURN
44     fi
45
46     get_COMMON_TEXT_FILES_GLOB_PATTERNS
47
48     declare -Ar LFBFL_substitutions=(\
49         ["http://www.gnu.org/licenses/"]="https://www.gnu.org/licenses/"\
50     )
51
52     local LFBFL_pattern
53     local LFBFL_file_name
54     local LFBFL_base_file_name
55     local LFBFL_substitution
56     local LFBFL_substitution2

```

```

57 for LFBFL_pattern in "${COMMON_TEXT_FILES_GLOB_PATTERNS[@]}"; do
58     [[ LFBFL_verbose -eq 0 ]]\
59     || echo "Iterating on pattern: ${LFBFL_pattern}"
60     find . -type f -name "${LFBFL_pattern}" -printf '%P\n'\
61         | xargs grep -H 'http:'\
62         | grep -v "|" xargs grep -H 'htt'\
63         | grep -vP "['\"]http(:[^'\"]*)['\"].*['\"]https\\1['\"]"
64     # Last grep just above will remove false positives from
65     # substitutions that fit on one line.
66     find . -type f -name "${LFBFL_pattern}" -printf '%P\n'\
67         | relevant_find\
68         | not_main_html_find\
69         | while read -r LFBFL_file_name;
70     do
71         [[ -f "${LFBFL_file_name}" ]] || continue
72         LFBFL_base_file_name=$(basename "${LFBFL_file_name}")
73         [[ "${LFBFL_base_file_name}" != "check_URLs.lib.sh" ]]\
74         || continue
75         [[ LFBFL_verbose -eq 0 ]]\
76         || echo "Handling the file: ${LFBFL_file_name}"
77         for LFBFL_substitution in "${!LFBFL_substitutions[@]}"; do
78             LFBFL_substitution2=\
79             ${LFBFL_substitutions[${LFBFL_substitution}]}
80             if grep -q "${LFBFL_substitution}" "${LFBFL_file_name}"; then
81                 sed -i "s|${LFBFL_substitution}|${LFBFL_substitution2}|g"\
82                     "${LFBFL_file_name}"
83             fi
84         done
85     done
86 done
87 }

```

2.5 build_and_checks_dependencies/common_build_and_checks.exec.sh

```

1  #!/usr/bin/env bash
2  # This file is part of DevOrSysAdminScripts library.
3  #
4  # DevOrSysAdminScripts is free software:
5  # you can redistribute it and/or modify it under the terms
6  # of the GNU General Public License
7  # as published by the Free Software Foundation,
8  # either version 3 of the License,
9  # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,

```

```

13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24 # The file "common_build_and_checks.exec.sh.tpl" was renamed from
25 # "common_build_and_checks.sh.tpl" to
26 # "common_build_and_checks.exec.sh.tpl".
27 # The file "common_build_and_checks.exec.sh" generated from the file
28 # "common_build_and_checks.sh.tpl"
29 # or "common_build_and_checks.exec.sh.tpl"
30 # was renamed from
31 # "common_build_and_checks.sh" to "common_build_and_checks.exec.sh".
32
33 common_build_and_checks() {
34     # $1 LFBFL_working_directory
35     # $2 LFBFL_dependencies_URL
36     # $3 optional --verbose
37     declare -r LFBFL_working_directory="$1"
38     # declare -r LFBFL_dependencies_URL="$2" too long
39     declare -r LFBFL_start_URL="$2"
40     local LFBFL_verbose=""
41     if [[ "$*" == *--verbose* ]]; then
42         echo "$0 $*"
43         LFBFL_verbose="--verbose"
44     fi
45     readonly LFBFL_verbose
46
47     if [[ ! -o pipefail ]]; then
48         [[ "${LFBFL_verbose}" == "--verbose" ]]\
49         && echo "pipefail option activated"
50         set -o pipefail
51         trap 'set +o pipefail' RETURN
52     fi
53
54     source ./wget_sha512.lib.sh
55
56     LFBFL_subdir="build_and_checks_dependencies"
57     local LFBFL_file_name
58     local LFBFL_URL

```

```

59     local LFBFL_file_path
60
61     LFBFL_file_name="build_md_from_printable_md.exec.sh"
62     # LFBFL_script_download_URL
63     LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
64     LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
65     local LFBFL_correct_sha512
66     LFBFL_correct_sha512='6b079fddec29dc79ef6cb86dab775823feef80fb90b8b'
67     LFBFL_correct_sha512+='96c93edf2d69cec447e8a5016236ef653b11fff6d79a'
68     LFBFL_correct_sha512+='cb1907ad3ddfc78afea2328a9512dbc9c435b60'
69     wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
70         "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
71     chmod +x "${LFBFL_file_path}"
72
73     LFBFL_file_name="check_shell_scripts_beginnings.lib.sh"
74     LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
75     LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
76     local LFBFL_correct_sha512
77     LFBFL_correct_sha512='e0cdfc2d653daf9f15a3447f40e41fe03a332ac4054c4'
78     LFBFL_correct_sha512+='0950efc0b9f58912791068c081babf7a7a9e72bacd57'
79     LFBFL_correct_sha512+='8e600bbb5e0c51466e60e91e5b6dda6173b088b'
80     wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
81         "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
82
83     LFBFL_file_name="check_URLs.lib.sh"
84     LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
85     LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
86     local LFBFL_correct_sha512
87     LFBFL_correct_sha512='57eb676489a194add366eaf73a5e024f72772d5206dab'
88     LFBFL_correct_sha512+='f156dc007ecbccdbfbbf02f9d07ba0cece4efad3de90'
89     LFBFL_correct_sha512+='cfadf4c9balb0868d2ccee222af0b93ed713294'
90     wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
91         "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
92
93     LFBFL_file_name="comparisons.lib.sh"
94     LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
95     LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
96     local LFBFL_correct_sha512
97     LFBFL_correct_sha512='4eb39affeacbe396201014a3d25dlee83f2521dd6f2c1'
98     LFBFL_correct_sha512+='6687ee1915465b3c817f98e136a686b7f5929c2e2a02'
99     LFBFL_correct_sha512+='b86632efd7bc13c167ea19ec03bda15e86f1974'
100    wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
101        "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
102
103    LFBFL_file_name="create_PDF.exec.sh"
104    LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"

```



```

105 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
106 local LFBFL_correct_sha512
107 LFBFL_correct_sha512='ee0846d96cc1f682271f3adc9745e91763a39dd6d8231'
108 LFBFL_correct_sha512+='ebf7f6c82b4193932a95ed15b99d4fd038959ffa128e'
109 LFBFL_correct_sha512+='305b5e5238e368c05ebb322be34b049901ab007'
110 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
111     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
112 chmod +x "${LFBFL_file_path}"
113
114 LFBFL_file_name="generate_from_template.lib.sh"
115 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
116 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
117 local LFBFL_correct_sha512
118 LFBFL_correct_sha512='5779c3d2c64d0bb403525c410e37b0b06fcf1ef97d503'
119 LFBFL_correct_sha512+='21fd27345545a8e8ea020b2d3d809ac5c1bc66f9cebe'
120 LFBFL_correct_sha512+='a8e8ea63aa539eaa179cf09a3860239c96df8e9'
121 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
122     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
123
124 LFBFL_file_name="get_common_text_glob_patterns.lib.sh"
125 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
126 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
127 local LFBFL_correct_sha512
128 LFBFL_correct_sha512='4e0915efcc9a4088b1f79c9c7efbf7da5d68e8e1b21ff'
129 LFBFL_correct_sha512+='feb4746c9d468be80affa30babf35938e15f9161db3e'
130 LFBFL_correct_sha512+='3f6d95c913b86638563d7bd2995dc58a26f8e3a'
131 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
132     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
133
134 LFBFL_file_name="grammar_and_spell_check.lib.sh"
135 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
136 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
137 local LFBFL_correct_sha512
138 LFBFL_correct_sha512='02715a24232540522fad3617c702ce7e0003242dffd32'
139 LFBFL_correct_sha512+='174f7b823538bd618066328b1f71ff6888dfcdele3ed'
140 LFBFL_correct_sha512+='9ccacf09b0e2e9e8bbbc03b5e4453f33377ae4d'
141 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
142     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
143
144 # /licenses_templates/ -----
145 declare -r LFBFL_subdir2="${LFBFL_subdir}/licenses_templates"
146 declare -r LFBFL_start_URL2="${LFBFL_start_URL}/licenses_templates"
147 LFBFL_file_name="build_licenses_templates.exec.sh"
148 LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
149 LFBFL_file_path="./${LFBFL_subdir2}/${LFBFL_file_name}"
150 local LFBFL_correct_sha512

```

```

151 LFBFL_correct_sha512='e78104ceca6b2dc3bec1bcf97f00f17f487b5a27882d9'
152 LFBFL_correct_sha512+='956a85503bfd9795c881a7487929ece8141c4bd12cc4'
153 LFBFL_correct_sha512+='fb765941f2124dc1199176672a5d409fdb0836b'
154 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
155     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
156 chmod +x "${LFBFL_file_path}"
157
158 LFBFL_file_name="license_file_header_AGPLv3+.tpl"
159 LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
160 LFBFL_file_path="./${LFBFL_subdir2}/${LFBFL_file_name}"
161 local LFBFL_correct_sha512
162 LFBFL_correct_sha512='9f9aa56d9b90d5003a12c5ec3370ac31aab74fc4a2524'
163 LFBFL_correct_sha512+='2c5fbc0197b0abbb8242f62dafc76eaf60faa5da173'
164 LFBFL_correct_sha512+='05924b31b64b037083532fced9f98445000e2d0'
165 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
166     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
167
168 LFBFL_file_name="license_file_header_GPLv3+.tpl"
169 LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
170 LFBFL_file_path="./${LFBFL_subdir2}/${LFBFL_file_name}"
171 local LFBFL_correct_sha512
172 LFBFL_correct_sha512='2bdef9a729a5a9ca5ed87ef8a518877c5ee6b31b45336'
173 LFBFL_correct_sha512+='08660316a4e595fb31465a4847f4d53a2f7264118bd4'
174 LFBFL_correct_sha512+='eab7c1d1892e00bc1861455ed02898f194db067'
175 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
176     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
177
178 LFBFL_file_name="license_file_header_LGPLv3+.tpl"
179 LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
180 LFBFL_file_path="./${LFBFL_subdir2}/${LFBFL_file_name}"
181 local LFBFL_correct_sha512
182 LFBFL_correct_sha512='265fd0d086b48ab798f35a072335a4976e4eda8c256fe'
183 LFBFL_correct_sha512+='bba6c77c98ca86cdd844c6ac150c3445c80debbb3fc2'
184 LFBFL_correct_sha512+='574b5fceeaf79ec734a759bdef5fe798067c62'
185 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
186     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
187 # -----
188
189 LFBFL_file_name="lines_counts.lib.sh"
190 LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
191 LFBFL_file_path="./${LFBFL_subdir2}/${LFBFL_file_name}"
192 local LFBFL_correct_sha512
193 LFBFL_correct_sha512='d8c22afd747f1e255b773edbf705030d0064f711dd5d9'
194 LFBFL_correct_sha512+='4d8cb51049310f0fad2495103dfb7cd200500ebcc85d'
195 LFBFL_correct_sha512+='884f087a2d54fe9a47bc5c5e58b68963ee432a8'
196 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \

```

```

197     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
198
199     LFBFL_file_name="lines_filters.lib.sh"
200     LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
201     LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
202     local LFBFL_correct_sha512
203     LFBFL_correct_sha512='6d9cc9935b6635dc165077b78c6f19e3c568150a4b796'
204     LFBFL_correct_sha512+='80c2f0214e3e55defdbf9f8a3d3452574328b370d68a'
205     LFBFL_correct_sha512+='58145855e402860f61ed16a161b9e27e49a5d68'
206     wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
207         "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
208
209     LFBFL_file_name="lines_maps.lib.sh"
210     LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
211     LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
212     local LFBFL_correct_sha512
213     LFBFL_correct_sha512='25c3e5082951260295b5f0e87ba1f2c978efdeale8926'
214     LFBFL_correct_sha512+='072ce4d2062dc2a47bb92b9098f081e553eeae5d9154'
215     LFBFL_correct_sha512+='fdc50c9d88ae5365b776a23eb6e026b884a8374'
216     wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
217         "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
218
219     LFBFL_file_name="overwrite_if_not_equal.lib.sh"
220     LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
221     LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
222     local LFBFL_correct_sha512
223     LFBFL_correct_sha512='8df9334f8204bdb9b098f638d15a3db2dd0ce4446203f'
224     LFBFL_correct_sha512+='fe26678cb3c2b3b26cb0b89957490af5fa21c149a525'
225     LFBFL_correct_sha512+='baf5e3d4999f432f9ff384616631cdc111507cf'
226     wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
227         "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
228
229     LFBFL_file_name="python_black_complement.lib.sh"
230     LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
231     LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
232     local LFBFL_correct_sha512
233     LFBFL_correct_sha512='e28c6e0cffffe6b8eebef26bddfbb440f0303d0dcc3987'
234     LFBFL_correct_sha512+='6d498d95b9d589e0800b8381124936e5103b372f509c'
235     LFBFL_correct_sha512+='aeb6213e909710a2ec1e345e076a44f0006fdbb'
236     wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
237         "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
238
239     LFBFL_file_name="python_isort_complement.lib.sh"
240     LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
241     LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
242     local LFBFL_correct_sha512

```

```

243 LFBFL_correct_sha512='c30880d1e72331f6aa37b04c50863b53b5cb1020de0f2'
244 LFBFL_correct_sha512+='cf2c8969d464e62f74a0e56cdec8afba0ef4efc9e73c'
245 LFBFL_correct_sha512+='85718e822b08ff8c65c1e3aa59759d9e28f36f6'
246 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
247     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
248
249 LFBFL_file_name="split_score.exec.php"
250 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
251 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
252 local LFBFL_correct_sha512
253 LFBFL_correct_sha512='2f7ff107a43716109b1acbd7d89870d05577af00a981a'
254 LFBFL_correct_sha512+='05f162a054c96387fb99544f8225c333b1212f74326c'
255 LFBFL_correct_sha512+='f9ec6196e796f6257dfbba9347ac8c57b4f09db'
256 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
257     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
258
259 LFBFL_file_name="split_score.lib.php"
260 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
261 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
262 local LFBFL_correct_sha512
263 LFBFL_correct_sha512='1413898a4fb4f31ca17993fd6110f7e1f32adf31c22c4'
264 LFBFL_correct_sha512+='7fa46a31d3c1511a3112a611e04fac19bb838d4476d9'
265 LFBFL_correct_sha512+='ecf77a28dd48d3d2732df7392c50e38262852d7'
266 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
267     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
268
269 LFBFL_file_name="strings_functions.lib.sh"
270 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
271 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
272 local LFBFL_correct_sha512
273 LFBFL_correct_sha512='e6b0874ca00fde41fe5e1c82c5e97fcc3b7e9707b5135'
274 LFBFL_correct_sha512+='a7d93bcb6e2c4f992fb962e15f6dcc14a10ca8f32911'
275 LFBFL_correct_sha512+='c08bc5a4b463db3814de168a0147072479412f7'
276 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
277     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
278
279 LFBFL_file_name="too_long_code_lines.lib.sh"
280 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
281 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
282 local LFBFL_correct_sha512
283 LFBFL_correct_sha512='7e95026a39c11b044e920c93a5ee16f12aec5f69cb60f'
284 LFBFL_correct_sha512+='31bbaee9e5cd0a5cab5928820e28c881343e0d426eb9'
285 LFBFL_correct_sha512+='37f1269263fde065dddf413f15b6b3c6d25ca96'
286 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
287     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
288

```

```

289 LFBFL_file_name="update_or_check_files_names_listing.exec.sh"
290 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
291 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
292 local LFBFL_correct_sha512
293 LFBFL_correct_sha512='c70be896c37f78e4b7a6f72f01f4aeb7c1f895b28a923'
294 LFBFL_correct_sha512+='7066fd546ba2d787b5e3fb0blecc136641019231e510'
295 LFBFL_correct_sha512+='cfcbf81b580507d00f6b9b39cdff9c540e34018'
296 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
297     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
298 chmod +x "${LFBFL_file_path}"
299
300 shopt -s globstar
301 # shellcheck source=check_shell_scripts_beginnings.lib.sh
302 source "${LFBFL_subdir}/check_shell_scripts_beginnings.lib.sh"
303 # shellcheck source=check_URLs.lib.sh
304 source "${LFBFL_subdir}/check_URLs.lib.sh"
305 # shellcheck source=comparisons.lib.sh
306 source "${LFBFL_subdir}/comparisons.lib.sh"
307 # shellcheck source=generate_from_template.lib.sh
308 source "${LFBFL_subdir}/generate_from_template.lib.sh"
309 # shellcheck source=get_common_text_glob_patterns.lib.sh
310 source "${LFBFL_subdir}/get_common_text_glob_patterns.lib.sh"
311 # shellcheck source=grammar_and_spell_check.lib.sh
312 source "${LFBFL_subdir}/grammar_and_spell_check.lib.sh"
313 # shellcheck source=lines_counts.lib.sh
314 source "${LFBFL_subdir}/lines_counts.lib.sh"
315 # shellcheck source=lines_filters.lib.sh
316 source "${LFBFL_subdir}/lines_filters.lib.sh"
317 # shellcheck source=lines_maps.lib.sh
318 source "${LFBFL_subdir}/lines_maps.lib.sh"
319 # shellcheck source=overwrite_if_not_equal.lib.sh
320 source "${LFBFL_subdir}/overwrite_if_not_equal.lib.sh"
321 # shellcheck source=python_black_complement.lib.sh
322 source "${LFBFL_subdir}/python_black_complement.lib.sh"
323 # shellcheck source=python_isort_complement.lib.sh
324 source "${LFBFL_subdir}/python_isort_complement.lib.sh"
325 # shellcheck source=strings_functions.lib.sh
326 source "${LFBFL_subdir}/strings_functions.lib.sh"
327 # shellcheck source=too_long_code_lines.lib.sh
328 source "${LFBFL_subdir}/too_long_code_lines.lib.sh"
329
330 local LFBFL_data_file_name=\
331 "build_and_checks_variables/repository_data.txt"
332
333 declare -i LFBFL_upgrade_venvs=0
334 declare -r LFBFL_upgrade_venvs_ts_file=\

```

```

335 "build_and_checks_variables/upgrade_venvs_ts"
336 declare -i LFBFL_upgrade_venvs_ts
337 declare -i LFBFL_current_ts
338 local LFBFL_upgrade_venvs_answer
339
340 upgrade_venvs_time_interval_in_seconds=""
341 grep_variable "${LFBFL_data_file_name}" \
342     upgrade_venvs_time_interval_in_seconds
343 if [[ "${upgrade_venvs_time_interval_in_seconds}" == "wat" ]]; then
344     upgrade_venvs_time_interval_in_seconds=${RANDOM}
345 fi
346 if
347 [[ "${upgrade_venvs_time_interval_in_seconds}" == "watyouwant?" ]];
348 then
349     upgrade_venvs_time_interval_in_seconds=${SRANDOM}
350 fi
351
352 if [[ -f "${LFBFL_upgrade_venvs_ts_file}" ]]; then
353     LFBFL_upgrade_venvs_ts=\
354 $(stat -c %Y "${LFBFL_upgrade_venvs_ts_file}")
355     LFBFL_current_ts=$(date +%s)
356     ((LFBFL_current_ts-=LFBFL_upgrade_venvs_ts))
357     ((LFBFL_current_ts-=upgrade_venvs_time_interval_in_seconds))
358     if [[ LFBFL_current_ts -gt 0 ]]; then
359         LFBFL_upgrade_venvs=1
360     fi
361 else
362     LFBFL_upgrade_venvs=1
363 fi
364 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
365     upgrade_venvs=""
366     grep_variable "${LFBFL_data_file_name}" upgrade_venvs
367     if [[ "${upgrade_venvs}" != "auto" ]]; then
368         read -r -n 1 -t 10 \
369             -p "Upgrade venvs and composer global? [Y/n]" \
370             LFBFL_upgrade_venvs_answer
371         if [[ "${LFBFL_upgrade_venvs_answer}" == "n" ]]; then
372             LFBFL_upgrade_venvs=0
373         fi
374     fi
375 fi
376
377 echo "Building license headers"
378 "./${LFBFL_subdir2}/build_licenses_templates.exec.sh" \
379     "${LFBFL_working_directory}" "${LFBFL_verbose}"
380

```

```

381 echo "Building README.md"
382 "./${LFBFL_subdir}/build_md_from_printable_md.exec.sh"\
383     "${LFBFL_working_directory}" "README" "${LFBFL_verbose}"
384
385 echo "Building other Markdown files"
386 local LFBFL_some_directory
387 declare -r LFBFL_readme="${LFBFL_working_directory}/README.md.tpl"
388 find "${LFBFL_working_directory}" -name "*.md.tpl"\
389     | relevant_find\
390     | while read -r LFBFL_file_path;
391 do
392     [[ "${LFBFL_file_path}" == "${LFBFL_readme}" ]] && continue
393     echo "Found template ${LFBFL_file_path}"
394     LFBFL_some_directory=$(dirname "${LFBFL_file_path}")
395     LFBFL_file_name=$(basename "${LFBFL_file_path}")
396     LFBFL_file_name=${LFBFL_file_name%.md.tpl}
397     "./${LFBFL_subdir}/build_md_from_printable_md.exec.sh"\
398         "${LFBFL_some_directory}" "${LFBFL_file_name}"\
399         "${LFBFL_verbose}"
400 done
401
402 declare -i LFBFL_cd_result
403 pushd .
404 cd "${LFBFL_working_directory}" || {
405     LFBFL_cd_result=$?
406     echo "common_build_and_checks.exec.sh no such directory"
407     # shellcheck disable=SC2248
408     return ${LFBFL_cd_result}
409 }
410
411 echo "Running shellcheck"
412 declare -i LFBFL_file_path_length
413 declare -i LFBFL_to_skip_number
414 local LFBFL_file_path_end
415 find . -name "*.sh"\
416     | relevant_find\
417     | while read -r LFBFL_file_path;
418 do
419     LFBFL_file_path_length=${#LFBFL_file_path}
420     LFBFL_to_skip_number=$((LFBFL_file_path_length - 9))
421     LFBFL_file_path_end="${LFBFL_file_path:${LFBFL_to_skip_number}}"
422     if [[ "${LFBFL_file_path_end}" == "GPLv3+.sh" ]]; then
423         continue
424     fi
425     shellcheck --rcfile=build_and_checks_variables/shellcheck.ini\
426         "${LFBFL_file_path}"

```

```

427 done
428
429 echo "---Python---"
430 echo "Running isort"
431 isort_venv=""
432 grep_variable "${LFBFL_data_file_name}" isort_venv
433 if [[ -n "${isort_venv}" ]]; then
434     if command -v deactivate
435     then
436         deactivate
437     fi
438     # shellcheck disable=SC1090,SC1091
439     source "${isort_venv}/bin/activate"
440 fi
441 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
442     pip install --upgrade isort
443 fi
444 isort .
445 if [[ -n "${isort_venv}" ]]; then
446     deactivate
447 fi
448 python_isort_complement
449
450 echo "Running black"
451 black_venv=""
452 grep_variable "${LFBFL_data_file_name}" black_venv
453 if [[ -n "${black_venv}" ]]; then
454     if command -v deactivate
455     then
456         deactivate
457     fi
458     # shellcheck disable=SC1090,SC1091
459     source "${black_venv}/bin/activate"
460 fi
461 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
462     pip install --upgrade black
463 fi
464 black .
465 if [[ -n "${black_venv}" ]]; then
466     deactivate
467 fi
468 python_black_complement
469
470 mypy_venv=""
471 grep_variable "${LFBFL_data_file_name}" mypy_venv
472 if [[ -n "${mypy_venv}" ]]; then

```



```

473     if command -v deactivate
474     then
475         deactivate
476     fi
477     # shellcheck disable=SC1090,SC1091
478     source "${mypy_venv}/bin/activate"
479 fi
480 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
481     pip install --upgrade mypy
482 fi
483 shopt -s lastpipe
484 local LFBFL_directory_path
485 declare -i LFBFL_no_toml=1
486 find . -name "pyproject.toml" \
487     | relevant_find \
488     | while read -r LFBFL_file_path;
489 do
490     if grep -q "Typing :: Typed" "${LFBFL_file_path}"; then
491         echo "Running mypy"
492         LFBFL_directory_path=$(dirname "${LFBFL_file_path}")
493         mypy "${LFBFL_directory_path}"
494     fi
495     LFBFL_no_toml=0
496 done
497 if [[ LFBFL_no_toml -eq 1 ]]; then
498     echo "Running mypy"
499     mypy .
500 fi
501 if [[ -n "${mypy_venv}" ]]; then
502     deactivate
503 fi
504
505 echo "Running bandit"
506 bandit_venv=""
507 grep_variable "${LFBFL_data_file_name}" bandit_venv
508 if [[ -n "${bandit_venv}" ]]; then
509     if command -v deactivate
510     then
511         deactivate
512     fi
513     # shellcheck disable=SC1090,SC1091
514     source "${bandit_venv}/bin/activate"
515 fi
516 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
517     pip install --upgrade bandit
518 fi

```

```

519 bandit --ini build_and_checks_variables/bandit.ini\
520       -b build_and_checks_variables/bandit_baseline.json\
521       -r .
522 # Saving new baseline in temp if necessary.
523 bandit --ini build_and_checks_variables/bandit.ini\
524       -f json -o build_and_checks_variables/temp/bandit_baseline.json\
525       -r .
526 if [[ -n "${bandit_venv}" ]]; then
527     deactivate
528 fi
529
530 echo "Running pylint"
531 pylint_venv=""
532 grep_variable "${LFBFL_data_file_name}" pylint_venv
533 if [[ -n "${pylint_venv}" ]]; then
534     if command -v deactivate
535     then
536         deactivate
537     fi
538     # shellcheck disable=SC1090,SC1091
539     source "${pylint_venv}/bin/activate"
540 fi
541 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
542     pip install --upgrade pylint
543 fi
544 pylint --rcfile build_and_checks_variables/pylintrc.toml\
545       --recursive=y .
546 if [[ -n "${pylint_venv}" ]]; then
547     deactivate
548 fi
549
550 echo "Running ruff"
551 ruff_venv=""
552 grep_variable "${LFBFL_data_file_name}" ruff_venv
553 if [[ -n "${ruff_venv}" ]]; then
554     if command -v deactivate
555     then
556         deactivate
557     fi
558     # shellcheck disable=SC1090,SC1091
559     source "${ruff_venv}/bin/activate"
560 fi
561 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
562     pip install --upgrade ruff
563 fi
564 ruff check --config build_and_checks_variables/ruff.toml

```

```

565     if [[ -n "${ruff_venv}" ]]; then
566         deactivate
567     fi
568     echo "---Python end---"
569
570     echo "---PHP---"
571     echo "Running PHPMD"
572     if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
573         composer global require phpmd/phpmd
574     fi
575     phpmd --color\
576         --baseline-file build_and_checks_variables/phpmd_baseline.xml\
577         . text cleancode, codesize, controversial, design, naming, unusedcode
578     # Saving new baseline in temp if necessary.
579     rm build_and_checks_variables/temp/phpmd_baseline.xml
580     phpmd --color --generate-baseline\
581         --baseline-file build_and_checks_variables/temp/phpmd_baseline.xml\
582         . text cleancode, codesize, controversial, design, naming, unusedcode
583     echo "---PHP end---"
584
585     echo "---JS---"
586     npm_lint_directories=""
587     grep_variable "${LFBFL_data_file_name}" npm_lint_directories
588     if [[ -n "${npm_lint_directories}" ]]; then
589         echo "Running ESLint"
590         local LFBFL_JS_directory
591         echo "${npm_lint_directories}"\
592             | sed -e 's/\n/\n/g'\
593             | while read -r LFBFL_JS_directory;
594         do
595             (cd "${LFBFL_JS_directory}" && npm run lint)
596         done
597     fi
598     echo "---JS end---"
599
600     if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
601         touch "${LFBFL_upgrade_venvs_ts_file}"
602     fi
603
604     echo "Analyzing too long lines"
605     too_long_code_lines "$@"
606
607     echo "Analyzing shell scripts beginnings"
608     check_shell_scripts_beginnings\
609         | relevant_grep
610

```

```

611 echo "Analyzing URLs"
612 check_URLs "$@" \
613     | relevant_grep
614
615 echo "Analyzing strange characters: hover over in doubt"
616 # shellcheck disable=SC1111
617 LFBFL_usual_characters="\x00-\x7Fàâéèëëîïôûç@'\"`|«»"
618 grep --exclude-dir .git --color=always\
619     -nPr "[^${LFBFL_usual_characters}]" .
620
621 echo "Checking listed files"
622 "./${LFBFL_subdir}/update_or_check_files_names_listing.exec.sh"
623
624 echo "Creating the PDF file of the listing of the source code"
625 "./${LFBFL_subdir}/create_PDF.exec.sh" "${LFBFL_verbose}"
626
627 if [[ -f "build_and_checks_variables/post_build.sh" ]]; then
628     ./build_and_checks_variables/post_build.sh
629 fi
630
631 declare -i LFBFL_popd_result
632 popd || {
633     LFBFL_popd_result=$?
634     echo "common_build_and_checks.exec.sh no popd"
635     # shellcheck disable=SC2248
636     return ${LFBFL_popd_result}
637 }
638 }
639
640 common_build_and_checks "$@"

```

2.6 build_and_checks_dependencies/common_build_and_checks.exec.sh.tpl

```

1  #!/usr/bin/env bash
2  # This file is part of DevOrSysAdminScripts library.
3  #
4  # DevOrSysAdminScripts is free software:
5  # you can redistribute it and/or modify it under the terms
6  # of the GNU General Public License
7  # as published by the Free Software Foundation,
8  # either version 3 of the License,
9  # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,
13 # but WITHOUT ANY WARRANTY;

```

```

14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24 # The file "common_build_and_checks.exec.sh.tpl" was renamed from
25 # "common_build_and_checks.sh.tpl" to
26 # "common_build_and_checks.exec.sh.tpl".
27 # The file "common_build_and_checks.exec.sh" generated from the file
28 # "common_build_and_checks.sh.tpl"
29 # or "common_build_and_checks.exec.sh.tpl"
30 # was renamed from
31 # "common_build_and_checks.sh" to "common_build_and_checks.exec.sh".
32
33 common_build_and_checks() {
34     # $1 LFBFL_working_directory
35     # $2 LFBFL_dependencies_URL
36     # $3 optional --verbose
37     declare -r LFBFL_working_directory="$1"
38     # declare -r LFBFL_dependencies_URL="$2" too long
39     declare -r LFBFL_start_URL="$2"
40     local LFBFL_verbose=""
41     if [[ "$*" == *--verbose* ]]; then
42         echo "$0 $*"
43         LFBFL_verbose="--verbose"
44     fi
45     readonly LFBFL_verbose
46
47     if [[ ! -o pipefail ]]; then
48         [[ "${LFBFL_verbose}" == "--verbose" ]]\
49         && echo "pipefail option activated"
50         set -o pipefail
51         trap 'set +o pipefail' RETURN
52     fi
53
54     source ./wget_sha512.lib.sh
55
56     LFBFL_subdir="build_and_checks_dependencies"
57     local LFBFL_file_name
58     local LFBFL_URL
59     local LFBFL_file_path

```

```

60
61 LFBFL_file_name="build_md_from_printable_md.exec.sh"
62 # LFBFL_script_download_URL
63 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
64 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
65 @sha512_build_md_from_printable_md.exec.sh@
66 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
67     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
68 chmod +x "${LFBFL_file_path}"
69
70 LFBFL_file_name="check_shell_scripts_beginnings.lib.sh"
71 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
72 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
73 @sha512_check_shell_scripts_beginnings.lib.sh@
74 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
75     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
76
77 LFBFL_file_name="check_URLs.lib.sh"
78 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
79 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
80 @sha512_check_URLs.lib.sh@
81 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
82     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
83
84 LFBFL_file_name="comparisons.lib.sh"
85 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
86 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
87 @sha512_comparisons.lib.sh@
88 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
89     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
90
91 LFBFL_file_name="create_PDF.exec.sh"
92 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
93 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
94 @sha512_create_PDF.exec.sh@
95 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
96     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
97 chmod +x "${LFBFL_file_path}"
98
99 LFBFL_file_name="generate_from_template.lib.sh"
100 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
101 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
102 @sha512_generate_from_template.lib.sh@
103 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
104     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
105

```

```

106 LFBFL_file_name="get_common_text_glob_patterns.lib.sh"
107 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
108 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
109 @sha512_get_common_text_glob_patterns.lib.sh@
110 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
111     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
112
113 LFBFL_file_name="grammar_and_spell_check.lib.sh"
114 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
115 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
116 @sha512_grammar_and_spell_check.lib.sh@
117 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
118     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
119
120 # /licenses_templates/ -----
121 declare -r LFBFL_subdir2="${LFBFL_subdir}/licenses_templates"
122 declare -r LFBFL_start_URL2="${LFBFL_start_URL}/licenses_templates"
123 LFBFL_file_name="build_licenses_templates.exec.sh"
124 LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
125 LFBFL_file_path="./${LFBFL_subdir2}/${LFBFL_file_name}"
126 @sha512_build_licenses_templates.exec.sh@
127 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
128     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
129 chmod +x "${LFBFL_file_path}"
130
131 LFBFL_file_name="license_file_header_AGPLv3+.tpl"
132 LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
133 LFBFL_file_path="./${LFBFL_subdir2}/${LFBFL_file_name}"
134 @sha512_license_file_header_AGPLv3+.tpl@
135 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
136     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
137
138 LFBFL_file_name="license_file_header_GPLv3+.tpl"
139 LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
140 LFBFL_file_path="./${LFBFL_subdir2}/${LFBFL_file_name}"
141 @sha512_license_file_header_GPLv3+.tpl@
142 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
143     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
144
145 LFBFL_file_name="license_file_header_LGPLv3+.tpl"
146 LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
147 LFBFL_file_path="./${LFBFL_subdir2}/${LFBFL_file_name}"
148 @sha512_license_file_header_LGPLv3+.tpl@
149 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
150     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
151 # -----

```

```

152
153 LFBFL_file_name="lines_counts.lib.sh"
154 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
155 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
156 @sha512_lines_counts.lib.sh@
157 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
158     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
159
160 LFBFL_file_name="lines_filters.lib.sh"
161 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
162 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
163 @sha512_lines_filters.lib.sh@
164 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
165     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
166
167 LFBFL_file_name="lines_maps.lib.sh"
168 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
169 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
170 @sha512_lines_maps.lib.sh@
171 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
172     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
173
174 LFBFL_file_name="overwrite_if_not_equal.lib.sh"
175 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
176 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
177 @sha512_overwrite_if_not_equal.lib.sh@
178 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
179     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
180
181 LFBFL_file_name="python_black_complement.lib.sh"
182 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
183 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
184 @sha512_python_black_complement.lib.sh@
185 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
186     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
187
188 LFBFL_file_name="python_isort_complement.lib.sh"
189 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
190 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
191 @sha512_python_isort_complement.lib.sh@
192 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
193     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
194
195 LFBFL_file_name="split_score.exec.php"
196 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
197 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"

```



```

198 @sha512_split_score.exec.php@
199 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
200     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
201
202 LFBFL_file_name="split_score.lib.php"
203 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
204 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
205 @sha512_split_score.lib.php@
206 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
207     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
208
209 LFBFL_file_name="strings_functions.lib.sh"
210 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
211 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
212 @sha512_strings_functions.lib.sh@
213 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
214     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
215
216 LFBFL_file_name="too_long_code_lines.lib.sh"
217 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
218 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
219 @sha512_too_long_code_lines.lib.sh@
220 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
221     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
222
223 LFBFL_file_name="update_or_check_files_names_listing.exec.sh"
224 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
225 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
226 @sha512_update_or_check_files_names_listing.exec.sh@
227 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
228     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
229 chmod +x "${LFBFL_file_path}"
230
231 shopt -s globstar
232 # shellcheck source=check_shell_scripts_beginnings.lib.sh
233 source "${LFBFL_subdir}/check_shell_scripts_beginnings.lib.sh"
234 # shellcheck source=check_URLs.lib.sh
235 source "${LFBFL_subdir}/check_URLs.lib.sh"
236 # shellcheck source=comparisons.lib.sh
237 source "${LFBFL_subdir}/comparisons.lib.sh"
238 # shellcheck source=generate_from_template.lib.sh
239 source "${LFBFL_subdir}/generate_from_template.lib.sh"
240 # shellcheck source=get_common_text_glob_patterns.lib.sh
241 source "${LFBFL_subdir}/get_common_text_glob_patterns.lib.sh"
242 # shellcheck source=grammar_and_spell_check.lib.sh
243 source "${LFBFL_subdir}/grammar_and_spell_check.lib.sh"

```

```

244 # shellcheck source=lines_counts.lib.sh
245 source "${LFBFL_subdir}/lines_counts.lib.sh"
246 # shellcheck source=lines_filters.lib.sh
247 source "${LFBFL_subdir}/lines_filters.lib.sh"
248 # shellcheck source=lines_maps.lib.sh
249 source "${LFBFL_subdir}/lines_maps.lib.sh"
250 # shellcheck source=overwrite_if_not_equal.lib.sh
251 source "${LFBFL_subdir}/overwrite_if_not_equal.lib.sh"
252 # shellcheck source=python_black_complement.lib.sh
253 source "${LFBFL_subdir}/python_black_complement.lib.sh"
254 # shellcheck source=python_isort_complement.lib.sh
255 source "${LFBFL_subdir}/python_isort_complement.lib.sh"
256 # shellcheck source=strings_functions.lib.sh
257 source "${LFBFL_subdir}/strings_functions.lib.sh"
258 # shellcheck source=too_long_code_lines.lib.sh
259 source "${LFBFL_subdir}/too_long_code_lines.lib.sh"
260
261 local LFBFL_data_file_name=\
262 "build_and_checks_variables/repository_data.txt"
263
264 declare -i LFBFL_upgrade_venvs=0
265 declare -r LFBFL_upgrade_venvs_ts_file=\
266 "build_and_checks_variables/upgrade_venvs_ts"
267 declare -i LFBFL_upgrade_venvs_ts
268 declare -i LFBFL_current_ts
269 local LFBFL_upgrade_venvs_answer
270
271 upgrade_venvs_time_interval_in_seconds=""
272 grep_variable "${LFBFL_data_file_name}" \
273 upgrade_venvs_time_interval_in_seconds
274 if [[ "${upgrade_venvs_time_interval_in_seconds}" == "wat" ]]; then
275     upgrade_venvs_time_interval_in_seconds=${RANDOM}
276 fi
277 if
278 [[ "${upgrade_venvs_time_interval_in_seconds}" == "watyouwant?" ]];
279 then
280     upgrade_venvs_time_interval_in_seconds=${SRANDOM}
281 fi
282
283 if [[ -f "${LFBFL_upgrade_venvs_ts_file}" ]]; then
284     LFBFL_upgrade_venvs_ts=\
285 $(stat -c %Y "${LFBFL_upgrade_venvs_ts_file}")
286     LFBFL_current_ts=$(date +%s)
287     ((LFBFL_current_ts==LFBFL_upgrade_venvs_ts))
288     ((LFBFL_current_ts==upgrade_venvs_time_interval_in_seconds))
289     if [[ LFBFL_current_ts -gt 0 ]]; then

```

```

290         LFBFL_upgrade_venvs=1
291     fi
292 else
293     LFBFL_upgrade_venvs=1
294 fi
295 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
296     upgrade_venvs=""
297     grep_variable "${LFBFL_data_file_name}" upgrade_venvs
298     if [[ "${upgrade_venvs}" != "auto" ]]; then
299         read -r -n 1 -t 10\
300             -p "Upgrade venvs and composer global? [Y/n]" \
301             LFBFL_upgrade_venvs_answer
302         if [[ "${LFBFL_upgrade_venvs_answer}" == "n" ]]; then
303             LFBFL_upgrade_venvs=0
304         fi
305     fi
306 fi
307
308 echo "Building license headers"
309 "./${LFBFL_subdir2}/build_licenses_templates.exec.sh" \
310     "${LFBFL_working_directory}" "${LFBFL_verbose}"
311
312 echo "Building README.md"
313 "./${LFBFL_subdir}/build_md_from_printable_md.exec.sh" \
314     "${LFBFL_working_directory}" "README" "${LFBFL_verbose}"
315
316 echo "Building other MarkDown files"
317 local LFBFL_some_directory
318 declare -r LFBFL_readme="${LFBFL_working_directory}/README.md.tpl"
319 find "${LFBFL_working_directory}" -name "*.md.tpl" \
320     | relevant_find\
321     | while read -r LFBFL_file_path;
322 do
323     [[ "${LFBFL_file_path}" == "${LFBFL_readme}" ]] && continue
324     echo "Found template ${LFBFL_file_path}"
325     LFBFL_some_directory=$(dirname "${LFBFL_file_path}")
326     LFBFL_file_name=$(basename "${LFBFL_file_path}")
327     LFBFL_file_name=${LFBFL_file_name%.md.tpl}
328     "./${LFBFL_subdir}/build_md_from_printable_md.exec.sh" \
329         "${LFBFL_some_directory}" "${LFBFL_file_name}" \
330         "${LFBFL_verbose}"
331 done
332
333 declare -i LFBFL_cd_result
334 pushd .
335 cd "${LFBFL_working_directory}" || {

```

```

336     LFBFL_cd_result=$?
337     echo "common_build_and_checks.exec.sh no such directory"
338     # shellcheck disable=SC2248
339     return ${LFBFL_cd_result}
340 }
341
342 echo "Running shellcheck"
343 declare -i LFBFL_file_path_length
344 declare -i LFBFL_to_skip_number
345 local LFBFL_file_path_end
346 find . -name "*.sh" \
347     | relevant_find \
348     | while read -r LFBFL_file_path;
349 do
350     LFBFL_file_path_length=${#LFBFL_file_path}
351     LFBFL_to_skip_number=$((LFBFL_file_path_length - 9))
352     LFBFL_file_path_end="${LFBFL_file_path:${LFBFL_to_skip_number}}"
353     if [[ "${LFBFL_file_path_end}" == "GPLv3+.sh" ]]; then
354         continue
355     fi
356     shellcheck --rcfile=build_and_checks_variables/shellcheck.ini \
357         "${LFBFL_file_path}"
358 done
359
360 echo "---Python---"
361 echo "Running isort"
362 isort_venv=""
363 grep_variable "${LFBFL_data_file_name}" isort_venv
364 if [[ -n "${isort_venv}" ]]; then
365     if command -v deactivate
366     then
367         deactivate
368     fi
369     # shellcheck disable=SC1090,SC1091
370     source "${isort_venv}/bin/activate"
371 fi
372 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
373     pip install --upgrade isort
374 fi
375 isort .
376 if [[ -n "${isort_venv}" ]]; then
377     deactivate
378 fi
379 python_isort_complement
380
381 echo "Running black"

```

```

382 black_venv=""
383 grep_variable "${LFBFL_data_file_name}" black_venv
384 if [[ -n "${black_venv}" ]]; then
385     if command -v deactivate
386     then
387         deactivate
388     fi
389     # shellcheck disable=SC1090,SC1091
390     source "${black_venv}/bin/activate"
391 fi
392 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
393     pip install --upgrade black
394 fi
395 black .
396 if [[ -n "${black_venv}" ]]; then
397     deactivate
398 fi
399 python_black_complement
400
401 mypy_venv=""
402 grep_variable "${LFBFL_data_file_name}" mypy_venv
403 if [[ -n "${mypy_venv}" ]]; then
404     if command -v deactivate
405     then
406         deactivate
407     fi
408     # shellcheck disable=SC1090,SC1091
409     source "${mypy_venv}/bin/activate"
410 fi
411 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
412     pip install --upgrade mypy
413 fi
414 shopt -s lastpipe
415 local LFBFL_directory_path
416 declare -i LFBFL_no_toml=1
417 find . -name "pyproject.toml" \
418     | relevant_find \
419     | while read -r LFBFL_file_path;
420 do
421     if grep -q "Typing :: Typed" "${LFBFL_file_path}"; then
422         echo "Running mypy"
423         LFBFL_directory_path=$(dirname "${LFBFL_file_path}")
424         mypy "${LFBFL_directory_path}"
425     fi
426     LFBFL_no_toml=0
427 done

```

```

428 if [[ LFBFL_no_toml -eq 1 ]]; then
429     echo "Running mypy"
430     mypy .
431 fi
432 if [[ -n "${mypy_venv}" ]]; then
433     deactivate
434 fi
435
436 echo "Running bandit"
437 bandit_venv=""
438 grep_variable "${LFBFL_data_file_name}" bandit_venv
439 if [[ -n "${bandit_venv}" ]]; then
440     if command -v deactivate
441     then
442         deactivate
443     fi
444     # shellcheck disable=SC1090,SC1091
445     source "${bandit_venv}/bin/activate"
446 fi
447 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
448     pip install --upgrade bandit
449 fi
450 bandit --ini build_and_checks_variables/bandit.ini\
451     -b build_and_checks_variables/bandit_baseline.json\
452     -r .
453 # Saving new baseline in temp if necessary.
454 bandit --ini build_and_checks_variables/bandit.ini\
455     -f json -o build_and_checks_variables/temp/bandit_baseline.json\
456     -r .
457 if [[ -n "${bandit_venv}" ]]; then
458     deactivate
459 fi
460
461 echo "Running pylint"
462 pylint_venv=""
463 grep_variable "${LFBFL_data_file_name}" pylint_venv
464 if [[ -n "${pylint_venv}" ]]; then
465     if command -v deactivate
466     then
467         deactivate
468     fi
469     # shellcheck disable=SC1090,SC1091
470     source "${pylint_venv}/bin/activate"
471 fi
472 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
473     pip install --upgrade pylint

```

```

474 fi
475 pylint --rcfile build_and_checks_variables/pylintrc.toml\
476 --recursive=y .
477 if [[ -n "${pylint_venv}" ]]; then
478     deactivate
479 fi
480
481 echo "Running ruff"
482 ruff_venv=""
483 grep_variable "${LFBFL_data_file_name}" ruff_venv
484 if [[ -n "${ruff_venv}" ]]; then
485     if command -v deactivate
486     then
487         deactivate
488     fi
489     # shellcheck disable=SC1090,SC1091
490     source "${ruff_venv}/bin/activate"
491 fi
492 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
493     pip install --upgrade ruff
494 fi
495 ruff check --config build_and_checks_variables/ruff.toml
496 if [[ -n "${ruff_venv}" ]]; then
497     deactivate
498 fi
499 echo "---Python end---"
500
501 echo "---PHP---"
502 echo "Running PHPMD"
503 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
504     composer global require phpmd/phpmd
505 fi
506 phpmd --color\
507     --baseline-file build_and_checks_variables/phpmd_baseline.xml\
508     . text cleancode,codesize,controversial,design,naming,unusedcode
509 # Saving new baseline in temp if necessary.
510 rm build_and_checks_variables/temp/phpmd_baseline.xml
511 phpmd --color --generate-baseline\
512     --baseline-file build_and_checks_variables/temp/phpmd_baseline.xml\
513     . text cleancode,codesize,controversial,design,naming,unusedcode
514 echo "---PHP end---"
515
516 echo "---JS---"
517 npm_lint_directories=""
518 grep_variable "${LFBFL_data_file_name}" npm_lint_directories
519 if [[ -n "${npm_lint_directories}" ]]; then

```

```

520     echo "Running ESLint"
521     local LFBFL_JS_directory
522     echo "${npm_lint_directories}"\
523         | sed -e 's/\n/g'\
524         | while read -r LFBFL_JS_directory;
525     do
526         (cd "${LFBFL_JS_directory}" && npm run lint)
527     done
528 fi
529 echo "---JS end---"
530
531 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
532     touch "${LFBFL_upgrade_venvs_ts_file}"
533 fi
534
535 echo "Analyzing too long lines"
536 too_long_code_lines "$@"
537
538 echo "Analyzing shell scripts beginnings"
539 check_shell_scripts_beginnings\
540     | relevant_grep
541
542 echo "Analyzing URLs"
543 check_URLs "$@" \
544     | relevant_grep
545
546 echo "Analyzing strange characters: hover over in doubt"
547 # shellcheck disable=SC1111
548 LFBFL_usual_characters="\x00-\x7Fàâéèëîïôûç@\"'`|«»"
549 grep --exclude-dir .git --color=always\
550     -nPr "[^${LFBFL_usual_characters}]" .
551
552 echo "Checking listed files"
553 "._/${LFBFL_subdir}/update_or_check_files_names_listing.exec.sh"
554
555 echo "Creating the PDF file of the listing of the source code"
556 "._/${LFBFL_subdir}/create_PDF.exec.sh" "${LFBFL_verbose}"
557
558 if [[ -f "build_and_checks_variables/post_build.sh" ]]; then
559     ./build_and_checks_variables/post_build.sh
560 fi
561
562 declare -i LFBFL_popd_result
563 popd || {
564     LFBFL_popd_result=$?
565     echo "common_build_and_checks.exec.sh no popd"

```



```

566     # shellcheck disable=SC2248
567     return ${LFBFL_popd_result}
568 }
569 }
570
571 common_build_and_checks "$@"

```

2.7 build_and_checks_dependencies/comparisons.lib.sh

```

1  #!/usr/bin/env bash
2  # This file is part of DevOrSysAdminScripts library.
3  #
4  # DevOrSysAdminScripts is free software:
5  # you can redistribute it and/or modify it under the terms
6  # of the GNU General Public License
7  # as published by the Free Software Foundation,
8  # either version 3 of the License,
9  # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,
13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # The file "comparisons.sh" was renamed to "comparisons.lib.sh".
25
26 equal() {
27     # Returns 1 if all the arguments strings are equal.
28     # Renvoie 1 dans $? si toutes les chaînes en arguments sont égales.
29     # J'ai rerepensé au 3-way-merge
30     # et à mon article sur le principe de première différence
31     # appliqué à la largeur modulaire, de clique ou de rang avec
32     # l'idée d'un principe de première différence ternaire.
33     declare -i LFBFL_first=1
34     local LFBFL_current
35     local LFBFL_arg
36     for LFBFL_arg in "$@"; do
37         if [[ LFBFL_first -eq 1 ]]; then

```

```

38     LFBFL_current="${LFBFL_arg}"
39     LFBFL_first=0
40     continue
41     fi
42     if [[ "${LFBFL_current}" != "${LFBFL_arg}" ]]; then
43         return 0
44     fi
45 done
46 return 1
47 }
48
49 some_distinct() {
50     ! equal "$@"
51 }
52
53 all_distinct() {
54     # Returns 1 if all the arguments strings are distinct.
55     declare -ir LFBFL_ij_max=$#
56     declare -i LFBFL_i
57     declare -i LFBFL_j
58     for ((LFBFL_i=1; LFBFL_i<=LFBFL_ij_max; ++LFBFL_i)); do
59         for ((LFBFL_j=1; LFBFL_j<=LFBFL_ij_max; ++LFBFL_j)); do
60             [[ LFBFL_i -eq LFBFL_j ]] && continue
61             [[ "${!LFBFL_i}" == "${!LFBFL_j}" ]] && return 0
62         done
63     done
64     return 1
65 }
66
67 all_distinct2() {
68     # Returns 1 if all the arguments strings are distinct.
69     local LFBFL_element
70     local LFBFL_previous_element
71     if [[ "$#" == 0 ]]; then
72         return 1
73     fi
74     # Not setting pipefail since the result would still be incorrect.
75     # shellcheck disable=SC2312
76     printf "%s\n" "$@" \
77     | sort\
78     | {
79         read -r LFBFL_previous_element\
80         && while read -r LFBFL_element; do
81             if [[ "${LFBFL_previous_element}" == "${LFBFL_element}" ]];
82             then
83                 return 0

```

```

84         fi
85         LFBFL_previous_element="${LFBFL_element}"
86     done
87     return 1
88 }
89 }
90
91 all_distinct3(){
92     # Returns 1 if all the arguments strings are distinct.
93     # This is the fastest of all 3; but note that version 2 is faster
94     # than this one if a call to sort is added.
95     if [[ "$#" == 0 ]]; then
96         return 1
97     fi
98     # Not setting pipefail since the result would still be incorrect.
99     # shellcheck disable=SC2162,SC2312
100    printf "%s\n" "$@" \
101        | uniq -d\
102        | read
103 }
104
105 some_equal(){
106     ! all_distinct "$@"
107 }
108
109 some_equal2(){
110     ! all_distinct2 "$@"
111 }
112
113 some_equal3(){
114     ! all_distinct3 "$@"
115 }
116
117 max(){
118     # Returns the maximum string among the arguments.
119     # Renvoie la chaîne la plus grande parmi celles proposées.
120     # $1=$sort command with the flags you want to be applied.
121     # $ max sort a b c
122     # c
123     if [[ "$#" == 0 ]]; then
124         return 1
125     fi
126     if [[ ! -o pipefail ]]; then
127         set -o pipefail
128         trap 'set +o pipefail' RETURN
129     fi

```

```

130 printf "%s\n" "${@:2}" \
131     | eval "$1 -r"\
132     | head -1
133 }
134
135 min(){
136     # Returns the minimum string among the arguments.
137     # Renvoie la chaîne la plus petite parmi celles proposées.
138     # $1=$sort command with the flags you want to be applied.
139     # $ min sort a b c
140     # a
141     if [[ "$#" == 0 ]]; then
142         return 1
143     fi
144     if [[ ! -o pipefail ]]; then
145         set -o pipefail
146         trap 'set +o pipefail' RETURN
147     fi
148     printf "%s\n" "${@:2}" \
149         | eval "$1"\
150         | head -1
151 }
152
153 is_substring(){
154     # $1=$string
155     # $2=$substring
156     declare -r LFBFL_var_1=$(
157         echo "$1"\
158         | sed -e 's/\\/\\&/g' -e "s/'/'\\\\&/g"
159     )
160     declare -r LFBFL_var_2=$(
161         echo "$2"\
162         | sed -e 's/\\/\\&/g' -e "s/'/'\\\\&/g"
163     )
164     local LFBFL_var_3="\$a = '${LFBFL_var_1}';"
165     LFBFL_var_3+=" \$b = preg_quote('${LFBFL_var_2}');"
166     LFBFL_var_3+=" \$c = '/' .addslashes(\$b, '/') .'/';"
167     LFBFL_var_3+=" die(1 - preg_match(\$c, \$a));"
168     readonly LFBFL_var_3
169     php -r "${LFBFL_var_3}"
170     return $?
171 }
172
173 is_subfile(){
174     # $1=$file_name
175     # $2=$sub_file_name

```

```

176     local LFBFL_var_1="\$a = file_get_contents('$1');"
177     LFBFL_var_1+=" \$b = preg_quote(file_get_contents('$2')));"
178     LFBFL_var_1+=" \$c = '/' .addslashes(\$b, '/') .'/';"
179     LFBFL_var_1+=" die(1 - preg_match(\$c, \$a));"
180     readonly LFBFL_var_1
181     php -r "${LFBFL_var_1}"
182     return $?
183 }
184
185 alias min_from_int_sort="min 'sort --numeric-sort'"
186 alias max_from_int_sort="max 'sort --numeric-sort'"

```

2.8 build_and_checks_dependencies/create_PDF.exec.sh

```

1  #!/usr/bin/env bash
2  # This file is part of DevOrSysAdminScripts library.
3  #
4  # DevOrSysAdminScripts is free software:
5  # you can redistribute it and/or modify it under the terms
6  # of the GNU General Public License
7  # as published by the Free Software Foundation,
8  # either version 3 of the License,
9  # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,
13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "create_PDF.sh" to "create_PDF.exec.sh".
25
26 LFBFL_subdir="build_and_checks_dependencies"
27 # shellcheck source=generate_from_template.lib.sh
28 source "${LFBFL_subdir}/generate_from_template.lib.sh"
29 # shellcheck source=lines_counts.lib.sh
30 source "${LFBFL_subdir}/lines_counts.lib.sh"
31 # shellcheck source=lines_filters.lib.sh
32 source "${LFBFL_subdir}/lines_filters.lib.sh"

```

```

33 # shellcheck source=lines_maps.lib.sh
34 source "${LFBFL_subdir}/lines_maps.lib.sh"
35 # shellcheck source=overwrite_if_not_equal.lib.sh
36 source "${LFBFL_subdir}/overwrite_if_not_equal.lib.sh"
37 # shellcheck source=strings_functions.lib.sh
38 source "${LFBFL_subdir}/strings_functions.lib.sh"
39
40 create_PDF() {
41     declare -i LFBFL_verbose=0
42     if [[ "$*" == *--verbose* ]]; then
43         echo "$0 $*"
44         LFBFL_verbose=1
45     fi
46     readonly LFBFL_verbose
47
48     if [[ ! -o pipefail ]]; then
49         [[ LFBFL_verbose -eq 1 ]] && echo "pipefail option activated"
50         set -o pipefail
51         trap 'set +o pipefail' RETURN
52     fi
53
54     LFBFL_subdir2="build_and_checks_variables"
55     LFBFL_data_file_name="${LFBFL_subdir2}/repository_data.txt"
56     repository_name=""
57     grep_variable "${LFBFL_data_file_name}" repository_name
58
59     abstract=""
60     grep_variable "${LFBFL_data_file_name}" abstract
61
62     acknowledgments=""
63     grep_variable "${LFBFL_data_file_name}" acknowledgments
64
65     author_email=""
66     grep_variable "${LFBFL_data_file_name}" author_email
67
68     author_full_name=""
69     grep_variable "${LFBFL_data_file_name}" author_full_name
70
71     author_website=""
72     grep_variable "${LFBFL_data_file_name}" author_website
73
74     declare -r LFBFL_current_date=$(date -I"date")
75
76     declare -r LFBFL_current_git_SHA1=$(git rev-parse HEAD)
77
78     declare -r LFBFL_number_of_commits=$(

```

```

79     git shortlog\
80     | space_starting_lines\
81     | wc -l
82 )
83
84 declare -ir LFBFL_all_code_lines_count=$(code_lines_count_all "$@")
85 declare -ir LFBFL_not_empty_code_lines_count=$(
86     code_lines_count_not_empty "$@"
87 )
88 declare -ir LFBFL_empty_code_lines_count=$(
89     code_lines_count_empty "$@"
90 )
91
92 local LFBFL_number_of_lines="${LFBFL_all_code_lines_count}"
93 LFBFL_number_of_lines+=" total lines,"
94 LFBFL_number_of_lines+=" ${LFBFL_not_empty_code_lines_count}"
95 LFBFL_number_of_lines+=" not empty lines,"
96 LFBFL_number_of_lines+=" ${LFBFL_empty_code_lines_count}"
97 LFBFL_number_of_lines+=" empty lines."
98 readonly LFBFL_number_of_lines
99
100 tree -a --gitignore\
101     -I "node_modules/"\
102     -I "__pycache__/"\
103     -I ".mypy_cache/"\
104     -I ".git/"\
105     | replace_non_ascii_spaces\
106     > "${LFBFL_subdir2}/temp/current_tree_light.txt"
107
108 tree -a -DFh --gitignore\
109     -I "node_modules/"\
110     -I "__pycache__/"\
111     -I ".mypy_cache/"\
112     -I ".git/"\
113     | replace_non_ascii_spaces\
114     > "${LFBFL_subdir2}/temp/current_tree.txt.temp"
115
116 LFBFL_temp_files_listing="./${LFBFL_subdir2}/temp/"
117 LFBFL_temp_files_listing+="files_listing.tex.tpl.temp"
118 : > "${LFBFL_temp_files_listing}"
119 LFBFL_temp_files_listing2="./${LFBFL_subdir2}/temp/"
120 LFBFL_temp_files_listing2+="files_listing.html.tpl.temp"
121 : > "${LFBFL_temp_files_listing2}"
122 # HTML <li> elements, hence "lis".
123 LFBFL_temp_files_lis="./${LFBFL_subdir2}/temp/files_lis.html.tpl"
124 : > "${LFBFL_temp_files_lis}"

```

```

125 get_split_score_simple 1 70 /
126 declare LFBFL_score_command="${get_split_score_result}"
127 declare LFBFL_score_command_properties="${get_split_score_result2}"
128 get_split_score_simple 1 70 ':'
129 declare LFBFL_score_command2="${get_split_score_result}"
130 declare LFBFL_score_command_properties2="${get_split_score_result2}"
131 declare LFBFL_suffix='%'
132 declare -i LFBFL_i=0
133 # Remove line returns here to keep lines short.
134 sed -Ez 's/\\n//Mg' "$LFBFL_subdir2"/files_names_listing.txt" \
135 | grep -v '^//\' \
136 | while read -r LFBFL_file_name;
137 do
138     echo "Listing file for tex/HTML : ${LFBFL_file_name}"
139     # echo "Listing file for tex : ${LFBFL_file_name}"
140     # LFBFL_base_file_name=$(basename "${LFBFL_file_name}")
141     LFBFL_cleaned_path1="${LFBFL_file_name//_/\_}"
142     LFBFL_cleaned_path2=$(
143         echo "${LFBFL_file_name}" \
144         | sed -e 's/\/:/g' -e 's/\.//g'
145     )
146     LFBFL_new_lines=" ${LFBFL_cleaned_path1}"
147     if [[ ${#LFBFL_new_lines} -gt 70 ]]; then
148         repeated_split_last_line "${LFBFL_new_lines}" "" 70 \
149         "${LFBFL_suffix}" "${LFBFL_score_command}" \
150         "${LFBFL_score_command_properties}" "" \
151         LFBFL_new_lines=${repeated_split_last_line_result}
152     fi
153     LFBFL_new_lines2=" ${LFBFL_cleaned_path2}"
154     if [[ ${#LFBFL_new_lines2} -gt 70 ]]; then
155         repeated_split_last_line "${LFBFL_new_lines2}" "" 70 \
156         "${LFBFL_suffix}" "${LFBFL_score_command2}" \
157         "${LFBFL_score_command_properties}" \
158         LFBFL_new_lines2=${repeated_split_last_line_result}
159     fi
160     LFBFL_new_lines3="${LFBFL_file_name}"
161     if [[ ${#LFBFL_new_lines3} -gt 70 ]]; then
162         repeated_split_last_line "${LFBFL_new_lines3}" "" 70 \
163         "${LFBFL_suffix}" "${LFBFL_score_command}" \
164         "${LFBFL_score_command_properties}" \
165         LFBFL_new_lines3=${repeated_split_last_line_result}
166     fi
167     {
168         echo "\subsection{"
169         echo " ${LFBFL_file_name}" \
170         | sed -e "s| ${LFBFL_file_name}|${LFBFL_new_lines}|g" \

```



```

171         -e 's/_/\_\_/g'
172     echo "}"
173     echo "\label{"
174     echo "    ${LFBFL_cleaned_path2}"
175     | sed -e "s|    ${LFBFL_cleaned_path2}|${LFBFL_new_lines2}|g"
176     echo "}"
177     echo ""
178     echo "\VerbatimInput[numbers=left,xleftmargin=-5mm]{ "
179     echo "    ${LFBFL_file_name}"
180     | sed -e "s|    ${LFBFL_file_name}|${LFBFL_new_lines3}|g"
181     echo "}"
182     echo ""
183     echo ""
184 } >> "${LFBFL_temp_files_listing}"
185
186 # echo "Listing file for HTML : ${LFBFL_file_name}"
187 ((++LFBFL_i))
188 LFBFL_new_lines="${LFBFL_file_name}"
189 if [[ ${#LFBFL_file_name} -gt 70 ]]; then
190     repeated_split_last_line "${LFBFL_new_lines}" "-->"
191     70 "<!--" "${LFBFL_score_command}"
192     "${LFBFL_score_command_properties}"
193     LFBFL_new_lines=${repeated_split_last_line_result}
194 fi
195 {
196     echo "<h3 id=\"subsection2.${LFBFL_i}\">2.${LFBFL_i}"
197     # shellcheck disable=SC2001
198     echo "${LFBFL_file_name}"
199     | sed -e "s|${LFBFL_file_name}|${LFBFL_new_lines}|g"
200     echo "</h3>"
201     echo "<pre class=\"numbered_lines\">"
202     sed -e 's/&/\&/g' -e 's/</\</g' \
203     < "${LFBFL_file_name}"
204     echo "</pre>"
205     echo ""
206     echo ""
207 } >> "${LFBFL_temp_files_listing2}"
208 {
209     echo "    <li><a href=\"\#subsection2.${LFBFL_i}\">"
210     # shellcheck disable=SC2001
211     echo "${LFBFL_file_name}"
212     | sed -e "s|${LFBFL_file_name}|${LFBFL_new_lines}|g"
213     echo "    </a></li>"
214 } >> "${LFBFL_temp_files_lis}"
215 done
216 overwrite_if_not_equal "./${LFBFL_subdir2}/files_listing.tex.tpl"

```

```

217     "${LFBFL_temp_files_listing}"
218 sed -i -e "s|\\n</pre>|</pre>|g" "${LFBFL_temp_files_listing2}"
219 overwrite_if_not_equal\
220     "./${LFBFL_subdir2}/temp/files_listing.html.tpl"\
221     "${LFBFL_temp_files_listing2}"
222
223 # We verify if some lines are beyond 70 characters
224 # in current_tree_light.txt and current_tree.txt.
225 LFBFL_trees=("current_tree_light.txt" "current_tree.txt.temp")
226 declare LFBFL_tree_path
227 for LFBFL_tree in "${LFBFL_trees[@]}"; do
228     LFBFL_tree_path="${LFBFL_subdir2}/temp/${LFBFL_tree}"
229     grep '\{71\}' "${LFBFL_tree_path}"\
230     | while read -r LFBFL_line;
231     do
232         # echo "LFBFL_line: ${LFBFL_line}"
233         LFBFL_prefix=$(
234             echo "${LFBFL_line}"\
235             | sed -E -e 's/(.*)-[^-]+$/\1/g' -e 's/[^ ]+$/g'
236         )
237         LFBFL_prefix+="| "
238         # echo "LFBFL_prefix: ${LFBFL_prefix}"
239         LFBFL_file_name=$(
240             echo "${LFBFL_line}"\
241             | sed -E 's|.* ([[a-zA-Z0-9\._/-]+).)$|\1|g'
242         )
243         # echo "LFBFL_file_name: ${LFBFL_file_name}"
244         LFBFL_line_start=$(
245             echo "${LFBFL_line}"\
246             | sed -E -e "s/(.*)[ ]*${LFBFL_file_name}/\1/g"\
247             -e 's/ *$//g'
248         )
249         # echo "LFBFL_line_start: ${LFBFL_line_start}"
250         LFBFL_line=$(
251             echo "${LFBFL_line}"\
252             | sed -E -e 's/\[/\[\[\[/g' -e 's/\]/\]\]\]/g'
253         )
254         LFBFL_new_lines="${LFBFL_prefix}${LFBFL_file_name}"
255         if [[ ${#LFBFL_new_lines} -gt 70 ]]; then
256             repeated_split_last_line "${LFBFL_new_lines}"\
257             "${LFBFL_prefix}" 70 "" "" 3
258             LFBFL_new_lines=${repeated_split_last_line_result}
259         fi
260         sed -i -e\
261             "s/${LFBFL_line}/${LFBFL_line_start}\n${LFBFL_new_lines}/g"\
262             "${LFBFL_tree_path}"

```

```

263     done
264 done
265
266 overwrite_if_not_equal "${LFBFL_subdir2}/temp/current_tree.txt"\
267     "${LFBFL_subdir2}/temp/current_tree.txt.temp" 1 1
268
269 if [[ -f "${LFBFL_subdir2}/${repository_name}.tex.tpl" ]]; then
270     # If there is a template, we init the process from it.
271     cp "${LFBFL_subdir2}/${repository_name}.tex.tpl"\
272         "${LFBFL_subdir2}/temp/${repository_name}.tex.1"
273 elif [[ -f "${LFBFL_subdir2}/${repository_name}.tex" ]]; then
274     # Otherwise if there is a tex file, we init the process from it.
275     cp "${LFBFL_subdir2}/${repository_name}.tex"\
276         "${LFBFL_subdir2}/temp/${repository_name}.tex.1"
277 else
278     echo "Neither .tex.tpl, nor .tex in ${LFBFL_subdir2}/"
279 fi
280
281 # Same logic with repository HTML file.
282 if [[ -f "${LFBFL_subdir2}/${repository_name}.html.tpl" ]]; then
283     cp "${LFBFL_subdir2}/${repository_name}.html.tpl"\
284         "${LFBFL_subdir2}/temp/${repository_name}.html.1"
285 elif [[ -f "${repository_name}.html" ]]; then
286     cp "${repository_name}.html"\
287         "${LFBFL_subdir2}/temp/${repository_name}.html.1"
288 else
289     echo "Neither .html.tpl in ${LFBFL_subdir2}/, nor .html in ./"
290 fi
291
292 declare -r LFBFL_tex_path_start=\
293 "${LFBFL_subdir2}/temp/${repository_name}.tex"
294 declare -r LFBFL_html_path_start=\
295 "${LFBFL_subdir2}/temp/${repository_name}.html"
296
297 # shellcheck disable=SC2001
298 echo "${abstract}"\
299     | sed -e 's/\\n/\\n/g'\
300     > "${LFBFL_subdir2}/temp/abstract_temp"
301
302 # shellcheck disable=SC2001
303 echo "${acknowledgments}"\
304     | sed -e 's/\\n/\\n/g'\
305     > "${LFBFL_subdir2}/temp/acknowledgments_temp"
306
307 # But the filling still occurs, in case the dev want to refill
308 # part of the tex/html file that he modified with @token@

```

```

309 # using some computed results.
310 # Tex filling:
311 if [[ -f "${LFBFL_tex_path_start}.1" ]]; then
312     sed -i "s|@repository_name@|${repository_name}|g"\
313         "${LFBFL_tex_path_start}.1"
314
315     insert_file_at_token "${LFBFL_tex_path_start}.1" @abstract@ \
316         ".$${LFBFL_subdir2}/temp/abstract_temp"\
317         "${LFBFL_tex_path_start}.2"
318
319     insert_file_at_token "${LFBFL_tex_path_start}.2"\
320         @acknowledgments@ \
321         ".$${LFBFL_subdir2}/temp/acknowledgments_temp"\
322         "${LFBFL_tex_path_start}.3"
323
324     sed -i -e "s|@author_email@|${author_email}|g"\
325         -e "s|@author_full_name@|${author_full_name}|g"\
326         -e "s|@author_website@|${author_website}|g"\
327         -e "s|@current_date@|${LFBFL_current_date}|g"\
328         -e "s|@current_git_SHA1@|${LFBFL_current_git_SHA1}|g"\
329         -e "s|@number_of_commits@|${LFBFL_number_of_commits}|g"\
330         -e "s|@number_of_lines@|${LFBFL_number_of_lines}|g"\
331         "${LFBFL_tex_path_start}.3"
332
333     pushd ".$${LFBFL_subdir2}/temp/" || (echo "pushd failed" && exit)
334     sed -i \
335         -e '/@current_tree_light@/{r current_tree_light.txt' -e 'd}' \
336         -e '/@current_tree@/{r current_tree.txt' -e 'd}' \
337         "${repository_name}.tex.3"
338     popd || (echo "popd failed" && exit)
339
340     insert_file_at_token "${LFBFL_tex_path_start}.3"\
341         @files_listing_VerbatimInput@ \
342         ".$${LFBFL_subdir2}/files_listing.tex.tpl"\
343         "${LFBFL_tex_path_start}.4"
344
345     overwrite_if_not_equal \
346         ".$${LFBFL_subdir2}/${repository_name}.tex"\
347         "${LFBFL_tex_path_start}.4" 1
348 fi
349
350 # HTML filling:
351 if [[ -f "${LFBFL_html_path_start}.1" ]]; then
352     sed -i "s|@repository_name@|${repository_name}|g"\
353         "${LFBFL_html_path_start}.1"
354

```

```

355 insert_file_at_token "${LFBFL_html_path_start}.1" @abstract@ \
356 "./${LFBFL_subdir2}/temp/abstract_temp" \
357 "${LFBFL_html_path_start}.2"
358
359 insert_file_at_token "${LFBFL_html_path_start}.2" \
360 @acknowledgments@ \
361 "./${LFBFL_subdir2}/temp/acknowledgments_temp" \
362 "${LFBFL_html_path_start}.3"
363
364 sed -i -e "s|@author_email@|${author_email}|g" \
365 -e "s|@author_full_name@|${author_full_name}|g" \
366 -e "s|@author_website@|${author_website}|g" \
367 -e "s|@current_date@|${LFBFL_current_date}|g" \
368 -e "s|@current_git_SHA1@|${LFBFL_current_git_SHA1}|g" \
369 -e "s|@number_of_commits@|${LFBFL_number_of_commits}|g" \
370 -e "s|@number_of_lines@|${LFBFL_number_of_lines}|g" \
371 "${LFBFL_html_path_start}.3"
372
373 insert_file_at_token "${LFBFL_html_path_start}.3" \
374 @files_lis@ "${LFBFL_temp_files_lis}" \
375 "${LFBFL_html_path_start}.4"
376
377 pushd "./${LFBFL_subdir2}/temp/" || (echo "pushd failed" && exit)
378 sed -i \
379 -e '/@current_tree_light@/{r current_tree_light.txt' -e 'd}' \
380 -e '/@current_tree@/{r current_tree.txt' -e 'd}' \
381 "${repository_name}.html.4"
382 popd || (echo "popd failed" && exit)
383
384 insert_file_at_token "${LFBFL_html_path_start}.4" \
385 @files_listing_HTMLPreInput@ \
386 "./${LFBFL_subdir2}/temp/files_listing.html.tpl" \
387 "${LFBFL_html_path_start}.5"
388
389 overwrite_if_not_equal "./${repository_name}.html" \
390 "${LFBFL_html_path_start}.5" 1
391 fi
392
393 if [[ LFBFL_verbose -eq 1 ]]; then
394   for ((i=0; i<3; i++)); do
395     pdflatex "./${LFBFL_subdir2}/${repository_name}.tex"
396   done
397 else
398   for ((i=0; i<3; i++)); do
399     pdflatex "./${LFBFL_subdir2}/${repository_name}.tex" \
400       > /dev/null

```

```

401     done
402 fi
403
404 LFBFL_files_to_temp=(\
405     "${repository_name}.aux"\
406     "${repository_name}.log"\
407     "${repository_name}.out"\
408     "${repository_name}.toc"
409 )
410 for LFBFL_file_name in "${LFBFL_files_to_temp[@]"}; do
411     mv "${LFBFL_file_name}" "${LFBFL_subdir2}/temp/"
412 done
413 }
414
415 create_PDF "$@"

```

2.9 build_and_checks_dependencies/generate_from_template.lib.sh

```

1  #!/usr/bin/env bash
2  # This file is part of DevOrSysAdminScripts library.
3  #
4  # DevOrSysAdminScripts is free software:
5  # you can redistribute it and/or modify it under the terms
6  # of the GNU General Public License
7  # as published by the Free Software Foundation,
8  # either version 3 of the License,
9  # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,
13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "generate_from_template.sh" to
25 # "generate_from_template.lib.sh".
26
27 LFBFL_subdir="build_and_checks_dependencies"
28 # shellcheck source=lines_filters.lib.sh

```

```

29 source "$LFBFL_subdir/lines_filters.lib.sh"
30 # shellcheck source=overwrite_if_not_equal.lib.sh
31 source "$LFBFL_subdir/overwrite_if_not_equal.lib.sh"
32
33 generate_from_template_with_block_comments() {
34     # $1=base_file_name
35     # $2=target_file_name
36     # $3=enter_block_comment
37     # $4=exit_block_comment
38     local LFBFL_temp
39     LFBFL_temp="$2.generate_from_template_with_block_comments.temp"
40     readonly LFBFL_temp
41     {
42         echo "$3"
43         cat "$1"
44         echo "$4"
45     } > "${LFBFL_temp}"
46     overwrite_if_not_equal "$2" "${LFBFL_temp}"
47 }
48
49 generate_from_template_with_line_comments() {
50     # $1=base_file_name
51     # $2=target_file_name
52     # $3=line_comment_prefix
53     # $4=optional_post_processing
54     # $5=file_prefix
55     local LFBFL_temp
56     LFBFL_temp="$2.generate_from_template_with_line_comments.temp"
57     readonly LFBFL_temp
58     if [[ -n "$5" ]]; then
59         echo "$5\"
60         > "${LFBFL_temp}"
61     fi
62     sed -e "s/^/$3/g" "$1\"
63     >> "${LFBFL_temp}"
64     if [[ -n "$4" ]]; then
65         eval "$4"
66     fi
67     overwrite_if_not_equal "$2" "${LFBFL_temp}"
68 }
69
70 split_file_in_two() {
71     # $1=$file_name
72     # $2=$token assume that token is the only thing on his line.
73     # $3=$file_name_part1
74     # $4=$file_name_part2

```

```

75 declare -ir LFBFL_line_number=$(
76     grep -n "$2" "$1"\
77     | head --lines=1\
78     | cut -f 1 -d ':'
79 )
80 declare -ir LFBFL_line_count=$((ll_wc -l -n "$1")
81 declare -ir LFBFL_lines_after=$((
82     LFBFL_line_count - LFBFL_line_number
83 ))
84 head --lines="$((LFBFL_line_number - 1))" "$1"\
85     > "$3"
86 tail --lines="$ {LFBFL_lines_after}" "$1"\
87     > "$4"
88 }
89
90 insert_file_at_token() {
91     # $1=$file_name
92     # $2=$token assume that token is the only thing on his line.
93     # $3=$file_name_to_insert
94     # $4=$file_name_result
95     declare -r LFBFL_start_file_name="$1.insert_file_at_token1.temp"
96     declare -r LFBFL_end_file_name="$1.insert_file_at_token2.temp"
97     local LFBFL_result_file_name
98     if [[ -n "$4" ]]; then
99         LFBFL_result_file_name="$4"
100     else
101         LFBFL_result_file_name="$1.insert_file_at_token3.temp"
102     fi
103     readonly LFBFL_result_file_name
104     split_file_in_two "$1" "$2" "${LFBFL_start_file_name}"\
105         "${LFBFL_end_file_name}"
106     cat "${LFBFL_start_file_name}" "$3" "${LFBFL_end_file_name}"\
107         > "${LFBFL_result_file_name}"
108     rm "${LFBFL_start_file_name}" "${LFBFL_end_file_name}"
109     if [[ -z "$4" ]]; then
110         overwrite_if_not_equal "$1" "${LFBFL_result_file_name}"
111     fi
112 }

```

2.10 build_and_checks_dependencies/get_common_text_glob_patterns.lib.sh

```

1  #!/usr/bin/env bash
2  # This file is part of DevOrSysAdminScripts library.
3  #
4  # DevOrSysAdminScripts is free software:
5  # you can redistribute it and/or modify it under the terms

```



```

6  # of the GNU General Public License
7  # as published by the Free Software Foundation,
8  # either version 3 of the License,
9  # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,
13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "get_common_text_glob_patterns.sh"
25 # to "get_common_text_glob_patterns.lib.sh".
26
27 get_COMMON_TEXT_PATHS_GLOB_PATTERNS() {
28     if [[ -n "${COMMON_TEXT_PATHS_GLOB_PATTERNS}" ]]; then
29         return
30     fi
31
32     declare -agr COMMON_TEXT_PATHS_GLOB_PATTERNS=(
33         '**/*.c'
34         '**/*.css'
35         '**/*.h'
36         '**/*.htm'
37         '**/*.html'
38         '**/*.js'
39         '**/*.json'
40         '**/*.md'
41         '**/*.php'
42         '**/*.py'
43         '**/*.sh'
44         '**/*.sql'
45         '**/*.tex'
46         '**/*.toml'
47         '**/*.tpl'
48         '**/*.ts'
49         '**/*.txt'
50         '**/*.yaml'
51         '**/COPYING'

```

```

52     '*/COPYING.LESSER'
53     '*/pre-commit'
54     '*/post-commit'
55     '*/.gitignore'
56     '*/py.typed'
57 )
58 }
59
60
61 get_COMMON_TEXT_FILES_GLOB_PATTERNS() {
62     if [[ -n "${COMMON_TEXT_FILES_GLOB_PATTERNS}" ]]; then
63         return
64     fi
65
66     declare -agr COMMON_TEXT_FILES_GLOB_PATTERNS=(
67         '*.c'
68         '*.css'
69         '*.h'
70         '*.htm'
71         '*.html'
72         '*.js'
73         '*.json'
74         '*.md'
75         '*.php'
76         '*.py'
77         '*.sh'
78         '*.sql'
79         '*.tex'
80         '*.toml'
81         '*.tpl'
82         '*.ts'
83         '*.txt'
84         '*.yaml'
85         'COPYING'
86         'COPYING.LESSER'
87         'pre-commit'
88         'post-commit'
89         '.gitignore'
90         'py.typed'
91     )
92 }

```

2.11 build_and_checks_dependencies/grammar_and_spell_check.lib.sh

```

1  #!/usr/bin/env bash
2  # This file is part of DevOrSysAdminScripts library.

```

```

3  #
4  # DevOrSysAdminScripts is free software:
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7  # as published by the Free Software Foundation,
8  # either version 3 of the License,
9  # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,
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15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "grammar_and_spell_check.sh"
25 # to "grammar_and_spell_check.lib.sh".
26
27 LFBFL_subdir="build_and_checks_dependencies"
28 # shellcheck source=get_common_text_glob_patterns.lib.sh
29 source "${LFBFL_subdir}/get_common_text_glob_patterns.lib.sh"
30 # shellcheck source=lines_filters.lib.sh
31 source "${LFBFL_subdir}/lines_filters.lib.sh"
32
33 grammar_and_spell_check() {
34     declare -i LFBFL_verbose=0
35     if [[ "$*" == *--verbose* ]]; then
36         echo "$0 $*"
37         LFBFL_verbose=1
38     fi
39     readonly LFBFL_verbose
40
41     if [[ ! -o pipefail ]]; then
42         [[ LFBFL_verbose -eq 1 ]] && echo "pipefail option activated"
43         set -o pipefail
44         trap 'set +o pipefail' RETURN
45     fi
46
47     get_COMMON_TEXT_FILES_GLOB_PATTERNS
48     grammar_or_spell_checker_command=""

```

```

49 grep_variable "$1" grammar_or_spell_checker_command
50 declare -r LFBFL_command=$(
51     echo "${grammar_or_spell_checker_command}"\
52     | sed -Ez -e "s/\n//Mg"
53 )
54 local LFBFL_file_path
55 local LFBFL_pattern
56 local LFBFL_eval_string
57 for LFBFL_pattern in "${COMMON_TEXT_FILES_GLOB_PATTERNS[@]}"; do
58     [[ LFBFL_verbose -eq 0 ]]\
59     || echo "Iterating on pattern: ${LFBFL_pattern}"
60     find . -type f -name "${LFBFL_pattern}" -printf '%P\n'\
61     | while read -r LFBFL_file_path;
62     do
63         LFBFL_eval_string="${LFBFL_command} ${LFBFL_file_path}"
64         eval "${LFBFL_eval_string}"
65     done
66 done
67 }

```

2.12 build_and_checks_dependencies/licenses_templates/build_licenses_templates.exec.sh

```

1  #!/usr/bin/env bash
2  # This file is part of DevOrSysAdminScripts library.
3  #
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6  # of the GNU General Public License
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9  # or (at your option) any later version.
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11 # DevOrSysAdminScripts is distributed in the hope
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13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "build_licenses_templates.sh"

```

```

25 # to "build_licenses_templates.exec.sh".
26
27 LFBFL_subdir="build_and_checks_dependencies"
28 # shellcheck source=comparisons.lib.sh
29 source "${LFBFL_subdir}/comparisons.lib.sh"
30 # shellcheck source=generate_from_template.lib.sh
31 source "${LFBFL_subdir}/generate_from_template.lib.sh"
32 # shellcheck source=lines_filters.lib.sh
33 source "${LFBFL_subdir}/lines_filters.lib.sh"
34 # shellcheck source=overwrite_if_not_equal.lib.sh
35 source "${LFBFL_subdir}/overwrite_if_not_equal.lib.sh"
36
37 build_licenses_templates() {
38     local LFBFL_working_directory=$1
39     if [[ -z "$1" ]]; then
40         LFBFL_working_directory="."
41     fi
42     readonly LFBFL_working_directory
43     declare -i LFBFL_verbose=0
44     if [[ "$*" == *--verbose* ]]; then
45         echo "$0 $*"
46         LFBFL_verbose=1
47     fi
48     readonly LFBFL_verbose
49
50     if [[ ! -o pipefail ]]; then
51         [[ LFBFL_verbose -eq 1 ]] && echo "pipefail option activated"
52         set -o pipefail
53         trap 'set +o pipefail' RETURN
54     fi
55
56     # Source
57     local LFBFL_license_source_subdir
58     LFBFL_license_source_subdir="${LFBFL_subdir}/licenses_templates/"
59     readonly LFBFL_license_source_subdir
60     local LFBFL_source_license_prefix="${LFBFL_license_source_subdir}"
61     LFBFL_source_license_prefix+="license_file_header_"
62     readonly LFBFL_source_license_prefix
63
64     # Target
65     local LFBFL_license_target_subdir
66     LFBFL_license_target_subdir="${LFBFL_working_directory}/"
67     LFBFL_license_target_subdir="build_and_checks_variables/temp/"
68     readonly LFBFL_license_target_subdir
69     local LFBFL_target_license_prefix="${LFBFL_license_target_subdir}"
70     LFBFL_target_license_prefix+="license_file_header_"
71     readonly LFBFL_target_license_prefix

```

```

71
72 declare -ar LFBFL_licenses=(\
73     "AGPLv3+"\
74     "GPLv3+"\
75     "LGPLv3+"
76 )
77
78 # -----
79 # Various language definitions for text file formats
80 declare -ar LFBFL_block_comment_languages=(\
81     "c"\
82     "py"\
83 )
84 declare -ar LFBFL_block_comment_enters=(\
85     '/ * '\
86     '""'\
87 )
88 declare -ar LFBFL_block_comment_exits=(\
89     ' * /\ '\
90     '""'\
91 )
92 equal "${#LFBFL_block_comment_languages[@]}"\
93     "${#LFBFL_block_comment_enters[@]}"\
94     "${#LFBFL_block_comment_exits[@]}"
95 declare -i LFBFL_equal_result=$?
96 if [[ LFBFL_equal_result -eq 0 ]]; then
97     echo $'/!'\Problem with the definitions of languages arrays 1/!'\
98 fi
99
100 declare -ar LFBFL_line_comment_languages=(\
101     "sh"\
102     "tex"\
103 )
104 declare -ar LFBFL_line_comment_prefixes=(\
105     '# '\
106     '% '\
107 )
108 equal "${#LFBFL_line_comment_languages[@]}"\
109     "${#LFBFL_line_comment_prefixes[@]}"
110 LFBFL_equal_result=$?
111 if [[ LFBFL_equal_result -eq 0 ]]; then
112     echo $'/!'\Problem with the definitions of languages arrays 2/!'\
113 fi
114 # -----
115
116 # -----

```

```

117 # We generate the license header templates adapted to various text
118 # files formats.
119 # Kamoulox do endfor, Jacques Beauregard XD
120 # (C'est toujours mieux que l'inverse :) !)
121 # for do endfor -> for do done (Fort Doux Donne).
122 local LFBFL_license
123 local LFBFL_license_prefix
124 local LFBFL_license_prefix2
125 local LFBFL_extension
126 local LFBFL_license_file_name
127 local LFBFL_enter_string
128 local LFBFL_exit_string
129 local LFBFL_temp2
130 local LFBFL_prefix_string
131 local LFBFL_intermediate_file_name
132 local LFBFL_file_prefix
133 declare -i LFBFL_generate_from_template_result
134 for LFBFL_license in "${LFBFL_licenses[@]}"; do
135     LFBFL_license_prefix="${LFBFL_source_license_prefix}"
136     LFBFL_license_prefix+="${LFBFL_license}"
137     LFBFL_license_prefix2="${LFBFL_target_license_prefix}"
138     LFBFL_license_prefix2+="${LFBFL_license}"
139     for ((i=0; i<${#LFBFL_block_comment_languages[@]}; i++)); do
140         LFBFL_extension=${LFBFL_block_comment_languages[i]}
141         LFBFL_license_file_name="${LFBFL_license_prefix2}"
142         LFBFL_license_file_name+=".${LFBFL_extension}"
143         LFBFL_enter_string=${LFBFL_block_comment_enters[i]}
144         LFBFL_exit_string=${LFBFL_block_comment_exits[i]}
145         generate_from_template_with_block_comments\
146             "${LFBFL_license_prefix}.tpl"\
147             "${LFBFL_license_file_name}.tpl"\
148             "${LFBFL_enter_string}" "${LFBFL_exit_string}"
149         LFBFL_generate_from_template_result=$?
150         if [[ LFBFL_verbose -eq 1 ]]; then
151             if [[ LFBFL_generate_from_template_result -eq 1 ]]; then
152                 echo\
153                     "License template ${LFBFL_license_file_name}.tpl updated"
154             elif [[ LFBFL_generate_from_template_result -eq 2 ]]; then
155                 echo\
156                     "License template ${LFBFL_license_file_name}.tpl created"
157             fi
158         fi
159     done
160     LFBFL_temp2=".generate_from_template_with_line_comments.temp"
161     for ((i=0; i<${#LFBFL_line_comment_languages[@]}; i++)); do
162         LFBFL_extension=${LFBFL_line_comment_languages[i]}

```

```

163     LFBFL_license_file_name="${LFBFL_license_prefix2}"
164     LFBFL_license_file_name+=".${LFBFL_extension}"
165     LFBFL_prefix_string=${LFBFL_line_comment_prefixes[i]}
166     LFBFL_intermediate_file_name="${LFBFL_license_file_name}.tpl"
167     LFBFL_intermediate_file_name+="${LFBFL_temp2}"
168     LFBFL_file_prefix=""
169     if [[ "${LFBFL_extension}" == "sh" ]]; then
170         LFBFL_file_prefix="#!/usr/bin/env bash"
171     fi
172     generate_from_template_with_line_comments\
173         "${LFBFL_license_prefix}.tpl"\
174         "${LFBFL_license_file_name}.tpl"\
175         "${LFBFL_prefix_string}"\
176         "sed -Ei -e 's/\s*$/g' '${LFBFL_intermediate_file_name}'"\
177         "${LFBFL_file_prefix}"
178     LFBFL_generate_from_template_result=$?
179     if [[ LFBFL_verbose -eq 1 ]]; then
180         if [[ LFBFL_generate_from_template_result -eq 1 ]]; then
181             echo\
182                 "License template ${LFBFL_license_file_name}.tpl updated"
183             elif [[ LFBFL_generate_from_template_result -eq 2 ]]; then
184                 echo\
185                     "License template ${LFBFL_license_file_name}.tpl created"
186         fi
187     fi
188     done
189 done
190 # -----
191
192 # Now that base license templates generated languages license
193 # templates in working directory, we can go there.
194 declare -i LFBFL_cd_result
195 pushd .
196 cd "${LFBFL_working_directory}" || {
197     LFBFL_cd_result=$?
198     echo "build_licenses_templates no such directory"
199     # shellcheck disable=SC2248
200     return ${LFBFL_cd_result}
201 }
202
203 local LFBFL_data_file_name="build_and_checks_variables/"
204 LFBFL_data_file_name+="repository_data.txt"
205 readonly LFBFL_data_file_name
206 repository_name=""
207 license=""
208 license2=""

```



```

209 author_full_name=""
210 grep_variable "${LFBFL_data_file_name}" repository_name
211 grep_variable "${LFBFL_data_file_name}" license
212 grep_variable "${LFBFL_data_file_name}" license2
213 grep_variable "${LFBFL_data_file_name}" author_full_name
214
215 LFBFL_license_prefix="build_and_checks_variables/temp/"
216 LFBFL_license_prefix+="license_file_header_"
217 readonly LFBFL_license_prefix
218 LFBFL_license_prefix2="${LFBFL_license_prefix}${license}"
219 readonly LFBFL_license_prefix2
220 declare -r\
221     LFBFL_license_prefix3="${LFBFL_license_prefix}${license2}"
222
223 # First year according to current state of git repository.
224 declare -r LFBFL_first_year=$(
225     git log\
226     | grep 'Date:'\
227     | cut -f 8 -d ' '\
228     | tail -1
229 )
230 # Last year according to current state of git repository.
231 declare -r LFBFL_last_year=$(
232     git log\
233     | grep 'Date:'\
234     | cut -f 8 -d ' '\
235     | head -1
236 )
237 local LFBFL_copyright_string
238 LFBFL_copyright_string="${LFBFL_first_year}-${LFBFL_last_year}"
239 LFBFL_copyright_string+="${author_full_name}"
240 readonly LFBFL_copyright_string
241
242 prepare_filled_license_file_block(){
243     # $1=license_file_name
244     sed -e "s/@repository_name@/${repository_name}/g"\
245         -e "s/@copyright_string@/${LFBFL_copyright_string}/g"\
246         "$1.tpl"\
247         > "$1.temp"
248     overwrite_if_not_equal "$1" "$1.temp"
249     declare -r LFBFL_result=$?
250     if [[ LFBFL_verbose -eq 1 ]]; then
251         if [[ LFBFL_result -eq 1 ]]; then
252             echo "License template $1 updated"
253         elif [[ LFBFL_result -eq 2 ]]; then
254             echo "License template $1 created"

```

```

255         fi
256     fi
257     head --lines=-1 "$1"\
258         | tail --lines=+2\
259         > "$1.temp"
260     # Strange world: tail --lines=-1 was working
261     # to exclude first line.
262     # I tested it months ago, and saw with my eyes the start and end
263     # block comments removed with:
264     # head --lines=-1 "$1" | tail --lines=-1.
265     # Now, man page says to use --lines=+2 instead.
266     # Welcome in the world where AI change your environment and your
267     # documentation on the fly...
268 }
269
270 declare -A LFBFL_all_block_comment_languages
271 LFBFL_all_block_comment_languages["c"]="c"
272 LFBFL_all_block_comment_languages["php"]="c"
273 LFBFL_all_block_comment_languages["py"]="py"
274
275 local LFBFL_key
276 local LFBFL_dest
277 local LFBFL_license_file_name2
278 declare -i LFBFL_not_subfile
279 declare -i LFBFL_not_subfile2
280
281 for LFBFL_key in "${!LFBFL_all_block_comment_languages[@]}"; do
282     LFBFL_dest=${LFBFL_all_block_comment_languages[${LFBFL_key}]}
283     LFBFL_license_file_name="${LFBFL_license_prefix2}.${LFBFL_dest}"
284     prepare_filled_license_file_block "${LFBFL_license_file_name}"
285     if [[ -n "${license2}" ]]; then
286         LFBFL_license_file_name2="${LFBFL_license_prefix3}"
287         LFBFL_license_file_name2+=".${LFBFL_dest}"
288         prepare_filled_license_file_block "${LFBFL_license_file_name2}"
289     fi
290     find . -type f -name "${LFBFL_key}" -printf '%P\n'\
291         | relevant_find\
292         | while read -r LFBFL_file_name;
293     do
294         is_subfile "${LFBFL_file_name}"\
295             "${LFBFL_license_file_name}.temp"
296         LFBFL_not_subfile=?
297         LFBFL_not_subfile2=1
298         if [[ -n "${license2}" ]]; then
299             is_subfile "${LFBFL_file_name}"\
300                 "${LFBFL_license_file_name2}.temp"

```

```

301         LFBFL_not_subfile2=$?
302     fi
303     if [[ LFBFL_not_subfile -ge 1 && LFBFL_not_subfile2 -ge 1 ]];
304     then
305         echo "File ${LFBFL_file_name} has no/wrong license header?"
306     fi
307 done
308 rm "${LFBFL_license_file_name}.temp"
309 if [[ -n "${license2}" ]]; then
310     rm "${LFBFL_license_file_name2}.temp"
311 fi
312 done
313
314 prepare_filled_license_file_line() {
315     # $1=LFBFL_license_file_name
316     sed -e "s/@repository_name@/${repository_name}/g"\
317         -e "s/@copyright_string@/${LFBFL_copyright_string}/g"\
318         "$1.tpl"\
319         > "$1.temp"
320     overwrite_if_not_equal "$1" "$1.temp"
321     declare -r LFBFL_result=$?
322     if [[ LFBFL_verbose -eq 1 ]]; then
323         if [[ LFBFL_result -eq 1 ]]; then
324             echo "License template $1 updated"
325         elif [[ LFBFL_result -eq 2 ]]; then
326             echo "License template $1 created"
327         fi
328     fi
329 }
330
331 declare -A LFBFL_all_line_comment_languages
332 LFBFL_all_line_comment_languages["sh"]="sh"
333 LFBFL_all_line_comment_languages["tex"]="tex"
334
335 for LFBFL_key in "${!LFBFL_all_line_comment_languages[@]}; do
336     LFBFL_dest=${LFBFL_all_line_comment_languages[${LFBFL_key}]}
337     LFBFL_license_file_name="${LFBFL_license_prefix2}.${LFBFL_dest}"
338     prepare_filled_license_file_line "${LFBFL_license_file_name}"
339     if [[ -n "${license2}" ]]; then
340         LFBFL_license_file_name2="${LFBFL_license_prefix3}"
341         LFBFL_license_file_name2+=".${LFBFL_dest}"
342         prepare_filled_license_file_line "${LFBFL_license_file_name2}"
343     fi
344     find . -type f -name "${LFBFL_key}" -printf '%P\n'\
345         | relevant_find\
346         | while read -r LFBFL_file_name;

```

```

347     do
348         is_subfile "${LFBFL_file_name}" "${LFBFL_license_file_name}"
349         LFBFL_not_subfile=$?
350         LFBFL_not_subfile2=1
351         if [[ -n "${license2}" ]]; then
352             is_subfile "${LFBFL_file_name}" "${LFBFL_license_file_name2}"
353             LFBFL_not_subfile2=$?
354         fi
355         if [[ LFBFL_not_subfile -ge 1 && LFBFL_not_subfile2 -ge 1 ]];
356         then
357             echo "File ${LFBFL_file_name} has no/wrong license header?"
358         fi
359     done
360 done
361
362 declare -i LFBFL_popd_result
363 popd || {
364     LFBFL_popd_result=$?
365     echo "build_licenses_templates no popd"
366     # shellcheck disable=SC2248
367     return ${LFBFL_popd_result}
368 }
369 }
370
371 build_licenses_templates "$@"

```

2.13 build_and_checks_dependencies/licenses_templates/license_file_header_AGPLv3+.tpl

```

1  This file is part of @repository_name@ library.
2
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8  or (at your option) any later version.
9
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13 without even the implied warranty of
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16
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```

```
19 along with @repository_name@.  
20 If not, see <https://www.gnu.org/licenses/>.  
21  
22 ©Copyright @copyright_string@
```

2.14 build_and_checks_dependencies/licenses_templates/license_file_header_GPLv3+.tpl

```
1 This file is part of @repository_name@ library.  
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6 as published by the Free Software Foundation,  
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8 or (at your option) any later version.  
9  
10 @repository_name@ is distributed in the hope  
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14 MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.  
15 See the GNU General Public License for more details.  
16  
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19 along with @repository_name@.  
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21  
22 ©Copyright @copyright_string@
```

2.15 build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.tpl

```
1 This file is part of @repository_name@ library.  
2  
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4 you can redistribute it and/or modify it under the terms  
5 of the GNU Lesser General Public License  
6 as published by the Free Software Foundation,  
7 either version 3 of the License,  
8 or (at your option) any later version.  
9  
10 @repository_name@ is distributed in the hope  
11 that it will be useful,  
12 but WITHOUT ANY WARRANTY;  
13 without even the implied warranty of  
14 MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
```

```

15 See the GNU Lesser General Public License for more details.
16
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18 the GNU Lesser General Public License
19 along with @repository_name@.
20 If not, see <https://www.gnu.org/licenses/>.
21
22 ©Copyright @copyright_string@

```

2.16 build_and_checks_dependencies/lines_counts.lib.sh

```

1  #!/usr/bin/env bash
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16 # See the GNU General Public License for more details.
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20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "lines_counts.sh" to
25 # "lines_counts.lib.sh".
26
27 LFBFL_subdir="build_and_checks_dependencies"
28 # shellcheck source=get_common_text_glob_patterns.lib.sh
29 source "${LFBFL_subdir}/get_common_text_glob_patterns.lib.sh"
30 # shellcheck source=lines_filters.lib.sh
31 source "${LFBFL_subdir}/lines_filters.lib.sh"
32
33 all_code_lines(){
34     if [[ ! -o pipefail ]]; then
35         set -o pipefail

```

```

36     trap 'set +o pipefail' RETURN
37 fi
38 [[ "$*" != *--verbose* ]]
39 declare -ir LFBFL_verbose=$?
40 get_COMMON_TEXT_FILES_GLOB_PATTERNS
41 local LFBFL_pattern
42 for LFBFL_pattern in "${COMMON_TEXT_FILES_GLOB_PATTERNS[@]}; do
43     [[ LFBFL_verbose -eq 1 ]]\
44     && echo "Iterating on pattern: ${LFBFL_pattern}"
45     find . -type f -name "${LFBFL_pattern}" -printf '%P\n'\
46     | xargs grep -H -v 'a(?!a)a'
47 done
48 }
49
50 all_self_code_lines(){
51     if [[ ! -o pipefail ]]; then
52         set -o pipefail
53         trap 'set +o pipefail' RETURN
54     fi
55     # below and another lines, see SC2145 false positive
56     all_code_lines "$@" \
57     | relevant_grep\
58     | not_license_grep\
59     | not_main_tex_grep\
60     | not_main_html_grep
61 }
62
63 all_self_empty_code_lines(){
64     if [[ ! -o pipefail ]]; then
65         set -o pipefail
66         trap 'set +o pipefail' RETURN
67     fi
68     all_self_code_lines "$@" \
69     | empty_lines_after_file_name
70 }
71
72 all_self_not_empty_code_lines(){
73     if [[ ! -o pipefail ]]; then
74         set -o pipefail
75         trap 'set +o pipefail' RETURN
76     fi
77     all_self_code_lines "$@" \
78     | not_empty_lines_after_file_name
79 }
80
81 code_lines_count_all(){

```

```

82     if [[ ! -o pipefail ]]; then
83         set -o pipefail
84         trap 'set +o pipefail' RETURN
85     fi
86     all_self_code_lines "$@" \
87         | wc -l
88 }
89
90 code_lines_count_empty(){
91     if [[ ! -o pipefail ]]; then
92         set -o pipefail
93         trap 'set +o pipefail' RETURN
94     fi
95     all_self_empty_code_lines "$@" \
96         | wc -l
97 }
98
99 code_lines_count_not_empty(){
100     if [[ ! -o pipefail ]]; then
101         set -o pipefail
102         trap 'set +o pipefail' RETURN
103     fi
104     all_self_not_empty_code_lines "$@" \
105         | wc -l
106 }

```

2.17 build_and_checks_dependencies/lines_filters.lib.sh

```

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17 #
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```



```

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22 #
23 # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "lines_filters.sh" to
25 # "lines_filters.lib.sh".
26
27 # The goal of this file is to have some common line filters
28 # for bash processing and pipes.
29 # As is the case for other .sh files in this repository,
30 # it can be copied somewhere in your home directory
31 # and sourced in your .bashrc.
32
33 ll_wc() {
34     # current options to wc:
35     # -c --bytes
36     # -m --chars
37     # -l --lines
38     # --files0-from # Incompatible with cat,
39     #                 # another thing intentional by ?
40     #                 # I don't see the meaning of "files0".
41     # -L --max-line-length
42     # -w --words
43     # --help
44     # --version
45     # New option by Laurent Lyaudet (and probably other before):
46     # -n --no-filenames display only number(s)
47     # I think I did that the first time many years ago (Teliae ?).
48     # Since then, they added it as ignored... (-n)
49     if [[ ! -o pipefail ]]; then
50         set -o pipefail
51         trap 'set +o pipefail' RETURN
52     fi
53     declare -a ll_wc_var_args=()
54     declare -i ll_wc_var_number_only=0
55     declare -i ll_wc_var_i=0
56     for ll_wc_var_arg in "$@"; do
57         # echo "$ll_wc_var_arg"
58         if [[ "${ll_wc_var_arg}" == "-n" ]]; then
59             ll_wc_var_number_only=1
60         elif [[ "${ll_wc_var_arg}" == "--no-filenames" ]]; then
61             ll_wc_var_number_only=1
62         elif [[ ll_wc_var_number_only -eq 0 ]]; then
63             ll_wc_var_args[ll_wc_var_i]="${ll_wc_var_arg}"
64             ll_wc_var_i=$((ll_wc_var_i + 1))

```

```

65     elif [[ "${ll_wc_var_arg}" =~ -.* ]]; then
66         ll_wc_var_args[ll_wc_var_i]="${ll_wc_var_arg}"
67         ll_wc_var_i=$((ll_wc_var_i + 1))
68     fi
69 done
70 # typeset -p ll_wc_var_args
71 # echo "$ll_wc_var_number_only"
72 if [[ ll_wc_var_number_only -gt 0 ]]; then
73     # Too simple code, only the base use case is handled now.
74     # Convenient but incomplete.
75     # With more time,
76     # the simpler would be to submit a patch to GNU coreutils,
77     # unless blockade from assholes.
78     # Otherwise, it may be more simply handled in PHP or Python
79     # (argparse, etc.).
80     # You'll need to start by improving cat first,
81     # with --files0-from handling.
82     # wc does not display file_name when stream...
83     # hence cat of last arg "${!#}"
84     cat "${!#}" \
85         | wc "${ll_wc_var_args[@]}"
86 else
87     # echo "normal"
88     wc "${ll_wc_var_args[@]}"
89 fi
90 }
91
92 # I submitted a patch for wc :).
93 # echo "https://domain/list-path/2024-05/msg00013.html" | \
94 #     sed -e 's|domain|lists.gnu.org|' \
95 #         -e 's|list-path|archive/html/bug-coreutils|'
96 # I found another way to have a long URL fit on 70 characters.
97 # If it is merged, the following would be better:
98 # If --no-filenames option available,
99 # we redefine ll_wc command as an alias.
100 wc_help_text=$(wc --help)
101 if [[ "${wc_help_text}" == *" --no-filenames "*" ]]; then
102     alias ll_wc='wc'
103 fi
104
105 # Trace avant le (2e ?) renommage
106 # de wget_sha512.sh à wget_sha512.lib.sh.
107 # $ ll_wc wget_sha512.sh
108 # 41 189 1224 wget_sha512.sh
109 # $ ll_wc -n wget_sha512.sh
110 #      41      189      1224

```

```

111 # $ ll_wc -l wget_sha512.sh
112 # 41 wget_sha512.sh
113 # $ ll_wc -l -n wget_sha512.sh
114 # 41
115
116 in_place_grep() {
117     declare -r LFBFL_temp="${!#}.in_place_grep.temp"
118     grep "$@" \
119         > "${LFBFL_temp}"
120     declare -r LFBFL_lines_before=$(ll_wc -l -n "${!#}")
121     declare -r LFBFL_lines_after=$(ll_wc -l -n "${LFBFL_temp}")
122     # echo "$LFBFL_lines_before"
123     # echo "$LFBFL_lines_after"
124     if [[ "${LFBFL_lines_before}" == "${LFBFL_lines_after}" ]]; then
125         rm "${LFBFL_temp}"
126         return
127     fi
128     mv "${LFBFL_temp}" "${!#}"
129 }
130
131 grep_variable() {
132     # $1=$file
133     # $2=$variable_name
134     declare -r LFBFL_regexp="(?!^$2=).*$"
135     # echo $LFBFL_regexp
136     declare -r LFBFL_variable_value="$(grep -oP "${LFBFL_regexp}" "$1")"
137     # echo $LFBFL_variable_value
138     declare -g "$2"="${LFBFL_variable_value}"
139 }
140
141 repository_name=""
142 grep_variable build_and_checks_variables/repository_data.txt\
143     repository_name
144
145 empty_lines() {
146     grep '^$'
147 }
148
149 not_empty_lines() {
150     grep -v '^$'
151 }
152
153 space_starting_lines() {
154     grep '^[ ]'
155 }
156

```

```

157 not_space_starting_lines() {
158     grep '^[ ^ ]'
159 }
160
161 empty_lines_after_file_name() {
162     grep '^[:]\|+$'
163 }
164
165 not_empty_lines_after_file_name() {
166     grep -v '^[:]\|+$'
167 }
168
169 space_starting_lines_after_file_name() {
170     grep '^[:]\|+ '
171 }
172
173 not_space_starting_lines_after_file_name() {
174     grep '^[:]\|+:[ ^ ]'
175 }
176
177 not_JS_dependencies_find() {
178     grep -vE -e "(^|/)node_modules/"\
179             -e "(^|/)package-lock\.json$"
180 }
181
182 not_JS_dependencies_grep() {
183     grep -vE -e "^([:]+)/?node_modules/"\
184             -e "^([:]+)/?package-lock\.json:"
185 }
186
187 not_dependencies_find() {
188     not_JS_dependencies_find
189 }
190
191 not_dependencies_grep() {
192     not_JS_dependencies_grep
193 }
194
195 not_python_cache_find() {
196     grep -vE -e "(^|/).__pycache__/"\
197             -e "(^|/)\.mypy_cache/"\
198             -e "(^|/)\.ruff_cache/"
199 }
200
201 not_python_cache_grep() {
202     grep -vE -e "^([:]+)/?__pycache__/"\

```

```

203         -e "^( [^:]+/)?\.mypy_cache/"\
204         -e "^( [^:]+/)?\.ruff_cache/"
205     }
206
207     not_cache_find() {
208         not_python_cache_find
209     }
210
211     not_cache_grep() {
212         not_python_cache_grep
213     }
214
215     not_git_find() {
216         grep -vE " (^|/)\.git/"
217     }
218
219     not_git_grep() {
220         grep -vE "^( [^:]+/)?\.git/"
221     }
222
223     not_archive_find() {
224         grep -vE "(\.gz|\.rar|\.tar|\.tgz|\.whl)$"
225     }
226
227     not_archive_grep() {
228         grep -vE "^[^:]*(\.gz|\.rar|\.tar|\.tgz|\.whl):"
229     }
230
231     not_license_find() {
232         grep -vE -e " (^|/)COPYING$\\"
233             -e " (^|/)COPYING\LESSER$"
234     }
235
236     not_license_grep() {
237         grep -vE -e "^( [^:]+/)?COPYING:"\
238             -e "^( [^:]+/)?COPYING\LESSER:"
239     }
240
241     not_main_tex_find() {
242         grep -vE " (^|/)$ {repository_name} \.tex$"
243     }
244
245     not_main_tex_grep() {
246         grep -vE "^( [^:]+/)?$ {repository_name} \.tex:"
247     }
248

```

```

249 not_main_html_find() {
250     grep -vE "(^|/){repository_name}\.html$"
251 }
252
253 not_main_html_grep() {
254     grep -vE "^([:]+/)?${repository_name}\.html:"
255 }
256
257 not_temp_file_find() {
258     grep -vE "(^|/)build_and_checks_variables/temp/.*$"
259 }
260
261 not_temp_file_grep() {
262     grep -vE "^([:]+/)?build_and_checks_variables/temp/[:]*:"
263 }
264
265 relevant_find() {
266     if [[ ! -o pipefail ]]; then
267         set -o pipefail
268         trap 'set +o pipefail' RETURN
269     fi
270     not_dependencies_find\
271     | not_cache_find\
272     | not_git_find\
273     | not_archive_find\
274     | not_temp_file_find
275 }
276
277 relevant_grep() {
278     if [[ ! -o pipefail ]]; then
279         set -o pipefail
280         trap 'set +o pipefail' RETURN
281     fi
282     not_dependencies_grep\
283     | not_cache_grep\
284     | not_git_grep\
285     | not_archive_grep\
286     | not_temp_file_grep
287 }

```

2.18 build_and_checks_dependencies/lines_maps.lib.sh

```

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```

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22 #
23 # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "lines_maps.sh" to "lines_maps.lib.sh".
25
26 # https://en.wikibooks.org/wiki/Unicode/Character\_reference/2000-2FFF
27 # Some invisible unicode characters that are a problem:
28 # 2000-200F 2028-202F 205F 2060-206F
29 # [
30 #   '2000', '2001', '2002', '2003', '2004', '2005', '2006', '2007',
31 #   '2008', '2009', '200A', '200B', '200C', '200D', '200E', '200F',
32 #   '2028', '2029', '202A', '202B', '202C', '202D', '202E', '202F',
33 #   '205F',
34 #   '2060', '2061', '2062', '2063', '2064', '2065', '2066', '2067',
35 #   '2068', '2069', '206A', '206B', '206C', '206D', '206E', '206F',
36 # ]
37 replace_non_ascii_spaces() {
38     sed -e 's/\xc2\xa0/ /g' \
39         -e 's/\xe2\x80\x80/ /g' \
40         -e 's/\xe2\x80\x81/ /g' \
41         -e 's/\xe2\x80\x82/ /g' \
42         -e 's/\xe2\x80\x83/ /g' \
43         -e 's/\xe2\x80\x84/ /g' \
44         -e 's/\xe2\x80\x85/ /g' \
45         -e 's/\xe2\x80\x86/ /g' \
46         -e 's/\xe2\x80\x87/ /g' \
47         -e 's/\xe2\x80\x88/ /g' \
48         -e 's/\xe2\x80\x89/ /g' \
49         -e 's/\xe2\x80\x8a/ /g' \
50         -e 's/\xe2\x80\x8b/ /g' \

```

```

51     -e 's/\xe2\x80\x8c/ /g' \
52     -e 's/\xe2\x80\x8d/ /g' \
53     -e 's/\xe2\x80\x8e/ /g' \
54     -e 's/\xe2\x80\x8f/ /g' \
55     -e 's/\xe2\x80\xa8/ /g' \
56     -e 's/\xe2\x80\xa9/ /g' \
57     -e 's/\xe2\x80\xaa/ /g' \
58     -e 's/\xe2\x80\xab/ /g' \
59     -e 's/\xe2\x80\xac/ /g' \
60     -e 's/\xe2\x80\xad/ /g' \
61     -e 's/\xe2\x80\xae/ /g' \
62     -e 's/\xe2\x80\xaf/ /g' \
63     -e 's/\xe2\x81\x9f/ /g' \
64     -e 's/\xe2\x81\xa0/ /g' \
65     -e 's/\xe2\x81\xa1/ /g' \
66     -e 's/\xe2\x81\xa2/ /g' \
67     -e 's/\xe2\x81\xa3/ /g' \
68     -e 's/\xe2\x81\xa4/ /g' \
69     -e 's/\xe2\x81\xa5/ /g' \
70     -e 's/\xe2\x81\xa6/ /g' \
71     -e 's/\xe2\x81\xa7/ /g' \
72     -e 's/\xe2\x81\xa8/ /g' \
73     -e 's/\xe2\x81\xa9/ /g' \
74     -e 's/\xe2\x81\xaa/ /g' \
75     -e 's/\xe2\x81\xab/ /g' \
76     -e 's/\xe2\x81\xac/ /g' \
77     -e 's/\xe2\x81\xad/ /g' \
78     -e 's/\xe2\x81\xae/ /g' \
79     -e 's/\xe2\x81\xaf/ /g' \
80 }

```

2.19 build_and_checks_dependencies/overwrite_if_not_equal.lib.sh

```

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23 # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "overwrite_if_not_equal.sh"
25 # to "overwrite_if_not_equal.lib.sh".
26
27 overwrite_if_not_equal() {
28     # $1=$target_file_name
29     # $2=$temp_file_name
30     # $3=$keep_temp
31     # $4=$tree_mode : when the two files are the output of tree command,
32     # we ignore if all the differences are only on directories.
33     # Return 0 target was the same
34     #         1 target was different
35     #         2 target did not already exist
36     if [[ ! -f "$1" ]]; then
37         if [[ -n "$3" ]]; then
38             cp -p "$2" "$1"
39         else
40             mv "$2" "$1"
41         fi
42         return 2
43     fi
44     declare -i LFBFL_is_equal
45     if [[ -n "$4" ]]; then
46         # Not setting pipefail since the result would still be incorrect.
47         # shellcheck disable=SC2312
48         diff "$1" "$2" \
49             | grep -E "(>|<)" \
50             | grep -v "/"$"
51         LFBFL_is_equal=$?
52     else
53         diff -q "$1" "$2"
54         LFBFL_is_equal=1-$?
55     fi
56     if [[ LFBFL_is_equal -eq 1 ]]; then
57         if [[ -z "$3" ]]; then
58             rm "$2"
59         fi

```

```

60     return 0
61 fi
62 if [[ -n "$3" ]]; then
63     cp -p "$2" "$1"
64 else
65     mv "$2" "$1"
66 fi
67 return 1
68 }

```

2.20 build_and_checks_dependencies/python_black_complement.lib.sh

```

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23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "python_black_complement.sh"
25 # to "python_black_complement.lib.sh".
26
27 # It was rejected to enhance black with this currently.
28 # https://github.com/psf/black/issues/2370
29 # And moreover, at some point, I saw the reverse rule
30 # in black or pylint to add an empty line...
31 # This regexp may give false positives,
32 # but that's not the end of the world.
33 check_no_empty_line_after_python_function_docstring(){
34     echo "Checking empty lines after Python function docstrings"

```

```

35  pcregrep -M $'def [^"]*""([^\]|"(?!"))*""\n\n(?!\s*def)'\
36      -- **/*.py
37  }
38
39  python_black_complement() {
40      check_no_empty_line_after_python_function_docstring
41  }

```

2.21 build_and_checks_dependencies/python_isort_complement.lib.sh

```

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24 # This file was renamed from "python_isort_complement.sh"
25 # to "python_isort_complement.lib.sh".
26
27 LFBFL_subdir="build_and_checks_dependencies"
28 # shellcheck source=lines_filters.lib.sh
29 source "${LFBFL_subdir}/lines_filters.lib.sh"
30 # shellcheck source=overwrite_if_not_equal.lib.sh
31 source "${LFBFL_subdir}/overwrite_if_not_equal.lib.sh"
32
33 check_collections_abc_place() {
34     echo "Checking import of _collections_abc is at the right place"
35     if [[ ! -o pipefail ]]; then
36         set -o pipefail

```

```

37     trap 'set +o pipefail' RETURN
38     fi
39     declare -r LFBFL_temp=".check_collections_abc_place.temp"
40     find . -name "*.py" \
41         | relevant_find \
42         | while read -r LFBFL_file_name;
43     do
44         [[ -f "${LFBFL_file_name}" ]] || continue
45         sed -Ez 's/\n(\nfrom _collections_abc[^\n]*)/\1\n/Mg' \
46             "${LFBFL_file_name}" \
47             > "${LFBFL_file_name}${LFBFL_temp}"
48         overwrite_if_not_equal "${LFBFL_file_name}" \
49             "${LFBFL_file_name}${LFBFL_temp}"
50     done
51 }
52
53 python_isort_complement() {
54     check_collections_abc_place
55 }

```

2.22 build_and_checks_dependencies/split_score.exec.php

```

1  #!/usr/bin/php
2  <?php
3  /*
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24

```

```

25  @Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
26  2026-01-04T13:38+01:00: This file was renamed from
27  "split_line_at_most.exec.php"
28  to
29  "split_score.exec.php".
30  This file was renamed from
31  "call_split_score_after_before_or_before_after.exec.php" to
32  "split_line_at_most.exec.php".
33  This file was renamed from
34  "call_split_score_after_before_or_before_after.php" to
35  "call_split_score_after_before_or_before_after.exec.php".
36  */
37
38  require_once('./build_and_checks_dependencies/split_score.lib.php');
39
40  /*
41  php -r\
42  $'require_once(\'./build_and_checks_dependencies/\
43  $'split_score.lib.php\');'\
44  $' echo(generate_split_score'\
45  $'(true, 70, [\'/\']) (\'/\', 60, true));'
46  */
47
48  // The first cast "(int) generate_split_score" is to avoid false
49  // positive errors on possible XSS if output is unescaped.
50  echo(
51      (int) generate_split_score(
52          (bool) $argv[1], (int) $argv[2], explode(',', $argv[3]),
53          ($argv[4], (int) $argv[5], (bool) $argv[6])
54      );

```

2.23 build_and_checks_dependencies/split_score.lib.php

```

1  <?php
2  /*
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22 If not, see <https://www.gnu.org/licenses/>.
23
24 ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
25 2026-01-04T13:38+01:00: This file was renamed from
26 "split_line_at_most.lib.php"
27 to
28 "split_score.lib.php".
29 This file was renamed from "split_line_at_most.php" to
30 "split_line_at_most.lib.php".
31 */
32
33 function generate_split_score(
34     $b_after_before,
35     $i_max_length,
36     $a_delimiter_strings_domain,
37 ) {
38     return function(
39         $s_delimiter_string,
40         $i_cut_position,
41         $b_is_cut_after,
42     ) use ($b_after_before, $i_max_length, $a_delimiter_strings_domain) {
43         if (
44             !in_array(
45                 $s_delimiter_string, $a_delimiter_strings_domain, true
46             )
47         ) {
48             // I do not handle regexps for the moment.
49             // I'm too brainfucked. I just want to finish this feature fast
50             // for HTML and Tex/PDF listings generation with HTML and Tex on
51             // at most 70 characters.
52             return 0;
53         }
54         if ($b_is_cut_after === $b_after_before) {
55             // When $b_after_before,
56             // always way better to cut after '/' than before it.
57             // When !$b_after_before (aka before_after),
58             // always way better to cut before '/' than after it.
59             return 1 + $i_max_length + $i_cut_position;

```

```

60     }
61     return 1 + $i_cut_position;
62 };
63 }

```

2.24 build_and_checks_dependencies/strings_functions.lib.sh

```

1  #!/usr/bin/env bash
2  # This file is part of DevOrSysAdminScripts library.
3  #
4  # DevOrSysAdminScripts is free software:
5  # you can redistribute it and/or modify it under the terms
6  # of the GNU General Public License
7  # as published by the Free Software Foundation,
8  # either version 3 of the License,
9  # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,
13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # I think I created a file strings_functions.sh or renamed to
25 # strings_functions.sh at some point, before committing.
26 # Hence, someone must have changed or reversed the name of this file
27 # to string_functions.sh at some point.
28 # This file was renamed from "string_functions.sh" to
29 # "strings_functions.lib.sh".
30
31 LFBFL_subdir="build_and_checks_dependencies"
32 # shellcheck source=get_common_text_glob_patterns.lib.sh
33 source "${LFBFL_subdir}/get_common_text_glob_patterns.lib.sh"
34 # shellcheck source=comparisons.lib.sh
35 source "${LFBFL_subdir}/comparisons.lib.sh"
36
37 split_line_at() {
38     # $1=$line
39     # $2=$position

```

```

40 declare -g split_line_at_result_beginning="${1:0:$2}"
41 declare -g split_line_at_result_end="${1:$2}"
42 # echo "$split_line_at_result_beginning"
43 # echo "$split_line_at_result_end"
44 }
45
46 split_score_simple() {
47     # $1=$after_before
48     # $2=$delimiters_strings_domain concatenated characters/delimiters
49     # $3=$delimiter_string a single character
50     # $4=$is_cut_after
51     declare -gi split_score_result
52     if [[ "$2" != *$3* ]]; then
53         split_score_result=0
54         return
55     fi
56     if [[ "$4" == "$1" ]]; then
57         split_score_result=2
58         return
59     fi
60     split_score_result=1
61 }
62
63 get_split_score_simple() {
64     # $1=$after_before
65     # $2=$max_length
66     # $3=$delimiters_strings_domain
67     declare -g get_split_score_result="split_score_simple $1 '$3'"
68     declare -gi get_split_score_result2
69     # shellcheck disable=SC2125
70     get_split_score_result2=7+$1*4
71     # if [[ $1 -eq 1 ]]; then
72     #     get_split_score_result2=7
73     # else
74     #     get_split_score_result2=11
75     # fi
76 }
77
78 get_split_score_exec() {
79     declare -g SPLIT_SCORE_EXEC="./build_and_checks_dependencies"
80     SPLIT_SCORE_EXEC+="/split_score.exec.php"
81 }
82
83 split_score() {
84     # $1=$after_before
85     # $2=$max_length

```



```

86 # $3=$delimiters_strings_domain concatenated characters/delimiters
87 # $4=$delimiter_string a single character
88 # $5=$cut_position
89 # $6=$is_cut_after
90 get_split_score_exec
91 declare -r LFBFL_command="{SPLIT_SCORE_EXEC} $1 $2 '$3' '$4' $5 $6"
92 declare -gi split_score_result
93 split_score_result=$(eval "${LFBFL_command}")
94 }
95
96 # This function is currently not called,
97 # hence we need that shellcheck disable.
98 # shellcheck disable=SC2034
99 get_split_score() {
100 # $1=$after_before
101 # $1=$max_length
102 # $2=$delimiters_strings_domain
103 declare -g get_split_score_result="split_score $1 $2 '$3'"
104 declare -gi get_split_score_result2
105 # shellcheck disable=SC2125
106 get_split_score_result2=5+$1*4
107 }
108
109 split_line_at_most() {
110 # $1=$line
111 # $2=$max_length of beginning result string
112 # $3=$split_score_command
113 # negative score means do not consider as a possible split
114 # $4=$split_score_command_properties :
115 # These properties are flags.
116 # If someday some property is not a flag,
117 # then create split_score_command_properties2.
118 # - null or 0 no property;
119 # - 1 split score doesn't depend on which delimiter matches;
120 # - 2 split score doesn't depend on the current position;
121 # - 4 any split score after is always larger
122 # than any split score before;
123 # - 8 any split score before is always larger
124 # than any split score after;
125 # $5=$forbidden_previous_character
126 # $6=$split_score_command_delimiter_strings_domain
127 # optimisation if small domain
128 # - this argument can be "null", then we will use $3 only instead,
129 # in that case, only mono-character strings are considered,
130 # - this argument can be an array of characters,
131 # optimize accordingly,

```

```

132 # - this argument can be an array of strings,
133 # optimize accordingly,
134 # - this argument can be an array of regexps,
135 # optimize accordingly.
136 # Not sure an array of regexps makes more sense than a single
137 # one. Maybe they could be both cases with corresponding
138 # optimizations. Same for a single character or substring.
139 #
140 # Note that we're always looking for the last position to split
141 # among maximum score;
142 # if some position gets as score from 2 delimiters,
143 # its score is always the maximum of the two corresponding scores.
144 declare -g split_line_at_most_result_start
145 declare -g split_line_at_most_result_end
146 declare -A LFBFL_positions
147 # echo "$1 $2 $3 $4"
148 # For my use case in bash scripts, I will need only an array of
149 # characters. See get_split_score_after_before().
150 if [[ -n "$6" ]]; then
151     echo "split_line_at_most() \$4 NOT IMPLEMENTED YET"
152 fi
153 if [[ $2 -ge ${#1} ]]; then
154     split_line_at_most_result_start=$1
155     split_line_at_most_result_end=""
156     return
157 fi
158 declare -r LFBFL_sort_command="sort --numeric-sort"
159 declare -r LFBFL_length_minus_1=$(( ${#1} - 1 ))
160 declare -r LFBFL_i_max=$((
161     min "${LFBFL_sort_command}" "${LFBFL_length_minus_1}" "$2"
162 ))
163 local LFBFL_i
164 local LFBFL_j
165 local LFBFL_previous_char
166 local LFBFL_current_char
167
168 # At the beginning, each position has score 0.
169 for ((LFBFL_i=0; LFBFL_i<=LFBFL_i_max; ++LFBFL_i)) do
170     LFBFL_positions["${LFBFL_i}"]="0"
171 done
172 LFBFL_j=$((LFBFL_i+1))
173 LFBFL_positions["${LFBFL_j}"]="0"
174
175 # If we have a forbidden previous character,
176 # we mark the forbidden positions with -1.
177 if [[ -n "$5" ]]; then

```

```

178 LFBFL_previous_char=""
179 for ((LFBFL_i=0; LFBFL_i<LFBFL_i_max; ++LFBFL_i)) do
180     LFBFL_j=$((LFBFL_i+1))
181     if [[ LFBFL_i -ge 1 ]]; then
182         LFBFL_previous_char="${LFBFL_current_char}"
183     fi
184     LFBFL_current_char="${1:${LFBFL_i}:1}"
185     if [[ "${LFBFL_previous_char}" == "$5" ]]; then
186         LFBFL_positions["${LFBFL_i}"]="-1"
187     fi
188     if [[ "${LFBFL_current_char}" == "$5" ]]; then
189         LFBFL_positions["${LFBFL_j}"]="-1"
190     fi
191 done
192 fi
193
194 if [[ "$4" == "7" ]]; then
195     for ((LFBFL_j=LFBFL_i_max; LFBFL_j>0; --LFBFL_j)) do
196         LFBFL_i=$((LFBFL_j-1))
197         LFBFL_current_char="${1:${LFBFL_i}:1}"
198         eval "$3 '${LFBFL_current_char}' 0"
199         # echo "${split_score_result}|${LFBFL_i}"
200         if [[ split_score_result -ge 1 ]]; then
201             # echo "${split_score_result}|${LFBFL_i}"
202             if [[ ${LFBFL_positions["${LFBFL_i}"]} != "-1" ]]; then
203                 LFBFL_positions["${LFBFL_i}"]=$(
204                     max "${LFBFL_sort_command}"\
205                         "${LFBFL_positions["${LFBFL_i}"]}"\
206                         "${split_score_result}"
207                 )
208             fi
209         fi
210         eval "$3 '${LFBFL_current_char}' 1"
211         # echo "${split_score_result}|${LFBFL_j}"
212         if [[ split_score_result -ge 1 ]]; then
213             # echo "${split_score_result}|${LFBFL_j}"
214             if [[ ${LFBFL_positions["${LFBFL_j}"]} != "-1" ]]; then
215                 LFBFL_positions["${LFBFL_j}"]=$(
216                     max "${LFBFL_sort_command}"\
217                         "${LFBFL_positions["${LFBFL_j}"]}"\
218                         "${split_score_result}"
219                 )
220             break
221         fi
222     fi
223 done

```

```

224 else
225     for ((LFBFL_i=0; LFBFL_i<LFBFL_i_max; ++LFBFL_i)) do
226         LFBFL_j=$((LFBFL_i+1))
227         LFBFL_current_char="${1:${LFBFL_i}:1}"
228         eval "$3 '${LFBFL_current_char}' ${LFBFL_i} 0"
229         # echo "${split_score_result}|${LFBFL_i}"
230         if [[ split_score_result -ge 1 ]]; then
231             # echo "${split_score_result}|${LFBFL_i}"
232             if [[ ${LFBFL_positions["${LFBFL_i}"]} != "-1" ]]; then
233                 LFBFL_positions["${LFBFL_i}"]=$(
234                     max "${LFBFL_sort_command}"\
235                         "${LFBFL_positions["${LFBFL_i}"]}"\
236                         "${split_score_result}"
237                 )
238             fi
239         fi
240         eval "$3 '${LFBFL_current_char}' ${LFBFL_j} 1"
241         # echo "${split_score_result}|${LFBFL_j}"
242         if [[ split_score_result -ge 1 ]]; then
243             # echo "${split_score_result}|${LFBFL_j}"
244             if [[ ${LFBFL_positions["${LFBFL_j}"]} != "-1" ]]; then
245                 LFBFL_positions["${LFBFL_j}"]=$(
246                     max "${LFBFL_sort_command}"\
247                         "${LFBFL_positions["${LFBFL_j}"]}"\
248                         "${split_score_result}"
249                 )
250             fi
251         fi
252     done
253 fi
254 declare -r LFBFL_max_score=\
255 $(max 'sort --numeric-sort' "${LFBFL_positions[@]}")
256 local LFBFL_best_position
257 for ((LFBFL_i=0; LFBFL_i<=LFBFL_i_max; ++LFBFL_i)) do
258     local LFBFL_value=${LFBFL_positions[${LFBFL_i}]}
259     # echo "${LFBFL_i} ${LFBFL_value}"
260     if [[ "${LFBFL_value}" == "${LFBFL_max_score}" ]]; then
261         LFBFL_best_position="${LFBFL_i}"
262     fi
263 done
264 split_line_at "$1" "${LFBFL_best_position}"
265 split_line_at_most_result_start="${split_line_at_result_beginning}"
266 split_line_at_most_result_end="${split_line_at_result_end}"
267 # echo "$split_line_at_most_result_start"
268 # echo "$split_line_at_most_result_end"
269 }

```

```

270
271 split_last_line() {
272     # $1=$new_lines
273     # $2=$prefix
274     # $3=$max_length
275     # $4=$suffix
276     # $5=$split_score_command
277     # $6=$split_score_command_properties
278     # $7=$forbidden_previous_character ('\ ' usually)
279     # In general, a prefix/suffix can be a required line prefix/suffix
280     # for all final lines like a comment prefix,
281     # or it can be a continuation line prefix/suffix applied only
282     # when splitting a line in 2 lines,
283     # or it can be a prefix/suffix for the string made of all the lines.
284     # Clearly, there is no gain to couple handling a prefix/suffix for
285     # the string made of all the lines in this function.
286     # Since we add a prefix/suffix when splitting,
287     # it is easy to see that we do not need to distinguish between
288     # required line prefix/suffix and continuation line prefix/suffix.
289     # The $2 and $4 arguments are given as concatenation of the
290     # required and continuation line prefixes/suffixes as needed by the
291     # user.
292     # Thus lines arguments should be given already prefixed
293     # and suffixed.
294     # This is logic, since it would be cumbersome to handle prefixing
295     # or not already splitted lines in this function
296     # (see repeated_split_last_line).
297     # The given max_length is the goal.
298     # This function adapts the effective max position for the split by
299     # taking into account the length of the suffix.
300     if [[ ! -o pipefail ]]; then
301         set -o pipefail
302         trap 'set +o pipefail' RETURN
303     fi
304
305     declare -g split_last_line_result="$1"
306     declare -ir LFBFL_max_length_plus=$(( $3 + 1 ) )
307     declare -ir LFBFL_length2=$(( $3 - ${#4} ) )
308     declare -r LFBFL_regexp='.\{ "${LFBFL_max_length_plus}"'\}'$'
309     if
310         echo "$1"\
311             | sed -e 's/\\n/\\n/g'\
312             | grep -q "${LFBFL_regexp}";
313     then
314         declare -r LFBFL_start=$(
315             echo "$1"\

```

```

316         | sed -e 's/\\n/\\n/g'\
317         | head --lines=-1\
318         | sed -z 's/\\n/\\n/g'
319     )
320     # echo "start: $LFBFL_start"
321     declare -r LFBFL_last_line=$(
322         echo "$1"\
323         | sed -e 's/\\n/\\n/g'\
324         | tail --lines=1
325     )
326     # echo "last_line: ${LFBFL_last_line}"
327     split_last_line_result=""
328     if [[ -n "${LFBFL_start}" ]]; then
329         split_last_line_result="${LFBFL_start}\\n"
330     fi
331     if [[ -n "$5" ]]; then
332         split_line_at_most "${LFBFL_last_line}" "${LFBFL_length2}"\
333             "$5" "$6" "$7"
334         split_last_line_result+="${split_line_at_most_result_start}$4"
335         split_last_line_result+="\\n"
336         split_last_line_result+="$2${split_line_at_most_result_end}"
337     else
338         split_last_line_result+="${LFBFL_last_line:0:${LFBFL_length2}}"
339         split_last_line_result+="\\n"
340         split_last_line_result+="$2${LFBFL_last_line:${LFBFL_length2}}"
341     fi
342 fi
343 }
344
345 repeated_split_last_line() {
346     declare -g repeated_split_last_line_result="$1"
347     local LFBFL_i
348     for ((LFBFL_i=0; LFBFL_i<$6; ++LFBFL_i)) do
349         split_last_line "${repeated_split_last_line_result}" "$2" "$3"\
350             "$4" "$5" "$6" "$7"
351         repeated_split_last_line_result="${split_last_line_result}"
352         # echo "${split_last_line_result}"
353     done
354 }

```

2.25 build_and_checks_dependencies/too_long_code_lines.lib.sh

```

1  #!/usr/bin/env bash
2  # This file is part of DevOrSysAdminScripts library.
3  #
4  # DevOrSysAdminScripts is free software:

```

```

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15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "too_long_code_lines.sh"
25 # to "too_long_code_lines.lib.sh".
26
27 LFBFL_subdir="build_and_checks_dependencies"
28 # shellcheck source=get_common_text_glob_patterns.lib.sh
29 source "${LFBFL_subdir}/get_common_text_glob_patterns.lib.sh"
30 # shellcheck source=lines_filters.lib.sh
31 source "${LFBFL_subdir}/lines_filters.lib.sh"
32
33 too_long_code_lines(){
34     declare -i LFBFL_verbose=0
35     if [[ "$*" == *--verbose* ]]; then
36         echo "$0 $*"
37         LFBFL_verbose=1
38     fi
39     readonly LFBFL_verbose
40
41     if [[ ! -o pipefail ]]; then
42         [[ LFBFL_verbose -eq 1 ]] && echo "pipefail option activated"
43         set -o pipefail
44         trap 'set +o pipefail' RETURN
45     fi
46
47     get_COMMON_TEXT_FILES_GLOB_PATTERNS
48     local LFBFL_pattern
49     local LFBFL_file_name
50     local LFBFL_line

```

```

51 local LFBFL_extension
52 local LFBFL_base_name
53 for LFBFL_pattern in "${COMMON_TEXT_FILES_GLOB_PATTERNS[@]}"; do
54     [[ LFBFL_verbose -eq 0 ]]\
55     || echo "Iterating on pattern: ${LFBFL_pattern}"
56     find . -type f -name "${LFBFL_pattern}" -printf '%P\n'\
57     | relevant_find\
58     | not_license_find\
59     | xargs grep -H '\.{71}\'\
60     | while read -r LFBFL_long_line;
61     do
62         LFBFL_file_name=${LFBFL_long_line%:*} # Drop long ':*' suffix
63         LFBFL_line=${LFBFL_long_line#*:} # Drop short '*: ' prefix
64         LFBFL_line="${LFBFL_line/%\\\/}" # Drop/Replace '\\' suffix by '/'
65         LFBFL_extension=${LFBFL_file_name##*.*} # Drop long '*.' prefix
66         LFBFL_base_name=${LFBFL_file_name%.*} # Drop short '*. ' suffix
67         if [[ "${LFBFL_extension}" == "html" ]]; then
68             if [[ -f "${LFBFL_base_name}.md" ]]; then
69                 continue
70             fi
71             if grep --quiet --fixed-strings "${LFBFL_line}"\
72                 "./build_and_checks_variables/temp/files_listing.html.tpl"
73             then
74                 continue
75             fi
76             echo "${LFBFL_long_line}"
77         elif [[ "${LFBFL_extension}" == "md" ]]; then
78             if ! [[ -f "${LFBFL_base_name}.md.tpl" ]]; then
79                 echo "${LFBFL_long_line}"
80             fi
81         else
82             echo "${LFBFL_long_line}"
83         fi
84     done
85 done
86 }

```

2.26 build_and_checks_dependencies/update_common_build_and_checks.exec.sh

```

1 #!/usr/bin/env bash
2 # This file is part of DevOrSysAdminScripts library.
3 #
4 # DevOrSysAdminScripts is free software:
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6 # of the GNU General Public License
7 # as published by the Free Software Foundation,

```



```

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9 # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,
13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "update_common_build_and_checks.sh"
25 # to "update_common_build_and_checks.exec.sh".
26
27 source "overwrite_if_not_equal.lib.sh"
28
29 update_common_build_and_checks() {
30     declare -i LFBFL_verbose=0
31     if [[ "$*" == *--verbose* ]]; then
32         echo "$0 $*"
33         LFBFL_verbose=1
34     fi
35     readonly LFBFL_verbose
36
37     if [[ ! -o pipefail ]]; then
38         [[ LFBFL_verbose -eq 1 ]] && echo "pipefail option activated"
39         set -o pipefail
40         trap 'set +o pipefail' RETURN
41     fi
42
43     declare -r LFBFL_common_file_name="common_build_and_checks.exec.sh"
44     cp "${LFBFL_common_file_name}.tpl" \
45         "${LFBFL_common_file_name}.temp"
46
47     declare -r LFBFL_file_names=(\
48         "build_md_from_printable_md.exec.sh"\
49         "check_shell_scripts_beginnings.lib.sh"\
50         "check_URLs.lib.sh"\
51         "comparisons.lib.sh"\
52         "create_PDF.exec.sh"\
53         "generate_from_template.lib.sh"\

```

```

54 "get_common_text_glob_patterns.lib.sh"\
55 "grammar_and_spell_check.lib.sh"\
56 "licenses_templates/build_licenses_templates.exec.sh"\
57 "licenses_templates/license_file_header_AGPLv3+.tpl"\
58 "licenses_templates/license_file_header_GPLv3+.tpl"\
59 "licenses_templates/license_file_header_LGPLv3+.tpl"\
60 "lines_counts.lib.sh"\
61 "lines_filters.lib.sh"\
62 "lines_maps.lib.sh"\
63 "update_or_check_files_names_listing.exec.sh"\
64 "overwrite_if_not_equal.lib.sh"\
65 "python_black_complement.lib.sh"\
66 "python_isort_complement.lib.sh"\
67 "split_score.exec.php"\
68 "split_score.lib.php"\
69 "strings_functions.lib.sh"\
70 "too_long_code_lines.lib.sh"\
71 )
72
73 local LFBFL_file_name
74 local LFBFL_file_sha512
75 local LFBFL_file_sha512_all
76 local LFBFL_base_file_name
77 for LFBFL_file_name in "${LFBFL_file_names[@]"; do
78     LFBFL_file_sha512=$(
79         sha512sum "./${LFBFL_file_name}"\
80         | cut -f1 -d' '
81     )
82     LFBFL_file_sha512_all="local LFBFL_correct_sha512\n"
83     LFBFL_file_sha512_all+="    LFBFL_correct_sha512="
84     LFBFL_file_sha512_all+="' ${LFBFL_file_sha512:0:45}'\n"
85     LFBFL_file_sha512_all+="    LFBFL_correct_sha512\+="
86     LFBFL_file_sha512_all+="' ${LFBFL_file_sha512:45:44}'\n"
87     LFBFL_file_sha512_all+="    LFBFL_correct_sha512\+="
88     LFBFL_file_sha512_all+="' ${LFBFL_file_sha512:89}' "
89     LFBFL_base_file_name=$(basename "${LFBFL_file_name}")
90     sed -i\
91         "s|@sha512_${LFBFL_base_file_name}@|${LFBFL_file_sha512_all}|g"\
92         "./${LFBFL_common_file_name}.temp"
93 done
94
95 overwrite_if_not_equal "./${LFBFL_common_file_name}"\
96     "./${LFBFL_common_file_name}.temp"
97
98 declare -r LFBFL_main_file_name="build_and_checks.exec.sh"
99 cp "${LFBFL_main_file_name}.tpl" "../${LFBFL_main_file_name}.temp"

```

```

100
101 LFBFL_file_sha512=$(
102     sha512sum "./${LFBFL_common_file_name}"\
103     | cut -f1 -d' '
104 )
105 LFBFL_file_sha512_all="local LFBFL_correct_sha512\n"
106 LFBFL_file_sha512_all+="    LFBFL_correct_sha512="
107 LFBFL_file_sha512_all+="'${LFBFL_file_sha512:0:45}'\n"
108 LFBFL_file_sha512_all+="    LFBFL_correct_sha512\+="
109 LFBFL_file_sha512_all+="'${LFBFL_file_sha512:45:44}'\n"
110 LFBFL_file_sha512_all+="    LFBFL_correct_sha512\+="
111 LFBFL_file_sha512_all+="'${LFBFL_file_sha512:89}' "
112 sed -i\
113     "s|@sha512_${LFBFL_common_file_name}@|${LFBFL_file_sha512_all}|g"\
114     "../${LFBFL_main_file_name}.temp"
115
116 overwrite_if_not_equal "../${LFBFL_main_file_name}"\
117     "../${LFBFL_main_file_name}.temp"
118 }
119
120 update_common_build_and_checks "$@"

```

2.27 build_and_checks_dependencies/update_or_check_files_names_listing.exec.sh

```

1  #!/usr/bin/env bash
2  # This file is part of DevOrSysAdminScripts library.
3  #
4  # DevOrSysAdminScripts is free software:
5  # you can redistribute it and/or modify it under the terms
6  # of the GNU General Public License
7  # as published by the Free Software Foundation,
8  # either version 3 of the License,
9  # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,
13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #

```

```

23 # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24
25 # 2025-12-30T21:33+01:00: This file was moved from
26 # "./build_and_checks_dependencies/listings"
27 # to
28 # "./build_and_checks_dependencies".
29 # This file was renamed from "update_or_check_files_names_listing.sh"
30 # to "update_or_check_files_names_listing.exec.sh".
31 # This file was renamed from "update_or_check_file_names_listing.sh"
32 # to "update_or_check_files_names_listing.sh"?
33
34 LFBFL_subdir="build_and_checks_dependencies"
35 # shellcheck source=lines_filters.lib.sh
36 source "${LFBFL_subdir}/lines_filters.lib.sh"
37 # shellcheck source=strings_functions.lib.sh
38 source "${LFBFL_subdir}/strings_functions.lib.sh"
39
40 update_or_check_files_names_listing() {
41     declare -i LFBFL_verbose=0
42     if [[ "$*" == *--verbose* ]]; then
43         echo "$0 $*"
44         LFBFL_verbose=1
45     fi
46     readonly LFBFL_verbose
47
48     if [[ ! -o pipefail ]]; then
49         [[ LFBFL_verbose -eq 1 ]] && echo "pipefail option activated"
50         set -o pipefail
51         trap 'set +o pipefail' RETURN
52     fi
53
54     LFBFL_subdir2="build_and_checks_variables"
55     files_names_listing="${LFBFL_subdir2}/files_names_listing.txt"
56
57     if [[ "$*" == *--write* ]]; then
58         : > "${files_names_listing}"
59     fi
60     # Remove line returns here to keep lines short.
61     sed -Ez 's/\\n//Mg' "${files_names_listing}" \
62         > "${files_names_listing}.temp"
63     shopt -s dotglob
64     get_split_score_simple 1 70 /
65     split_score_command="${get_split_score_result}"
66     split_score_command_properties="${get_split_score_result2}"
67     suffix=\\n # instead of '\\n' to avoid shellcheck SC1003
68     find . -type f -printf '%P\\n' \

```

```

69     | relevant_find\
70     | sort\
71     | while read -r file_name;
72 do
73     git check-ignore -q "${file_name}" && continue
74     base_file_name=$(basename "${file_name}")
75     [[ "${base_file_name}" != files_names_listing.txt* ]]\
76     || continue
77     if [[ "${base_file_name}" == *.md ]]; then
78         if [[ -f "${file_name}.tpl" ]]; then
79             continue
80         fi
81     fi
82     repeated_split_last_line "${file_name}" "" 70 "${suffix}"\
83     "${split_score_command}" "${split_score_command_properties}"
84     split_file_name="${repeated_split_last_line_result}"
85     if [[ "$1" == "--write" ]]; then
86         # shellcheck disable=SC2001
87         echo "${file_name}"\
88         | sed -e "s|${file_name}|${split_file_name}|g"\
89         >> "${files_names_listing}"
90     continue
91 fi
92 if grep -q "${file_name}\$" "${files_names_listing}.temp"; then
93 :
94 else
95     echo\
96     "The file ${file_name} is not listed in ${files_names_listing}."
97     if [[ "$1" == "--append" ]]; then
98         # shellcheck disable=SC2001
99         echo "${file_name}"\
100         | sed -e "s|${file_name}|${split_file_name}|g"\
101         >> "${files_names_listing}"
102     fi
103 fi
104 done
105
106 while read -r file_name;
107 do
108     [[ "${file_name}" != '/'/* ] ] || continue
109     base_file_name=$(basename "${file_name}")
110     if ! [[ -f "${file_name}" ]]; then
111         echo\
112         "The non-file ${file_name} is listed in ${files_names_listing}."
113     fi
114 done < "${files_names_listing}.temp"

```

```

115
116     rm "${files_names_listing}.temp"
117     shopt -u dotglob
118     shopt -s globstar
119
120     if [[ LFBFL_verbosity -eq 1 ]]; then
121         cat "${files_names_listing}"
122     fi
123 }
124
125 update_or_check_files_names_listing "$@"

```

2.28 build_and_checks_variables/.gitignore

```

1 temp/
2 upgrade_venvs_ts
3

```

2.29 build_and_checks_variables/.bandit.ini

```

1 # FILE: .bandit
2 [bandit]

```

2.30 build_and_checks_variables/.bandit_baseline.json

```

1 {"results":[]}

```

2.31 build_and_checks_variables/DevOrSysAdminScripts.html.tpl

```

1 <!DOCTYPE html>
2 <html lang="en">
3 <!--
4 This file is part of DevOrSysAdminScripts library.
5
6 DevOrSysAdminScripts is free software:
7 you can redistribute it and/or modify it under the terms
8 of the GNU Lesser General Public License
9 as published by the Free Software Foundation,
10 either version 3 of the License,
11 or (at your option) any later version.
12
13 DevOrSysAdminScripts is distributed in the hope
14 that it will be useful,
15 but WITHOUT ANY WARRANTY;
16 without even the implied warranty of
17 MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.

```

```

18 See the GNU Lesser General Public License for more details.
19
20 You should have received a copy of
21 the GNU Lesser General Public License
22 along with DevOrSysAdminScripts.
23 If not, see <https://www.gnu.org/licenses/>.
24
25 ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
26 -->
27 <head>
28 <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
29 <meta name="generator" content="DevOrSysAdminScripts">
30 <style>
31 .title{
32     margin: 2ex auto;
33     text-align: center;
34 }
35 .titlemain{
36     margin: 1ex 2ex 2ex 1ex;
37 }
38 .titlerest{
39     font-size: 1.17em;
40     margin: 0ex 2ex;
41 }
42 table{
43     border-collapse: collapse;
44 }
45 td{
46     padding: 0;
47 }
48 pre{
49     text-align: left;
50     margin-left: 0ex;
51     margin-right: auto;
52 }
53 pre.numbered_lines:before{
54     background: snow;
55     border-right: 1px black solid;
56     color: #010101;
57     content: attr(line-numbers);
58     float: left;
59     padding: 0 1ch;
60     text-align: right;
61 }
62 blockquote{
63     margin-left: 4ex;

```

```

64     margin-right: 4ex;
65     text-align: left;
66 }
67 ol.level1, ol.level2{
68     list-style-type: none;
69     /*
70     list-style-type: decimal;
71     Previous rule is shorter and more efficient if you need only level1.
72     But you don't have accessible counter if you use decimal.
73     */
74 }
75 ol.level1{
76     counter-reset: level1;
77 }
78 ol.level2{
79     counter-reset: level2;
80 }
81 ol.level1 li:before{
82     content: counter(level1) ". ";
83     counter-increment: level1;
84 }
85 ol.level2 li:before{
86     content: counter(level1) "." counter(level2) " ";
87     counter-increment: level2;
88 }
89 </style>
90 <title>@repository_name@</title>
91 </head>
92 <body >
93 <table class="title">
94     <tr>
95         <td style="padding:1ex">
96             <h1 class="titlemain">@repository_name@</h1>
97             <h2 class="titlerest">
98                 @author_full_name@
99                 <br>
100                 <a href="@author_website@">
101                     <span style="font-family:monospace">
102                         @author_website@
103                     </span>
104                 </a>
105                 <br>
106                 <a href="mailto:@author_email@">
107                     <span style="font-family:monospace">
108                         @author_email@
109                     </span>

```



```

110         </a>
111     </h2>
112 </td>
113 </tr>
114 </table>
115
116 <blockquote class="abstract">
117     <span style="font-weight:bold">Abstract:</span>
118     @abstract@
119 </blockquote>
120 <p>Current version: @current_date@</p>
121 <p>Current number of commits: @number_of_commits@</p>
122 <p>Current git SHA1: @current_git_SHA1@</p>
123 <p>
124 Code lines: @number_of_lines@
125 </p>
126
127
128 <h2>Contents</h2>
129
130 <ol class="level1">
131     <li><a href="#section1">Files Tree</a></li>
132     <li><a href="#section2">Listing of files</a><br>
133         <ol class="level2">
134             @files_lis@
135         </ol>
136     </li>
137 </ol>
138
139
140 <h2 id="section1">1 Files tree</h2>
141 <pre class="verbatim">
142 @current_tree_light@
143 </pre>
144 <pre class="verbatim">
145 @current_tree@
146 </pre>
147
148
149 <h2 id="section2">2 Listing of files</h2>
150
151 <p>
152 This repository is dual licensed.
153 All the Bash scripts source code is covered by GPLv3+.
154 All the PHP scripts source code is covered by LGPLv3+.
155 </p>

```

```

156
157 <p>
158 The text of the licenses is available at:
159 <a href="https://www.gnu.org/licenses/"><span
160   style="font-family:monospace"
161 >https://www.gnu.org/licenses/</span></a>.
162 The git repository of this source code is also available at:
163 <a href="https://github.com/LLyaudet/@repository_name@"><span
164   style="font-family:monospace"
165 >https://github.com/LLyaudet/@repository_name@"</span></a>.
166 </p>
167
168 <div>
169 <p>
170 Here is a listing of the dependencies of the code in this repository:
171 </p>
172 <ul>
173 <li> The following dependencies are GPLv3+ licensed:<br>
174 basename, bash (and its builtins), cat, chmod, cp, cut, date, diff,
175 dirname, find, grep, head, mkdir, mv, realpath, rm, sed, sha512sum,
176 shellcheck, sort, tail, wc, wget, xargs
177 <li> The following dependencies are GPLv2+ licensed:<br>
178 more, pandoc, pdftex, pdflatex, tree
179 <li> The following dependencies are GPLv2 licensed:<br>
180 git, pylint
181 <li> The following dependencies are LGPLv2.1+ licensed:<br>
182 notify-send
183 <li> The following dependencies are MIT licensed:<br>
184 black, isort, mypy, ruff
185 <li> The following dependencies are Apache-2.0 licensed:<br>
186 bandit
187 <li> The following dependencies are BSD-3-Clause licensed:<br>
188 phpmd
189 <li> php is licensed under PHP License v3.01
190 <li> tex is licensed under Knuth license
191 <li> pcregrep has a custom license from Cambridge University
192 </ul>
193 </div>
194
195 <p>
196 Remark: Some commands listed under GPLv3+ are POSIX
197 and can have different implementations under another license;
198 for example, utils coreutils is MIT licensed,
199 whilst GNU coreutils is GPLv3+ licensed.
200 </p>
201

```

```

202 @files_listing_HTMLPreInput@
203
204 <p>
205 @acknowledgments@
206 </p>
207
208 <script>
209 "use strict";
210 const pres = Array.from(
211   document.getElementsByClassName('numbered_lines')
212 );
213 pres.forEach(
214   (pre) => {
215     const nb = Array.from(pre.innerText.matchAll("\n")).length + 1;
216     let numbers = "";
217     for(let i = 1; i <= nb; ++i){
218       numbers += i.toString();
219       if(i < nb){ numbers += "\n "; }
220     }
221     pre.setAttribute('line-numbers', numbers);
222   }
223 );
224 </script>
225 </html>

```

2.32 build_and_checks_variables/DevOrSysAdminScripts.tex.tpl

```

1 % This file is part of DevOrSysAdminScripts library.
2 %
3 % DevOrSysAdminScripts is free software:
4 % you can redistribute it and/or modify it under the terms
5 % of the GNU Lesser General Public License
6 % as published by the Free Software Foundation,
7 % either version 3 of the License,
8 % or (at your option) any later version.
9 %
10 % DevOrSysAdminScripts is distributed in the hope
11 % that it will be useful,
12 % but WITHOUT ANY WARRANTY;
13 % without even the implied warranty of
14 % MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
15 % See the GNU Lesser General Public License for more details.
16 %
17 % You should have received a copy of
18 % the GNU Lesser General Public License
19 % along with DevOrSysAdminScripts.

```

```

20 % If not, see <https://www.gnu.org/licenses/>.
21 %
22 % ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
23
24 % 2025-12-29T17:08+01:00: This file was moved from
25 % "./latex"
26 % to
27 % "./build_and_checks_variables".
28
29 \documentclass{article}
30
31 \usepackage[utf8]{inputenc}
32 \usepackage[T1]{fontenc}
33 \usepackage{subfigure}
34 \usepackage{amsmath}
35 \usepackage{amssymb}
36 \usepackage{amsthm}
37 \usepackage[pdftex]{hyperref}
38 \usepackage{tikz}
39 \usepackage{caption}
40 \usepackage[round]{natbib}
41 \usepackage{fancyhdr}
42 \usepackage{amsfonts}
43 \usepackage{times}
44 \usepackage{ifpdf}
45 \usepackage{latexsym}
46 \usepackage{graphicx}
47 \usepackage{enumerate}
48 \usepackage{pmbboxdraw}
49 \usepackage{fancyvrb}
50 \usepackage[french,english]{babel}
51
52 % *** les environnements ***
53 %\theoremstyle{break}
54 \newtheorem{definition}{Definition}[section]
55 \newtheorem{proposition}[definition]{Proposition}
56 \newtheorem{theorem}[definition]{Theorem}
57 \newtheorem{lemma}[definition]{Lemma}
58 \newtheorem{corollary}[definition]{Corollary}
59 \newtheorem{remark}[definition]{Remark}
60 \newtheorem{openproblem}[definition]{Open problem}
61
62 \begin{document}
63
64 \author{
65   @author_full_name@\\

```

```

66     \url{@author_website@}\\
67     \href{mailto:@author_email@}{@author_email@}
68 }
69 \title{@repository_name@}
70
71 \maketitle
72 \begin{abstract}
73 @abstract@
74 \end{abstract}
75
76 Current version: @current_date@
77
78 Current number of commits: @number_of_commits@
79
80 Current git SHA1: @current_git_SHA1@
81
82 Code lines: @number_of_lines@
83
84 \tableofcontents
85 \newpage
86
87 \section{Files tree}
88 \label{section:tree}
89
90 \begin{verbatim}
91 @current_tree_light@
92 \end{verbatim}
93
94 \begin{verbatim}
95 @current_tree@
96 \end{verbatim}
97
98 \section{Listing of files}
99 \label{section:listing}
100
101 This repository is dual licensed.
102 All the Bash scripts source code is covered by GPLv3+.
103 All the PHP scripts source code is covered by LGPLv3+.
104
105 The text of the licenses is available at:
106 \url{https://www.gnu.org/licenses/}.
107 The git repository of this source code is also available at:
108 \url{https://github.com/LLyaudet/@repository_name@/}.
109
110 Here is a listing of the dependencies of the code in this repository:
111 \begin{itemize}

```

```

112 \item The following dependencies are GPLv3+ licensed:\newline
113 basename, bash (and its builtins), cat, chmod, cp, cut, date, diff,
114 dirname, find, grep, head, mkdir, mv, realpath, rm, sed, sha512sum,
115 shellcheck, sort, tail, wc, wget, xargs
116 \item The following dependencies are GPLv2+ licensed:\newline
117 more, pandoc, pdftex, pdflatex, tree
118 \item The following dependencies are GPLv2 licensed:\newline
119 git, pylint
120 \item The following dependencies are LGPLv2.1+ licensed:\newline
121 notify-send
122 \item The following dependencies are MIT licensed:\newline
123 black, isort, mypy, ruff
124 \item The following dependencies are Apache-2.0 licensed:\newline
125 bandit
126 \item The following dependencies are BSD-3-Clause licensed:\newline
127 phpmd
128 \item php is licensed under PHP License v3.01
129 \item tex is licensed under Knuth license
130 \item pcregrep has a custom license from Cambridge University
131 \end{itemize}
132
133 Remark: Some commands listed under GPLv3+ are POSIX
134 and can have different implementations under another license;
135 for example, utils coreutils is MIT licensed,
136 whilst GNU coreutils is GPLv3+ licensed.
137
138 @files_listing_VerbatimInput@
139
140 @acknowledgments@
141
142 \end{document}

```

2.33 build_and_checks_variables/files_listing.tex.tpl

```

1 \subsection{
2   build\_and\_checks\_dependencies/build\_and\_checks.exec.sh.tpl
3 }
4 \label{
5   build_and_checks_dependencies:build_and_checksexecshtml
6 }
7
8 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
9   build_and_checks_dependencies/build_and_checks.exec.sh.tpl
10 }
11
12

```

```

13 \subsection{
14     build\_and\_checks\_dependencies/%
15 build\_md\_from\_printable\_md.exec.sh
16 }
17 \label{
18     build_and_checks_dependencies:build_md_from_printable_mdexecsh
19 }
20
21 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
22 build_and_checks_dependencies/build_md_from_printable_md.exec.sh
23 }
24
25
26 \subsection{
27     build\_and\_checks\_dependencies/%
28 check\_shell\_scripts\_beginnings.lib.sh
29 }
30 \label{
31     build_and_checks_dependencies:check_shell_scripts_beginningslibsh
32 }
33
34 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
35 build_and_checks_dependencies/check_shell_scripts_beginnings.lib.sh
36 }
37
38
39 \subsection{
40     build\_and\_checks\_dependencies/check\_URLs.lib.sh
41 }
42 \label{
43     build_and_checks_dependencies:check_URLslibsh
44 }
45
46 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
47 build_and_checks_dependencies/check_URLs.lib.sh
48 }
49
50
51 \subsection{
52     build\_and\_checks\_dependencies/common\_build\_and\_checks.exec.sh
53 }
54 \label{
55     build_and_checks_dependencies:common_build_and_checksexecsh
56 }
57
58 \VerbatimInput[numbers=left,xleftmargin=-5mm]{

```

```

59 build_and_checks_dependencies/common_build_and_checks.exec.sh
60 }
61
62
63 \subsection{
64     build\_and\_checks\_dependencies/%
65 common\_build\_and\_checks.exec.sh.tpl
66 }
67 \label{
68     build_and_checks_dependencies:common_build_and_checksexecshtpl
69 }
70
71 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
72 build_and_checks_dependencies/common_build_and_checks.exec.sh.tpl
73 }
74
75
76 \subsection{
77     build\_and\_checks\_dependencies/comparisons.lib.sh
78 }
79 \label{
80     build_and_checks_dependencies:comparisonslibsh
81 }
82
83 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
84 build_and_checks_dependencies/comparisons.lib.sh
85 }
86
87
88 \subsection{
89     build\_and\_checks\_dependencies/create\_PDF.exec.sh
90 }
91 \label{
92     build_and_checks_dependencies:create_PDFexecsh
93 }
94
95 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
96 build_and_checks_dependencies/create_PDF.exec.sh
97 }
98
99
100 \subsection{
101     build\_and\_checks\_dependencies/generate\_from\_template.lib.sh
102 }
103 \label{
104     build_and_checks_dependencies:generate_from_templatelibsh

```



```

105 }
106
107 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
108 build_and_checks_dependencies/generate_from_template.lib.sh
109 }
110
111
112 \subsection{
113     build\_and\_checks\_dependencies/%
114 get\_common\_text\_glob\_patterns.lib.sh
115 }
116 \label{
117     build_and_checks_dependencies:get_common_text_glob_patternslibsh
118 }
119
120 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
121 build_and_checks_dependencies/get_common_text_glob_patterns.lib.sh
122 }
123
124
125 \subsection{
126     build\_and\_checks\_dependencies/grammar\_and\_spell\_check.lib.sh
127 }
128 \label{
129     build_and_checks_dependencies:grammar_and_spell_checklibsh
130 }
131
132 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
133 build_and_checks_dependencies/grammar_and_spell_check.lib.sh
134 }
135
136
137 \subsection{
138     build\_and\_checks\_dependencies/licenses\_templates/%
139 build\_licenses\_templates.exec.sh
140 }
141 \label{
142     build_and_checks_dependencies:licenses_templates:%
143 build_licenses_templatesexecsh
144 }
145
146 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
147 build_and_checks_dependencies/licenses_templates/%
148 build_licenses_templates.exec.sh
149 }
150

```

```

151
152 \subsection{
153     build\_and\_checks\_dependencies/licenses/templates/%
154 license\_file\_header\_AGPLv3+.tpl
155 }
156 \label{
157     build_and_checks_dependencies:licenses_templates:%
158 license_file_header_AGPLv3+tpl
159 }
160
161 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
162 build_and_checks_dependencies/licenses_templates/%
163 license_file_header_AGPLv3+.tpl
164 }
165
166
167 \subsection{
168     build\_and\_checks\_dependencies/licenses/templates/%
169 license\_file\_header\_GPLv3+.tpl
170 }
171 \label{
172     build_and_checks_dependencies:licenses_templates:%
173 license_file_header_GPLv3+tpl
174 }
175
176 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
177 build_and_checks_dependencies/licenses_templates/%
178 license_file_header_GPLv3+.tpl
179 }
180
181
182 \subsection{
183     build\_and\_checks\_dependencies/licenses/templates/%
184 license\_file\_header\_LGPLv3+.tpl
185 }
186 \label{
187     build_and_checks_dependencies:licenses_templates:%
188 license_file_header_LGPLv3+tpl
189 }
190
191 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
192 build_and_checks_dependencies/licenses_templates/%
193 license_file_header_LGPLv3+.tpl
194 }
195
196

```

```

197 \subsection{
198     build\_and\_checks\_dependencies/lines\_counts.lib.rsh
199 }
200 \label{
201     build_and_checks_dependencies:lines_countslibrsh
202 }
203
204 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
205 build_and_checks_dependencies/lines_counts.lib.rsh
206 }
207
208
209 \subsection{
210     build\_and\_checks\_dependencies/lines\_filters.lib.rsh
211 }
212 \label{
213     build_and_checks_dependencies:lines_filterslibrsh
214 }
215
216 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
217 build_and_checks_dependencies/lines_filters.lib.rsh
218 }
219
220
221 \subsection{
222     build\_and\_checks\_dependencies/lines\_maps.lib.rsh
223 }
224 \label{
225     build_and_checks_dependencies:lines_mapslibrsh
226 }
227
228 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
229 build_and_checks_dependencies/lines_maps.lib.rsh
230 }
231
232
233 \subsection{
234     build\_and\_checks\_dependencies/overwrite\_if\_not\_equal.lib.rsh
235 }
236 \label{
237     build_and_checks_dependencies:overwrite_if_not_equalibrsh
238 }
239
240 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
241 build_and_checks_dependencies/overwrite_if_not_equal.lib.rsh
242 }

```

```

243
244
245 \subsection{
246     build\_and\_checks\_dependencies/python\_black\_complement.lib.sh
247 }
248 \label{
249     build_and_checks_dependencies:python_black_complementlibrsh
250 }
251
252 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
253 build_and_checks_dependencies/python_black_complement.lib.sh
254 }
255
256
257 \subsection{
258     build\_and\_checks\_dependencies/python\_isort\_complement.lib.sh
259 }
260 \label{
261     build_and_checks_dependencies:python_isort_complementlibrsh
262 }
263
264 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
265 build_and_checks_dependencies/python_isort_complement.lib.sh
266 }
267
268
269 \subsection{
270     build\_and\_checks\_dependencies/split\_score.exec.php
271 }
272 \label{
273     build_and_checks_dependencies:split_scoreexecphp
274 }
275
276 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
277 build_and_checks_dependencies/split_score.exec.php
278 }
279
280
281 \subsection{
282     build\_and\_checks\_dependencies/split\_score.lib.php
283 }
284 \label{
285     build_and_checks_dependencies:split_scorelibrphp
286 }
287
288 \VerbatimInput[numbers=left,xleftmargin=-5mm]{

```

```

289 build_and_checks_dependencies/split_score.lib.php
290 }
291
292
293 \subsection{
294     build\_and\_checks\_dependencies/strings\_functions.lib.sh
295 }
296 \label{
297     build_and_checks_dependencies:strings_functionslibrsh
298 }
299
300 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
301 build_and_checks_dependencies/strings_functions.lib.sh
302 }
303
304
305 \subsection{
306     build\_and\_checks\_dependencies/too\_long\_code\_lines.lib.sh
307 }
308 \label{
309     build_and_checks_dependencies:too_long_code_lineslibrsh
310 }
311
312 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
313 build_and_checks_dependencies/too_long_code_lines.lib.sh
314 }
315
316
317 \subsection{
318     build\_and\_checks\_dependencies/%
319 update\_common\_build\_and\_checks.exec.sh
320 }
321 \label{
322     build_and_checks_dependencies:update_common_build_and_checksexecsh
323 }
324
325 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
326 build_and_checks_dependencies/update_common_build_and_checks.exec.sh
327 }
328
329
330 \subsection{
331     build\_and\_checks\_dependencies/%
332 update\_or\_check\_files\_names\_listing.exec.sh
333 }
334 \label{

```

```

335     build_and_checks_dependencies:%
336 update_or_check_files_names_listingexecsh
337 }
338
339 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
340 build_and_checks_dependencies/%
341 update_or_check_files_names_listing.exec.sh
342 }
343
344
345 \subsection{
346     build\_and\_checks\_variables/.gitignore
347 }
348 \label{
349     build_and_checks_variables:gitignore
350 }
351
352 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
353 build_and_checks_variables/.gitignore
354 }
355
356
357 \subsection{
358     build\_and\_checks\_variables/bandit.ini
359 }
360 \label{
361     build_and_checks_variables:banditini
362 }
363
364 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
365 build_and_checks_variables/bandit.ini
366 }
367
368
369 \subsection{
370     build\_and\_checks\_variables/bandit\_baseline.json
371 }
372 \label{
373     build_and_checks_variables:bandit_baselinejson
374 }
375
376 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
377 build_and_checks_variables/bandit_baseline.json
378 }
379
380

```

```

381 \subsection{
382     build\_and\_checks\_variables/DevOrSysAdminScripts.html.tpl
383 }
384 \label{
385     build_and_checks_variables:DevOrSysAdminScriptshhtmltpl
386 }
387
388 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
389 build_and_checks_variables/DevOrSysAdminScripts.html.tpl
390 }
391
392
393 \subsection{
394     build\_and\_checks\_variables/DevOrSysAdminScripts.tex.tpl
395 }
396 \label{
397     build_and_checks_variables:DevOrSysAdminScriptstexttpl
398 }
399
400 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
401 build_and_checks_variables/DevOrSysAdminScripts.tex.tpl
402 }
403
404
405 \subsection{
406     build\_and\_checks\_variables/files\_listing.tex.tpl
407 }
408 \label{
409     build_and_checks_variables:files_listingtexttpl
410 }
411
412 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
413 build_and_checks_variables/files_listing.tex.tpl
414 }
415
416
417 \subsection{
418     build\_and\_checks\_variables/files\_names\_listing.txt
419 }
420 \label{
421     build_and_checks_variables:files_names_listingtxt
422 }
423
424 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
425 build_and_checks_variables/files_names_listing.txt
426 }

```

```

427
428
429 \subsection{
430     build\_and\_checks\_variables/licenses\_notes.txt
431 }
432 \label{
433     build_and_checks_variables:licenses_notestxt
434 }
435
436 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
437     build_and_checks_variables/licenses_notes.txt
438 }
439
440
441 \subsection{
442     build\_and\_checks\_variables/phpmd\_baseline.xml
443 }
444 \label{
445     build_and_checks_variables:phpmd_baselinexml
446 }
447
448 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
449     build_and_checks_variables/phpmd_baseline.xml
450 }
451
452
453 \subsection{
454     build\_and\_checks\_variables/pylintrc.toml
455 }
456 \label{
457     build_and_checks_variables:pylintrctoml
458 }
459
460 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
461     build_and_checks_variables/pylintrc.toml
462 }
463
464
465 \subsection{
466     build\_and\_checks\_variables/repository\_data.txt
467 }
468 \label{
469     build_and_checks_variables:repository_datatxt
470 }
471
472 \VerbatimInput[numbers=left,xleftmargin=-5mm]{

```



```

473 build_and_checks_variables/repository_data.txt
474 }
475
476
477 \subsection{
478     build\_and\_checks\_variables/ruff.toml
479 }
480 \label{
481     build_and_checks_variables:rufftoml
482 }
483
484 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
485 build_and_checks_variables/ruff.toml
486 }
487
488
489 \subsection{
490     build\_and\_checks\_variables/shellcheck.ini
491 }
492 \label{
493     build_and_checks_variables:shellcheckini
494 }
495
496 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
497 build_and_checks_variables/shellcheck.ini
498 }
499
500
501 \subsection{
502     build\_and\_checks\_variables/shellcheck\_notes.txt
503 }
504 \label{
505     build_and_checks_variables:shellcheck_notestxt
506 }
507
508 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
509 build_and_checks_variables/shellcheck_notes.txt
510 }
511
512
513 \subsection{
514     build\_and\_checks.exec.sh
515 }
516 \label{
517     build_and_checksexecsh
518 }

```

```

519
520 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
521 build_and_checks.exec.sh
522 }
523
524
525 \subsection{
526     COPYING
527 }
528 \label{
529     COPYING
530 }
531
532 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
533 COPYING
534 }
535
536
537 \subsection{
538     COPYING.LESSER
539 }
540 \label{
541     COPYINGLESSER
542 }
543
544 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
545 COPYING.LESSER
546 }
547
548
549 \subsection{
550     git\_helpers/git\_checks.lib.sh
551 }
552 \label{
553     git_helpers:git_checkslibrsh
554 }
555
556 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
557 git_helpers/git_checks.lib.sh
558 }
559
560
561 \subsection{
562     git\_helpers/post-commit
563 }
564 \label{

```

```

565     git_helpers:post-commit
566 }
567
568 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
569 git_helpers/post-commit
570 }
571
572
573 \subsection{
574     git\_helpers/post\_commit\_renaming\_comment.lib.sh
575 }
576 \label{
577     git_helpers:post_commit_renaming_commentlibsh
578 }
579
580 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
581 git_helpers/post_commit_renaming_comment.lib.sh
582 }
583
584
585 \subsection{
586     git\_helpers/pre-commit
587 }
588 \label{
589     git_helpers:pre-commit
590 }
591
592 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
593 git_helpers/pre-commit
594 }
595
596
597 \subsection{
598     LiensUtiles.txt
599 }
600 \label{
601     LiensUtilestxt
602 }
603
604 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
605 LiensUtiles.txt
606 }
607
608
609 \subsection{
610     README.md.tpl

```

```

611 }
612 \label{
613     READMEmdtpl
614 }
615
616 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
617 README.md.tpl
618 }
619
620
621 \subsection{
622     unicode.lib.php
623 }
624 \label{
625     unicodelibrphp
626 }
627
628 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
629 unicode.lib.php
630 }
631
632
633 \subsection{
634     upgrade\_build\_and\_checks.exec.sh
635 }
636 \label{
637     upgrade_build_and_checksexecsh
638 }
639
640 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
641 upgrade_build_and_checks.exec.sh
642 }
643
644
645 \subsection{
646     wget\_sha512.lib.sh
647 }
648 \label{
649     wget_sha512librsh
650 }
651
652 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
653 wget_sha512.lib.sh
654 }
655
656

```

2.34 build_and_checks_variables/files_names_listing.txt

```
1 // This file is part of DevOrSysAdminScripts library.
2 //
3 // DevOrSysAdminScripts is free software:
4 // you can redistribute it and/or modify it under the terms
5 // of the GNU Lesser General Public License
6 // as published by the Free Software Foundation,
7 // either version 3 of the License,
8 // or (at your option) any later version.
9 //
10 // DevOrSysAdminScripts is distributed in the hope
11 // that it will be useful,
12 // but WITHOUT ANY WARRANTY;
13 // without even the implied warranty of
14 // MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
15 // See the GNU Lesser General Public License for more details.
16 //
17 // You should have received a copy of
18 // the GNU Lesser General Public License
19 // along with DevOrSysAdminScripts.
20 // If not, see <https://www.gnu.org/licenses/>.
21 //
22 // ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
23 // 2024-10-31T21:37+01:00: This file was moved from
24 // "./build_and_checks_dependencies/listings"
25 // to
26 // "./build_and_checks_variables".
27 // Blasé20240517Résultat.txt
28 // Blasé20240517.sh
29 // Blasé20240518_2.txt
30 // Blasé20240518_3.txt
31 build_and_checks_dependencies/build_and_checks.exec.sh.tpl
32 build_and_checks_dependencies/build_md_from_printable_md.exec.sh
33 build_and_checks_dependencies/check_shell_scripts_beginnings.lib.sh
34 build_and_checks_dependencies/check_URLs.lib.sh
35 build_and_checks_dependencies/common_build_and_checks.exec.sh
36 build_and_checks_dependencies/common_build_and_checks.exec.sh.tpl
37 build_and_checks_dependencies/comparisons.lib.sh
38 build_and_checks_dependencies/create_PDF.exec.sh
39 build_and_checks_dependencies/generate_from_template.lib.sh
40 build_and_checks_dependencies/get_common_text_glob_patterns.lib.sh
41 build_and_checks_dependencies/grammar_and_spell_check.lib.sh
42 build_and_checks_dependencies/licenses_templates/\
43 build_licenses_templates.exec.sh
44 build_and_checks_dependencies/licenses_templates/\
```

```

45  license_file_header_AGPLv3+.tpl
46  build_and_checks_dependencies/licenses_templates/\
47  license_file_header_GPLv3+.tpl
48  build_and_checks_dependencies/licenses_templates/\
49  license_file_header_LGPLv3+.tpl
50  build_and_checks_dependencies/lines_counts.lib.sh
51  build_and_checks_dependencies/lines_filters.lib.sh
52  build_and_checks_dependencies/lines_maps.lib.sh
53  // build_and_checks_dependencies/listings/files_listing.tex.tpl
54  build_and_checks_dependencies/overwrite_if_not_equal.lib.sh
55  build_and_checks_dependencies/python_black_complement.lib.sh
56  build_and_checks_dependencies/python_isort_complement.lib.sh
57  build_and_checks_dependencies/split_score.exec.php
58  build_and_checks_dependencies/split_score.lib.php
59  build_and_checks_dependencies/strings_functions.lib.sh
60  build_and_checks_dependencies/too_long_code_lines.lib.sh
61  build_and_checks_dependencies/update_common_build_and_checks.exec.sh
62  build_and_checks_dependencies/\
63  update_or_check_files_names_listing.exec.sh
64  build_and_checks_variables/.gitignore
65  build_and_checks_variables/bandit.ini
66  build_and_checks_variables/bandit_baseline.json
67  build_and_checks_variables/DevOrSysAdminScripts.html.tpl
68  // build_and_checks_variables/DevOrSysAdminScripts.tex
69  build_and_checks_variables/DevOrSysAdminScripts.tex.tpl
70  build_and_checks_variables/files_listing.tex.tpl
71  build_and_checks_variables/files_names_listing.txt
72  build_and_checks_variables/licenses_notes.txt
73  build_and_checks_variables/phpmd_baseline.xml
74  build_and_checks_variables/pylintrc.toml
75  build_and_checks_variables/repository_data.txt
76  build_and_checks_variables/ruff.toml
77  build_and_checks_variables/shellcheck.ini
78  build_and_checks_variables/shellcheck_notes.txt
79  // build_and_checks_variables/upgrade_venvs_ts
80  build_and_checks.exec.sh
81  COPYING
82  COPYING.LESSER
83  // DevOrSysAdminScripts.html
84  // DevOrSysAdminScripts.pdf
85  // EncoreBlasé20240517-20240518.txt
86  git_helpers/git_checks.lib.sh
87  git_helpers/post-commit
88  git_helpers/post_commit_renaming_comment.lib.sh
89  git_helpers/pre-commit
90  LiensUtiles.txt

```

```

91 // README.html
92 // README.md
93 README.md.tpl
94 unicode.lib.php
95 upgrade_build_and_checks.exec.sh
96 wget_sha512.lib.sh

```

2.35 build_and_checks_variables/licenses_notes.txt

```

1 This repository is dual licensed.
2 All the Bash scripts source code is covered by GPLv3+.
3 All the PHP scripts source code is covered by LGPLv3+.
4
5 Here is a listing of the dependencies of the code in this repository:
6 - The following dependencies are GPLv3+ licensed:
7 basename, bash (and its builtins), cat, chmod, cp, cut, date, diff,
8 dirname, find, grep, head, mkdir, mv, realpath, rm, sed, sha512sum,
9 shellcheck, sort, tail, wc, wget, xargs
10 - The following dependencies are GPLv2+ licensed:
11 more, pandoc, pdftex, pdflatex, tree
12 - The following dependencies are GPLv2 licensed:
13 git, pylint
14 - The following dependencies are LGPLv2.1+ licensed:
15 notify-send
16 - The following dependencies are MIT licensed:
17 black, isort, mypy, ruff
18 - The following dependencies are Apache-2.0 licensed:
19 bandit
20 - The following dependencies are BSD-3-Clause licensed:
21 phpmd
22 - php is licensed under PHP License v3.01
23 - tex is licensed under Knuth license
24 - pcregrep has a custom license from Cambridge University
25
26 Remark: Some commands listed under GPLv3+ are POSIX
27 and can have different implementations under another license;
28 for example, utils coreutils is MIT licensed,
29 whilst GNU coreutils is GPLv3+ licensed.

```

2.36 build_and_checks_variables/phpmd_baseline.xml

```

1 <?xml version="1.0"?>
2 <phpmd-baseline>
3   <violation rule="PHPMD\Rule\Controversial\CamelCaseParameterName" file="build_and
4   <violation rule="PHPMD\Rule\Naming\LongVariable" file="build_and_checks_dependen
5   <violation rule="PHPMD\Rule\Controversial\CamelCaseVariableName" file="build_and

```

```

6 <violation rule="PHPMD\Rule\Controversial\CamelCaseParameterName" file="unicode.
7 <violation rule="PHPMD\Rule\Naming\LongVariable" file="unicode.lib.php"/>
8 <violation rule="PHPMD\Rule\Controversial\CamelCaseVariableName" file="unicode.l
9 <violation rule="PHPMD\Rule\CleanCode\MissingImport" file="unicode.lib.php"/>
10 <violation rule="PHPMD\Rule\CyclomaticComplexity" file="unicode.lib.php"/>
11 <violation rule="PHPMD\Rule\Design\NpathComplexity" file="unicode.lib.php"/>
12 </phpmd-baseline>

```

2.37 build_and_checks_variables/pylintrc.toml

```

1 [tool.pylint.main]
2 exit-zero = true
3 ignore = ["node_modules"]
4 jobs = 0
5 [tool.pylint.basic]
6 module-rgx = "^[_a-zA-Z0-9+]+$"
7 [tool.pylint.reports]
8 output-format = "colorized"

```

2.38 build_and_checks_variables/repository_data.txt

```

1 Look at grep_variable to understand the structure of this file.
2 Basically, it has almost no structure apart from some lines
3 starting with a "variable_name=".
4 Anything else is comments.
5
6 repository_name=DevOrSysAdminScripts
7 repository_web_url=https://github.com/LLyaudet/DevOrSysAdminScripts/
8 repository_git_url=git@github.com:LLyaudet/DevOrSysAdminScripts.git
9
10 abstract=Some "small" useful scripts
11 abstract=for enhancing development or system-administrators tasks
12
13 license=GPLv3+
14 license2=LGPLv3+
15
16 author_email=Laurent.Lyaudet@gmail.com
17 author_full_name=Laurent Frédéric Bernard François Lyaudet
18 author_last_name=Lyaudet
19 author_name=Laurent Lyaudet
20 author_website=https://lyaudet.eu/laurent/
21
22 acknowledgments=Merci Dieu !
23 acknowledgments=Merci Père ! Merci Seigneur ! Merci Saint Esprit !
24
25 grammar_or_spell_checker_command=more

```


26
27
28 Why one venv for each Python dependency ?
29 Because no language of my knowledge did it right to handle all
30 possible dependency conflicts.
31 So in case of such a conflict, one specialized venv can get you out
32 of any problem.
33 The best solution would have been to allow install of different
34 versions of the same package, and have a mechanism:
35 - first intent, use the latest available version of a package among
36 those that satisfy the declared dependency constraints of the package
37 that has this dependency;
38 - second intent, check a dependency overload configuration file
39 with tree structure: if calling python package is A version 1.1.1
40 with dependency B itself with dependency C, use B 2.2.2 and C 3.3.3;
41 you could have along that another rule saying that when called
42 directly B 2.2.2 should use C 4.4.4;
43 and even more complicated:
44 if calling python package is A version 1.1.1 with dependency B and D
45 both themselves with dependency C, use B 2.2.2, D 0.1.0,
46 and C 3.3.3 for B, and C 4.4.4 for D;
47 once you've seen that it can never be more complicated than that once
48 the same version number guarantees that the code is the same,
49 you create a config language "à la CSS" for cascading dependencies ;)
50 XD fit into JSON the dumbest possible way and you stop bothering
51 about dependency conflicts for the rest of history of informatics.
52 {
53 "A": {
54 "1.1.1": {
55 "B": {
56 "2.2.2": {
57 "C": {
58 // Dumb, you did not found it by yourself? Failed exam.
59 "3.3.3" : {}
60 }
61 }
62 },
63 "D": {
64 "0.1.0": {
65 "C": {
66 // Dumb, you did not found it by yourself? Failed exam.
67 "4.4.4" : {}
68 }
69 }
70 }
71 },

```

72     "B": {
73         "2.2.2": {
74             "C": {
75                 // Dumb, you did not found it by yourself? Failed exam.
76                 "4.4.4" : {}
77             }
78         }
79     }
80 }
81 Wonderful someone rediscovered nested structures XD
82 Seriously so many engineers or computer scientists are dumb to cry.
83
84 bandit_venv=../venv_bandit
85 black_venv=../venv_black
86 isort_venv=../venv_isort
87 mypy_venv=../venv_mypy
88 pylint_venv=../venv_pylint
89 ruff_venv=../venv_ruff
90
91
92 upgrade_venvs can be auto or ask, any other value is interpreted
93 as ask.
94
95 upgrade_venvs=ask
96
97
98 time interval can be 0 to always upgrade or ask to upgrade,
99 or a number at most bash max int
100 https://superuser.com/questions/1030122/
101 what-is-the-maximum-value-of-a-numeric-bash-shell-variable
102 it should be enough to simulate never "upgrade or ask for upgrade"
103 unless you claim to live many billions years ;)
104 If it is wat, this is a random int XD (see RANDOM).
105 Note that the probability that it upgrades your dependencies is not
106 1/2, it increases over time, and is 1 after slightly
107 less than one day.
108 If it is watyouwant?, see SRANDOM XD.
109
110 upgrade_venvs_time_interval_in_seconds=wat

```

2.39 build_and_checks_variables/ruff.toml

```

1 [lint]
2 select = ["ALL", "D211"]
3 ignore = ["D203", "D212", "D404"]
4 [lint.per-file-ignores]

```

```
5 "build_and_checks_dependencies/licenses_templates/*.py" = ["INP001"]
```

2.40 build_and_checks_variables/shellcheck.ini

```
1 enable=all
2 check-sourced=true
3 external-sources=true
4 source-path="."
5 source-path="SCRIPTDIR"
6 source-path="./build_and_checks_dependencies"
7 source-path="./git_helpers"
8
```

2.41 build_and_checks_variables/shellcheck_notes.txt

```
1 A listing of the current suppressed warnings/errors from shellcheck:
2 - SC1090 : Can't follow non-constant source.
3           Use a directive to specify location
4           # shellcheck source=bla/bli.sh
5           Only remaining cases are in common_build_and_checks
6           when sourcing some Python venv
7           source venv/bin/active
8 - SC1091 : Not following (file not found most of the time).
9           Only remaining cases are in common_build_and_checks
10          when sourcing some Python venv
11          source venv/bin/active
12 - SC1111 : Use of slanted double quotes (valid inside single quotes)
13           False positive, but may catch some problem.
14 - SC2001 : Replace some sed with bash builtin ${a//b/c}
15           False positive when c contains \n.
16 - SC2034 : Unused variable
17           False positive for globals that are declared in functions
18           that are not currently called.
19           Somehow it can be used to detect dead code.
20 - SC2125 : Brace expansions and globs are literal.
21           False positive when assigning a variable declared with -i.
22           https://github.com/koalaman/shellcheck/issues/914
23 - SC2145 : Argument mixes string and array.
24           False positive when using "$@" line return and pipes.
25           https://github.com/koalaman/shellcheck/issues/3192
26           Example:
27           # shellcheck disable=SC2145
28           all_self_code_lines "$@"\
29           | empty_lines_after_file_name
30 - SC2162 : read without -r will mangle backslashes.
31           False positive when read is used without variable:
```

```

32         https://github.com/koalaman/shellcheck/issues/623
33 - SC2248 : Prefer double quoting
34         False positive on returning integer values.
35         https://github.com/koalaman/shellcheck/issues/3405
36 - SC2312 : Some command is not invoked separately and thus its return
37         value is masked. Frequent with pipes.
38
39 The command to check if there is anything else:
40 grep -r "shellcheck disable" . | grep -v -e '.git' -e "=SC1090$\\"
41     -e "=SC1091$" -e "=SC1090,SC1091$" -e "=SC1111$" -e "=SC2001$\\"
42     -e "=SC2034$" -e "=SC2125$" -e "=SC2145$" -e "=SC2162$\\"
43     -e "=SC2248$" -e "=SC2312$" -e "=SC2162,SC2312$"

```

2.42 build_and_checks.exec.sh

```

1  #!/usr/bin/env bash
2  # This file is part of DevOrSysAdminScripts library.
3  #
4  # DevOrSysAdminScripts is free software:
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6  # of the GNU General Public License
7  # as published by the Free Software Foundation,
8  # either version 3 of the License,
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10 #
11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,
13 # but WITHOUT ANY WARRANTY;
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15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
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18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # The file "build_and_checks.exec.sh.tpl" was renamed from
25 # "build_and_checks.sh.tpl" to "build_and_checks.exec.sh.tpl".
26 # The file "build_and_checks.exec.sh" generated from the file
27 # "build_and_checks.sh.tpl" or "build_and_checks.exec.sh.tpl"
28 # was renamed from
29 # "build_and_checks.sh" to "build_and_checks.exec.sh".
30
31 build_and_checks() {

```

```

32 local LFBFL_working_directory="."
33 if [[ -n "$1" ]]; then
34     LFBFL_working_directory="$1"
35 fi
36 readonly LFBFL_working_directory
37
38 local LFBFL_verbose=""
39 if [[ "$*" == *--verbose* ]]; then
40     echo "$0 $*"
41     LFBFL_verbose="--verbose"
42 fi
43 readonly LFBFL_verbose
44
45 source ./wget_sha512.lib.sh
46
47 LFBFL_subdir="build_and_checks_dependencies"
48 mkdir -p "${LFBFL_subdir}/licenses_templates"
49 mkdir -p "build_and_checks_variables/temp"
50 if ! [[ -f "build_and_checks_variables/.gitignore" ]]; then
51     {
52         echo "temp/"
53         echo ""
54     } > "build_and_checks_variables/.gitignore"
55 fi
56
57 # LFBFL_dependencies_raw_content_download_URL
58 local LFBFL_dependencies_URL
59 LFBFL_dependencies_URL="https://raw.githubusercontent.com/LLyaudet/"
60 LFBFL_dependencies_URL+="DevOrSysAdminScripts/main/${LFBFL_subdir}"
61 readonly LFBFL_dependencies_URL
62
63 declare -r LFBFL_common_file_name="common_build_and_checks.exec.sh"
64 # LFBFL_script_download_URL
65 declare -r\
66     LFBFL_script="${LFBFL_dependencies_URL}/${LFBFL_common_file_name}"
67 declare -r\
68     LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_common_file_name}"
69 local LFBFL_correct_sha512
70 LFBFL_correct_sha512='c7354652d1caf3c0793b82db3815088945a22aa99663e'
71 LFBFL_correct_sha512+='af6071f067e4474fbc76f3249b86fb2cc5d7fda64483'
72 LFBFL_correct_sha512+='c22da40afa5d8c90624f53b3d00040fe330edfc'
73 wget_sha512 "${LFBFL_file_path}" "${LFBFL_script}"\
74     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
75 chmod +x "${LFBFL_file_path}"
76
77 "${LFBFL_file_path}" "${LFBFL_working_directory}"\

```

```

78     "${LFBFL_dependencies_URL}" "${LFBFL_verbose}"
79 }
80
81 if [[ "$*" == *--fixed_point_build* ]]; then
82     echo "--fixed_point_build"
83     source "./build_and_checks_dependencies/lines_filters.lib.sh"
84     LFBFL_working_directory="."
85     if [[ -n "$1" ]]; then
86         LFBFL_working_directory="$1"
87     fi
88     LFBFL_variables_directory="${LFBFL_working_directory}/"
89     LFBFL_variables_directory+="build_and_checks_variables"
90     LFBFL_data_file_name="${LFBFL_variables_directory}/"
91     LFBFL_data_file_name+="repository_data.txt"
92     grep_variable "${LFBFL_data_file_name}" repository_name
93     # Touching the 3 following files first let us iterate
94     # upgrade_build_and_checks 2 times instead of 3 to reach
95     # a fixed point.
96     touch "${LFBFL_variables_directory}/${repository_name}.tex"
97     touch "${LFBFL_working_directory}/${repository_name}.pdf"
98     touch "${LFBFL_working_directory}/${repository_name}.html"
99     # The two iterations of build_and_checks needs to complete
100    # during the same minute to have a fixed point.
101    build_and_checks "$@"
102    # build_and_checks "$@" second iteration below
103    # Then calling this script without --fixed_point_build should not
104    # yield any new superficial modifications.
105 fi
106
107 build_and_checks "$@"

```

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```

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70
71 TERMS AND CONDITIONS

72
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76
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78 works, such as semiconductor masks.

79
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87 earlier work or a work "based on" the earlier work.

88
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90 on the Program.

91
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96 distribution (with or without modification), making available to the
97 public, and in some countries other activities as well.

98
99 To "convey" a work means any kind of propagation that enables other
100 parties to make or receive copies. Mere interaction with a user through
101 a computer network, with no transfer of a copy, is not conveying.

102
103 An interactive user interface displays "Appropriate Legal Notices"
104 to the extent that it includes a convenient and prominently visible
105 feature that (1) displays an appropriate copyright notice, and (2)

106 tells the user that there is no warranty for the work (except to the
107 extent that warranties are provided), that licensees may convey the
108 work under this License, and how to view a copy of this License. If
109 the interface presents a list of user commands or options, such as a
110 menu, a prominent item in the list meets this criterion.

111

112 1. Source Code.

113

114 The "source code" for a work means the preferred form of the work
115 for making modifications to it. "Object code" means any non-source
116 form of a work.

117

118 A "Standard Interface" means an interface that either is an official
119 standard defined by a recognized standards body, or, in the case of
120 interfaces specified for a particular programming language, one that
121 is widely used among developers working in that language.

122

123 The "System Libraries" of an executable work include anything, other
124 than the work as a whole, that (a) is included in the normal form of
125 packaging a Major Component, but which is not part of that Major
126 Component, and (b) serves only to enable use of the work with that
127 Major Component, or to implement a Standard Interface for which an
128 implementation is available to the public in source code form. A
129 "Major Component", in this context, means a major essential component
130 (kernel, window system, and so on) of the specific operating system
131 (if any) on which the executable work runs, or a compiler used to
132 produce the work, or an object code interpreter used to run it.

133

134 The "Corresponding Source" for a work in object code form means all
135 the source code needed to generate, install, and (for an executable
136 work) run the object code and to modify the work, including scripts to
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139 programs which are used unmodified in performing those activities but
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141 includes interface definition files associated with source files for
142 the work, and the source code for shared libraries and dynamically
143 linked subprograms that the work is specifically designed to require,
144 such as by intimate data communication or control flow between those
145 subprograms and other parts of the work.

146

147 The Corresponding Source need not include anything that users
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149 Source.

150

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153

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194

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216
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292
293 A separable portion of the object code, whose source code is excluded
294 from the Corresponding Source as a System Library, need not be
295 included in conveying the object code work.

296
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306 is a consumer product regardless of whether the product has substantial
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308 the only significant mode of use of the product.

309
310 "Installation Information" for a User Product means any methods,
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312 and execute modified versions of a covered work in that User Product from
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317
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323 Corresponding Source conveyed under this section must be accompanied
324 by the Installation Information. But this requirement does not apply
325 if neither you nor any third party retains the ability to install
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336
337 Corresponding Source conveyed, and Installation Information provided,
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562

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622

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632 the "copyright" line and a pointer to where the full notice is found.

633

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649

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651

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653 notice like this when it starts in an interactive mode:

654

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659

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663

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674 <<https://www.gnu.org/licenses/why-not-lgpl.html>>.

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12

13 0. Additional Definitions.

14

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17 General Public License.

18

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20 other than an Application or a Combined Work as defined below.

21

22 An "Application" is any work that makes use of an interface provided

23 by the Library, but which is not otherwise based on the Library.

24 Defining a subclass of a class defined by the Library is deemed a mode

25 of using an interface provided by the Library.

26

27 A "Combined Work" is a work produced by combining or linking an
28 Application with the Library. The particular version of the Library
29 with which the Combined Work was made is also called the "Linked
30 Version".

31
32 The "Minimal Corresponding Source" for a Combined Work means the
33 Corresponding Source for the Combined Work, excluding any source code
34 for portions of the Combined Work that, considered in isolation, are
35 based on the Application, and not on the Linked Version.

36
37 The "Corresponding Application Code" for a Combined Work means the
38 object code and/or source code for the Application, including any data
39 and utility programs needed for reproducing the Combined Work from the
40 Application, but excluding the System Libraries of the Combined Work.

41
42 1. Exception to Section 3 of the GNU GPL.

43
44 You may convey a covered work under sections 3 and 4 of this License
45 without being bound by section 3 of the GNU GPL.

46
47 2. Conveying Modified Versions.

48
49 If you modify a copy of the Library, and, in your modifications, a
50 facility refers to a function or data to be supplied by an Application
51 that uses the facility (other than as an argument passed when the
52 facility is invoked), then you may convey a copy of the modified
53 version:

54
55 a) under this License, provided that you make a good faith effort to
56 ensure that, in the event an Application does not supply the
57 function or data, the facility still operates, and performs
58 whatever part of its purpose remains meaningful, or

59
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62
63 3. Object Code Incorporating Material from Library Header Files.

64
65 The object code form of an Application may incorporate material from
66 a header file that is part of the Library. You may convey such object
67 code under terms of your choice, provided that, if the incorporated
68 material is not limited to numerical parameters, data structure
69 layouts and accessors, or small macros, inline functions and templates
70 (ten or fewer lines in length), you do both of the following:

71
72 a) Give prominent notice with each copy of the object code that the

73 Library is used in it and that the Library and its use are
74 covered by this License.

75

76 b) Accompany the object code with a copy of the GNU GPL and this license
77 document.

78

79 4. Combined Works.

80

81 You may convey a Combined Work under terms of your choice that,
82 taken together, effectively do not restrict modification of the
83 portions of the Library contained in the Combined Work and reverse
84 engineering for debugging such modifications, if you also do each of
85 the following:

86

87 a) Give prominent notice with each copy of the Combined Work that
88 the Library is used in it and that the Library and its use are
89 covered by this License.

90

91 b) Accompany the Combined Work with a copy of the GNU GPL and this license
92 document.

93

94 c) For a Combined Work that displays copyright notices during
95 execution, include the copyright notice for the Library among
96 these notices, as well as a reference directing the user to the
97 copies of the GNU GPL and this license document.

98

99 d) Do one of the following:

100

101 0) Convey the Minimal Corresponding Source under the terms of this
102 License, and the Corresponding Application Code in a form
103 suitable for, and under terms that permit, the user to
104 recombine or relink the Application with a modified version of
105 the Linked Version to produce a modified Combined Work, in the
106 manner specified by section 6 of the GNU GPL for conveying
107 Corresponding Source.

108

109 1) Use a suitable shared library mechanism for linking with the
110 Library. A suitable mechanism is one that (a) uses at run time
111 a copy of the Library already present on the user's computer
112 system, and (b) will operate properly with a modified version
113 of the Library that is interface-compatible with the Linked
114 Version.

115

116 e) Provide Installation Information, but only if you would otherwise
117 be required to provide such information under section 6 of the
118 GNU GPL, and only to the extent that such information is

119 necessary to install and execute a modified version of the
120 Combined Work produced by recombining or relinking the
121 Application with a modified version of the Linked Version. (If
122 you use option 4d0, the Installation Information must accompany
123 the Minimal Corresponding Source and Corresponding Application
124 Code. If you use option 4d1, you must provide the Installation
125 Information in the manner specified by section 6 of the GNU GPL
126 for conveying Corresponding Source.)

127 128 5. Combined Libraries.

129
130 You may place library facilities that are a work based on the
131 Library side by side in a single library together with other library
132 facilities that are not Applications and are not covered by this
133 License, and convey such a combined library under terms of your
134 choice, if you do both of the following:

135
136 a) Accompany the combined library with a copy of the same work based
137 on the Library, uncombined with any other library facilities,
138 conveyed under the terms of this License.

139
140 b) Give prominent notice with the combined library that part of it
141 is a work based on the Library, and explaining where to find the
142 accompanying uncombined form of the same work.

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146 The Free Software Foundation may publish revised and/or new versions
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148 versions will be similar in spirit to the present version, but may
149 differ in detail to address new problems or concerns.

150
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154 applies to it, you have the option of following the terms and
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157 received it does not specify a version number of the GNU Lesser
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159 General Public License ever published by the Free Software Foundation.

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164 permanent authorization for you to choose that version for the

165 Library.

2.45 git_helpers/git_checks.lib.sh

```
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22 #
23 # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24 # 2024-05-31T01:57+02:00: This file was renamed from
25 # "git_checks.lib.sh"
26 # to
27 # "git_checks.lib.sh".
28 # 2024-05-31T01:57+02:00: This file was moved from
29 # "."
30 # to
31 # "./git_helpers".
32 # 2024-05-31T01:49+02:00: This file was renamed from
33 # "git_checks.lib.sh"
34 # to
35 # "git_checks.lib.sh".
36 # 2024-05-31T01:49+02:00: This file was moved from
37 # "."
38 # to
39 # "./git_helpers".
40 # This file was renamed from "git_checks.sh" to "git_checks.lib.sh".
41
42 check_files() {
```

```

43 # Checks used on Django projects.
44 declare -r LFBFL_send_summary_1="ATTENTION : models modifiés"
45 declare -r LFBFL_send_body_1="Vérifiez si besoin de migrations"
46 local LFBFL_send_body_2="Pensez aussi aux contraintes d'unicités"
47 LFBFL_send_body_2+=" dès la création du modèle"
48 readonly LFBFL_send_body_2
49 declare -r LFBFL_send_summary_2="ATTENTION : serializers modifiés"
50 declare -r LFBFL_send_body_3=\
51 "Les nouveaux preloadings sont interdits -> #Prefetch()"
52 git diff --cached --name-only\
53 > /tmp/DOSAS_django_git_check1.temp
54 if grep models /tmp/DOSAS_django_git_check1.temp;
55 then
56     notify-send "${LFBFL_send_summary_1}" "${LFBFL_send_body_1}"
57     notify-send "${LFBFL_send_summary_1}" "${LFBFL_send_body_2}"
58 fi
59 if grep serializer /tmp/DOSAS_django_git_check1.temp;
60 then
61     notify-send "${LFBFL_send_summary_2}" "${LFBFL_send_body_3}"
62 fi
63 rm /tmp/DOSAS_django_git_check1.temp
64 return 0
65 }
66
67
68 check_no_abusive_trailing_comma(){
69     # Useful for Python code, although it regularly yields
70     # false positives in Python code
71     # (but it is easy to distinguish by hand).
72     # Use `git commit --no-verify` after check.
73     declare -r LFBFL_send_summary_1="ATTENTION"
74     local LFBFL_send_body_1="Il semblerait que vous affectiez un tuple"
75     LFBFL_send_body_1+=" au lieu d'une autre valeur dans une variable."
76     readonly LFBFL_send_body_1
77     git diff --cached -r\
78     > /tmp/DOSAS_django_git_check2.temp
79     if grep ' = .*,\s*$' /tmp/DOSAS_django_git_check2.temp;
80     then
81         notify-send "${LFBFL_send_summary_1}" "${LFBFL_send_body_1}"
82         return 1
83     fi
84     rm /tmp/DOSAS_django_git_check2.temp
85     return 0
86 }
87
88

```

```

89 check_black_code_formatting(){
90     # attention ça ne marche que sur les fichiers "stagés" avec git add
91     declare -r LFBFL_files_string=$(
92         git diff --cached --name-only\
93         | grep '\.py'
94     )
95     echo "${LFBFL_files_string}"
96     declare -a LFBFL_some_files
97     mapfile -t LFBFL_some_files <<< "${LFBFL_files_string}"
98     readonly LFBFL_some_files
99     declare -i LFBFL_error=0
100     # Not very useful since LFBFL_file should be local to the loop by
101     # default.
102     local LFBFL_file
103     for LFBFL_file in "${LFBFL_some_files[@]"; do
104         echo "Black will check formatting on file ${LFBFL_file}"
105         if ! black --check --diff "${LFBFL_file}";
106         then
107             LFBFL_error=1
108         fi
109     done
110     # shellcheck disable=SC2248
111     return ${LFBFL_error}
112 }

```

2.46 git_helpers/post-commit

```

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```

```

20 # along with DevOrSysAdminScripts.
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23 # ©Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
24 # 2024-05-31T01:49+02:00: This file was renamed from
25 # "post-commit"
26 # to
27 # "post-commit".
28 # 2024-05-31T01:49+02:00: This file was moved from
29 # "."
30 # to
31 # "./git_helpers".
32
33 LFBFL_library="./DevOrSysAdminScripts/git_helpers/"
34 LFBFL_library+="post_commit_renaming_comment.lib.sh"
35 # shellcheck source=post_commit_renaming_comment.lib.sh
36 source "${LFBFL_library}"
37
38 commit_a_file_renamed_comment --verbose --log-directory-change
39 exit 0

```

2.47 git_helpers/post_commit_renaming_comment.lib.sh

```

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2 # This file is part of DevOrSysAdminScripts library.
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20 # along with DevOrSysAdminScripts.
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22 #
23 # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet

```

```

24 # 2024-05-31T01:49+02:00: This file was renamed from
25 # "post_commit_renaming_comment.lib.sh"
26 # to
27 # "post_commit_renaming_comment.lib.sh".
28 # 2024-05-31T01:49+02:00: This file was moved from
29 # "."
30 # to
31 # "./git_helpers".
32 # This file was renamed from "post_commit_renaming_comment"
33 # to "post_commit_renaming_comment.lib.sh".
34 # (Before first commit it seems. But I had the old name in listing.)
35
36 LFBFL_this_file_path=$(realpath "${BASH_SOURCE[0]}")
37 LFBFL_this_file_directory=$(dirname "${LFBFL_this_file_path}")
38 LFBFL_some_directory="${LFBFL_this_file_directory}/../"
39 declare -i LFBFL_cd_result2
40 pushd .
41 cd "${LFBFL_some_directory}" || {
42     LFBFL_cd_result2=$?
43     echo "post_commit_renaming_comment.lib.sh no such directory"
44     # shellcheck disable=SC2248
45     exit ${LFBFL_cd_result2}
46 }
47 # shellcheck source=strings_functions.lib.sh
48 source "build_and_checks_dependencies/strings_functions.lib.sh"
49 declare -i LFBFL_popd_result2
50 popd || {
51     LFBFL_popd_result2=$?
52     echo "post_commit_renaming_comment.lib.sh no popd"
53     # shellcheck disable=SC2248
54     exit ${LFBFL_popd_result2}
55 }
56
57 # Never forget that the worse security is the illusion of security
58 # (Kevin Mitnick). So, do not expect to have an accurate trackability
59 # of code history just because you use this post-commit hook or
60 # something else more evolved. This is useful but not a guarantee.
61 # For this reason, this function will only handle when all files
62 # impacted in the preceding commit are only renamed.
63 # It assumes that `diff` is the current default difference utility
64 # parametered with `git`. This point could be enhanced.
65 commit_a_file_renamed_comment() {
66     declare -i LFBFL_verbose=0
67     if [[ "$*" == *--verbose* ]]; then
68         echo "$0 commit_a_file_renamed_comment $*"
69         LFBFL_verbose=1

```

```

70 fi
71 readonly LFBFL_verbose
72
73 if [[ ! -o pipefail ]]; then
74     [[ LFBFL_verbose -eq 1 ]] && echo "pipefail option activated"
75     set -o pipefail
76     trap 'set +o pipefail' RETURN
77 fi
78
79 declare -i LFBFL_log_directory_change=0
80 if [[ "$*" == *--log-directory-change* ]]; then
81     LFBFL_log_directory_change=1
82 fi
83 readonly LFBFL_log_directory_change
84
85 declare -i LFBFL_max_comment_line_length=70
86 if [[ -n "$3" ]]; then
87     LFBFL_max_comment_line_length="$3"
88 fi
89 readonly LFBFL_max_comment_line_length
90 if [[ LFBFL_verbose -eq 1 ]]; then
91     echo "LFBFL_log_directory_change: ${LFBFL_log_directory_change}"
92     echo\
93         "LFBFL_max_comment_line_length: ${LFBFL_max_comment_line_length}"
94 fi
95 #-----
96
97 declare -r LFBFL_renaming_lines=$(
98     git log -p -1\
99     | grep '^diff --git' -A 1
100 )
101 if [[ LFBFL_verbose -eq 1 ]]; then
102     echo "LFBFL_renaming_lines: ${LFBFL_renaming_lines}"
103 fi
104
105 declare -a LFBFL_renaming_lines_array
106 mapfile -t LFBFL_renaming_lines_array <<< "${LFBFL_renaming_lines}"
107 readonly LFBFL_renaming_lines_array
108
109 declare -r LFBFL_timestamp=$(date --iso-8601="minute")
110 if [[ LFBFL_verbose -eq 1 ]]; then
111     echo "LFBFL_timestamp: ${LFBFL_timestamp}"
112 fi
113 get_split_score_simple 1 "${LFBFL_max_comment_line_length}" _
114 LFBFL_split_score_command1="${get_split_score_result}"
115 LFBFL_split_score_command_properties1="${get_split_score_result2}"

```

```

116 get_split_score_simple 1 "${LFBFL_max_comment_line_length}" /
117 LFBFL_split_score_command2="${get_split_score_result}"
118 LFBFL_split_score_command_properties2="${get_split_score_result2}"
119 declare -i LFBFL_renaming_happened=0
120 declare -i LFBFL_i
121 declare -i LFBFL_j
122 # declare -r LFBFL_special_file_name="files_names_listing.txt"
123 declare -r LFBFL_sfn="files_names_listing.txt"
124 local LFBFL_diff_line
125 local LFBFL_similarity_line
126 local LFBFL_old_file_path
127 local LFBFL_old_file_name
128 local LFBFL_old_file_directory
129 local LFBFL_new_file_path
130 local LFBFL_new_file_name
131 local LFBFL_new_file_directory
132 local LFBFL_useful_file_name
133 local LFBFL_extension
134 local LFBFL_comment_prefix
135 local LFBFL_comment_prefix2
136 local LFBFL_old_file_name2
137 local LFBFL_old_file_directory2
138 local LFBFL_new_file_name2
139 local LFBFL_new_file_directory2
140 local LFBFL_new_comment
141 declare -i LFBFL_copyright_line_number
142 declare -r LFBFL_send_summary_2="ATTENTION: No line with copyright"
143 declare -i LFBFL_line_count
144 declare -i LFBFL_lines_after
145 local LFBFL_temp_file_path
146 for ((LFBFL_i=0; LFBFL_i<${#LFBFL_renaming_lines_array[@]};)); do
147     LFBFL_diff_line="${LFBFL_renaming_lines_array[${LFBFL_i}]}"
148     LFBFL_i=$((LFBFL_i + 1))
149     LFBFL_similarity_line="${LFBFL_renaming_lines_array[${LFBFL_i}]}"
150     LFBFL_i=$((LFBFL_i + 1))
151     # We need to increment 3 times since grep adds "--" lines between.
152     LFBFL_i=$((LFBFL_i + 1))
153     if [[ LFBFL_verbose -eq 1 ]]; then
154         echo "LFBFL_diff_line: ${LFBFL_diff_line}"
155         echo "LFBFL_similarity_line: ${LFBFL_similarity_line}"
156     fi
157     if [[ "${LFBFL_similarity_line:17:4}" != "100%" ]]; then
158         continue
159     fi
160
161     # Extract old file name from diff line. -----

```

```

162 LFBFL_old_file_path=$(
163     echo "${LFBFL_diff_line}"\
164     | cut -d ' ' -f 3
165 )
166 # It starts by "a/".
167 LFBFL_old_file_path=".${LFBFL_old_file_path:1}"
168 LFBFL_old_file_name=$(basename "${LFBFL_old_file_path}")
169 LFBFL_old_file_directory=$(dirname "${LFBFL_old_file_path}")
170 # Extract new file name from diff line. -----
171 LFBFL_new_file_path=$(
172     echo "${LFBFL_diff_line}"\
173     | cut -d ' ' -f 4
174 )
175 # It starts by "b/".
176 LFBFL_new_file_path=".${LFBFL_new_file_path:1}"
177 LFBFL_new_file_name=$(basename "${LFBFL_new_file_path}")
178 LFBFL_new_file_directory=$(dirname "${LFBFL_new_file_path}")
179 if [[ LFBFL_verbose -eq 1 ]]; then
180     echo "LFBFL_old_file_path: ${LFBFL_old_file_path}"
181     echo "LFBFL_old_file_name: ${LFBFL_old_file_name}"
182     echo "LFBFL_old_file_directory: ${LFBFL_old_file_directory}"
183     echo "LFBFL_new_file_path: ${LFBFL_new_file_path}"
184     echo "LFBFL_new_file_name: ${LFBFL_new_file_name}"
185     echo "LFBFL_new_file_directory: ${LFBFL_new_file_directory}"
186 fi
187 # Extract "LFBFL_extension" with smart guessing for .tpl -----
188 # and set prefix for line with ©Copyright. -----
189 LFBFL_useful_file_name="${LFBFL_new_file_name}"
190 LFBFL_extension="${LFBFL_useful_file_name##*}"
191 if [[ LFBFL_verbose -eq 1 ]]; then
192     echo "LFBFL_useful_file_name: ${LFBFL_useful_file_name}"
193     echo "LFBFL_extension: ${LFBFL_extension}"
194 fi
195 for ((LFBFL_j=0; LFBFL_j<3; ++LFBFL_j)); do
196     if [[ "${LFBFL_extension}" != "tpl" ]]; then
197         break
198     fi
199     LFBFL_useful_file_name="${LFBFL_useful_file_name:0:-4}"
200     LFBFL_extension="${LFBFL_useful_file_name##*}"
201     if [[ LFBFL_verbose -eq 1 ]]; then
202         echo "LFBFL_useful_file_name: ${LFBFL_useful_file_name}"
203         echo "LFBFL_extension: ${LFBFL_extension}"
204     fi
205 done
206 LFBFL_comment_prefix=""
207 if [[ "${LFBFL_extension}" == "sh" ]]; then

```



```

208     LFBFL_comment_prefix="# "
209 fi
210 if [[ "${LFBFL_extension}" == "sql" ]]; then
211     LFBFL_comment_prefix="-- "
212 fi
213 if [[ "${LFBFL_extension}" == "tex" ]]; then
214     LFBFL_comment_prefix="% "
215 fi
216 if [[ "${LFBFL_useful_file_name}" == "${LFBFL_sfn}" ]]; then
217     LFBFL_comment_prefix="// "
218 fi
219 if [[ LFBFL_verbose -eq 1 ]]; then
220     echo "LFBFL_comment_prefix: ${LFBFL_comment_prefix}"
221 fi
222 #-----
223 # Split if necessary old_file_name, new_file_name, etc. to have
224 # comment lines below max_comment_line_length.
225 LFBFL_comment_prefix2="${LFBFL_comment_prefix}"' "'
226 # -----
227 LFBFL_old_file_name2="${LFBFL_comment_prefix2}"
228 LFBFL_old_file_name2+="${LFBFL_old_file_name}"
229 repeated_split_last_line "${LFBFL_old_file_name2}"\
230     "${LFBFL_comment_prefix2}" "${LFBFL_max_comment_line_length}"\
231     ' "' "${LFBFL_split_score_command1}"\
232     "${LFBFL_split_score_command_properties1}"
233 LFBFL_old_file_name2="${repeated_split_last_line_result}"
234 # -----
235 LFBFL_old_file_directory2="${LFBFL_comment_prefix2}"
236 LFBFL_old_file_directory2+="${LFBFL_old_file_directory}"
237 repeated_split_last_line "${LFBFL_old_file_directory2}"\
238     "${LFBFL_comment_prefix2}" "${LFBFL_max_comment_line_length}"\
239     ' "' "${LFBFL_split_score_command2}"\
240     "${LFBFL_split_score_command_properties2}"
241 LFBFL_old_file_directory2="${repeated_split_last_line_result}"
242 # -----
243 LFBFL_new_file_name2="${LFBFL_comment_prefix2}"
244 LFBFL_new_file_name2+="${LFBFL_new_file_name}"
245 repeated_split_last_line "${LFBFL_new_file_name2}"\
246     "${LFBFL_comment_prefix2}" "${LFBFL_max_comment_line_length}"\
247     ' "' "${LFBFL_split_score_command1}"\
248     "${LFBFL_split_score_command_properties1}"
249 LFBFL_new_file_name2="${repeated_split_last_line_result}"
250 # -----
251 LFBFL_new_file_directory2="${LFBFL_comment_prefix2}"
252 LFBFL_new_file_directory2+="${LFBFL_new_file_directory}"
253 repeated_split_last_line "${LFBFL_new_file_directory2}"\

```

```

254     "${LFBFL_comment_prefix2}" "${LFBFL_max_comment_line_length}"\
255     ' "' "${LFBFL_split_score_command2}"\
256     "${LFBFL_split_score_command_properties2}"
257 LFBFL_new_file_directory2="${repeated_split_last_line_result}"
258 # Create new comments strings. -----
259 LFBFL_new_comment=""
260 if [[ "${LFBFL_new_file_name2}" != "${LFBFL_old_file_name2}" ]];
261 then
262     LFBFL_new_comment="${LFBFL_comment_prefix}"
263     LFBFL_new_comment+="${LFBFL_timestamp}"
264     LFBFL_new_comment+=": This file was renamed from\n"
265     LFBFL_new_comment+="${LFBFL_old_file_name2}"'\n'
266     LFBFL_new_comment+="${LFBFL_comment_prefix}to\n"
267     LFBFL_new_comment+="${LFBFL_new_file_name2}"'".'
268 fi
269 if [[ LFBFL_log_directory_change -eq 1 ]] && [[\
270     "${LFBFL_new_file_directory}"\
271     != "${LFBFL_old_file_directory}"\
272 ]]; then
273     LFBFL_new_comment+="\n${LFBFL_comment_prefix}"
274     LFBFL_new_comment+="${LFBFL_timestamp}"
275     LFBFL_new_comment+=": This file was moved from\n"
276     LFBFL_new_comment+="${LFBFL_old_file_directory2}"'\n'
277     LFBFL_new_comment+="${LFBFL_comment_prefix}to\n"
278     LFBFL_new_comment+="${LFBFL_new_file_directory2}"'".'
279 fi
280 if [[ LFBFL_verbose -eq 1 ]]; then
281     echo "LFBFL_new_comment: ${LFBFL_new_comment}"
282 fi
283 # Find line with ©Copyright. -----
284 LFBFL_copyright_line_number=$(
285     grep -n '©Copyright' "${LFBFL_new_file_path}"\
286     | head --lines=1\
287     | cut -d ':' -f 1
288 )
289 if [[ LFBFL_verbose -eq 1 ]]; then
290     echo "LFBFL_copyright_line_number:\n
291         " ${LFBFL_copyright_line_number}"
292 fi
293 if [[ LFBFL_copyright_line_number -eq 0 ]]; then
294     notify-send "${LFBFL_send_summary_2}"\
295         "${LFBFL_send_summary_2} for: ${LFBFL_new_comment}"
296     if [[ LFBFL_verbose -eq 1 ]]; then
297         echo "No copyright line. Skipping file."
298     fi
299     continue

```

```

300     fi
301     # Get total number of lines. -----
302     LFBFL_line_count=$(
303         wc -l\
304         < "${LFBFL_new_file_path}"
305     )
306     if [[ LFBFL_verbose -eq 1 ]]; then
307         echo "LFBFL_line_count: ${LFBFL_line_count}"
308     fi
309     # Compute number of lines after. -----
310     LFBFL_lines_after=$((
311         LFBFL_line_count - LFBFL_copyright_line_number
312     ))
313     if [[ LFBFL_verbose -eq 1 ]]; then
314         echo "LFBFL_lines_after: ${LFBFL_lines_after}"
315     fi
316     # Update file. -----
317     LFBFL_temp_file_path="${LFBFL_new_file_path}.LFBFL.temp"
318     {
319         head --lines="${LFBFL_copyright_line_number}"\
320             "${LFBFL_new_file_path}"
321         echo -e "${LFBFL_new_comment}"
322         tail --lines="${LFBFL_lines_after}" "${LFBFL_new_file_path}"
323     } >> "${LFBFL_temp_file_path}"
324     mv "${LFBFL_temp_file_path}" "${LFBFL_new_file_path}"
325     # Add file to stage. -----
326     git add "${LFBFL_new_file_path}"
327     LFBFL_renaming_happened=1
328 done
329 readonly LFBFL_renaming_happened
330 if [[ LFBFL_renaming_happened -eq 1 ]]; then
331     # Commit -----
332     local LFBFL_message="commit_a_file_renamed_comment()"
333     LFBFL_message+=" post-commit hook, ${LFBFL_timestamp}."
334     readonly LFBFL_message
335     git commit --message="${LFBFL_message}"
336 fi
337 }

```

2.48 git_helpers/pre-commit

```

1  #!/usr/bin/env bash
2  # This file is part of DevOrSysAdminScripts library.
3  #
4  # DevOrSysAdminScripts is free software:
5  # you can redistribute it and/or modify it under the terms

```

```

6  # of the GNU General Public License
7  # as published by the Free Software Foundation,
8  # either version 3 of the License,
9  # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,
13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
24 # 2024-05-31T01:57+02:00: This file was renamed from
25 # "pre-commit"
26 # to
27 # "pre-commit".
28 # 2024-05-31T01:57+02:00: This file was moved from
29 # "."
30 # to
31 # "./git_helpers".
32
33 LFBFL_library="./DevOrSysAdminScripts/git_helpers/"
34 LFBFL_library+="git_checks.lib.sh"
35 # shellcheck source=git_checks.lib.sh
36 source "${LFBFL_library}"
37
38 declare -ig LFBFL_git_hook_error=0
39 if ! check_files; then
40     LFBFL_git_hook_error=1
41 fi
42 if ! check_no_abusive_trailing_comma; then
43     LFBFL_git_hook_error=1
44 fi
45 if ! check_black_code_formatting; then
46     LFBFL_git_hook_error=1
47 fi
48 readonly LFBFL_git_hook_error
49 if [[ LFBFL_git_hook_error -eq 1 ]]; then
50     exit 1
51 fi

```

52 exit 0

2.49 LiensUtiles.txt

```
1 https://support.google.com/a/answer/9476255?hl=fr#zippy=%2C%C3%A9tape\
2 -configurez-le-service-de-migration-de-donn%C3%A9es
3 -----
4 https://stackoverflow.com/a/78413334/5796086
5 https://stackoverflow.com/questions/21612980/\
6 why-is-usr-bin-env-bash-superior-to-bin-bash/78413334
7 https://web.archive.org/web/20240501105801/https://stackoverflow.com/\
8 /questions/21612980/why-is-usr-bin-env-bash-superior-to-bin-bash/\
9 78413334#78413334
10 -----
11 https://news.ycombinator.com/item?id=22214690
12 https://github.com/koalaman/shellcheck/issues/2005
13 https://opensource.stackexchange.com/questions/6271/\
14 calling-gpld-programs-from-a-shell-script
15 -----
```

2.50 README.md.tpl

```
1 # DevOrSysAdminScripts
2
3 [[CodeFactor-badge]][CodeFactor-package-page]
4 [[Codacy-badge]][Codacy-package-page]
5 [[GitHub-top-language-badge]]
6 [[GitHub-code-size-in-bytes-badge]]
7 [[Security:bandit:badge]][Bandit-GitHub.com]
8 [[Code-style:black:badge]][Black-GitHub.com]
9 [[Imports:isort:badge]][Isort-GitHub.io]
10 [[Typecheck:mypy:badge]][Typecheck-mypy-lang.org]
11 [[Linting:pylint:badge]][Pylint-GitHub.com]
12 [[Linting:ruff:badge]][Ruff-GitHub.com]
13
14 | **Some "small" useful scripts** |
15 |:-----:|
16 | **for enhancing development or system-administrators tasks** |
17
18 Currently, the biggest part of this repository is in
19 a suite of shell scripts about build and checks that
20 I use in some of my other repositories.
21
22 I tried to follow some conventions for my bash code:
23
24 - I tried to encapsulate most of the code in functions.
```

- 25 - Unless used as return values, variables in functions are defined
- 26 as local variables (`'local'` keyword or `'declare'`)
- 27 with prefix `"LFBFL_"`.
- 28 - When used as return values, variables in functions are defined
- 29 as global variables (`'declare -g'`) with prefix
- 30 `"@function_name@_result_"`.
- 31 - Whenever a variable is no more modified after some point,
- 32 add the keyword `'readonly'` or use `'declare -r'`.
- 33 - Whenever a variable will only contain integer values (or boolean
- 34 values as 0 or 1), use `'declare -i'`.
- 35 - I named bash files with suffixes `".exec.sh"` when the script can
- 36 be runned
- 37 (`executable`, abbreviation stops before a vowel).
- 38 - I named bash files with suffixes `".lib.sh"` when the script contains
- 39 only functions definitions
- 40 (`library`, abbreviation stops before a vowel).
- 41 - When some `".exec.sh"` code is encapsulated into functions,
- 42 either these functions can be reused and go in some `".lib.sh"` file,
- 43 either they are truly specific to this script and they are kept
- 44 in `".exec.sh"` file.

45

46 But the files `"pre-commit"` and `"post-commit"` were not renamed,

47 since it is not possible to give them other names to use them as

48 `pre-commit/post-commit` hooks in `'git'`.

49

50 [CodeFactor-badge]: [https://www.codefactor.io/repository/github/\](https://www.codefactor.io/repository/github/llyaudet/DevOrSysAdminScripts/badge)

51 `llyaudet/DevOrSysAdminScripts/badge`

52

53 [CodeFactor-package-page]: [https://www.codefactor.io/repository/\](https://www.codefactor.io/repository/github/llyaudet/DevOrSysAdminScripts)

54 `github/llyaudet/DevOrSysAdminScripts`

55

56 [Codacy-badge]: [https://app.codacy.com/project/badge/Grade/\](https://app.codacy.com/project/badge/Grade/3dd6ef85e8db4460991d1ebc404b68dd)

57 `3dd6ef85e8db4460991d1ebc404b68dd`

58

59 [Codacy-package-page]: [https://app.codacy.com/gh/Llyaudet/\](https://app.codacy.com/gh/Llyaudet/DevOrSysAdminScripts/dashboard?utm_source=gh&utm_medium=referral&utm_content=&utm_campaign=Badge_grade)

60 `DevOrSysAdminScripts/dashboard?utm_source=gh&utm_medium=referral\`

61 `&utm_content=&utm_campaign=Badge_grade`

62

63 [GitHub-top-language-badge]: [https://img.shields.io/github/\](https://img.shields.io/github/languages/top/llyaudet/DevOrSysAdminScripts)

64 `languages/top/llyaudet/DevOrSysAdminScripts`

65

66 [GitHub-code-size-in-bytes-badge]: [https://img.shields.io/github/\](https://img.shields.io/github/languages/code-size/llyaudet/DevOrSysAdminScripts)

67 `languages/code-size/llyaudet/DevOrSysAdminScripts`

68

69 [Security:bandit:badge]: [https://img.shields.io/badge/\](https://img.shields.io/badge/security-bandit-yellow.svg)

70 `security-bandit-yellow.svg`

```

71
72 [Bandit-GitHub.com]: https://github.com/PyCQA/bandit
73
74 [Code-style:black:badge]: https://img.shields.io/badge/\
75 code%20style-black-000000.svg
76
77 [Black-GitHub.com]: https://github.com/psf/black
78
79 [Imports:isort:badge]: https://img.shields.io/badge/\
80 %20imports-isort-%231674b1?style=flat&labelColor=ef8336
81
82 [Isort-GitHub.io]: https://pycqa.github.io/isort/
83
84 [Typecheck:mypy:badge]: https://www.mypy-lang.org/static/\
85 mypy_badge.svg
86
87 [Typecheck-mypy-lang.org]: https://mypy-lang.org/
88
89 [Linting:pylint:badge]: https://img.shields.io/badge/\
90 linting-pylint-yellowgreen
91
92 [Pylint-GitHub.com]: https://github.com/pylint-dev/pylint
93
94 [Linting:ruff:badge]: https://img.shields.io/endpoint?url=\
95 https://raw.githubusercontent.com/astral-sh/ruff/main/assets/\
96 badge/v2.json
97
98 [Ruff-GitHub.com]: https://github.com/astral-sh/ruff

```

2.51 unicode.lib.php

```

1 <?php
2 /*
3 This file is part of DevOrSysAdminScripts library.
4
5 DevOrSysAdminScripts is free software:
6 you can redistribute it and/or modify it under the terms
7 of the GNU Lesser General Public License
8 as published by the Free Software Foundation,
9 either version 3 of the License,
10 or (at your option) any later version.
11
12 DevOrSysAdminScripts is distributed in the hope
13 that it will be useful,
14 but WITHOUT ANY WARRANTY;
15 without even the implied warranty of

```

```

16  MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
17  See the GNU Lesser General Public License for more details.
18
19  You should have received a copy of
20  the GNU Lesser General Public License
21  along with DevOrSysAdminScripts.
22  If not, see <https://www.gnu.org/licenses/>.
23
24  ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
25  This file was renamed from "unicode.php" to "unicode.lib.php".
26  */
27
28  function decimal_code_point_to_UTF8(
29      $i_code_point_in_decimal_notation
30  ){
31      // var_dump($i_code_point_in_decimal_notation);
32      // 0xxxxxxx ASCII
33      if($i_code_point_in_decimal_notation < 128){
34          return chr($i_code_point_in_decimal_notation);
35      }
36      $i_continuation_base_value = 128;
37      // 110xxxxx 10xxxxxx
38      if($i_code_point_in_decimal_notation < 256 * (2**3)){
39          $i_first_byte_base_value = 192;
40          $i_last_byte_significant_bits = (
41              $i_code_point_in_decimal_notation % (2**6)
42          );
43          $i_first_byte_significant_bits = (int) (
44              (
45                  $i_code_point_in_decimal_notation
46                  - $i_last_byte_significant_bits
47              ) / (2**6)
48          );
49          $s_result = chr(
50              $i_first_byte_base_value
51              + $i_first_byte_significant_bits
52          );
53          $s_result .= chr(
54              $i_continuation_base_value
55              + $i_last_byte_significant_bits
56          );
57          return $s_result;
58      }
59      // 1110xxxx 10xxxxxx 10xxxxxx
60      if($i_code_point_in_decimal_notation < 256 * 256){
61          $i_first_byte_base_value = 224;

```



```

62 $arr_arr_data_per_byte_reverse = [
63     ["i_bits" => 6, "i_base_value" => $i_continuation_base_value],
64     ["i_bits" => 6, "i_base_value" => $i_continuation_base_value],
65     ["i_bits" => 4, "i_base_value" => $i_first_byte_base_value],
66 ];
67 $i_rest = $i_code_point_in_decimal_notation;
68 $s_result = "";
69 foreach($arr_arr_data_per_byte_reverse as $arr_data){
70     // _Pragma unroll
71     // J'aurais pu "roller" les 4 cas des ifs.
72     // Mais pour les perfs, il faudrait tout unroller vu le nombre
73     // d'itérations. Et j'aimerais bien comparer du code unrollé
74     // aux 2 niveaux à la main avec celui unrollé par le compilateur
75     // sur les 2 niveaux. Je préjuge/présume qu'il unroll
76     // l'intérieur d'abord (pour ne pas refaire le même boulot)
77     // puis l'extérieur et qu'il oublie de réoptimiser l'intérieur
78     // en fonction de l'extérieur unrollé. Est-ce que j'ai raison ?
79     $i_significant_bits = $i_rest % (2**$arr_data["i_bits"]);
80     $i_rest = (int) (
81         ($i_rest - $i_significant_bits) / (2**$arr_data["i_bits"])
82     );
83     $s_result = ( // .= or =.
84         chr($i_significant_bits + $arr_data["i_base_value"])
85         .$s_result
86     );
87 }
88 return $s_result;
89 }
90 // 11110xxx 10xxxxxxx 10xxxxxxx 10xxxxxxx
91 if($i_code_point_in_decimal_notation < 256 * 256 * (2**5)){
92     $i_first_byte_base_value = 240;
93     $arr_arr_data_per_byte_reverse = [
94         ["i_bits" => 6, "i_base_value" => $i_continuation_base_value],
95         ["i_bits" => 6, "i_base_value" => $i_continuation_base_value],
96         ["i_bits" => 6, "i_base_value" => $i_continuation_base_value],
97         ["i_bits" => 3, "i_base_value" => $i_first_byte_base_value],
98     ];
99     $i_rest = $i_code_point_in_decimal_notation;
100     $s_result = "";
101     foreach($arr_arr_data_per_byte_reverse as $arr_data){
102         // _Pragma unroll
103         $i_significant_bits = $i_rest % (2**$arr_data["i_bits"]);
104         $i_rest = (int) (
105             ($i_rest - $i_significant_bits) / (2**$arr_data["i_bits"])
106         );
107         $s_result = ( // .= or =.

```

```

108         chr($i_significant_bits + $arr_data["i_base_value"])
109         . $s_result
110     );
111 }
112 return $s_result;
113 }
114 throw new Exception(
115     "UTF-8 avec jusqu'à 6 octets a été abandonné il y a longtemps."
116     ." Autre anecdote \"débile\" : MySQL a de base UTF-8 avec jusqu'à"
117     ." 3 octets au lieu de 4 :face-palm:."
118     ." Du coup, ça peut donner quelques \"surprises\"."
119     ." Sinon, y'a aussi ASCII dans MySQL."
120     ." Et comme ça joue sur la mémoire et les performances,"
121     ." pourquoi ils n'ont pas fait ASCII, UTF-8-2, UTF-8-3, UTF-8-4 ?"
122     ." :) "
123 );
124 }
125
126
127
128 function hexa_code_point_to_UTF8(
129     $s_code_point_in_hexadecimal_notation
130 ) {
131     $s_code_point_in_hexadecimal_notation = strtoupper(
132         $s_code_point_in_hexadecimal_notation
133     );
134     $i_code_point_in_decimal_notation = 0;
135     $i_ord_0 = ord('0');
136     $i_ord_A = ord('A');
137     $i_digit_offset = -$i_ord_0;
138     $i_letter_offset = 10 - $i_ord_A;
139     for(
140         $i = 0, $i_max = strlen($s_code_point_in_hexadecimal_notation);
141         $i < $i_max;
142         ++$i
143     ) {
144         $s_hexa_digit = $s_code_point_in_hexadecimal_notation[$i];
145         $i_code_point_in_decimal_notation *= 16;
146         if ctype_digit($s_hexa_digit) {
147             $i_code_point_in_decimal_notation += (
148                 ord($s_hexa_digit) + $i_digit_offset
149             );
150             continue;
151         }
152         if ctype_xdigit($s_hexa_digit) {
153             $i_code_point_in_decimal_notation += (

```

```

154         ord($s_hexa_digit) + $i_letter_offset
155     );
156     continue;
157 }
158 throw new Exception("Not an hexadecimal digit.");
159 }
160 return decimal_code_point_to_UTF8(
161     $i_code_point_in_decimal_notation
162 );
163 }
164
165
166
167 function check_string_is_valid_ASCII($s_string){
168     for($i = 0, $i_max = strlen($s_string); $i < $i_max; ++$i){
169         if(ord($s_string[$i]) > 127){
170             throw new Exception(
171                 "Non-ASCII character found at octet position "
172                 .$i
173                 .", value "
174                 .ord($s_string[$i])
175                 ."."
176             );
177         }
178     }
179     return true;
180 }
181
182
183
184 function check_file_is_valid_ASCII($s_file_name){
185     $s_string = file_get_contents($s_file_name);
186     if($s_string === false){
187         throw new Exception("File ".$s_file_name." not found.");
188     }
189     return check_string_is_valid_ASCII($s_string);
190 }
191
192
193
194 function check_string_is_valid_UTF8($s_string){
195     $i_continuation_octet_needed = 0;
196     $i_character_start_position = 0;
197     for($i = 0, $i_max = strlen($s_string); $i < $i_max; ++$i){
198         $i_current_octet = ord($s_string[$i]);
199         if($i_continuation_octet_needed > 0){

```

```

200     if($i_current_octet < 128 || $i_current_octet >= 192){
201         throw new Exception(
202             "Non-UTF8 character found at start position "
203             ".$i_character_start_position
204             ".", octet at position "
205             ".$i
206             ." has value "
207             ".$i_current_octet
208             ." which is not a continuation octet."
209         );
210     }
211     --$i_continuation_octet_needed;
212     continue;
213 }
214
215 $i_character_start_position = $i;
216 if($i_current_octet < 128){ // 0xxxxxxx ASCII
217     continue;
218 }
219 if($i_current_octet >= 128 && $i_current_octet < 192){
220     throw new Exception(
221         "Non-UTF8 character found at start position "
222         ".$i_character_start_position
223         ".", octet at position "
224         ".$i
225         ." has value "
226         ".$i_current_octet
227         ." which is a continuation octet."
228     );
229 }
230 if($i_current_octet >= 192 && $i_current_octet < 224){
231     // 110xxxxx 10xxxxxx
232     $i_continuation_octet_needed = 1;
233     continue;
234 }
235 if($i_current_octet >= 224 && $i_current_octet < 240){
236     // 1110xxxx 10xxxxxx 10xxxxxx
237     $i_continuation_octet_needed = 2;
238     continue;
239 }
240 if($i_current_octet >= 240 && $i_current_octet < 248){
241     // 11110xxx 10xxxxxx 10xxxxxx 10xxxxxx
242     $i_continuation_octet_needed = 3;
243     continue;
244 }
245 throw new Exception(

```

```

246         "Non-UTF8 character found at start position "
247         ".$i_character_start_position
248         .", octet at position "
249         ".$i
250         ." has value "
251         ".$i_current_octet
252         ." which is invalid."
253     );
254 }
255 return true;
256 }
257
258
259
260 function check_file_is_valid_UTF8($s_file_name){
261     $s_string = file_get_contents($s_file_name);
262     if($s_string === false){
263         throw new Exception("File ".$s_file_name." not found.");
264     }
265     return check_string_is_valid_UTF8($s_string);
266 }
267
268
269
270 /*
271 ?>
272 <?php
273 require_once("./unicode.lib.php");
274 var_dump(hexa_code_point_to_UTF8("002B"));
275 var_dump(hexa_code_point_to_UTF8("00E6"));
276 var_dump(hexa_code_point_to_UTF8("1400"));
277 var_dump(hexa_code_point_to_UTF8("10111"));
278 // https://en.wikibooks.org/wiki/Unicode/Character\_reference/2000-2FFF
279 // Some invisible unicode characters that are a problem:
280 // 2000-200F 2028-202F 205F 2060-206F
281 $arr = [
282     '2000', '2001', '2002', '2003', '2004', '2005', '2006', '2007',
283     '2008', '2009', '200A', '200B', '200C', '200D', '200E', '200F',
284     '2028', '2029', '202A', '202B', '202C', '202D', '202E', '202F',
285     '205F',
286     '2060', '2061', '2062', '2063', '2064', '2065', '2066', '2067',
287     '2068', '2069', '206A', '206B', '206C', '206D', '206E', '206F',
288 ];
289 $arr_s = [];
290 $arr_s2 = [];
291 $arr_s3 = [];

```

```

292 foreach($arr as $s_hexa){
293     $s = hexa_code_point_to_UTF8($s_hexa);
294     $arr_s []= $s;
295     if(strlen($s) === 2){
296         $s2 = '\x'.bin2hex($s[0]).'\x'.bin2hex($s[1]);
297     }
298     if(strlen($s) === 3){
299         $s2 = '\x'.bin2hex($s[0]).'\x'.bin2hex($s[1])
300             .'\x'.bin2hex($s[2]);
301     }
302     $arr_s2 []= $s2;
303     $s3 = " | sed -e 's/\".$s2.\"/ /g'\\\"";
304     $arr_s3 []= $s3;
305     echo($s3.\"\\n\");
306 }
307 /*/
308

```

2.52 upgrade_build_and_checks.exec.sh

```

1  #!/usr/bin/env bash
2  # This file is part of DevOrSysAdminScripts library.
3  #
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11 # DevOrSysAdminScripts is distributed in the hope
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17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "upgrade_build_and_checks.sh"
25 # to "upgrade_build_and_checks.exec.sh".
26

```

```

27 upgrade_build_and_checks() {
28     local LFBFL_verbose=""
29     if [[ "$*" == *--verbose* ]]; then
30         echo "$0 $*"
31         LFBFL_verbose="--verbose"
32     fi
33     local LFBFL_fixed_point_build=""
34     if [[ "$*" == *--fixed_point_build* ]]; then
35         LFBFL_fixed_point_build="--fixed_point_build"
36     fi
37     readonly LFBFL_verbose
38     (\
39         cd build_and_checks_dependencies/\
40         && ./update_common_build_and_checks.exec.sh "${LFBFL_verbose}"\
41     )
42     ./build_and_checks.exec.sh "." "${LFBFL_verbose}"\
43     "${LFBFL_fixed_point_build}"
44 }
45
46 upgrade_build_and_checks "$@"

```

2.53 wget_sha512.lib.sh

```

1  #!/usr/bin/env bash
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11 # DevOrSysAdminScripts is distributed in the hope
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16 # See the GNU General Public License for more details.
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```

```

24 # This file was renamed from "wget_sha512.sh"
25 # to "wget_sha512.lib.sh".
26
27 wget_sha512() {
28     # $1 file_path
29     # $2 download_URL
30     # $3 correct_sha512
31     # $4 optional --verbose
32     local LFBFL_verbose=""
33     if [[ "$*" == *--verbose* ]]; then
34         echo "$0 wget_sha512 $*"
35         LFBFL_verbose="--verbose"
36     fi
37     readonly LFBFL_verbose
38     if [[ ! -f "$1" ]];
39     then
40         wget "${LFBFL_verbose}" -O "$1" "$2"
41     fi
42     declare -r LFBFL_present_sha512=$(
43         sha512sum "$1"\
44         | cut -f1 -d' '
45     )
46     if [[ "${LFBFL_present_sha512}" != "$3" ]];
47     then
48         echo "$1 does not have correct sha512"
49         echo "wanted $3"
50         echo "found ${LFBFL_present_sha512}"
51         exit
52     fi
53 }

```

Merci Dieu ! Merci Père ! Merci Seigneur ! Merci Saint Esprit !