

# DevOrSysAdminScripts

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## Abstract

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

Current version: 2025-12-31

Current number of commits: 231

Current git SHA1: 20ec6558d361c21ab4f47e475c86979efd022a62

Code lines: 6235 total lines, 5642 not empty lines, 593 empty lines.

## 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+.c.tpl
│       ├── license_file_header_AGPLv3+.py.tpl
│       ├── license_file_header_AGPLv3+.sh.tpl
│       ├── license_file_header_AGPLv3+.tex.tpl
│       ├── license_file_header_AGPLv3+.tpl
│       └── license_file_header_GPLv3+.c
```

- license\_file\_header\_GPLv3+.c.tpl
- license\_file\_header\_GPLv3+.py
- license\_file\_header\_GPLv3+.py.tpl
- license\_file\_header\_GPLv3+.sh
- license\_file\_header\_GPLv3+.sh.tpl
- license\_file\_header\_GPLv3+.tex
- license\_file\_header\_GPLv3+.tex.tpl
- license\_file\_header\_GPLv3+.tpl
- license\_file\_header\_LGPLv3+.c
- license\_file\_header\_LGPLv3+.c.tpl
- license\_file\_header\_LGPLv3+.py
- license\_file\_header\_LGPLv3+.py.tpl
- license\_file\_header\_LGPLv3+.sh
- license\_file\_header\_LGPLv3+.sh.tpl
- license\_file\_header\_LGPLv3+.tex
- license\_file\_header\_LGPLv3+.tex.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\_line\_at\_most.exec.php
- split\_line\_at\_most.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
  - DevOrSysAdminScripts.html.tpl
  - DevOrSysAdminScripts.tex
  - DevOrSysAdminScripts.tex.tpl
  - files\_listing.tex.tpl
  - files\_names\_listing.txt
  - .gitignore
  - licenses\_notes.txt
  - repository\_data.txt
- COPYING
- COPYING.LESSER
- 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
└─ unicode.lib.php
└─ upgrade_build_and_checks.exec.sh
└─ wget_sha512.lib.php

```

5 directories, 70 files

```

[ 12K Dec 31 19:45] ./
└─ [4.0K Dec 31 19:45] build_and_checks_dependencies/
    └─ [2.6K Dec 30 22:26] build_and_checks.exec.sh.tpl*
    └─ [2.5K Dec 31 14:46] build_md_from_printable_md.exec.sh*
    └─ [1.3K Dec 30 17:50] check_shell_scripts_beginnings.lib.php
    └─ [2.3K Dec 30 17:51] check_URLs.lib.php
    └─ [ 17K Dec 31 19:45] common_build_and_checks.exec.sh*
    └─ [ 12K Dec 31 15:37] common_build_and_checks.exec.sh.tpl
    └─ [3.1K Dec 30 18:02] comparisons.lib.php
    └─ [ 10K Dec 31 19:43] create_PDF.exec.sh*
    └─ [2.9K Dec 30 18:47] generate_from_template.lib.php
    └─ [1.9K Dec 30 19:53] get_common_text_glob_patterns.lib.php
    └─ [1.9K Dec 30 19:55] grammar_and_spell_check.lib.php
    └─ [4.0K Dec 31 19:46] licenses_templates/
        └─ [7.7K Dec 30 19:53] build_licenses_templates.exec.sh*
        └─ [ 734 Dec 30 19:34] license_file_header_AGPLv3+.c.tpl
        └─ [ 736 Dec 30 19:34] license_file_header_AGPLv3+.py.tpl
        └─ [ 768 Dec 30 19:34] license_file_header_AGPLv3+.sh.tpl
        └─ [ 768 Dec 30 19:34] license_file_header_AGPLv3+.tex.tpl
        └─ [ 728 Dec 30 19:32] license_file_header_AGPLv3+.tpl
        └─ [ 761 Dec 30 16:12] license_file_header_GPLv3+.c
        └─ [ 713 Dec 27 21:48] license_file_header_GPLv3+.c.tpl
        └─ [ 763 Dec 30 16:12] license_file_header_GPLv3+.py
        └─ [ 715 Dec 27 21:48] license_file_header_GPLv3+.py.tpl
        └─ [ 795 Dec 30 16:12] license_file_header_GPLv3+.sh
        └─ [ 747 Dec 27 21:48] license_file_header_GPLv3+.sh.tpl
        └─ [ 795 Dec 30 16:12] license_file_header_GPLv3+.tex
        └─ [ 747 Dec 27 21:48] license_file_header_GPLv3+.tex.tpl
        └─ [ 707 Dec 27 21:48] license_file_header_GPLv3+.tpl
        └─ [ 782 Dec 27 21:48] license_file_header_LGPLv3+.c
        └─ [ 734 Dec 27 21:48] license_file_header_LGPLv3+.c.tpl
        └─ [ 784 Dec 27 21:48] license_file_header_LGPLv3+.py
        └─ [ 736 Dec 27 21:48] license_file_header_LGPLv3+.py.tpl
        └─ [ 816 Dec 27 21:48] license_file_header_LGPLv3+.sh
        └─ [ 768 Dec 27 21:48] license_file_header_LGPLv3+.sh.tpl

```



## 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
- The following dependencies are LGPLv2.1+ licensed:  
notify-send
- The following dependencies are MIT licensed:  
black, isort, mypy
- 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 2023-2025 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 [[ "$2" == "--verbose" ]]; then
40         echo "$0 $*"
41         LFBFL_verbose="--verbose"
42     fi
43     readonly LFBFL_verbose
44
45     # shellcheck disable=SC1091
46     source ./wget_sha512.lib.sh
47
48     LFBFL_subdir="build_and_checks_dependencies"
49     mkdir -p "${LFBFL_subdir}/licenses_templates"
50     mkdir -p "build_and_checks_variables/temp"
51     if ! [[ -f "build_and_checks_variables/.gitignore" ]]; then
52         echo "temp/" > "build_and_checks_variables/.gitignore"
53         echo "" >> "build_and_checks_variables/.gitignore"
54     fi
55
56     # LFBFL_dependencies_raw_content_download_URL
57     local LFBFL_dependencies_URL

```

```

58 LFBFL_dependencies_URL="https://raw.githubusercontent.com/LLyaudet/"
59 LFBFL_dependencies_URL+="DevOrSysAdminScripts/main/${LFBFL_subdir}"
60 readonly LFBFL_dependencies_URL
61
62 declare -r LFBFL_common_file_name="common_build_and_checks.exec.sh"
63 # LFBFL_script_download_URL
64 declare -r\
65     LFBFL_script="${LFBFL_dependencies_URL}/${LFBFL_common_file_name}"
66 declare -r\
67     LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_common_file_name}"
68 @sha512_common_build_and_checks.exec.sh@
69 wget_sha512 "${LFBFL_file_path}" "${LFBFL_script}"\
70     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
71 chmod +x "${LFBFL_file_path}"
72
73 "${LFBFL_file_path}" "${LFBFL_working_directory}"\
74     "${LFBFL_dependencies_URL}" "${LFBFL_verbose}"
75 }
76
77 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.
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22 #
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```

```

24 # This file was renamed from "build_md_from_printable_md.sh"
25 # to "build_md_from_printable_md.exec.sh".
26
27 LFBFL_verbose=""
28 if [[ "$3" == "--verbose" ]]; then
29     echo "$0 $*"
30     # shellcheck disable=SC2034
31     LFBFL_verbose="--verbose"
32 fi
33
34 LFBFL_subdir="build_and_checks_dependencies"
35 # shellcheck disable=SC1090
36 source "${LFBFL_subdir}/overwrite_if_not_equal.lib.sh"
37
38 LFBFL_sed_expression='s/(\[[a-zA-Z0-9:-]*\]): [^\n\\]*\\\\n/\\1/Mg'
39 LFBFL_sed_expression+=';s/(<http[^\n\\]*\\\\n/\\1/Mg'
40 LFBFL_sed_expression+=';s/(- <http[^\n\\]*\\\\n/\\1/Mg'
41
42 declare -i LFBFL_cd_result
43 pushd .
44 if [[ -n "$1" ]];
45 then
46     cd "$1" || {
47         LFBFL_cd_result=$?;
48         echo "build_md_from_printable_md no such directory";
49         # shellcheck disable=SC2248,2250
50         exit $LFBFL_cd_result;
51     }
52 fi
53
54 file_name="README"
55 if [[ -n "$2" ]];
56 then
57     file_name="$2"
58 fi
59
60 if [[ -f "${file_name}.md.tpl" ]];
61 then
62     sed -Ez "${LFBFL_sed_expression}" "${file_name}.md.tpl" \
63     > "${file_name}_templ.md"
64     sed -Ez "${LFBFL_sed_expression}" "${file_name}_templ.md" \
65     > "${file_name}_temp2.md"
66     sed -Ez "${LFBFL_sed_expression}" "${file_name}_temp2.md" \
67     > "${file_name}_temp3.md"
68     sed -Ez "${LFBFL_sed_expression}" "${file_name}_temp3.md" \
69     > "${file_name}_temp4.md"

```



```

70     overwrite_if_not_equal "${file_name}.md" "${file_name}_temp4.md"
71     rm "${file_name}_temp1.md" "${file_name}_temp2.md" \
72     "${file_name}_temp3.md"
73 else
74     echo "No file ${file_name}.md.tpl"
75 fi
76
77 pandoc -f markdown "${file_name}.md" > "${file_name}.html.temp"
78 overwrite_if_not_equal "${file_name}.html" "${file_name}.html.temp"
79
80 declare -i LFBFL_popd_result
81 popd || {
82     LFBFL_popd_result=$?;
83     echo "build_md_from_printable_md no popd";
84     # shellcheck disable=SC2248,2250
85     exit $LFBFL_popd_result;
86 }

```

### 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:
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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,
9  # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
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13 # but WITHOUT ANY WARRANTY;
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15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
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 2023–2025 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 check_one_shell_script_beginning() {
28     declare -r LFBFL_file_name=$(basename "$1")
29     if [[ "${LFBFL_file_name}" =~ license_file_header_.*\.sh ]]; then
30         return 0
31     fi
32     # shellcheck disable=SC2312
33     diff <(head -n 1 "$1") <(echo '#!/usr/bin/env bash')
34 }
35
36
37 check_shell_scripts_beginnings() {
38     shopt -s globstar
39     local LFBFL_file_name
40     for LFBFL_file_name in **/*.sh; do
41         check_one_shell_script_beginning "${LFBFL_file_name}"
42     done
43 }

```

## 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:
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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,
9 # or (at your option) any later version.
10 #
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15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
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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 2023–2025 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 disable=SC1090
28 source "${LFBFL_subdir}/get_common_text_glob_patterns.lib.sh"
29
30 check_URLs() {
31     get_COMMON_TEXT_FILES_GLOB_PATTERNS
32
33     declare -A LFBFL_substitutions
34     LFBFL_substitutions=(\
35         ["http://www.gnu.org/licenses/"]="https://www.gnu.org/licenses/"\
36     )
37
38     local LFBFL_pattern
39     local LFBFL_file_name
40     local LFBFL_base_file_name
41     local LFBFL_substitution
42     # shellcheck disable=SC2154
43     for LFBFL_pattern in "${COMMON_TEXT_FILES_GLOB_PATTERNS[@]}"; do
44         [[ "$1" != "-v" ]] \
45             || echo "Iterating on pattern: ${LFBFL_pattern}"
46         # shellcheck disable=SC2312
47         find . -type f -name "${LFBFL_pattern}" -printf '%P\n' \
48             | xargs grep -H 'http:' \
49             | grep -v "^[^:]*check_URLs.lib.sh:"
50         for LFBFL_file_name in ${LFBFL_pattern}; do
51             [[ -f "${LFBFL_file_name}" ]] || continue
52             LFBFL_base_file_name=$(basename "${LFBFL_file_name}")
53             [[ "${LFBFL_base_file_name}" != "check_URLs.lib.sh" ]] \
54                 || continue
55             [[ "$1" != "-v" ]] \
56                 || echo "Handling the file: ${LFBFL_file_name}"
57             for LFBFL_substitution in "${!LFBFL_substitutions[@]}"; do
58                 LFBFL_substitution2=\
59                 ${LFBFL_substitutions[${LFBFL_substitution}]}
60                 if grep -q "${LFBFL_substitution}" "${LFBFL_file_name}"; then
61                     sed -i "s|${LFBFL_substitution}|${LFBFL_substitution2}|g" \
62                         "${LFBFL_file_name}"
63                 fi
64             done
65         done
66     done
67 }

```

## 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:
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8  # either version 3 of the License,
9  # or (at your option) any later version.
10 #
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 2023-2025 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 [[ "$3" == "--verbose" ]]; then
42         echo "$0 $*"
43         LFBFL_verbose="--verbose"
44     fi
45     readonly LFBFL_verbose
46
47     # shellcheck disable=SC1091
48     source ./wget_sha512.lib.sh

```

```

49
50 LFBFL_subdir="build_and_checks_dependencies"
51 local LFBFL_file_name
52 local LFBFL_URL
53 local LFBFL_file_path
54
55 LFBFL_file_name="build_md_from_printable_md.exec.sh"
56 # LFBFL_script_download_URL
57 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
58 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
59 local LFBFL_correct_sha512
60 LFBFL_correct_sha512='1f53caeb84d9ea0b597678118dbf028114c9a37fab952'
61 LFBFL_correct_sha512+='6d4a6d8e08f4dd5a05d8cc69b52cc405613a325c9bf9'
62 LFBFL_correct_sha512+='7e91ef5206efala151cc94ade7c3d708c7ed2ef'
63 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
64     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
65 chmod +x "${LFBFL_file_path}"
66
67 LFBFL_file_name="check_shell_scripts_beginnings.lib.sh"
68 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
69 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
70 local LFBFL_correct_sha512
71 LFBFL_correct_sha512='a17c932546262c82c168e7d4495dd4f2c2409b27c72c0'
72 LFBFL_correct_sha512+='99c8ea3bc5277aa11c64b61de0b93a5bdc9b660483d9'
73 LFBFL_correct_sha512+='4e61cb79935eb1f4ca04bf4ffe4b713f5e7eccc'
74 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
75     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
76
77 LFBFL_file_name="check_URLs.lib.sh"
78 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
79 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
80 local LFBFL_correct_sha512
81 LFBFL_correct_sha512='d8ace5d442e87196bec34a3196d419965e435a18fafb2'
82 LFBFL_correct_sha512+='9c6a3e334f3dfdca49de686e28447678418c930fe3fa'
83 LFBFL_correct_sha512+='b5de8334ef2874aa3785daaf52987836ad3a583'
84 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
85     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
86
87 LFBFL_file_name="comparisons.lib.sh"
88 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
89 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
90 local LFBFL_correct_sha512
91 LFBFL_correct_sha512='1dac26153e23dc9c4455d18a2b3dd76c8fb8278d3b24f'
92 LFBFL_correct_sha512+='86d1c2dfe513e06b16f398f11cc7e52efaafdf360808'
93 LFBFL_correct_sha512+='d9b36f4562621203e3da2ed57897a894272202a'
94 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \

```

```

95     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
96
97     LFBFL_file_name="create_PDF.exec.sh"
98     LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
99     LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
100     local LFBFL_correct_sha512
101     LFBFL_correct_sha512='bc1fc55ee455ed1d08c2bc49566dc3fadf6576b5b2857'
102     LFBFL_correct_sha512+='3c43ea223d7d12b8b6f7bc3eb174f04e3cc8e218051b'
103     LFBFL_correct_sha512+='113ea4c85dc043c319abc1e34940d74c0ca9b7c'
104     wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" "\
105         "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
106     chmod +x "${LFBFL_file_path}"
107
108     LFBFL_file_name="generate_from_template.lib.sh"
109     LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
110     LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
111     local LFBFL_correct_sha512
112     LFBFL_correct_sha512='ealcdb9e9ed3ba468e3398e52c44daca7b6a9c5c21d5b'
113     LFBFL_correct_sha512+='3cdf433183aec31286a52b2af5c177650b11d5590e23'
114     LFBFL_correct_sha512+='e498ce8e1c3fcad2738fbaec329c6204bc6314d'
115     wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" "\
116         "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
117
118     LFBFL_file_name="get_common_text_glob_patterns.lib.sh"
119     LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
120     LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
121     local LFBFL_correct_sha512
122     LFBFL_correct_sha512='eba2a6665977a84897075fbc3d227d14937cf9c7b2270'
123     LFBFL_correct_sha512+='339810caef1a120486979e538a9bc8a9f791564c13c2'
124     LFBFL_correct_sha512+='3e699f6fdb88e4bb29a5eab01bdebabedc3bc70'
125     wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" "\
126         "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
127
128     LFBFL_file_name="grammar_and_spell_check.lib.sh"
129     LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
130     LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
131     local LFBFL_correct_sha512
132     LFBFL_correct_sha512='33a477d25e46c49ad000473c1d05a822427d5e769b26e'
133     LFBFL_correct_sha512+='d9457ab182f2ad12d20d26d32a46d6016d7d41be0994'
134     LFBFL_correct_sha512+='c3ca2f2130f0e62b10763cbda60645ela49dd0c'
135     wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" "\
136         "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
137
138     # /licenses_templates/ -----
139     declare -r LFBFL_subdir2="${LFBFL_subdir}/licenses_templates"
140     declare -r LFBFL_start_URL2="${LFBFL_start_URL}/licenses_templates"

```

```

141 LFBFL_file_name="build_licenses_templates.exec.sh"
142 LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
143 LFBFL_file_path="./${LFBFL_subdir2}/${LFBFL_file_name}"
144 local LFBFL_correct_sha512
145 LFBFL_correct_sha512='acfc0dfd02e77d69e6e5b61c4c44cfa3ad76bd3657fa4'
146 LFBFL_correct_sha512+='875d19ec249e84db8bc5a8570621cbbf64aa2e9b44de'
147 LFBFL_correct_sha512+='932c28674cdf05372f8577c9345fa8ac5398f6c'
148 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
149     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
150 chmod +x "${LFBFL_file_path}"
151
152 LFBFL_file_name="license_file_header_AGPLv3+.tpl"
153 LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
154 LFBFL_file_path="./${LFBFL_subdir2}/${LFBFL_file_name}"
155 local LFBFL_correct_sha512
156 LFBFL_correct_sha512='9f9aa56d9b90d5003a12c5ec3370ac31aab74fc4a2524'
157 LFBFL_correct_sha512+='2c5fbc0197b0abbb8242f62dafc76eaf60faa5da173'
158 LFBFL_correct_sha512+='05924b31b64b037083532fced9f98445000e2d0'
159 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
160     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
161
162 LFBFL_file_name="license_file_header_GPLv3+.tpl"
163 LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
164 LFBFL_file_path="./${LFBFL_subdir2}/${LFBFL_file_name}"
165 local LFBFL_correct_sha512
166 LFBFL_correct_sha512='2bdef9a729a5a9ca5ed87ef8a518877c5ee6b31b45336'
167 LFBFL_correct_sha512+='08660316a4e595fb31465a4847f4d53a2f7264118bd4'
168 LFBFL_correct_sha512+='eab7c1d1892e00bc1861455ed02898f194db067'
169 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
170     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
171
172 LFBFL_file_name="license_file_header_LGPLv3+.tpl"
173 LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
174 LFBFL_file_path="./${LFBFL_subdir2}/${LFBFL_file_name}"
175 local LFBFL_correct_sha512
176 LFBFL_correct_sha512='265fd0d086b48ab798f35a072335a4976e4eda8c256fe'
177 LFBFL_correct_sha512+='bba6c77c98ca86cdd844c6ac150c3445c80debbb3fc2'
178 LFBFL_correct_sha512+='574b5fceeef79ec734a759bdef5fe798067c62'
179 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
180     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
181 # -----
182
183 LFBFL_file_name="lines_counts.lib.sh"
184 LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
185 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
186 local LFBFL_correct_sha512

```

```

187 LFBFL_correct_sha512='a4784ef043763467486ad53566dadf7b9906fcfacf361'
188 LFBFL_correct_sha512+='982e44320bbf21ed341cc5eaf5b2b64420b74c02aaae'
189 LFBFL_correct_sha512+='b2d0c5856f3843e99f2b020a70142febe56f490'
190 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
191     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
192
193 LFBFL_file_name="lines_filters.lib.sh"
194 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
195 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
196 local LFBFL_correct_sha512
197 LFBFL_correct_sha512='d8fb1bb8c5228341d215383a652326b3a3f0eee84c344'
198 LFBFL_correct_sha512+='63b55ddd3ebaf564f84f07a10db9c34f007654e23fee'
199 LFBFL_correct_sha512+='4748acc9c80feb1c215076d2b88ba4805bd290f'
200 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
201     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
202
203 LFBFL_file_name="lines_maps.lib.sh"
204 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
205 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
206 local LFBFL_correct_sha512
207 LFBFL_correct_sha512='10c650cddf78dd40bfde665989ae3561b2ae780bc1c8e'
208 LFBFL_correct_sha512+='841f5cdbe626cd1a61f01cea57757009c9b1ec3d2a7e'
209 LFBFL_correct_sha512+='ef57987dff725cff3e401e86b77a2f29324402d'
210 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
211     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
212
213 LFBFL_file_name="overwrite_if_not_equal.lib.sh"
214 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
215 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
216 local LFBFL_correct_sha512
217 LFBFL_correct_sha512='dd5da872dedbc21fb6acc385fd9ec9f8f6c7b30b1dc0c'
218 LFBFL_correct_sha512+='dd91901a9030939f262303deec044725c12da49b06e8'
219 LFBFL_correct_sha512+='f6b41ee7f8b4ce6a3cacf9f7800584598efd859'
220 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
221     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
222
223 LFBFL_file_name="python_black_complement.lib.sh"
224 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
225 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
226 local LFBFL_correct_sha512
227 LFBFL_correct_sha512='f23f9bbb20902c67f59d24ff46aef99490fa06b467d6c'
228 LFBFL_correct_sha512+='bb63de0b010129bf3994aeab307a1dbbcde5e41958e0'
229 LFBFL_correct_sha512+='d5872add51d9e09c56e81845db34b9c50350d46'
230 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
231     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
232

```



```

233 LFBFL_file_name="python_isort_complement.lib.sh"
234 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
235 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
236 local LFBFL_correct_sha512
237 LFBFL_correct_sha512='5c27e0496016554cf8783ae0772db2564e56b92a5ed8a'
238 LFBFL_correct_sha512+='9b7b73a518c6a931fb431ee12feff001d5c33b6b22a2'
239 LFBFL_correct_sha512+='1af5491dd207eef3d810494baed7afc83cbf6cb'
240 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
241     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
242
243 LFBFL_file_name="split_line_at_most.exec.php"
244 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
245 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
246 local LFBFL_correct_sha512
247 LFBFL_correct_sha512='ecfc21afd7e4ba08c339e62647e3dc2cd3b7e9826364e'
248 LFBFL_correct_sha512+='d3d4dd5ce86db4ae6cb60271ed4f262350aa9690e82c'
249 LFBFL_correct_sha512+='865785abf3c531e74d196391e361cd599117935'
250 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
251     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
252
253 LFBFL_file_name="split_line_at_most.lib.php"
254 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
255 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
256 local LFBFL_correct_sha512
257 LFBFL_correct_sha512='3f8a9c760adadda201ca70a3e9523da139d66e821a192'
258 LFBFL_correct_sha512+='d4205560850047a22d72528ddc48289755d742312e15'
259 LFBFL_correct_sha512+='2134031477a66a48cbc16a03568ca6bfeb8ac32'
260 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
261     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
262
263 LFBFL_file_name="strings_functions.lib.sh"
264 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
265 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
266 local LFBFL_correct_sha512
267 LFBFL_correct_sha512='75619c4313145eab21b43c86e6725fe3a799b7d4f79ed'
268 LFBFL_correct_sha512+='7c3c9115f1caf4160625ab4c232d909d504483d46832'
269 LFBFL_correct_sha512+='fa9dffbe88ff177768a386eaea0b9c588142662'
270 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
271     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
272
273 LFBFL_file_name="too_long_code_lines.lib.sh"
274 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
275 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
276 local LFBFL_correct_sha512
277 LFBFL_correct_sha512='b0d8c314167c4360580e971a0b5aa0bc682a29ad4ba88'
278 LFBFL_correct_sha512+='f72dc15247e4896fb75cead207364634680fa8756646'

```

```

279 LFBFL_correct_sha512+= 'c37c26a3ea9745a2412c98258cb2b57e7505240'
280 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
281     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
282
283 LFBFL_file_name="update_or_check_files_names_listing.exec.sh"
284 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
285 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
286 local LFBFL_correct_sha512
287 LFBFL_correct_sha512='da58ab2f0d0ff526c226212c1dce96f9280befebcb19a'
288 LFBFL_correct_sha512+= '217617f0df610f563c25dled5d8681f07cba9096461b'
289 LFBFL_correct_sha512+= '9a38c8a39f82e0259cfc21cef87a960f3c76c5d'
290 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
291     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
292 chmod +x "${LFBFL_file_path}"
293
294 shopt -s globstar
295 # shellcheck disable=SC1090
296 source "${LFBFL_subdir}/check_shell_scripts_beginnings.lib.sh"
297 # shellcheck disable=SC1090
298 source "${LFBFL_subdir}/check_URLs.lib.sh"
299 # shellcheck disable=SC1090
300 source "${LFBFL_subdir}/comparisons.lib.sh"
301 # shellcheck disable=SC1090
302 source "${LFBFL_subdir}/generate_from_template.lib.sh"
303 # shellcheck disable=SC1090
304 source "${LFBFL_subdir}/get_common_text_glob_patterns.lib.sh"
305 # shellcheck disable=SC1090
306 source "${LFBFL_subdir}/grammar_and_spell_check.lib.sh"
307 # shellcheck disable=SC1090
308 source "${LFBFL_subdir}/lines_counts.lib.sh"
309 # shellcheck disable=SC1090
310 source "${LFBFL_subdir}/lines_filters.lib.sh"
311 # shellcheck disable=SC1090
312 source "${LFBFL_subdir}/lines_maps.lib.sh"
313 # shellcheck disable=SC1090
314 source "${LFBFL_subdir}/overwrite_if_not_equal.lib.sh"
315 # shellcheck disable=SC1090
316 source "${LFBFL_subdir}/python_black_complement.lib.sh"
317 # shellcheck disable=SC1090
318 source "${LFBFL_subdir}/python_isort_complement.lib.sh"
319 # shellcheck disable=SC1090
320 source "${LFBFL_subdir}/strings_functions.lib.sh"
321 # shellcheck disable=SC1090
322 source "${LFBFL_subdir}/too_long_code_lines.lib.sh"
323
324 echo "Building license headers"

```

```

325 "./${LFBFL_subdir2}/build_licenses_templates.exec.sh"\
326 "${LFBFL_verbose}"
327
328 echo "Building README.md"
329 "./${LFBFL_subdir}/build_md_from_printable_md.exec.sh"\
330 "${LFBFL_working_directory}" "README" "${LFBFL_verbose}"
331
332 pushd .
333 # shellcheck disable=SC2164
334 cd "${LFBFL_working_directory}"
335
336 echo "Running shellcheck"
337 declare -i LFBFL_file_path_length
338 declare -i LFBFL_to_skip_number
339 local LFBFL_file_path_end
340 # shellcheck disable=SC2312
341 find . -name "*.sh" | relevant_find | while read -r LFBFL_file_path;
342 do
343     LFBFL_file_path_length=${#LFBFL_file_path}
344     LFBFL_to_skip_number=$((LFBFL_file_path_length - 9))
345     LFBFL_file_path_end="${LFBFL_file_path:${LFBFL_to_skip_number}}"
346     if [[ "${LFBFL_file_path_end}" == "GPLv3+.sh" ]]; then
347         continue
348     fi
349     shellcheck --check-sourced --enable=all --external-sources\
350         "${LFBFL_file_path}"
351 done
352
353 echo "Running isort"
354 isort .
355 python_isort_complement
356
357 echo "Running black"
358 black .
359 python_black_complement
360
361 local LFBFL_directory_path
362 # shellcheck disable=SC2312
363 find . -name "pyproject.toml" | relevant_find\
364 | while read -r LFBFL_file_path;
365 do
366     if grep -q "Typing :: Typed" "${LFBFL_file_path}"; then
367         echo "Running mypy"
368         LFBFL_directory_path=$(dirname "${LFBFL_file_path}")
369         mypy "${LFBFL_directory_path}"
370     fi

```

```

371 done
372
373 echo "Analyzing too long lines"
374 # shellcheck disable=SC2312
375 too_long_code_lines | relevant_grep | not_license_grep
376
377 echo "Analyzing shell scripts beginnings"
378 # shellcheck disable=SC2312
379 check_shell_scripts_beginnings | relevant_grep
380
381 echo "Analyzing URLs"
382 # shellcheck disable=SC2312
383 check_URLs | relevant_grep
384
385 echo "Analyzing strange characters: hover over in doubt"
386 # shellcheck disable=SC1111
387 LFBFL_usual_characters="\x00-\x7Fàâéèëëîïôç@'\"`|_|«»"
388 # shellcheck disable=SC2312
389 grep --exclude-dir .git --color=always\
390     -nPr "[^${LFBFL_usual_characters}]" .
391
392 echo "Checking listed files"
393 "./${LFBFL_subdir}/update_or_check_files_names_listing.exec.sh"
394
395 echo "Creating the PDF file of the listing of the source code"
396 "./${LFBFL_subdir}/create_PDF.exec.sh" "${LFBFL_verbose}"
397
398 # shellcheck disable=SC2164
399 popd
400 }
401
402 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 2023-2025 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 [[ "$3" == "--verbose" ]]; then
42         echo "$0 $*"
43         LFBFL_verbose="--verbose"
44     fi
45     readonly LFBFL_verbose
46
47     # shellcheck disable=SC1091
48     source ./wget_sha512.lib.sh
49
50     LFBFL_subdir="build_and_checks_dependencies"
51     local LFBFL_file_name
52     local LFBFL_URL
53     local LFBFL_file_path
54
55     LFBFL_file_name="build_md_from_printable_md.exec.sh"
56     # LFBFL_script_download_URL
57     LFBFL_URL="{LFBFL_start_URL}/{LFBFL_file_name}"

```

```

58 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
59 @sha512_build_md_from_printable_md.exec.sh@
60 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
61     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
62 chmod +x "${LFBFL_file_path}"
63
64 LFBFL_file_name="check_shell_scripts_beginnings.lib.sh"
65 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
66 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
67 @sha512_check_shell_scripts_beginnings.lib.sh@
68 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
69     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
70
71 LFBFL_file_name="check_URLs.lib.sh"
72 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
73 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
74 @sha512_check_URLs.lib.sh@
75 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
76     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
77
78 LFBFL_file_name="comparisons.lib.sh"
79 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
80 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
81 @sha512_comparisons.lib.sh@
82 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
83     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
84
85 LFBFL_file_name="create_PDF.exec.sh"
86 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
87 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
88 @sha512_create_PDF.exec.sh@
89 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
90     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
91 chmod +x "${LFBFL_file_path}"
92
93 LFBFL_file_name="generate_from_template.lib.sh"
94 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
95 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
96 @sha512_generate_from_template.lib.sh@
97 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
98     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
99
100 LFBFL_file_name="get_common_text_glob_patterns.lib.sh"
101 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
102 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
103 @sha512_get_common_text_glob_patterns.lib.sh@

```

```

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

```

```

150 @sha512_lines_counts.lib.sh@
151 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
152     "${LFBFL_correct_sha512}" "${LFBFL_verbosity}"
153
154 LFBFL_file_name="lines_filters.lib.sh"
155 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
156 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
157 @sha512_lines_filters.lib.sh@
158 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
159     "${LFBFL_correct_sha512}" "${LFBFL_verbosity}"
160
161 LFBFL_file_name="lines_maps.lib.sh"
162 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
163 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
164 @sha512_lines_maps.lib.sh@
165 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
166     "${LFBFL_correct_sha512}" "${LFBFL_verbosity}"
167
168 LFBFL_file_name="overwrite_if_not_equal.lib.sh"
169 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
170 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
171 @sha512_overwrite_if_not_equal.lib.sh@
172 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
173     "${LFBFL_correct_sha512}" "${LFBFL_verbosity}"
174
175 LFBFL_file_name="python_black_complement.lib.sh"
176 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
177 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
178 @sha512_python_black_complement.lib.sh@
179 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
180     "${LFBFL_correct_sha512}" "${LFBFL_verbosity}"
181
182 LFBFL_file_name="python_isort_complement.lib.sh"
183 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
184 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
185 @sha512_python_isort_complement.lib.sh@
186 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
187     "${LFBFL_correct_sha512}" "${LFBFL_verbosity}"
188
189 LFBFL_file_name="split_line_at_most.exec.php"
190 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
191 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
192 @sha512_split_line_at_most.exec.php@
193 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
194     "${LFBFL_correct_sha512}" "${LFBFL_verbosity}"
195

```



```

196 LFBFL_file_name="split_line_at_most.lib.php"
197 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
198 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
199 @sha512_split_line_at_most.lib.php@
200 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
201     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
202
203 LFBFL_file_name="strings_functions.lib.sh"
204 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
205 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
206 @sha512_strings_functions.lib.sh@
207 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
208     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
209
210 LFBFL_file_name="too_long_code_lines.lib.sh"
211 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
212 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
213 @sha512_too_long_code_lines.lib.sh@
214 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
215     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
216
217 LFBFL_file_name="update_or_check_files_names_listing.exec.sh"
218 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
219 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
220 @sha512_update_or_check_files_names_listing.exec.sh@
221 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
222     "${LFBFL_correct_sha512}" "${LFBFL_verbos}"
223 chmod +x "${LFBFL_file_path}"
224
225 shopt -s globstar
226 # shellcheck disable=SC1090
227 source "${LFBFL_subdir}/check_shell_scripts_beginnings.lib.sh"
228 # shellcheck disable=SC1090
229 source "${LFBFL_subdir}/check_URLs.lib.sh"
230 # shellcheck disable=SC1090
231 source "${LFBFL_subdir}/comparisons.lib.sh"
232 # shellcheck disable=SC1090
233 source "${LFBFL_subdir}/generate_from_template.lib.sh"
234 # shellcheck disable=SC1090
235 source "${LFBFL_subdir}/get_common_text_glob_patterns.lib.sh"
236 # shellcheck disable=SC1090
237 source "${LFBFL_subdir}/grammar_and_spell_check.lib.sh"
238 # shellcheck disable=SC1090
239 source "${LFBFL_subdir}/lines_counts.lib.sh"
240 # shellcheck disable=SC1090
241 source "${LFBFL_subdir}/lines_filters.lib.sh"

```

```

242 # shellcheck disable=SC1090
243 source "${LFBFL_subdir}/lines_maps.lib.sh"
244 # shellcheck disable=SC1090
245 source "${LFBFL_subdir}/overwrite_if_not_equal.lib.sh"
246 # shellcheck disable=SC1090
247 source "${LFBFL_subdir}/python_black_complement.lib.sh"
248 # shellcheck disable=SC1090
249 source "${LFBFL_subdir}/python_isort_complement.lib.sh"
250 # shellcheck disable=SC1090
251 source "${LFBFL_subdir}/strings_functions.lib.sh"
252 # shellcheck disable=SC1090
253 source "${LFBFL_subdir}/too_long_code_lines.lib.sh"
254
255 echo "Building license headers"
256 "${LFBFL_subdir2}/build_licenses_templates.exec.sh"\
257     "${LFBFL_verbose}"
258
259 echo "Building README.md"
260 "${LFBFL_subdir}/build_md_from_printable_md.exec.sh"\
261     "${LFBFL_working_directory}" "README" "${LFBFL_verbose}"
262
263 pushd .
264 # shellcheck disable=SC2164
265 cd "${LFBFL_working_directory}"
266
267 echo "Running shellcheck"
268 declare -i LFBFL_file_path_length
269 declare -i LFBFL_to_skip_number
270 local LFBFL_file_path_end
271 # shellcheck disable=SC2312
272 find . -name "*.sh" | relevant_find | while read -r LFBFL_file_path;
273 do
274     LFBFL_file_path_length=${#LFBFL_file_path}
275     LFBFL_to_skip_number=$((LFBFL_file_path_length - 9))
276     LFBFL_file_path_end="${LFBFL_file_path:${LFBFL_to_skip_number}}"
277     if [[ "${LFBFL_file_path_end}" == "GPLv3+.sh" ]]; then
278         continue
279     fi
280     shellcheck --check-sourced --enable=all --external-sources\
281         "${LFBFL_file_path}"
282 done
283
284 echo "Running isort"
285 isort .
286 python_isort_complement
287

```

```

288 echo "Running black"
289 black .
290 python_black_complement
291
292 local LFBFL_directory_path
293 # shellcheck disable=SC2312
294 find . -name "pyproject.toml" | relevant_find\
295 | while read -r LFBFL_file_path;
296 do
297     if grep -q "Typing :: Typed" "${LFBFL_file_path}"; then
298         echo "Running mypy"
299         LFBFL_directory_path=$(dirname "${LFBFL_file_path}")
300         mypy "${LFBFL_directory_path}"
301     fi
302 done
303
304 echo "Analyzing too long lines"
305 # shellcheck disable=SC2312
306 too_long_code_lines | relevant_grep | not_license_grep
307
308 echo "Analyzing shell scripts beginnings"
309 # shellcheck disable=SC2312
310 check_shell_scripts_beginnings | relevant_grep
311
312 echo "Analyzing URLs"
313 # shellcheck disable=SC2312
314 check_URLs | relevant_grep
315
316 echo "Analyzing strange characters: hover over in doubt"
317 # shellcheck disable=SC1111
318 LFBFL_usual_characters="\x00-\x7Fàâéèëëîïôç@\"'`|_|«»"
319 # shellcheck disable=SC2312
320 grep --exclude-dir .git --color=always\
321 -nPr "[^${LFBFL_usual_characters}]" .
322
323 echo "Checking listed files"
324 "./${LFBFL_subdir}/update_or_check_files_names_listing.exec.sh"
325
326 echo "Creating the PDF file of the listing of the source code"
327 "./${LFBFL_subdir}/create_PDF.exec.sh" "${LFBFL_verbose}"
328
329 # shellcheck disable=SC2164
330 popd
331 }
332
333 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 2023-2025 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 $? si toutes les chaînes en arguments sont égales.
29     # J'ai rerepensé au 3-way-merge
30     # et à mon article sur le principe de première différence
31     # appliqué à la largeur modulaire, de clique ou de rang avec
32     # l'idée d'un principe de première différence ternaire.
33     declare -r LFBFL_all_args="'$*'"
34     local LFBFL_current="${LFBFL_all_args}"
35     local LFBFL_arg
36     for LFBFL_arg in "$@"; do
37         if [[ "${LFBFL_current}" == "${LFBFL_all_args}" ]]; then
38             LFBFL_current="${LFBFL_arg}"
39             continue
40         fi
41         if [[ "${LFBFL_current}" != "${LFBFL_arg}" ]]; then
42             return 0
43         fi
44     done
```

```

45     return 1
46 }
47
48 max() {
49     # Returns the maximum string among the arguments.
50     # Renvoie la chaîne la plus grande parmi celles proposées.
51     # $1=$sort command with the flags you want to be applied.
52     # $ max sort a b c
53     # c
54     if [[ "$#" == 0 ]]; then
55         return 1
56     fi
57     # shellcheck disable=SC2312
58     printf "%s\n" "${@:2}" | eval "$1 -r" | head -1
59 }
60
61 min() {
62     # Returns the minimum string among the arguments.
63     # Renvoie la chaîne la plus petite parmi celles proposées.
64     # $1=$sort command with the flags you want to be applied.
65     # $ min sort a b c
66     # a
67     if [[ "$#" == 0 ]]; then
68         return 1
69     fi
70     # shellcheck disable=SC2312
71     printf "%s\n" "${@:2}" | eval "$1" | head -1
72 }
73
74 is_substring() {
75     # $1=$string
76     # $2=$substring
77     declare -r LFBFL_var_1=$(
78         echo "$1" | sed -e 's/\\/\\&/g' -e "s/'/\\\\&/g"
79     )
80     declare -r LFBFL_var_2=$(
81         echo "$2" | sed -e 's/\\/\\&/g' -e "s/'/\\\\&/g"
82     )
83     local LFBFL_var_3="\$a = '${LFBFL_var_1}';"
84     LFBFL_var_3+=" \$b = preg_quote('${LFBFL_var_2}');"
85     LFBFL_var_3+=" \$c = '/'.addslashes(\$b, '/') .'/';"
86     LFBFL_var_3+=" die(preg_match(\$c, \$a));"
87     readonly LFBFL_var_3
88     php -r "${LFBFL_var_3}"
89 }
90

```

```

91 is_subfile() {
92     # $1=$file_name
93     # $2=$sub_file_name
94     local LFBFL_var_1="\$a = file_get_contents('$1');"
95     LFBFL_var_1+=" \$b = preg_quote(file_get_contents('$2')));"
96     LFBFL_var_1+=" \$c = '/' .addslashes(\$b, '/') .'/';"
97     LFBFL_var_1+=" die(preg_match(\$c, \$a));"
98     readonly LFBFL_var_1
99     php -r "${LFBFL_var_1}"
100 }
101
102 alias min_from_int_sort="min 'sort --numeric-sort'"
103 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 2023–2025 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "create_PDF.sh" to "create_PDF.exec.sh".
25
26 LFBFL_verbose=""
27 if [[ "$1" == "--verbose" ]]; then
28     echo "$0 $*"
29     LFBFL_verbose="--verbose"
30 fi

```

```

31
32 LFBFL_subdir="build_and_checks_dependencies"
33 # shellcheck disable=SC1090
34 source "${LFBFL_subdir}/generate_from_template.lib.sh"
35 # shellcheck disable=SC1090
36 source "${LFBFL_subdir}/lines_counts.lib.sh"
37 # shellcheck disable=SC1090
38 source "${LFBFL_subdir}/lines_filters.lib.sh"
39 # shellcheck disable=SC1090
40 source "${LFBFL_subdir}/lines_maps.lib.sh"
41 # shellcheck disable=SC1090
42 source "${LFBFL_subdir}/overwrite_if_not_equal.lib.sh"
43 # shellcheck disable=SC1090
44 source "${LFBFL_subdir}/strings_functions.lib.sh"
45 LFBFL_subdir2="build_and_checks_variables"
46
47 LFBFL_data_file_name="build_and_checks_variables/repository_data.txt"
48 repository_name=""
49 grep_variable "${LFBFL_data_file_name}" repository_name
50
51 abstract=""
52 grep_variable "${LFBFL_data_file_name}" abstract
53
54 acknowledgments=""
55 grep_variable "${LFBFL_data_file_name}" acknowledgments
56
57 author_email=""
58 grep_variable "${LFBFL_data_file_name}" author_email
59
60 author_full_name=""
61 grep_variable "${LFBFL_data_file_name}" author_full_name
62
63 author_website=""
64 grep_variable "${LFBFL_data_file_name}" author_website
65
66 # shellcheck disable=SC2155
67 declare -r LFBFL_current_date=$(date -I"date")
68
69 # shellcheck disable=SC2155
70 declare -r LFBFL_current_git_SHA1=$(git rev-parse HEAD)
71
72 # shellcheck disable=SC2155
73 declare -r LFBFL_number_of_commits=$(
74     git shortlog | space_starting_lines | wc -l
75 )
76

```

```

77 LFBFL_number_of_lines="$(code_lines_count_all) total lines,"
78 LFBFL_number_of_lines+=" $(code_lines_count_not_empty) "
79 LFBFL_number_of_lines+=" not empty lines,"
80 LFBFL_number_of_lines+=" $(code_lines_count_empty) empty lines."
81
82 # shellcheck disable=SC2094,SC2312
83 tree -a --gitignore\
84     -I "node_modules/"\
85     -I "__pycache__/"\
86     -I ".mypy_cache/"\
87     -I ".git/"\
88     | replace_non_ascii_spaces\
89     > "${LFBFL_subdir2}/temp/current_tree_light.txt"
90
91 # shellcheck disable=SC2094,SC2312
92 tree -a -DFh --gitignore\
93     -I "node_modules/"\
94     -I "__pycache__/"\
95     -I ".mypy_cache/"\
96     -I ".git/"\
97     | replace_non_ascii_spaces\
98     > "${LFBFL_subdir2}/temp/current_tree.txt"
99
100 LFBFL_temp_files_listing="./${LFBFL_subdir2}/temp/"
101 LFBFL_temp_files_listing+="files_listing.tex.tpl.temp"
102 : > "${LFBFL_temp_files_listing}"
103 get_split_score_after_before_simple 70 /
104 # split_score_command="$LFBFL_generic_result"
105 # shellcheck disable=SC2154
106 LFBFL_score_command="$(get_split_score_after_before_result)"
107 # shellcheck disable=SC2154
108 LFBFL_score_command_properties=\
109 "${get_split_score_after_before_result2}"
110 get_split_score_after_before_simple 70 ':'
111 # split_score_command2="$LFBFL_generic_result"
112 # shellcheck disable=SC2154
113 LFBFL_score_command2="$(get_split_score_after_before_result)"
114 LFBFL_score_command_properties2=\
115 "${get_split_score_after_before_result2}"
116 LFBFL_suffix='% '
117 LFBFL_sed_expression='s/\\\\n//Mg'
118 # shellcheck disable=SC2312
119 sed -Ez "${LFBFL_sed_expression}"\
120     "./${LFBFL_subdir2}/files_names_listing.txt"\
121     | sed -Ez "${LFBFL_sed_expression}"\
122     | sed -Ez "${LFBFL_sed_expression}"\

```



```

123 | sed -Ez "${LFBFL_sed_expression}"\
124 | grep -v '^//'\
125 | while read -r LFBFL_file_name;
126 do
127     echo "Listing file for tex : ${LFBFL_file_name}"
128     # LFBFL_base_file_name=$(basename "${LFBFL_file_name}")
129     LFBFL_cleaned_path1="${LFBFL_file_name//_/\_}"
130     LFBFL_cleaned_path2=$(
131         sed -e 's/\//:/g' -e 's/\././g' <(echo "${LFBFL_file_name}")
132     )
133     echo "\subsection{" >> "${LFBFL_temp_files_listing}"
134     LFBFL_new_lines=" ${LFBFL_cleaned_path1}"
135     if [[ ${#LFBFL_new_lines} -gt 70 ]]; then
136         repeated_split_last_line "${LFBFL_new_lines}" "" 70\
137             "${LFBFL_suffix}" "${LFBFL_score_command}"\
138             "${LFBFL_score_command_properties}" "\\\"
139         # shellcheck disable=SC2154
140         LFBFL_new_lines=${repeated_split_last_line_result}
141     fi
142     # shellcheck disable=SC2129,SC2312
143     echo " ${LFBFL_file_name}"\
144         | sed -e "s| ${LFBFL_file_name}|${LFBFL_new_lines}|g"\
145             -e 's/_/\_/g'\
146         >> "${LFBFL_temp_files_listing}"
147     echo "}" >> "${LFBFL_temp_files_listing}"
148     echo "\label{" >> "${LFBFL_temp_files_listing}"
149     LFBFL_new_lines=" ${LFBFL_cleaned_path2}"
150     if [[ ${#LFBFL_new_lines} -gt 70 ]]; then
151         repeated_split_last_line "${LFBFL_new_lines}" "" 70\
152             "${LFBFL_suffix}" "${LFBFL_score_command2}"\
153             "${LFBFL_score_command_properties2}"
154         # shellcheck disable=SC2154
155         LFBFL_new_lines=${repeated_split_last_line_result}
156     fi
157     # shellcheck disable=SC2129,SC2312
158     echo " ${LFBFL_cleaned_path2}"\
159         | sed -e "s| ${LFBFL_cleaned_path2}|${LFBFL_new_lines}|g"\
160         >> "${LFBFL_temp_files_listing}"
161     echo "}" >> "${LFBFL_temp_files_listing}"
162     echo "" >> "${LFBFL_temp_files_listing}"
163     echo "\VerbatimInput[numbers=left,xleftmargin=-5mm]{\"\
164         >> "${LFBFL_temp_files_listing}"
165     LFBFL_new_lines="${LFBFL_file_name}"
166     if [[ ${#LFBFL_new_lines} -gt 70 ]]; then
167         repeated_split_last_line "${LFBFL_new_lines}" "" 70\
168             "${LFBFL_suffix}" "${LFBFL_score_command}"\

```

```

169     "${LFBFL_score_command_properties}"
170     # shellcheck disable=SC2154
171     LFBFL_new_lines=${repeated_split_last_line_result}
172 fi
173 # shellcheck disable=SC2129,SC2312
174 echo " ${LFBFL_file_name}"\
175     | sed -e "s| ${LFBFL_file_name}|${LFBFL_new_lines}|g"\
176     >> "${LFBFL_temp_files_listing}"
177 echo "}" >> "${LFBFL_temp_files_listing}"
178 echo "" >> "${LFBFL_temp_files_listing}"
179 echo "" >> "${LFBFL_temp_files_listing}"
180 done
181 overwrite_if_not_equal "./${LFBFL_subdir2}/files_listing.tex.tpl"\
182     "${LFBFL_temp_files_listing}"
183
184 # We verify if some lines are beyond 70 characters
185 # in current_tree_light.txt and current_tree.txt.
186 LFBFL_trees=("current_tree_light.txt" "current_tree.txt")
187 declare LFBFL_tree_path
188 for LFBFL_tree in "${LFBFL_trees[@]}"; do
189     LFBFL_tree_path="${LFBFL_subdir2}/temp/${LFBFL_tree}"
190     # shellcheck disable=SC2312
191     grep '\.{71}\{' "${LFBFL_tree_path}" | while read -r LFBFL_line; do
192         # echo "LFBFL_line: ${LFBFL_line}"
193         # shellcheck disable=SC2312
194         LFBFL_prefix=$(
195             echo "${LFBFL_line}"\
196                 | sed -E -e 's/(.*)-[^-]+$/\1/g' -e 's/[^ ]+$/\1/g'\
197         )
198         LFBFL_prefix+="|"
199         # echo "LFBFL_prefix: ${LFBFL_prefix}"
200         # shellcheck disable=SC2312
201         LFBFL_file_name=$(
202             echo "${LFBFL_line}"\
203                 | sed -E 's|.* (([a-zA-Z0-9\._/-]+).)$|\1|g'\
204         )
205         # echo "LFBFL_file_name: ${LFBFL_file_name}"
206         # shellcheck disable=SC2312
207         LFBFL_line_start=$(
208             echo "${LFBFL_line}"\
209                 | sed -E "s/(.*)[ ]*${LFBFL_file_name}/\1/g"\
210                 | sed -e 's/ *$//g'\
211         )
212         # echo "LFBFL_line_start: ${LFBFL_line_start}"
213         LFBFL_line=$(
214             echo "${LFBFL_line}"\

```

```

215         | sed -E -e 's/\[/\\[/g' -e 's/\]/\\]/g' \
216     )
217     LFBFL_new_lines="${LFBFL_prefix}${LFBFL_file_name}"
218     if [[ ${#LFBFL_new_lines} -gt 70 ]]; then
219         repeated_split_last_line "${LFBFL_new_lines}" "${LFBFL_prefix}" \
220             70 "" "" 3
221         # shellcheck disable=SC2154
222         LFBFL_new_lines=${repeated_split_last_line_result}
223     fi
224     sed -i -e \
225         "s/${LFBFL_line}/${LFBFL_line_start}\n${LFBFL_new_lines}/g" \
226         "${LFBFL_tree_path}"
227 done
228 done
229
230 if [[ -f "${LFBFL_subdir2}/${repository_name}.tex.tpl" ]];
231 then
232     # We overwrite current tex file only if it can be generated from
233     # template.
234     cp "${LFBFL_subdir2}/${repository_name}.tex.tpl" \
235         "${LFBFL_subdir2}/${repository_name}.tex"
236 fi
237
238 # But the filling still occurs, in case the dev want to refill
239 # part of the tex file that he modified with @token@
240 # using some computed results.
241 sed -i "s|@repository_name@|${repository_name}|g" \
242     "${LFBFL_subdir2}/${repository_name}.tex"
243
244 # shellcheck disable=SC2001,SC2312
245 echo "${abstract}" | sed -e 's/\n/\n/g' \
246     > "${LFBFL_subdir2}/temp/abstract_temp"
247 insert_file_at_token "${LFBFL_subdir2}/${repository_name}.tex" \
248     @abstract@ "${LFBFL_subdir2}/temp/abstract_temp"
249
250 # shellcheck disable=SC2001,SC2312
251 echo "${acknowledgments}" | sed -e 's/\n/\n/g' \
252     > "${LFBFL_subdir2}/temp/acknowledgments_temp"
253 insert_file_at_token "${LFBFL_subdir2}/${repository_name}.tex" \
254     @acknowledgments@ "${LFBFL_subdir2}/temp/acknowledgments_temp"
255
256 sed -i "s|@author_email@|${author_email}|g" \
257     "${LFBFL_subdir2}/${repository_name}.tex"
258
259 sed -i "s|@author_full_name@|${author_full_name}|g" \
260     "${LFBFL_subdir2}/${repository_name}.tex"

```

```

261
262 sed -i "s|@author_website@|${author_website}|g"\
263     "./${LFBFL_subdir2}/${repository_name}.tex"
264
265 sed -i "s|@current_date@|${LFBFL_current_date}|g"\
266     "./${LFBFL_subdir2}/${repository_name}.tex"
267
268 sed -i "s|@current_git_SHA1@|${LFBFL_current_git_SHA1}|g"\
269     "./${LFBFL_subdir2}/${repository_name}.tex"
270
271 sed -i "s|@number_of_commits@|${LFBFL_number_of_commits}|g"\
272     "./${LFBFL_subdir2}/${repository_name}.tex"
273
274 sed -i "s|@number_of_lines@|${LFBFL_number_of_lines}|g"\
275     "./${LFBFL_subdir2}/${repository_name}.tex"
276
277 pushd "./${LFBFL_subdir2}/temp/" || (echo "pushd failed" && exit)
278 sed -i -e '/@current_tree_light@/{r current_tree_light.txt' -e 'd}'\
279     "./${repository_name}.tex"
280 sed -i -e '/@current_tree@/{r current_tree.txt' -e 'd}'\
281     "./${repository_name}.tex"
282 popd || (echo "popd failed" && exit)
283
284 insert_file_at_token "./${LFBFL_subdir2}/${repository_name}.tex"\
285     @files_listing_VerbatimInput@ \
286     "./${LFBFL_subdir2}/files_listing.tex.tpl"
287
288 if [[ -n "${LFBFL_verbose}" ]]; then
289     for ((i=0; i<3; i++)); do
290         pdflatex "./${LFBFL_subdir2}/${repository_name}.tex"
291     done
292 else
293     for ((i=0; i<3; i++)); do
294         pdflatex "./${LFBFL_subdir2}/${repository_name}.tex" > /dev/null
295     done
296 fi
297
298 LFBFL_files_to_temp=(\
299     "${repository_name}.aux"\
300     "${repository_name}.log"\
301     "${repository_name}.out"
302 )
303 for LFBFL_file_name in "${LFBFL_files_to_temp[@]"; do
304     mv "${LFBFL_file_name}" "${LFBFL_subdir2}/temp/"
305 done

```

## 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 2023-2025 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 disable=SC1090
29 source "${LFBFL_subdir}/lines_filters.lib.sh"
30
31 generate_from_template_with_block_comments() {
32     # $1=base_file_name
33     # $2=target_file_name
34     # $3=enter_block_comment
35     # $4=exit_block_comment
36     local LFBFL_temp
37     LFBFL_temp="$2.generate_from_template_with_block_comments.temp"
38     readonly LFBFL_temp
39     echo "$3" > "${LFBFL_temp}"
40     cat "$1" >> "${LFBFL_temp}"
41     echo "$4" >> "${LFBFL_temp}"
42     overwrite_if_not_equal "$2" "${LFBFL_temp}"
43 }
44
```

```

45 generate_from_template_with_line_comments() {
46     # $1=base_file_name
47     # $2=target_file_name
48     # $3=line_comment_prefix
49     # $4=optional_post_processing
50     local LFBFL_temp
51     LFBFL_temp="$2.generate_from_template_with_line_comments.temp"
52     readonly LFBFL_temp
53     sed -e "s/^/$3/g" "$1" > "${LFBFL_temp}"
54     if [[ -n "$4" ]]; then
55         eval "$4"
56     fi
57     overwrite_if_not_equal "$2" "${LFBFL_temp}"
58 }
59
60 split_file_in_two() {
61     # $1=$file_name
62     # $2=$token assume that token is the only thing on his line.
63     # $3=$file_name_part1
64     # $4=$file_name_part2
65     declare -ir LFBFL_line_number=$(
66         grep -n "$2" "$1" | head --lines=1 | cut -f 1 -d ':'
67     )
68     declare -ir LFBFL_line_count=$((ll_wc -l -n "$1")
69     declare -ir LFBFL_lines_after=$((
70         LFBFL_line_count - LFBFL_line_number
71     ))
72     head --lines="$((LFBFL_line_number - 1))" "$1" > "$3"
73     tail --lines="${LFBFL_lines_after}" "$1" > "$4"
74 }
75
76 insert_file_at_token() {
77     # $1=$file_name
78     # $2=$token assume that token is the only thing on his line.
79     # $3=$file_name_to_insert
80     declare -r LFBFL_start_file_name="$1.insert_file_at_token1.temp"
81     declare -r LFBFL_end_file_name="$1.insert_file_at_token2.temp"
82     declare -r LFBFL_result_file_name="$1.insert_file_at_token3.temp"
83     split_file_in_two "$1" "$2" "${LFBFL_start_file_name}" \
84         "${LFBFL_end_file_name}"
85     cat "${LFBFL_start_file_name}" "$3" "${LFBFL_end_file_name}" \
86         > "${LFBFL_result_file_name}"
87     overwrite_if_not_equal "$1" "${LFBFL_result_file_name}"
88     rm "${LFBFL_start_file_name}" "${LFBFL_end_file_name}"
89 }

```

## 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  #
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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 2023-2025 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     # shellcheck disable=SC2034
29     declare -gr COMMON_TEXT_PATHS_GLOB_PATTERNS=(\
30         '**/*.c'\
31         '**/*.css'\
32         '**/*.h'\
33         '**/*.htm'\
34         '**/*.html'\
35         '**/*.js'\
36         '**/*.json'\
37         '**/*.md'\
38         '**/*.php'\
39         '**/*.py'\
40         '**/*.sh'\
41         '**/*.sql'\
42         '**/*.tex'\
43         '**/*.toml'\
44         '**/*.tpl'\
```

```

45     '**/*.ts'\
46     '**/*.txt'\
47     '**/*.yaml'\
48     '**/COPYING'\
49     '**/COPYING.LESSER'\
50     '**/pre-commit'\
51     '**/post-commit'\
52     '**/.gitignore'\
53     '**/py.typed'\
54 )
55 }
56
57
58 get_COMMON_TEXT_FILES_GLOB_PATTERNS() {
59     # shellcheck disable=SC2034
60     declare -gr COMMON_TEXT_FILES_GLOB_PATTERNS=(\
61         '*.c'\
62         '*.css'\
63         '*.h'\
64         '*.htm'\
65         '*.html'\
66         '*.js'\
67         '*.json'\
68         '*.md'\
69         '*.php'\
70         '*.py'\
71         '*.sh'\
72         '*.sql'\
73         '*.tex'\
74         '*.toml'\
75         '*.tpl'\
76         '*.ts'\
77         '*.txt'\
78         '*.yaml'\
79         'COPYING'\
80         'COPYING.LESSER'\
81         'pre-commit'\
82         'post-commit'\
83         '.gitignore'\
84         'py.typed'\
85     )
86 }

```



## 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.
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11 # DevOrSysAdminScripts is distributed in the hope
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15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
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20 # along with DevOrSysAdminScripts.
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22 #
23 # ©Copyright 2023-2025 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 disable=SC1090
29 source "${LFBFL_subdir}/get_common_text_glob_patterns.lib.sh"
30 # shellcheck disable=SC1090
31 source "${LFBFL_subdir}/lines_filters.lib.sh"
32
33 grammar_and_spell_check() {
34     get_COMMON_TEXT_FILES_GLOB_PATTERNS
35     grammar_or_spell_checker_command=""
36     grep_variable "$1" grammar_or_spell_checker_command
37     # shellcheck disable=SC2312
38     declare -r LFBFL_command=$( \
39         echo "${grammar_or_spell_checker_command}" \
40         | sed -Ez -e "s/\n//Mg" \
41     )
42     local LFBFL_file_path
43     local LFBFL_pattern
44     local LFBFL_eval_string
```

```

45 # shellcheck disable=SC2154
46 for LFBFL_pattern in "${COMMON_TEXT_FILES_GLOB_PATTERNS[@]}; do
47     [[ "$2" != "-v" ]]\
48     || echo "Iterating on pattern: ${LFBFL_pattern}"
49     # shellcheck disable=SC2312
50     find . -type f -name "${LFBFL_pattern}" -printf '%P\n'\
51     | while read -r LFBFL_file_path;
52     do
53         LFBFL_eval_string="${LFBFL_command} ${LFBFL_file_path}"
54         eval "${LFBFL_eval_string}"
55     done
56 done
57 }

```

## 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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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 2023–2025 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_verbose=""
28 if [[ "$1" == "--verbose" ]]; then
29     echo "$0 $*"
30     # shellcheck disable=SC2034

```

```

31     LFBFL_verbose="--verbose"
32 fi
33
34 LFBFL_subdir="build_and_checks_dependencies"
35 # shellcheck disable=SC1090
36 source "${LFBFL_subdir}/comparisons.lib.sh"
37 # shellcheck disable=SC1090
38 source "${LFBFL_subdir}/generate_from_template.lib.sh"
39 # shellcheck disable=SC1090
40 source "${LFBFL_subdir}/lines_filters.lib.sh"
41 # shellcheck disable=SC1090
42 source "${LFBFL_subdir}/overwrite_if_not_equal.lib.sh"
43
44 LFBFL_license_subdir="${LFBFL_subdir}/licenses_templates/"
45 LFBFL_license_prefix="${LFBFL_license_subdir}license_file_header_"
46 licenses=(\
47     "AGPLv3+" \
48     "GPLv3+" \
49     "LGPLv3+"
50 )
51
52 # -----
53 # Various language definitions for text file formats
54 block_comment_languages=(\
55     "c" \
56     "py" \
57 )
58 block_comment_enters=(\
59     '/' '*' \
60     ' "' "' \
61 )
62 block_comment_exits=(\
63     '*' '/' \
64     ' "' "' \
65 )
66 equal "${#block_comment_languages[@]}" \
67     "${#block_comment_enters[@]}" \
68     "${#block_comment_exits[@]}"
69 # shellcheck disable=SC2181
70 if [[ $? == 0 ]]; then
71     # shellcheck disable=SC1003
72     echo '/!\' "Problème de définition des tableaux de langages 1" /!\'
73 fi
74
75 line_comment_languages=(\
76     "sh" \

```

```

77     "tex"\
78 )
79 line_comment_prefixes=(\
80     '# '\
81     '% '\
82 )
83 equal "${#line_comment_languages[@]}"\
84     "${#line_comment_prefixes[@]}"
85 # shellcheck disable=SC2181
86 if [[ $? == 0 ]]; then
87     # shellcheck disable=SC1003
88     echo '/*!\' "Problème de définition des tableaux de langages 2"\'/!\'
89 fi
90 # -----
91
92 # -----
93 # We generate the license header templates adapted to various text
94 # files formats.
95 # Kamoulox do endfor, Jacques Beauregard XD
96 # (C'est toujours mieux que l'inverse :) !)
97 # for do endfor -> for do done (Fort Doux Donne).
98 for LFBFL_license in "${licenses[@]"; do
99     LFBFL_license_prefix2="${LFBFL_license_prefix}${LFBFL_license}"
100     for ((i=0; i<${#block_comment_languages[@]}; i++)); do
101         LFBFL_extension=${block_comment_languages[i]}
102         license_file_name="${LFBFL_license_prefix2}.${LFBFL_extension}"
103         LFBFL_enter_string=${block_comment_enters[i]}
104         LFBFL_exit_string=${block_comment_exits[i]}
105         generate_from_template_with_block_comments\
106             "${LFBFL_license_prefix2}.tpl"\
107             "${license_file_name}.tpl"\
108             "${LFBFL_enter_string}" "${LFBFL_exit_string}"
109     done
110     LFBFL_temp2=".generate_from_template_with_line_comments.temp"
111     for ((i=0; i<${#line_comment_languages[@]}; i++)); do
112         LFBFL_extension=${line_comment_languages[i]}
113         license_file_name="${LFBFL_license_prefix2}.${LFBFL_extension}"
114         LFBFL_prefix_string=${line_comment_prefixes[i]}
115         LFBFL_intermediate_file_name="${license_file_name}.tpl"
116         LFBFL_intermediate_file_name+="${LFBFL_temp2}"
117         generate_from_template_with_line_comments\
118             "${LFBFL_license_prefix2}.tpl"\
119             "${license_file_name}.tpl"\
120             "${LFBFL_prefix_string}"\
121             "sed -Ei -e 's/\s*$/g' '${LFBFL_intermediate_file_name}'"
122     done

```

```

123 done
124 # -----
125
126 LFBFL_data_file_name="build_and_checks_variables/repository_data.txt"
127 repository_name=""
128 license=""
129 license2=""
130 author_full_name=""
131 grep_variable "${LFBFL_data_file_name}" repository_name
132 grep_variable "${LFBFL_data_file_name}" license
133 grep_variable "${LFBFL_data_file_name}" license2
134 grep_variable "${LFBFL_data_file_name}" author_full_name
135 LFBFL_license_prefix2="${LFBFL_license_prefix}${license}"
136 LFBFL_license_prefix3="${LFBFL_license_prefix}${license2}"
137 # First year according to current state of git repository.
138 # shellcheck disable=SC2312
139 first_year="$(git log | grep 'Date:' | cut -f 8 -d ' ' | tail -1)"
140 # Last year according to current state of git repository.
141 # shellcheck disable=SC2312
142 last_year="$(git log | grep 'Date:' | cut -f 8 -d ' ' | head -1)"
143 copyright_string="${first_year}-${last_year} ${author_full_name}"
144
145 prepare_filled_license_file_block() {
146     # $1=license_file_name
147     sed -e "s/@repository_name@/${repository_name}/g"\
148         -e "s/@copyright_string@/${copyright_string}/g"\
149         "$1.tpl" > "$1.temp"
150     overwrite_if_not_equal "$1" "$1.temp"
151     # shellcheck disable=SC2312
152     head --lines=-1 "$1" | tail --lines=+2 > "$1.temp"
153     # Strange world: tail --lines=-1 was working to exclude first line.
154     # I tested it months ago, and saw with my eyes the start and end
155     # block comments removed with:
156     # head --lines=-1 "$1" | tail --lines=-1.
157     # Now, man page says to use --lines=+2 instead.
158     # Welcome in the world where AI change your environment and your doc
159     # on the fly...
160 }
161
162 for ((i=0; i<${#block_comment_languages[@]}; i++)); do
163     LFBFL_extension=${block_comment_languages[i]}
164     license_file_name="${LFBFL_license_prefix2}.${LFBFL_extension}"
165     prepare_filled_license_file_block "${license_file_name}"
166     if [[ -n "${license2}" ]]; then
167         license_file_name2="${LFBFL_license_prefix3}.${LFBFL_extension}"
168         prepare_filled_license_file_block "${license_file_name2}"

```

```

169 fi
170 # shellcheck disable=SC2312
171 find . -type f -name "*.${LFBFL_extension}" -printf '%P\n'\
172 | relevant_find | while read -r LFBFL_file_name;
173 do
174     is_subfile "${LFBFL_file_name}" "${license_file_name}.temp"
175     declare -i LFBFL_not_subfile=$?
176     declare -i LFBFL_not_subfile2=1
177     if [[ -n "${license2}" ]]; then
178         is_subfile "${LFBFL_file_name}" "${license_file_name2}.temp"
179         LFBFL_not_subfile2=$?
180     fi
181     if [[ LFBFL_not_subfile -ge 1 && LFBFL_not_subfile2 -ge 1 ]]; then
182         echo "File ${LFBFL_file_name} has no/wrong license header?"
183     fi
184 done
185 rm "${license_file_name}.temp"
186 if [[ -n "${license2}" ]]; then
187     rm "${license_file_name2}.temp"
188 fi
189 done
190
191 prepare_filled_license_file_line() {
192     # $1=license_file_name
193     sed -e "s/@repository_name@/${repository_name}/g"\
194         -e "s/@copyright_string@/${copyright_string}/g"\
195         "$1.tpl" > "$1.temp"
196     overwrite_if_not_equal "$1" "$1.temp"
197 }
198
199 for ((i=0; i<${#line_comment_languages[@]}; i++)); do
200     LFBFL_extension=${line_comment_languages[i]}
201     license_file_name="${LFBFL_license_prefix2}.${LFBFL_extension}"
202     prepare_filled_license_file_line "${license_file_name}"
203     if [[ -n "${license2}" ]]; then
204         license_file_name2="${LFBFL_license_prefix3}.${LFBFL_extension}"
205         prepare_filled_license_file_line "${license_file_name2}"
206     fi
207     # shellcheck disable=SC2312
208     find . -type f -name "*.${LFBFL_extension}" -printf '%P\n'\
209     | relevant_find | while read -r LFBFL_file_name;
210     do
211         is_subfile "${LFBFL_file_name}" "${license_file_name}"
212         declare -i LFBFL_not_subfile=$?
213         declare -i LFBFL_not_subfile2=1
214         if [[ -n "${license2}" ]]; then

```

```

215         is_subfile "${LFBFL_file_name}" "${license_file_name2}"
216         LFBFL_not_subfile2=$?
217     fi
218     if [[ LFBFL_not_subfile -ge 1 && LFBFL_not_subfile2 -ge 1 ]]; then
219         echo "File ${LFBFL_file_name} has no/wrong license header?"
220     fi
221 done
222 done

```

### 2.13 build\_and\_checks\_dependencies/licenses\_templates/license\_file\_header\_AGPLv3+.c.tpl

```

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3
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22
23 ©Copyright @copyright_string@
24 */

```

### 2.14 build\_and\_checks\_dependencies/licenses\_templates/license\_file\_header\_AGPLv3+.py.t

```

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```

```

9  or (at your option) any later version.
10
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22
23  ©Copyright @copyright_string@
24  """

```

## 2.15 build\_and\_checks\_dependencies/licenses\_templates/license\_file\_header\_AGPLv3+.sh.t

```

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```

## 2.16 build\_and\_checks\_dependencies/licenses\_templates/license\_file\_header\_AGPLv3+.tex.t

```

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2  %

```



```

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```

## 2.17 build\_and\_checks\_dependencies/licenses\_templates/license\_file\_header\_AGPLv3+.tpl

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```

## 2.18 build\_and\_checks\_dependencies/licenses\_templates/license\_file\_header\_GPLv3+.c.tpl

```
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22
23  ©Copyright @copyright_string@
24  */
```

## 2.19 build\_and\_checks\_dependencies/licenses\_templates/license\_file\_header\_GPLv3+.py.tpl

```
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15  MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
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17
```

```

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24 """

```

## 2.20 build\_and\_checks\_dependencies/licenses\_templates/license\_file\_header\_GPLv3+.sh.tpl

```

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```

## 2.21 build\_and\_checks\_dependencies/licenses\_templates/license\_file\_header\_GPLv3+.tex.tpl

```

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```

## 2.22 build\_and\_checks\_dependencies/licenses\_templates/license\_file\_header\_GPLv3+.tpl

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```

## 2.23 build\_and\_checks\_dependencies/licenses\_templates/license\_file\_header\_LGPLv3+.c.tpl

```

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24  */

```

## 2.24 build\_and\_checks\_dependencies/licenses\_templates/license\_file\_header\_LGPLv3+.py.t

```

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24  """

```

## 2.25 build\_and\_checks\_dependencies/licenses\_templates/license\_file\_header\_LGPLv3+.sh.t

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## 2.26 build\_and\_checks\_dependencies/licenses\_templates/license\_file\_header\_LGPLv3+.tex.t

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```

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## 2.27 build\_and\_checks\_dependencies/licenses\_templates/license\_file\_header\_LGPLv3+.tpl

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```

## 2.28 build\_and\_checks\_dependencies/lines\_counts.lib.sh

```

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```

```

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22 #
23 # ©Copyright 2023-2025 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 disable=SC1090
29 source "${LFBFL_subdir}/get_common_text_glob_patterns.lib.sh"
30 # shellcheck disable=SC1090
31 source "${LFBFL_subdir}/lines_filters.lib.sh"
32
33 all_code_lines() {
34     get_COMMON_TEXT_FILES_GLOB_PATTERNS
35     local LFBFL_pattern
36     # shellcheck disable=SC2154
37     for LFBFL_pattern in "${COMMON_TEXT_FILES_GLOB_PATTERNS[@]}"; do
38         [[ "$1" != "-v" ]] \
39             || echo "Iterating on pattern: ${LFBFL_pattern}"
40         # shellcheck disable=SC2312
41         find . -type f -name "${LFBFL_pattern}" -printf '%P\n' \
42             | xargs grep -H -v 'a(?!a)a'
43     done
44 }
45
46 all_self_code_lines() {
47     # shellcheck disable=SC2312
48     all_code_lines "$@" | relevant_grep \
49         | not_license_grep | not_main_tex_grep
50 }
51
52 all_self_empty_code_lines() {
53     # shellcheck disable=SC2312
54     all_self_code_lines "$@" | empty_lines_after_file_name
55 }
56
57 all_self_not_empty_code_lines() {
58     # shellcheck disable=SC2312
59     all_self_code_lines "$@" | not_empty_lines_after_file_name
60 }
61

```



```

62 code_lines_count_all() {
63     # shellcheck disable=SC2312
64     all_self_code_lines "$@" | wc -l
65 }
66
67 code_lines_count_empty() {
68     # shellcheck disable=SC2312
69     all_self_empty_code_lines "$@" | wc -l
70 }
71
72 code_lines_count_not_empty() {
73     # shellcheck disable=SC2312
74     all_self_not_empty_code_lines "$@" | wc -l
75 }

```

## 2.29 build\_and\_checks\_dependencies/lines\_filters.lib.sh

```

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22 #
23 # ©Copyright 2023–2025 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     declare -a ll_wc_var_args=()
50     declare -i ll_wc_var_number_only=0
51     declare -i ll_wc_var_i=0
52     for ll_wc_var_arg in "$@"; do
53         # echo "$ll_wc_var_arg"
54         # shellcheck disable=SC2250
55         if [[ "${ll_wc_var_arg}" == "-n" ]]; then
56             ll_wc_var_number_only=1
57         elif [[ "${ll_wc_var_arg}" == "--no-filenames" ]]; then
58             ll_wc_var_number_only=1
59         elif [[ $ll_wc_var_number_only -eq 0 ]]; then
60             ll_wc_var_args[ll_wc_var_i]="${ll_wc_var_arg}"
61             ll_wc_var_i=$((ll_wc_var_i + 1))
62         elif [[ "${ll_wc_var_arg}" =~ -.* ]]; 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         fi
66     done
67     # typeset -p ll_wc_var_args
68     # echo "$ll_wc_var_number_only"
69     # shellcheck disable=SC2250
70     if [[ $ll_wc_var_number_only -gt 0 ]]; then
71         # Too simple code, only the base use case is handled now.
72         # Convenient but incomplete.
73         # With more time,
74         # the simpler would be to submit a patch to GNU coreutils,
75         # unless blockade from assholes.

```

```

76     # Otherwise, it may be more simply handled in PHP or Python
77     # (argparse, etc.).
78     # You'll need to start by improving cat first,
79     # with --files0-from handling.
80     # wc does not display file_name when stream...
81     # hence cat of last arg "${!#}"
82     # shellcheck disable=SC2312
83     cat "${!#}" | wc "${ll_wc_var_args[@]}"
84 else
85     # echo "normal"
86     wc "${ll_wc_var_args[@]}"
87 fi
88 }
89
90 # I submitted a patch for wc :).
91 # echo "https://domain/list-path/2024-05/msg00013.html" | \
92 #   sed -e 's|domain|lists.gnu.org|' \
93 #       -e 's|list-path|archive/html/bug-coreutils|'
94 # I found another way to have a long URL fit on 70 characters.
95 # If it is merged, the following would be better:
96 # If --no-filenames option available,
97 # we redefine ll_wc command as an alias.
98 wc_help_text=$(wc --help)
99 if [[ "${wc_help_text}" == *" --no-filenames "*" ]]; then
100     alias ll_wc='wc'
101 fi
102
103 # Trace avant le (2e ?) renommage
104 # de wget_sha512.sh à wget_sha512.lib.sh.
105 # $ ll_wc wget_sha512.sh
106 # 41 189 1224 wget_sha512.sh
107 # $ ll_wc -n wget_sha512.sh
108 # 41 189 1224
109 # $ ll_wc -l wget_sha512.sh
110 # 41 wget_sha512.sh
111 # $ ll_wc -l -n wget_sha512.sh
112 # 41
113
114 in_place_grep() {
115     declare -r LFBFL_temp="${!#}.in_place_grep.temp"
116     grep "$@" > "${LFBFL_temp}"
117     declare -r LFBFL_lines_before=$(ll_wc -l -n "${!#}")
118     declare -r LFBFL_lines_after=$(ll_wc -l -n "${LFBFL_temp}")
119     # echo "$LFBFL_lines_before"
120     # echo "$LFBFL_lines_after"
121     if [[ "${LFBFL_lines_before}" == "${LFBFL_lines_after}" ]]; then

```

```

122     rm "${LFBFL_temp}"
123     return
124 fi
125 mv "${LFBFL_temp}" "${!#}"
126 }
127
128 grep_variable() {
129     # $1=$file
130     # $2=$variable_name
131     declare -r LFBFL_regexp="(?!<^$2=).*$"
132     # echo $LFBFL_regexp
133     declare -r LFBFL_variable_value="$(grep -oP "${LFBFL_regexp}" "$1")"
134     # echo $LFBFL_variable_value
135     declare -g "$2"="${LFBFL_variable_value}"
136 }
137
138 repository_name=""
139 grep_variable build_and_checks_variables/repository_data.txt\
140     repository_name
141
142 empty_lines() {
143     grep '^$'
144 }
145
146 not_empty_lines() {
147     grep -v '^$'
148 }
149
150 space_starting_lines() {
151     grep '^[ ]'
152 }
153
154 not_space_starting_lines() {
155     grep '^[^ ]'
156 }
157
158 empty_lines_after_file_name() {
159     grep '^[^:]\+:$'
160 }
161
162 not_empty_lines_after_file_name() {
163     grep -v '^[^:]\+:$'
164 }
165
166 space_starting_lines_after_file_name() {
167     grep '^[^:]\+:'

```

```

168 }
169
170 not_space_starting_lines_after_file_name() {
171     grep '^[:]\+:[^ ]'
172 }
173
174 not_JS_dependencies_find() {
175     # shellcheck disable=SC2312
176     grep -vE "(^|/)node_modules/" | grep -vE "(^|/)package-lock\.json$"
177 }
178
179 not_JS_dependencies_grep() {
180     # shellcheck disable=SC2312
181     grep -v "^[^:]*node_modules/" | grep -v "^[^:]*package-lock\.json:"
182 }
183
184 not_dependencies_find() {
185     not_JS_dependencies_find
186 }
187
188 not_dependencies_grep() {
189     not_JS_dependencies_grep
190 }
191
192 not_python_cache_find() {
193     # shellcheck disable=SC2312
194     grep -vE "(^|/).__pycache__/" | grep -vE "(^|/)\.mypy_cache/"
195 }
196
197 not_python_cache_grep() {
198     # shellcheck disable=SC2312
199     grep -v "^[^:]*__pycache__/" | grep -v "^[^:]*\.mypy_cache/"
200 }
201
202 not_cache_find() {
203     not_python_cache_find
204 }
205
206 not_cache_grep() {
207     not_python_cache_grep
208 }
209
210 not_git_find() {
211     grep -vE "(^|/)\.git/"
212 }
213

```

```

214 not_git_grep() {
215     grep -v "^[^:]*\.git/"
216 }
217
218 not_archive_find() {
219     grep -vE "(\.gz|\.rar|\.tar|\.tgz|\.whl)$"
220 }
221
222 not_archive_grep() {
223     grep -vE "^[^:]*(\.gz|\.rar|\.tar|\.tgz|\.whl):"
224 }
225
226 not_license_find() {
227     # shellcheck disable=SC2312
228     grep -vE "(^|/)COPYING$" | grep -vE "(^|/)COPYING\..LESSER$"
229 }
230
231 not_license_grep() {
232     # shellcheck disable=SC2312
233     grep -v "^[^:]*COPYING:" | grep -v "^[^:]*COPYING\..LESSER:"
234 }
235
236 not_main_tex_find() {
237     grep -vE "(^|/){repository_name}\.tex$"
238 }
239
240 not_main_tex_grep() {
241     grep -v "^[^:]*{repository_name}\.tex:"
242 }
243
244 relevant_find() {
245     # shellcheck disable=SC2312
246     not_dependencies_find | not_cache_find | not_git_find\
247     | not_archive_find
248 }
249
250 relevant_grep() {
251     # shellcheck disable=SC2312
252     not_dependencies_grep | not_cache_grep | not_git_grep\
253     | not_archive_grep
254 }

```

### 2.30 build\_and\_checks\_dependencies/lines\_maps.lib.sh

```

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

```

```

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22 #
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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     # shellcheck disable=SC2312
39     sed -e 's/\xc2\xa0/ /g' \
40     | sed -e 's/\xe2\x80\x80/ /g' \
41     | sed -e 's/\xe2\x80\x81/ /g' \
42     | sed -e 's/\xe2\x80\x82/ /g' \
43     | sed -e 's/\xe2\x80\x83/ /g' \
44     | sed -e 's/\xe2\x80\x84/ /g' \
45     | sed -e 's/\xe2\x80\x85/ /g' \
46     | sed -e 's/\xe2\x80\x86/ /g' \
47     | sed -e 's/\xe2\x80\x87/ /g' \
48     | sed -e 's/\xe2\x80\x88/ /g' \

```

```

49 | sed -e 's/\xe2\x80\x89/ /g' \
50 | sed -e 's/\xe2\x80\x8a/ /g' \
51 | sed -e 's/\xe2\x80\x8b/ /g' \
52 | sed -e 's/\xe2\x80\x8c/ /g' \
53 | sed -e 's/\xe2\x80\x8d/ /g' \
54 | sed -e 's/\xe2\x80\x8e/ /g' \
55 | sed -e 's/\xe2\x80\x8f/ /g' \
56 | sed -e 's/\xe2\x80\xa8/ /g' \
57 | sed -e 's/\xe2\x80\xa9/ /g' \
58 | sed -e 's/\xe2\x80\xaa/ /g' \
59 | sed -e 's/\xe2\x80\xab/ /g' \
60 | sed -e 's/\xe2\x80\xac/ /g' \
61 | sed -e 's/\xe2\x80\xad/ /g' \
62 | sed -e 's/\xe2\x80\xae/ /g' \
63 | sed -e 's/\xe2\x80\xaf/ /g' \
64 | sed -e 's/\xe2\x81\x9f/ /g' \
65 | sed -e 's/\xe2\x81\xa0/ /g' \
66 | sed -e 's/\xe2\x81\xa1/ /g' \
67 | sed -e 's/\xe2\x81\xa2/ /g' \
68 | sed -e 's/\xe2\x81\xa3/ /g' \
69 | sed -e 's/\xe2\x81\xa4/ /g' \
70 | sed -e 's/\xe2\x81\xa5/ /g' \
71 | sed -e 's/\xe2\x81\xa6/ /g' \
72 | sed -e 's/\xe2\x81\xa7/ /g' \
73 | sed -e 's/\xe2\x81\xa8/ /g' \
74 | sed -e 's/\xe2\x81\xa9/ /g' \
75 | sed -e 's/\xe2\x81\xaa/ /g' \
76 | sed -e 's/\xe2\x81\xab/ /g' \
77 | sed -e 's/\xe2\x81\xac/ /g' \
78 | sed -e 's/\xe2\x81\xad/ /g' \
79 | sed -e 's/\xe2\x81\xae/ /g' \
80 | sed -e 's/\xe2\x81\xaf/ /g' \
81 }

```

## 2.31 build\_and\_checks\_dependencies/overwrite\_if\_not\_equal.lib.sh

```

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2 # This file is part of DevOrSysAdminScripts library.
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10 #

```



```

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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     if [[ ! -f "$1" ]]; then
31         mv "$2" "$1"
32         return
33     fi
34     diff -q "$1" "$2"
35     declare -ri LFBFL_is_equal=$?
36     # shellcheck disable=SC2250
37     if [[ $LFBFL_is_equal == 0 ]]; then
38         rm "$2"
39     else
40         mv "$2" "$1"
41     fi
42 }

```

## 2.32 build\_and\_checks\_dependencies/python\_black\_complement.lib.sh

```

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23 # ©Copyright 2023-2025 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 # And moreover, at some point, I saw the reverse rule
29 # in black or pylint to add an empty line...
30 # This regexp may give false positives,
31 # but that's not the end of the world.
32 check_no_empty_line_after_python_function_docstring(){
33     echo "Checking empty lines after Python function docstrings"
34     pcregrep -M '$'def [^"]*"([^\"]|"(?!"))*"\"\\n\\n(?!\s*def)'\
35         -- **/*.py
36 }
37
38 python_black_complement(){
39     check_no_empty_line_after_python_function_docstring
40 }

```

### 2.33 build\_and\_checks\_dependencies/python\_isort\_complement.lib.sh

```

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23 # ©Copyright 2023-2025 Laurent Frédéric Bernard François Lyaudet
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 disable=SC1090
29 source "${LFBFL_subdir}/lines_filters.lib.sh"
30 # shellcheck disable=SC1090
31 source "${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     declare -r LFBFL_temp=".check_collections_abc_place.temp"
36     # shellcheck disable=SC2312
37     find . -name "*.py" | relevant_find\
38         | while read -r LFBFL_file_name; do
39         [[ -f "${LFBFL_file_name}" ]] || continue
40         sed -Ez 's/\n(\nfrom _collections_abc[^\n]*)/\1\nMg'\
41             "${LFBFL_file_name}" > "${LFBFL_file_name}${LFBFL_temp}"
42         overwrite_if_not_equal "${LFBFL_file_name}"\
43             "${LFBFL_file_name}${LFBFL_temp}"
44     done
45 }
46
47 python_isort_complement() {
48     check_collections_abc_place
49 }

```

### 2.34 build\_and\_checks\_dependencies/split\_line\_at\_most.exec.php

```

1 #!/usr/bin/php
2 <?php
3 /*
4 This file is part of DevOrSysAdminScripts library.
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```

```

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24
25  ©Copyright 2023-2025 Laurent Frédéric Bernard François Lyaudet
26  This file was renamed from
27  "call_split_score_after_before_or_before_after.exec.php" to
28  "split_line_at_most.exec.php".
29  This file was renamed from
30  "call_split_score_after_before_or_before_after.php" to
31  "call_split_score_after_before_or_before_after.exec.php".
32  */
33
34  require_once(
35      './build_and_checks_dependencies/split_line_at_most.lib.php'
36  );
37
38  /*
39  php -r\
40      '$require_once(\'./build_and_checks_dependencies/\
41      $split_line_at_most.lib.php\');'\
42      '$ echo(generate_split_score_after_before\'
43      $(70, [\'/\']) (\'/\', 60, true));\'
44  */
45
46  $after_before = $argv[1];
47
48  if($after_before){
49      echo(
50          generate_split_score_after_before(
51              $argv[1], array_slice($argv, 5)
52              )($argv[3], $argv[2], $argv[4])
53              // $argv[1], explode(',', $argv[2]),
54              // )($argv[3], $argv[4], $argv[5])

```

```

55         (int) $argv[2], explode(',', $argv[3]),
56         ) ($argv[4], (int) $argv[5], $argv[6])
57     );
58     exit();
59 }
60
61 echo(
62     generate_split_score_before_after(
63         (int) $argv[2], explode(',', $argv[3]),
64         ) ($argv[4], (int) $argv[5], $argv[6])
65 );

```

### 2.35 build\_and\_checks\_dependencies/split\_line\_at\_most.lib.php

```

1  <?php
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23
24  ©Copyright 2023–2025 Laurent Frédéric Bernard François Lyaudet
25  This file was renamed from "split_line_at_most.php" to
26  "split_line_at_most.lib.php".
27  */
28
29  function generate_split_score_after_before(
30      $max_length,
31      $delimiter_strings_domain,
32  ) {

```

```

33     return function(
34         $delimiter_string,
35         $cut_position,
36         $is_cut_after,
37     ) use ($max_length, $delimiter_strings_domain){
38         if(!in_array($delimiter_string, $delimiter_strings_domain, true)){
39             // I do not handle regexps for the moment.
40             // I'm too brainfucked. I just want to finish this feature fast
41             // for HTML and Tex/PDF listings generation with HTML and Tex on
42             // at most 70 characters.
43             return 0;
44         }
45         if($is_cut_after){
46             // Always way better to cut after '/' than before it.
47             return 1 + $max_length + $cut_position;
48         }
49         return 1 + $cut_position;
50     };
51 }
52
53
54
55 function generate_split_score_before_after(
56     $max_length,
57     $delimiter_strings_domain,
58 ){
59     return function(
60         $delimiter_string,
61         $cut_position,
62         $is_cut_after,
63     ) use ($max_length, $delimiter_strings_domain){
64         if(!in_array($delimiter_string, $delimiter_strings_domain, true)){
65             // I do not handle regexps for the moment.
66             // I'm too brainfucked. I just want to finish this feature fast
67             // for HTML and Tex/PDF listings generation with HTML and Tex on
68             // at most 70 characters.
69             return 0;
70         }
71         if(!$is_cut_after){
72             // Always way better to cut before '/' than after it.
73             return 1 + $max_length + $cut_position;
74         }
75         return 1 + $cut_position;
76     };
77 }
78

```

## 2.36 build\_and\_checks\_dependencies/strings\_functions.lib.sh

```
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23 # ©Copyright 2023-2025 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 disable=SC1090
33 source "${LFBFL_subdir}/get_common_text_glob_patterns.lib.sh"
34 # shellcheck disable=SC1090
35 source "${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_after_before_simple(){
47     # $1=$delimiters_strings_domain concatenated characters/delimiters
48     # $2=$delimiter_string a single character
49     # $3=$is_cut_after
50     if [[ "$1" != *$2* ]]; then
51         echo -n "0"
52         return
53     fi
54     if [[ "$3" == "1" ]]; then
55         echo -n "2"
56         return
57     fi
58     echo -n "1"
59     return
60 }
61
62 split_score_before_after_simple(){
63     # $1=$delimiters_strings_domain concatenated characters/delimiters
64     # $2=$delimiter_string a single character
65     # $3=$is_cut_after
66     if [[ "$1" != *$2* ]]; then
67         echo -n "0"
68         return
69     fi
70     if [[ "$3" == "0" ]]; then
71         echo -n "2"
72         return
73     fi
74     echo -n "1"
75     return
76 }
77
78 get_split_score_after_before_simple(){
79     # $1=$max_length
80     # $2=$delimiters_strings_domain
81     declare -g get_split_score_after_before_result=\
82 "split_score_after_before_simple '$2'"
83     # shellcheck disable=SC2034
84     declare -g get_split_score_after_before_result2="7"
85 }
86
87 get_split_score_before_after_simple(){
88     # $1=$max_length
89     # $2=$delimiters_strings_domain
90     declare -g get_split_score_before_after_result=\

```



```

91 "split_score_before_after_simple '$2'"
92 # shellcheck disable=SC2034
93 declare -g get_split_score_before_after_result2="11"
94 }
95
96 get_split_line_at_most_exec() {
97     declare -g SPLIT_LINE_AT_MOST_EXEC="./"
98     SPLIT_LINE_AT_MOST_EXEC+="build_and_checks_dependencies"
99     SPLIT_LINE_AT_MOST_EXEC+="/split_line_at_most.exec.php"
100 }
101
102 get_split_score_after_before() {
103     # $1=$max_length
104     # $2=$delimiters_strings_domain
105     get_split_line_at_most_exec
106     declare -g\
107         get_split_score_after_before_result="${SPLIT_LINE_AT_MOST_EXEC}"
108     get_split_score_after_before_result+=" 1 '$1' '$2'"
109     # shellcheck disable=SC2034
110     declare -g get_split_score_after_before_result2="5"
111 }
112
113 get_split_score_before_after() {
114     # $1=$max_length
115     # $2=$delimiters_strings_domain
116     get_split_line_at_most_exec
117     declare -g\
118         get_split_score_before_after_result="${SPLIT_LINE_AT_MOST_EXEC}"
119     get_split_score_before_after_result+=" 0 '$1' '$2'"
120     # shellcheck disable=SC2034
121     declare -g get_split_score_before_after_result2="9"
122 }
123
124 split_line_at_most() {
125     # $1=$line
126     # $2=$max_length of beginning result string
127     # $3=$split_score_command
128     # negative score means do not consider as a possible split
129     # $4=$split_score_command_properties :
130     # These properties are flags.
131     # If someday some property is not a flag,
132     # then create split_score_command_properties2.
133     # - null or 0 no property;
134     # - 1 split score doesn't depend on which delimiter matches;
135     # - 2 split score doesn't depend on the current position;
136     # - 4 any split score after is always larger

```

```

137 #         than any split score before;
138 #     - 8 any split score before is always larger
139 #         than any split score after;
140 # $5=$forbidden_previous_character
141 # $6=$split_score_command_delimiter_strings_domain
142 #     optimisation if small domain
143 #     - this argument can be "null", then we will use $3 only instead,
144 #       in that case, only mono-character strings are considered,
145 #     - this argument can be an array of characters,
146 #       optimize accordingly,
147 #     - this argument can be an array of strings,
148 #       optimize accordingly,
149 #     - this argument can be an array of regexps,
150 #       optimize accordingly.
151 #     Not sure an array of regexps makes more sense than a single
152 #     one. Maybe they could be both cases with corresponding
153 #     optimizations. Same for a single character or substring.
154 #
155 # Note that we're always looking for the last position to split
156 # among maximum score;
157 # if some position gets as score from 2 delimiters,
158 # its score is always the maximum of the two corresponding scores.
159 declare -g split_line_at_most_result_start
160 declare -g split_line_at_most_result_end
161 declare -A LFBFL_positions
162 # echo "$1 $2 $3 $4"
163 # For my use case in bash scripts, I will need only an array of
164 # characters. See get_split_score_after_before().
165 if [[ -n "$6" ]]; then
166     echo "split_line_at_most() \$4 NOT IMPLEMENTED YET"
167 fi
168 if [[ "$2" -ge "${#1}" ]]; then
169     split_line_at_most_result_start=$1
170     split_line_at_most_result_end=""
171     return
172 fi
173 declare -r LFBFL_sort_command="sort --numeric-sort"
174 declare -r LFBFL_length_minus_1=$(( ${#1} - 1 ))
175 declare -r LFBFL_i_max=$((
176     min "${LFBFL_sort_command}" "${LFBFL_length_minus_1}" "$2"
177 ))
178 local LFBFL_i
179 local LFBFL_j
180 local LFBFL_previous_char
181 local LFBFL_current_char
182 local LFBFL_command1

```

```

183 local LFBFL_command2
184 local LFBFL_temp
185
186 # At the beginning, each position has score 0.
187 for ((LFBFL_i=0; LFBFL_i<=LFBFL_i_max; LFBFL_i++)) do
188     LFBFL_positions["${LFBFL_i}"]="0"
189 done
190 LFBFL_j=$((LFBFL_i+1))
191 LFBFL_positions["${LFBFL_j}"]="0"
192
193 # If we have a forbidden previous character,
194 # we mark the forbidden positions with -1.
195 if [[ -n "$5" ]]; then
196     LFBFL_previous_char=""
197     for ((LFBFL_i=0; LFBFL_i<LFBFL_i_max; LFBFL_i++)) do
198         LFBFL_j=$((LFBFL_i+1))
199         if [[ ${LFBFL_i} -ge 1 ]]; then
200             LFBFL_previous_char="${LFBFL_current_char}"
201         fi
202         LFBFL_current_char="${1:${LFBFL_i}:1}"
203         if [[ "${LFBFL_previous_char}" == "$5" ]]; then
204             LFBFL_positions["${LFBFL_i}"]="-1"
205         fi
206         if [[ "${LFBFL_current_char}" == "$5" ]]; then
207             LFBFL_positions["${LFBFL_j}"]="-1"
208         fi
209     done
210 fi
211
212 if [[ "$4" == "7" ]]; then
213     for ((LFBFL_j=LFBFL_i_max; LFBFL_j>0; LFBFL_j--)) do
214         LFBFL_i=$((LFBFL_j-1))
215         LFBFL_current_char="${1:${LFBFL_i}:1}"
216         LFBFL_command1="$3 '${LFBFL_current_char}' 0"
217         LFBFL_command2="$3 '${LFBFL_current_char}' 1"
218         # echo "${LFBFL_command1}"
219         # echo "${LFBFL_command2}"
220         LFBFL_temp=$(eval "${LFBFL_command1}")
221         # echo "${LFBFL_temp}|${LFBFL_i}"
222         if [[ ${LFBFL_temp} -ge 1 ]]; then
223             # echo "${LFBFL_temp}|${LFBFL_i}"
224             if [[ ${LFBFL_positions["${LFBFL_i}"]} != "-1" ]]; then
225                 LFBFL_positions["${LFBFL_i}"]=$(
226                     max "${LFBFL_sort_command}" "\
227                         "${LFBFL_positions["${LFBFL_i}"]} " "${LFBFL_temp}"
228                     )

```

```

229         fi
230     fi
231     LFBFL_temp=$(eval "${LFBFL_command2}")
232     # echo "${LFBFL_temp}|${LFBFL_j}"
233     if [[ ${LFBFL_temp} -ge 1 ]]; then
234         # echo "${LFBFL_temp}|${LFBFL_j}"
235         if [[ ${LFBFL_positions["${LFBFL_j}"]} != "-1" ]]; then
236             LFBFL_positions["${LFBFL_j}"]=$(
237                 max "${LFBFL_sort_command}"\
238                     "${LFBFL_positions["${LFBFL_j}"]} " "${LFBFL_temp}"
239             )
240             break
241         fi
242     fi
243 done
244 else
245     for ((LFBFL_i=0; LFBFL_i<LFBFL_i_max; LFBFL_i++)) do
246         LFBFL_j=$((LFBFL_i+1))
247         LFBFL_current_char="${1:${LFBFL_i}:1}"
248         LFBFL_command1="$3 '${LFBFL_current_char}' ${LFBFL_i} 0"
249         LFBFL_command2="$3 '${LFBFL_current_char}' ${LFBFL_j} 1"
250         # echo "${LFBFL_command1}"
251         # echo "${LFBFL_command2}"
252         LFBFL_temp=$(eval "${LFBFL_command1}")
253         # echo "${LFBFL_temp}|${LFBFL_i}"
254         if [[ ${LFBFL_temp} -ge 1 ]]; then
255             # echo "${LFBFL_temp}|${LFBFL_i}"
256             if [[ ${LFBFL_positions["${LFBFL_i}"]} != "-1" ]]; then
257                 LFBFL_positions["${LFBFL_i}"]=$(
258                     max "${LFBFL_sort_command}"\
259                         "${LFBFL_positions["${LFBFL_i}"]} " "${LFBFL_temp}"
260                 )
261             fi
262         fi
263         LFBFL_temp=$(eval "${LFBFL_command2}")
264         # echo "${LFBFL_temp}|${LFBFL_j}"
265         if [[ ${LFBFL_temp} -ge 1 ]]; then
266             # echo "${LFBFL_temp}|${LFBFL_j}"
267             if [[ ${LFBFL_positions["${LFBFL_j}"]} != "-1" ]]; then
268                 LFBFL_positions["${LFBFL_j}"]=$(
269                     max "${LFBFL_sort_command}"\
270                         "${LFBFL_positions["${LFBFL_j}"]} " "${LFBFL_temp}"
271                 )
272             fi
273         fi
274     done

```

```

275     fi
276     declare -r LFBFL_max_score=\
277     $(max 'sort --numeric-sort' "${LFBFL_positions[@]}")
278     local LFBFL_best_position
279     for ((LFBFL_i=0; LFBFL_i<=LFBFL_i_max; LFBFL_i++)) do
280         local LFBFL_value=${LFBFL_positions[${LFBFL_i}]}
281         # echo "${LFBFL_i} ${LFBFL_value}"
282         if [[ "${LFBFL_value}" == "${LFBFL_max_score}" ]]; then
283             LFBFL_best_position="${LFBFL_i}"
284         fi
285     done
286     split_line_at "$1" "${LFBFL_best_position}"
287     # shellcheck disable=SC2250
288     split_line_at_most_result_start=$split_line_at_result_beginning
289     split_line_at_most_result_end="${split_line_at_result_end}"
290     # echo "$split_line_at_most_result_start"
291     # echo "$split_line_at_most_result_end"
292 }
293
294 split_last_line() {
295     # $1=$new_lines
296     # $2=$prefix
297     # $3=$max_length
298     # $4=$suffix
299     # $5=$split_score_command
300     # $6=$split_score_command_properties
301     # $7=$forbidden_previous_character ('\' usually)
302     # In general, a prefix/suffix can be a required line prefix/suffix
303     # for all final lines like a comment prefix,
304     # or it can be a continuation line prefix/suffix applied only
305     # when splitting a line in 2 lines,
306     # or it can be a prefix/suffix for the string made of all the lines.
307     # Clearly, there is no gain to couple handling a prefix/suffix for
308     # the string made of all the lines in this function.
309     # Since we add a prefix/suffix when splitting,
310     # it is easy to see that we do not need to distinguish between
311     # required line prefix/suffix and continuation line prefix/suffix.
312     # The $2 and $4 arguments are given as concatenation of the
313     # required and continuation line prefixes/suffixes as needed by the
314     # user.
315     # Thus lines arguments should be given already prefixed
316     # and suffixed.
317     # This is logic, since it would be cumbersome to handle prefixing
318     # or not already splitted lines in this function
319     # (see repeated_split_last_line).
320     # The given max_length is the goal.

```

```

321 # This function adapts the effective max position for the split by
322 # taking into account the length of the suffix.
323 declare -g split_last_line_result="$1"
324 declare -r LFBFL_max_length_plus=$((3 + 1))
325 declare -r LFBFL_length2=$((3 - ${#4}))
326 declare -r LFBFL_regexp='.\{ "${LFBFL_max_length_plus}"'\}'
327 # shellcheck disable=SC2312
328 if echo "$1" | sed -e 's/\\n/\\n/g' | grep -q "${LFBFL_regexp}"; then
329     # shellcheck disable=SC2312
330     declare -r LFBFL_start=$(
331         echo "$1" | sed -e 's/\\n/\\n/g' | head --lines=-1\
332         | sed -z 's/\\n/\\n/g'\
333     )
334     # echo "start: ${LFBFL_start}"
335     declare -r LFBFL_last_line=$(
336         echo "$1" | sed -e 's/\\n/\\n/g' | tail --lines=1\
337     )
338     # echo "last_line: ${LFBFL_last_line}"
339     split_last_line_result=""
340     if [[ -n "${LFBFL_start}" ]]; then
341         split_last_line_result="${LFBFL_start}\\n"
342     fi
343     if [[ -n "$5" ]]; then
344         split_line_at_most "${LFBFL_last_line}" "${LFBFL_length2}"\
345             "$5" "$6" "$7"
346         split_last_line_result+="${split_line_at_most_result_start}$4"
347         split_last_line_result+="\\n"
348         split_last_line_result+="$2${split_line_at_most_result_end}"
349     else
350         # shellcheck disable=SC2250
351         split_last_line_result+="${LFBFL_last_line:0:$LFBFL_length2}$4"
352         split_last_line_result+="\\n"
353         # shellcheck disable=SC2250
354         split_last_line_result+="$2${LFBFL_last_line:$LFBFL_length2}"
355     fi
356 fi
357 }
358
359 repeated_split_last_line() {
360     declare -g repeated_split_last_line_result="$1"
361     local LFBFL_i
362     for ((LFBFL_i=0; LFBFL_i<$6; ++LFBFL_i)) do
363         split_last_line "${repeated_split_last_line_result}" "$2" "$3"\
364             "$4" "$5" "$6" "$7"
365         repeated_split_last_line_result="${split_last_line_result}"
366         # echo "${split_last_line_result}"

```

```

367     done
368 }

```

## 2.37 build\_and\_checks\_dependencies/too\_long\_code\_lines.lib.sh

```

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22 #
23 # ©Copyright 2023–2025 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 disable=SC1090
29 source "${LFBFL_subdir}/get_common_text_glob_patterns.lib.sh"
30
31 too_long_code_lines() {
32     get_COMMON_TEXT_FILES_GLOB_PATTERNS
33     local LFBFL_pattern
34     local LFBFL_file_name
35     local LFBFL_extension
36     local LFBFL_base_name
37     # shellcheck disable=SC2154
38     for LFBFL_pattern in "${COMMON_TEXT_FILES_GLOB_PATTERNS[@]}"; do
39         [[ "$1" != "-v" ]] \
40             || echo "Iterating on pattern: ${LFBFL_pattern}"
41         # shellcheck disable=SC2312

```

```

42     find . -type f -name "${LFBFL_pattern}" -printf '%P\n'\
43     | xargs grep -H '.\{71\}' | while read -r LFBFL_long_line
44     do
45         LFBFL_file_name=${LFBFL_long_line%%:*}
46         LFBFL_extension=${LFBFL_file_name##*.}
47         LFBFL_base_name=${LFBFL_file_name%.*}
48         if [[ "${LFBFL_extension}" == "html" ]]; then
49             if ! [[ -f "${LFBFL_base_name}.md" ]]; then
50                 echo "${LFBFL_long_line}"
51             fi
52         elif [[ "${LFBFL_extension}" == "md" ]]; then
53             if ! [[ -f "${LFBFL_base_name}.md.tpl" ]]; then
54                 echo "${LFBFL_long_line}"
55             fi
56         else
57             echo "${LFBFL_long_line}"
58         fi
59     done
60 done
61 }

```

## 2.38 build\_and\_checks\_dependencies/update\_common\_build\_and\_checks.exec.sh

```

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```



```

24 # This file was renamed from "update_common_build_and_checks.sh"
25 # to "update_common_build_and_checks.exec.sh".
26
27 update_common_build_and_checks() {
28     declare -i LFBFL_verbose=0
29     if [[ "$1" == "--verbose" ]]; then
30         echo "$0 $*"
31         LFBFL_verbose="--verbose"
32     fi
33     # shellcheck disable=SC2034
34     readonly LFBFL_verbose
35
36     declare -r LFBFL_common_file_name="common_build_and_checks.exec.sh"
37     cp "${LFBFL_common_file_name}.tpl" "${LFBFL_common_file_name}"
38
39     declare -r LFBFL_file_names=(\
40         "build_md_from_printable_md.exec.sh"\
41         "check_shell_scripts_beginnings.lib.sh"\
42         "check_URLs.lib.sh"\
43         "comparisons.lib.sh"\
44         "create_PDF.exec.sh"\
45         "generate_from_template.lib.sh"\
46         "get_common_text_glob_patterns.lib.sh"\
47         "grammar_and_spell_check.lib.sh"\
48         "licenses_templates/build_licenses_templates.exec.sh"\
49         "licenses_templates/license_file_header_AGPLv3+.tpl"\
50         "licenses_templates/license_file_header_GPLv3+.tpl"\
51         "licenses_templates/license_file_header_LGPLv3+.tpl"\
52         "lines_counts.lib.sh"\
53         "lines_filters.lib.sh"\
54         "lines_maps.lib.sh"\
55         "update_or_check_files_names_listing.exec.sh"\
56         "overwrite_if_not_equal.lib.sh"\
57         "python_black_complement.lib.sh"\
58         "python_isort_complement.lib.sh"\
59         "split_line_at_most.exec.php"\
60         "split_line_at_most.lib.php"\
61         "strings_functions.lib.sh"\
62         "too_long_code_lines.lib.sh"\
63     )
64
65     local LFBFL_file_name
66     local LFBFL_file_sha512
67     local LFBFL_file_sha512_all
68     local LFBFL_base_file_name
69     for LFBFL_file_name in "${LFBFL_file_names[@]"; do

```

```

70     # shellcheck disable=SC2312
71     LFBFL_file_sha512=$(
72         sha512sum "./${LFBFL_file_name}" | cut -f1 -d' '
73     )
74     LFBFL_file_sha512_all="local LFBFL_correct_sha512\n"
75     LFBFL_file_sha512_all+="    LFBFL_correct_sha512="
76     LFBFL_file_sha512_all+="'"${LFBFL_file_sha512:0:45}'\n"
77     LFBFL_file_sha512_all+="    LFBFL_correct_sha512\+="
78     LFBFL_file_sha512_all+="'"${LFBFL_file_sha512:45:44}'\n"
79     LFBFL_file_sha512_all+="    LFBFL_correct_sha512\+="
80     LFBFL_file_sha512_all+="'"${LFBFL_file_sha512:89}' "
81     LFBFL_base_file_name=$(basename "${LFBFL_file_name}")
82     sed -i\
83         "s|@sha512_${LFBFL_base_file_name}@|${LFBFL_file_sha512_all}|g"\
84         "${LFBFL_common_file_name}"
85 done
86
87 declare -r LFBFL_main_file_name="build_and_checks.exec.sh"
88 cp "${LFBFL_main_file_name}.tpl" "${LFBFL_main_file_name}"
89
90     # shellcheck disable=SC2312
91     LFBFL_file_sha512=$(
92         sha512sum "${LFBFL_common_file_name}" | cut -f1 -d' '
93     )
94     LFBFL_file_sha512_all="local LFBFL_correct_sha512\n"
95     LFBFL_file_sha512_all+="    LFBFL_correct_sha512="
96     LFBFL_file_sha512_all+="'"${LFBFL_file_sha512:0:45}'\n"
97     LFBFL_file_sha512_all+="    LFBFL_correct_sha512\+="
98     LFBFL_file_sha512_all+="'"${LFBFL_file_sha512:45:44}'\n"
99     LFBFL_file_sha512_all+="    LFBFL_correct_sha512\+="
100    LFBFL_file_sha512_all+="'"${LFBFL_file_sha512:89}' "
101    sed -i\
102        "s|@sha512_${LFBFL_common_file_name}@|${LFBFL_file_sha512_all}|g"\
103        "${LFBFL_main_file_name}"
104 }
105
106 update_common_build_and_checks "$@"

```

## 2.39 build\_and\_checks\_dependencies/update\_or\_check\_files\_names\_listing.exec.sh

```

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```

```

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22 #
23 # ©Copyright 2023-2025 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_verbose=""
35 if [[ "$2" == "--verbose" ]]; then
36     echo "$0 $*"
37     LFBFL_verbose="--verbose"
38 fi
39 readonly LFBFL_verbose
40
41 LFBFL_subdir="build_and_checks_dependencies"
42 # shellcheck disable=SC1090
43 source "${LFBFL_subdir}/lines_filters.lib.sh"
44 # shellcheck disable=SC1090
45 source "${LFBFL_subdir}/strings_functions.lib.sh"
46 LFBFL_subdir2="build_and_checks_variables"
47 files_names_listing="${LFBFL_subdir2}/files_names_listing.txt"
48
49 if [[ "$1" == "--write" ]]; then
50     : > "${files_names_listing}"
51 fi
52 sed_expression='s/\\n/Mg'

```

```

53 sed -Ez "${sed_expression}" "${files_names_listing}"\
54 > "${files_names_listing}.temp1"
55 sed -Ez "${sed_expression}" "${files_names_listing}.temp1"\
56 > "${files_names_listing}.temp2"
57 sed -Ez "${sed_expression}" "${files_names_listing}.temp2"\
58 > "${files_names_listing}.temp3"
59 sed -Ez "${sed_expression}" "${files_names_listing}.temp3"\
60 > "${files_names_listing}.temp4"
61 shopt -s dotglob
62 get_split_score_after_before_simple 70 /
63 # shellcheck disable=SC2154
64 split_score_command="${get_split_score_after_before_result}"
65 # shellcheck disable=SC2154
66 split_score_command_properties=\
67 "${get_split_score_after_before_result2}"
68 # shellcheck disable=SC1003
69 suffix='\\"
70 # shellcheck disable=SC2312
71 find . -type f -printf '%P\\n' | relevant_find | sort\
72 | while read -r file_name;
73 do
74     git check-ignore -q "${file_name}" && continue
75     base_file_name=$(basename "${file_name}")
76     [[ "${base_file_name}" != "files_names_listing.txt.temp1" ]]\
77     || continue
78     [[ "${base_file_name}" != "files_names_listing.txt.temp2" ]]\
79     || continue
80     [[ "${base_file_name}" != "files_names_listing.txt.temp3" ]]\
81     || continue
82     [[ "${base_file_name}" != "files_names_listing.txt.temp4" ]]\
83     || continue
84     if [[ "${base_file_name}" == *.md ]]; then
85         if [[ -f "${file_name}.tpl" ]]; then
86             continue
87         fi
88     fi
89     repeated_split_last_line "${file_name}" "" 70 "${suffix}"\
90     "${split_score_command}" "${split_score_command_properties}"
91     # shellcheck disable=SC2154
92     split_file_name="${repeated_split_last_line_result}"
93     if [[ "$1" == "--write" ]]; then
94         # shellcheck disable=SC2001
95         echo "${file_name}"\
96         | sed -e "s|${file_name}|${split_file_name}|g"\
97         >> "${files_names_listing}"
98     continue

```

```

99     fi
100     if grep -q "${file_name}\$" "${files_names_listing}.temp4"; then
101         :
102     else
103         echo\
104             "The file ${file_name} is not listed in ${files_names_listing}."
105         if [[ "$1" == "--append" ]]; then
106             # shellcheck disable=SC2001
107             echo "${file_name}"\
108                 | sed -e\
109                     "s|${file_name}|${split_file_name}|g"\
110                     >> "${files_names_listing}"
111         fi
112     fi
113 done
114
115 # shellcheck disable=SC2002,2312
116 cat "${files_names_listing}.temp4" | while read -r file_name;
117 do
118     [[ "${file_name}" != '/*' ]] || continue
119     base_file_name=$(basename "${file_name}")
120     if ! [[ -f "${file_name}" ]]; then
121         echo\
122             "The non-file ${file_name} is listed in ${files_names_listing}."
123     fi
124 done
125
126 rm "${files_names_listing}.temp1" "${files_names_listing}.temp2"\
127     "${files_names_listing}.temp3" "${files_names_listing}.temp4"
128 shopt -u dotglob
129 shopt -s globstar
130
131 if [[ -n "${LFBFL_verbose}" ]]; then
132     cat "${files_names_listing}"
133 fi

```

## 2.40 build\_and\_checks\_variables/gitignore

```

1 temp/
2

```

## 2.41 build\_and\_checks\_variables/DevOrSysAdminScripts.html.tpl

```

1 <!DOCTYPE html>
2 <html lang="en">
3 <!--

```

```

4 This file is part of DevOrSysAdminScripts library.
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22 along with DevOrSysAdminScripts.
23 If not, see <https://www.gnu.org/licenses/>.
24
25 ©Copyright 2023-2025 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 type="text/css">
31 .title{
32     margin: 2ex auto;
33     text-align: center;
34 }
35 .titlemain{
36     margin: 1ex 2ex 2ex 1ex;
37 }
38 .titlerest{
39     margin: 0ex 2ex;
40 }
41 table{
42     border-collapse: collapse;
43 }
44 td{
45     padding: 0;
46 }
47 pre{
48     text-align: left;
49     margin-left: 0ex;

```

```

50     margin-right: auto;
51 }
52 pre.numbered_lines:before{
53     background: snow;
54     border-right: 1px black solid;
55     color: #010101;
56     content: attr(line-numbers);
57     float: left;
58     padding: 0 1ch;
59     text-align: right;
60 }
61
62 blockquote{
63     margin-left: 4ex;
64     margin-right: 4ex;
65     text-align: left;
66 }
67 </style>
68 <title>@repository_name@</title>
69 </head>
70 <body >
71 <table class="title">
72     <tr>
73         <td style="padding:1ex">
74             <h1 class="titlemain">@repository_name@</h1>
75             <h3 class="titlerest">
76                 @author_full_name@
77                 <br>
78                 <a href="@author_website@">
79                     <span style="font-family:monospace">@author_website@</span>
80                 </a>
81                 <br>
82                 <a href="mailto:@author_email@">
83                     <span style="font-family:monospace">@author_email@</span>
84                 </a>
85             </h3>
86         </td>
87     </tr>
88 </table>
89
90 <blockquote class="abstract">
91     <span style="font-weight:bold">Abstract:</span>
92     @abstract@
93 </blockquote>
94 <p>Current version: @current_date@</p>
95 <p>Current number of commits: @number_of_commits@</p>

```

```

96 <p>Current git SHA1: @current_git_SHA1@</p>
97 <p>Code lines: @number_of_lines@</p>
98
99
100 <h2 id="section1">1 Files tree</h2>
101 <pre class="verbatim">@current_tree_light@</pre>
102 <pre class="verbatim">@current_tree@</pre>
103
104
105 <h2 id="section2">2 Listing of files</h2>
106
107 <p>
108 This repository is dual licensed.
109 All the Bash scripts source code is covered by GPLv3+.
110 All the PHP scripts source code is covered by LGPLv3+.
111 </p>
112
113 <p>
114 The text of the licenses is available at:
115 <a href="https://www.gnu.org/licenses/"><span
116 style="font-family:monospace"
117 >https://www.gnu.org/licenses/</span></a>.
118 The git repository of this source code is also available at:
119 <a href="https://github.com/LLyaudet/@repository_name@"><span
120 style="font-family:monospace"
121 >https://github.com/LLyaudet/@repository_name@</span></a>.
122 </p>
123
124 <p>
125 Here is a listing of the dependencies of the code in this repository:
126 <ul>
127 <li> The following dependencies are GPLv3+ licensed:<br>
128 basename, bash (and its builtins), cat, chmod, cp, cut, date, diff,
129 dirname, find, grep, head, mkdir, mv, realpath, rm, sed, sha512sum,
130 shellcheck, sort, tail, wc, wget, xargs
131 <li> The following dependencies are GPLv2+ licensed:<br>
132 more, pandoc, pdftex, pdflatex, tree
133 <li> The following dependencies are GPLv2 licensed:<br>
134 git
135 <li> The following dependencies are LGPLv2.1+ licensed:<br>
136 notify-send
137 <li> The following dependencies are MIT licensed:<br>
138 black, isort, mypy
139 <li> php is licensed under PHP License v3.01
140 <li> tex is licensed under Knuth license
141 <li> pcregrep has a custom license from Cambridge University

```



```

142 </ul>
143 </p>
144
145 <p>
146 Remark: Some commands listed under GPLv3+ are POSIX
147 and can have different implementations under another license;
148 for example, utils coreutils is MIT licensed,
149 whilst GNU coreutils is GPLv3+ licensed.
150 </p>
151
152 @files_listing_HTMLPreInput@
153
154 <p>@acknowledgments@</p>
155
156 <script>
157 "use strict";
158 const pres = Array.from(
159   document.getElementsByClassName('numbered_lines')
160 );
161 pres.forEach(
162   (pre) => {
163     const nb = Array.from(pre.innerText.matchAll("\n")).length + 1;
164     let numbers = "";
165     for(let i = 1; i <= nb; ++i){
166       numbers += i.toString();
167       if(i < nb){ numbers += "\n "; }
168     }
169     pre.setAttribute('line-numbers', numbers);
170   }
171 );
172 </script>
173 </html>

```

## 2.42 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 2023–2025 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 \section{Files tree}
85 \label{section:tree}
86
87 \begin{verbatim}
88 @current_tree_light@
89 \end{verbatim}
90
91 \begin{verbatim}
92 @current_tree@
93 \end{verbatim}
94
95 \section{Listing of files}
96 \label{section:listing}
97
98 This repository is dual licensed.
99 All the Bash scripts source code is covered by GPLv3+.
100 All the PHP scripts source code is covered by LGPLv3+.
101
102 The text of the licenses is available at:
103 \url{https://www.gnu.org/licenses/}.

```

```

104 The git repository of this source code is also available at:
105 \url{https://github.com/LLyaudet/@repository_name@/}.
106
107 Here is a listing of the dependencies of the code in this repository:
108 \begin{itemize}
109 \item The following dependencies are GPLv3+ licensed:\newline
110 basename, bash (and its builtins), cat, chmod, cp, cut, date, diff,
111 dirname, find, grep, head, mkdir, mv, realpath, rm, sed, sha512sum,
112 shellcheck, sort, tail, wc, wget, xargs
113 \item The following dependencies are GPLv2+ licensed:\newline
114 more, pandoc, pdftex, pdflatex, tree
115 \item The following dependencies are GPLv2 licensed:\newline
116 git
117 \item The following dependencies are LGPLv2.1+ licensed:\newline
118 notify-send
119 \item The following dependencies are MIT licensed:\newline
120 black, isort, mypy
121 \item php is licensed under PHP License v3.01
122 \item tex is licensed under Knuth license
123 \item pcregrep has a custom license from Cambridge University
124 \end{itemize}
125
126 Remark: Some commands listed under GPLv3+ are POSIX
127 and can have different implementations under another license;
128 for example, utils coreutils is MIT licensed,
129 whilst GNU coreutils is GPLv3+ licensed.
130
131 @files_listing_VerbatimInput@
132
133 @acknowledgments@
134
135 \end{document}

```

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

```

```

150
151
152 \subsection{
153     build\_and\_checks\_dependencies/licenses/templates/%
154 license\_file\_header\_AGPLv3+.c.tpl
155 }
156 \label{
157     build_and_checks_dependencies:licenses_templates:%
158 license_file_header_AGPLv3+ctpl
159 }
160
161 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
162 build_and_checks_dependencies/licenses_templates/%
163 license_file_header_AGPLv3+.c.tpl
164 }
165
166
167 \subsection{
168     build\_and\_checks\_dependencies/licenses/templates/%
169 license\_file\_header\_AGPLv3+.py.tpl
170 }
171 \label{
172     build_and_checks_dependencies:licenses_templates:%
173 license_file_header_AGPLv3+pytpl
174 }
175
176 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
177 build_and_checks_dependencies/licenses_templates/%
178 license_file_header_AGPLv3+.py.tpl
179 }
180
181
182 \subsection{
183     build\_and\_checks\_dependencies/licenses/templates/%
184 license\_file\_header\_AGPLv3+.sh.tpl
185 }
186 \label{
187     build_and_checks_dependencies:licenses_templates:%
188 license_file_header_AGPLv3+shtpl
189 }
190
191 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
192 build_and_checks_dependencies/licenses_templates/%
193 license_file_header_AGPLv3+.sh.tpl
194 }
195

```



```

196
197 \subsection{
198     build\_and\_checks\_dependencies/licenses/templates/%
199 license\_file\_header\_AGPLv3+.tex.tpl
200 }
201 \label{
202     build_and_checks_dependencies:licenses_templates:%
203 license_file_header_AGPLv3+textpl
204 }
205
206 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
207 build_and_checks_dependencies/licenses_templates/%
208 license_file_header_AGPLv3+.tex.tpl
209 }
210
211
212 \subsection{
213     build\_and\_checks\_dependencies/licenses/templates/%
214 license\_file\_header\_AGPLv3+.tpl
215 }
216 \label{
217     build_and_checks_dependencies:licenses_templates:%
218 license_file_header_AGPLv3+tpl
219 }
220
221 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
222 build_and_checks_dependencies/licenses_templates/%
223 license_file_header_AGPLv3+.tpl
224 }
225
226
227 \subsection{
228     build\_and\_checks\_dependencies/licenses/templates/%
229 license\_file\_header\_GPLv3+.c.tpl
230 }
231 \label{
232     build_and_checks_dependencies:licenses_templates:%
233 license_file_header_GPLv3+ctpl
234 }
235
236 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
237 build_and_checks_dependencies/licenses_templates/%
238 license_file_header_GPLv3+.c.tpl
239 }
240
241

```

```

242 \subsection{
243     build\_and\_checks\_dependencies/licenses/templates/%
244 license\_file\_header\_GPLv3+.py.tpl
245 }
246 \label{
247     build_and_checks_dependencies:licenses_templates:%
248 license_file_header_GPLv3+pytpl
249 }
250
251 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
252 build_and_checks_dependencies/licenses_templates/%
253 license_file_header_GPLv3+.py.tpl
254 }
255
256
257 \subsection{
258     build\_and\_checks\_dependencies/licenses/templates/%
259 license\_file\_header\_GPLv3+.sh.tpl
260 }
261 \label{
262     build_and_checks_dependencies:licenses_templates:%
263 license_file_header_GPLv3+shtpl
264 }
265
266 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
267 build_and_checks_dependencies/licenses_templates/%
268 license_file_header_GPLv3+.sh.tpl
269 }
270
271
272 \subsection{
273     build\_and\_checks\_dependencies/licenses/templates/%
274 license\_file\_header\_GPLv3+.tex.tpl
275 }
276 \label{
277     build_and_checks_dependencies:licenses_templates:%
278 license_file_header_GPLv3+textpl
279 }
280
281 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
282 build_and_checks_dependencies/licenses_templates/%
283 license_file_header_GPLv3+.tex.tpl
284 }
285
286
287 \subsection{

```

```

288     build\_and\_checks\_dependencies/licenses\_templates/%
289     license\_file\_header\_GPLv3+.tpl
290 }
291 \label{
292     build_and_checks_dependencies:licenses_templates:%
293     license_file_header_GPLv3+.tpl
294 }
295
296 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
297     build_and_checks_dependencies/licenses_templates/%
298     license_file_header_GPLv3+.tpl
299 }
300
301
302 \subsection{
303     build\_and\_checks\_dependencies/licenses\_templates/%
304     license\_file\_header\_LGPLv3+.c.tpl
305 }
306 \label{
307     build_and_checks_dependencies:licenses_templates:%
308     license_file_header_LGPLv3+.c.tpl
309 }
310
311 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
312     build_and_checks_dependencies/licenses_templates/%
313     license_file_header_LGPLv3+.c.tpl
314 }
315
316
317 \subsection{
318     build\_and\_checks\_dependencies/licenses\_templates/%
319     license\_file\_header\_LGPLv3+.py.tpl
320 }
321 \label{
322     build_and_checks_dependencies:licenses_templates:%
323     license_file_header_LGPLv3+.pytpl
324 }
325
326 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
327     build_and_checks_dependencies/licenses_templates/%
328     license_file_header_LGPLv3+.py.tpl
329 }
330
331
332 \subsection{
333     build\_and\_checks\_dependencies/licenses\_templates/%

```

```

334 license\_file\_header\_LGPLv3+.sh.tpl
335 }
336 \label{
337     build_and_checks_dependencies:licenses_templates:%
338 license_file_header_LGPLv3+shtpl
339 }
340
341 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
342 build_and_checks_dependencies/licenses_templates/%
343 license_file_header_LGPLv3+.sh.tpl
344 }
345
346
347 \subsection{
348     build\_and\_checks\_dependencies/licenses\_templates/%
349 license\_file\_header\_LGPLv3+.tex.tpl
350 }
351 \label{
352     build_and_checks_dependencies:licenses_templates:%
353 license_file_header_LGPLv3+textpl
354 }
355
356 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
357 build_and_checks_dependencies/licenses_templates/%
358 license_file_header_LGPLv3+.tex.tpl
359 }
360
361
362 \subsection{
363     build\_and\_checks\_dependencies/licenses\_templates/%
364 license\_file\_header\_LGPLv3+.tpl
365 }
366 \label{
367     build_and_checks_dependencies:licenses_templates:%
368 license_file_header_LGPLv3+tpl
369 }
370
371 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
372 build_and_checks_dependencies/licenses_templates/%
373 license_file_header_LGPLv3+.tpl
374 }
375
376
377 \subsection{
378     build\_and\_checks\_dependencies/lines\_counts.lib.sh
379 }

```

```

380 \label{
381     build_and_checks_dependencies:lines_countslibrsh
382 }
383
384 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
385 build_and_checks_dependencies/lines_counts.lib.rsh
386 }
387
388
389 \subsection{
390     build\_and\_checks\_dependencies/lines\_filters.lib.rsh
391 }
392 \label{
393     build_and_checks_dependencies:lines_filterslibrsh
394 }
395
396 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
397 build_and_checks_dependencies/lines_filters.lib.rsh
398 }
399
400
401 \subsection{
402     build\_and\_checks\_dependencies/lines\_maps.lib.rsh
403 }
404 \label{
405     build_and_checks_dependencies:lines_mapslibrsh
406 }
407
408 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
409 build_and_checks_dependencies/lines_maps.lib.rsh
410 }
411
412
413 \subsection{
414     build\_and\_checks\_dependencies/overwrite\_if\_not\_equal.lib.rsh
415 }
416 \label{
417     build_and_checks_dependencies:overwrite_if_not_equalitylibrsh
418 }
419
420 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
421 build_and_checks_dependencies/overwrite_if_not_equal.lib.rsh
422 }
423
424
425 \subsection{

```

```

426     build\_and\_checks\_dependencies/python\_black\_complement.lib.rsh
427 }
428 \label{
429     build_and_checks_dependencies:python_black_complementlib.rsh
430 }
431
432 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
433 build_and_checks_dependencies/python_black_complement.lib.rsh
434 }
435
436
437 \subsection{
438     build\_and\_checks\_dependencies/python\_isort\_complement.lib.rsh
439 }
440 \label{
441     build_and_checks_dependencies:python_isort_complementlib.rsh
442 }
443
444 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
445 build_and_checks_dependencies/python_isort_complement.lib.rsh
446 }
447
448
449 \subsection{
450     build\_and\_checks\_dependencies/split\_line\_at\_most.exec.php
451 }
452 \label{
453     build_and_checks_dependencies:split_line_at_mostexec.php
454 }
455
456 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
457 build_and_checks_dependencies/split_line_at_most.exec.php
458 }
459
460
461 \subsection{
462     build\_and\_checks\_dependencies/split\_line\_at\_most.lib.php
463 }
464 \label{
465     build_and_checks_dependencies:split_line_at_mostlib.php
466 }
467
468 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
469 build_and_checks_dependencies/split_line_at_most.lib.php
470 }
471

```

```

472
473 \subsection{
474     build\_and\_checks\_dependencies/strings\_functions.lib.sh
475 }
476 \label{
477     build_and_checks_dependencies:strings_functionslib.sh
478 }
479
480 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
481 build_and_checks_dependencies/strings_functions.lib.sh
482 }
483
484
485 \subsection{
486     build\_and\_checks\_dependencies/too\_long\_code\_lines.lib.sh
487 }
488 \label{
489     build_and_checks_dependencies:too_long_code_lineslib.sh
490 }
491
492 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
493 build_and_checks_dependencies/too_long_code_lines.lib.sh
494 }
495
496
497 \subsection{
498     build\_and\_checks\_dependencies/%
499 update\_common\_build\_and\_checks.exec.sh
500 }
501 \label{
502     build_and_checks_dependencies:update_common_build_and_checksexec.sh
503 }
504
505 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
506 build_and_checks_dependencies/update_common_build_and_checks.exec.sh
507 }
508
509
510 \subsection{
511     build\_and\_checks\_dependencies/%
512 update\_or\_check\_files\_names\_listing.exec.sh
513 }
514 \label{
515     build_and_checks_dependencies:%
516 update_or_check_files_names_listingexec.sh
517 }

```

```

518
519 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
520 build_and_checks_dependencies/%
521 update_or_check_files_names_listing.exec.sh
522 }
523
524
525 \subsection{
526     build\_and\_checks\_variables/.gitignore
527 }
528 \label{
529     build_and_checks_variables:gitignore
530 }
531
532 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
533 build_and_checks_variables/.gitignore
534 }
535
536
537 \subsection{
538     build\_and\_checks\_variables/DevOrSysAdminScripts.html.tpl
539 }
540 \label{
541     build_and_checks_variables:DevOrSysAdminScriptshtmltpl
542 }
543
544 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
545 build_and_checks_variables/DevOrSysAdminScripts.html.tpl
546 }
547
548
549 \subsection{
550     build\_and\_checks\_variables/DevOrSysAdminScripts.tex.tpl
551 }
552 \label{
553     build_and_checks_variables:DevOrSysAdminScriptstextpl
554 }
555
556 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
557 build_and_checks_variables/DevOrSysAdminScripts.tex.tpl
558 }
559
560
561 \subsection{
562     build\_and\_checks\_variables/files\_listing.tex.tpl
563 }

```



```

564 \label{
565     build_and_checks_variables:files_listingtextpl
566 }
567
568 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
569 build_and_checks_variables/files_listing.tex.tpl
570 }
571
572
573 \subsection{
574     build\_and\_checks\_variables/files\_names\_listing.txt
575 }
576 \label{
577     build_and_checks_variables:files_names_listingtxt
578 }
579
580 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
581 build_and_checks_variables/files_names_listing.txt
582 }
583
584
585 \subsection{
586     build\_and\_checks\_variables/licenses\_notes.txt
587 }
588 \label{
589     build_and_checks_variables:licenses_notetxt
590 }
591
592 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
593 build_and_checks_variables/licenses_notes.txt
594 }
595
596
597 \subsection{
598     build\_and\_checks\_variables/repository\_data.txt
599 }
600 \label{
601     build_and_checks_variables:repository_datatxt
602 }
603
604 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
605 build_and_checks_variables/repository_data.txt
606 }
607
608
609 \subsection{

```

```

610     build\_and\_checks.exec.sh
611 }
612 \label{
613     build_and_checksexecsh
614 }
615
616 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
617 build_and_checks.exec.sh
618 }
619
620
621 \subsection{
622     COPYING
623 }
624 \label{
625     COPYING
626 }
627
628 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
629 COPYING
630 }
631
632
633 \subsection{
634     COPYING.LESSER
635 }
636 \label{
637     COPYINGLESSER
638 }
639
640 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
641 COPYING.LESSER
642 }
643
644
645 \subsection{
646     git\_helpers/git\_checks.lib.sh
647 }
648 \label{
649     git_helpers:git_checkslibrsh
650 }
651
652 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
653 git_helpers/git_checks.lib.sh
654 }
655

```

```

656
657 \subsection{
658     git\_helpers/post-commit
659 }
660 \label{
661     git_helpers:post-commit
662 }
663
664 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
665 git_helpers/post-commit
666 }
667
668
669 \subsection{
670     git\_helpers/post\_commit\_renaming\_comment.lib.sh
671 }
672 \label{
673     git_helpers:post_commit_renaming_commentlibrsh
674 }
675
676 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
677 git_helpers/post_commit_renaming_comment.lib.sh
678 }
679
680
681 \subsection{
682     git\_helpers/pre-commit
683 }
684 \label{
685     git_helpers:pre-commit
686 }
687
688 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
689 git_helpers/pre-commit
690 }
691
692
693 \subsection{
694     LiensUtiles.txt
695 }
696 \label{
697     LiensUtilestxt
698 }
699
700 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
701 LiensUtiles.txt

```

```

702 }
703
704
705 \subsection{
706     README.md.tpl
707 }
708 \label{
709     READMEmdtpl
710 }
711
712 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
713     README.md.tpl
714 }
715
716
717 \subsection{
718     unicode.lib.php
719 }
720 \label{
721     unicodelibrphp
722 }
723
724 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
725     unicode.lib.php
726 }
727
728
729 \subsection{
730     upgrade\_build\_and\_checks.exec.sh
731 }
732 \label{
733     upgrade_build_and_checksexecsh
734 }
735
736 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
737     upgrade_build_and_checks.exec.sh
738 }
739
740
741 \subsection{
742     wget\_sha512.lib.sh
743 }
744 \label{
745     wget_sha512librsh
746 }
747

```

```

748 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
749 wget_sha512.lib.sh
750 }
751
752

```

## 2.44 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 2023-2025 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+.c.tpl
46 build_and_checks_dependencies/licenses_templates/\
47 license_file_header_AGPLv3+.py.tpl
48 build_and_checks_dependencies/licenses_templates/\
49 license_file_header_AGPLv3+.sh.tpl
50 build_and_checks_dependencies/licenses_templates/\
51 license_file_header_AGPLv3+.tex.tpl
52 build_and_checks_dependencies/licenses_templates/\
53 license_file_header_AGPLv3+.tpl
54 // build_and_checks_dependencies/licenses_templates/\
55 license_file_header_GPLv3+.c
56 build_and_checks_dependencies/licenses_templates/\
57 license_file_header_GPLv3+.c.tpl
58 // build_and_checks_dependencies/licenses_templates/\
59 license_file_header_GPLv3+.py
60 build_and_checks_dependencies/licenses_templates/\
61 license_file_header_GPLv3+.py.tpl
62 // build_and_checks_dependencies/licenses_templates/\
63 license_file_header_GPLv3+.sh
64 build_and_checks_dependencies/licenses_templates/\
65 license_file_header_GPLv3+.sh.tpl
66 // build_and_checks_dependencies/licenses_templates/\
67 license_file_header_GPLv3+.tex
68 build_and_checks_dependencies/licenses_templates/\
69 license_file_header_GPLv3+.tex.tpl
70 build_and_checks_dependencies/licenses_templates/\
71 license_file_header_GPLv3+.tpl
72 // build_and_checks_dependencies/licenses_templates/\
73 license_file_header_LGPLv3+.c
74 build_and_checks_dependencies/licenses_templates/\
75 license_file_header_LGPLv3+.c.tpl
76 // build_and_checks_dependencies/licenses_templates/\
77 license_file_header_LGPLv3+.py
78 build_and_checks_dependencies/licenses_templates/\
79 license_file_header_LGPLv3+.py.tpl
80 // build_and_checks_dependencies/licenses_templates/\
81 license_file_header_LGPLv3+.sh
82 build_and_checks_dependencies/licenses_templates/\
83 license_file_header_LGPLv3+.sh.tpl
84 // build_and_checks_dependencies/licenses_templates/\

```

```

85  license_file_header_LGPLv3+.tex
86  build_and_checks_dependencies/licenses_templates/\
87  license_file_header_LGPLv3+.tex.tpl
88  build_and_checks_dependencies/licenses_templates/\
89  license_file_header_LGPLv3+.tpl
90  build_and_checks_dependencies/lines_counts.lib.sh
91  build_and_checks_dependencies/lines_filters.lib.sh
92  build_and_checks_dependencies/lines_maps.lib.sh
93  // build_and_checks_dependencies/listings/files_listing.tex.tpl
94  build_and_checks_dependencies/overwrite_if_not_equal.lib.sh
95  build_and_checks_dependencies/python_black_complement.lib.sh
96  build_and_checks_dependencies/python_isort_complement.lib.sh
97  build_and_checks_dependencies/split_line_at_most.exec.php
98  build_and_checks_dependencies/split_line_at_most.lib.php
99  build_and_checks_dependencies/strings_functions.lib.sh
100 build_and_checks_dependencies/too_long_code_lines.lib.sh
101 build_and_checks_dependencies/update_common_build_and_checks.exec.sh
102 build_and_checks_dependencies/\
103 update_or_check_files_names_listing.exec.sh
104 build_and_checks_variables/.gitignore
105 build_and_checks_variables/DevOrSysAdminScripts.html.tpl
106 // build_and_checks_variables/DevOrSysAdminScripts.tex
107 build_and_checks_variables/DevOrSysAdminScripts.tex.tpl
108 build_and_checks_variables/files_listing.tex.tpl
109 build_and_checks_variables/files_names_listing.txt
110 build_and_checks_variables/licenses_notes.txt
111 build_and_checks_variables/repository_data.txt
112 build_and_checks.exec.sh
113 COPYING
114 COPYING.LESSER
115 // DevOrSysAdminScripts.html
116 // DevOrSysAdminScripts.pdf
117 // EncoreBlasé20240517-20240518.txt
118 git_helpers/git_checks.lib.sh
119 git_helpers/post-commit
120 git_helpers/post_commit_renaming_comment.lib.sh
121 git_helpers/pre-commit
122 LiensUtiles.txt
123 // README.html
124 // README.md
125 README.md.tpl
126 unicode.lib.php
127 upgrade_build_and_checks.exec.sh
128 wget_sha512.lib.sh

```

## 2.45 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
14 - The following dependencies are LGPLv2.1+ licensed:
15 notify-send
16 - The following dependencies are MIT licensed:
17 black, isort, mypy
18 - php is licensed under PHP License v3.01
19 - tex is licensed under Knuth license
20 - pcregrep has a custom license from Cambridge University
21
22 Remark: Some commands listed under GPLv3+ are POSIX
23 and can have different implementations under another license;
24 for example, utils coreutils is MIT licensed,
25 whilst GNU coreutils is GPLv3+ licensed.
```

## 2.46 build\_and\_checks\_variables/repository\_data.txt

```
1 repository_name=DevOrSysAdminScripts
2 repository_web_url=https://github.com/LLyaudet/DevOrSysAdminScripts/
3 repository_git_url=git@github.com:LLyaudet/DevOrSysAdminScripts.git
4 abstract=Some "small" useful scripts
5 abstract=for enhancing development or system-administrators tasks
6 license=GPLv3+
7 license2=LGPLv3+
8 author_email=Laurent.Lyaudet@gmail.com
9 author_full_name=Laurent Frédéric Bernard François Lyaudet
10 author_last_name=Lyaudet
11 author_name=Laurent Lyaudet
12 author_website=https://lyaudet.eu/laurent/
13 acknowledgments=Merci Dieu !
14 acknowledgments=Merci Père ! Merci Seigneur ! Merci Saint Esprit !
15 grammar_or_spell_checker_command=more
```



## 2.47 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 2023-2025 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 [[ "$2" == "--verbose" ]]; then
40         echo "$0 $*"
41         LFBFL_verbose="--verbose"
42     fi
43     readonly LFBFL_verbose
44 }
```

```

45 # shellcheck disable=SC1091
46 source ./wget_sha512.lib.sh
47
48 LFBFL_subdir="build_and_checks_dependencies"
49 mkdir -p "${LFBFL_subdir}/licenses_templates"
50 mkdir -p "build_and_checks_variables/temp"
51 if ! [[ -f "build_and_checks_variables/.gitignore" ]]; then
52     echo "temp/" > "build_and_checks_variables/.gitignore"
53     echo "" >> "build_and_checks_variables/.gitignore"
54 fi
55
56 # LFBFL_dependencies_raw_content_download_URL
57 local LFBFL_dependencies_URL
58 LFBFL_dependencies_URL="https://raw.githubusercontent.com/LLyaudet/"
59 LFBFL_dependencies_URL+="DevOrSysAdminScripts/main/${LFBFL_subdir}"
60 readonly LFBFL_dependencies_URL
61
62 declare -r LFBFL_common_file_name="common_build_and_checks.exec.sh"
63 # LFBFL_script_download_URL
64 declare -r\
65     LFBFL_script="${LFBFL_dependencies_URL}/${LFBFL_common_file_name}"
66 declare -r\
67     LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_common_file_name}"
68 local LFBFL_correct_sha512
69 LFBFL_correct_sha512='d04e6596abe8f39e3c388e4efe273b6c797cca667c879'
70 LFBFL_correct_sha512+='37d279d092d8349a193b14ced6cc059e8326763ddd16'
71 LFBFL_correct_sha512+='85d1973c73a230ee86a7e593b873b7455084d2b'
72 wget_sha512 "${LFBFL_file_path}" "${LFBFL_script}"\
73     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
74 chmod +x "${LFBFL_file_path}"
75
76 "${LFBFL_file_path}" "${LFBFL_working_directory}"\
77     "${LFBFL_dependencies_URL}" "${LFBFL_verbose}"
78 }
79
80 build_and_checks "$@"

```

## 2.48 COPYING

```

1          GNU GENERAL PUBLIC LICENSE
2          Version 3, 29 June 2007
3
4 Copyright (C) 2007 Free Software Foundation, Inc. <https://fsf.org/>
5 Everyone is permitted to copy and distribute verbatim copies
6 of this license document, but changing it is not allowed.
7

```

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## Preamble

The GNU General Public License is a free, copyleft license for software and other kinds of works.

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For example, if you distribute copies of such a program, whether gratis or for a fee, you must pass on to the recipients the same freedoms that you received. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

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For the developers' and authors' protection, the GPL clearly explains that there is no warranty for this free software. For both users' and authors' sake, the GPL requires that modified versions be marked as changed, so that their problems will not be attributed erroneously to authors of previous versions.

Some devices are designed to deny users access to install or run modified versions of the software inside them, although the manufacturer can do so. This is fundamentally incompatible with the aim of protecting users' freedom to change the software. The systematic

54 pattern of such abuse occurs in the area of products for individuals to  
55 use, which is precisely where it is most unacceptable. Therefore, we  
56 have designed this version of the GPL to prohibit the practice for those  
57 products. If such problems arise substantially in other domains, we  
58 stand ready to extend this provision to those domains in future versions  
59 of the GPL, as needed to protect the freedom of users.

60  
61 Finally, every program is threatened constantly by software patents.  
62 States should not allow patents to restrict development and use of  
63 software on general-purpose computers, but in those that do, we wish to  
64 avoid the special danger that patents applied to a free program could  
65 make it effectively proprietary. To prevent this, the GPL assures that  
66 patents cannot be used to render the program non-free.

67  
68 The precise terms and conditions for copying, distribution and  
69 modification follow.

## 70 71 TERMS AND CONDITIONS

### 72 73 0. Definitions.

74  
75 "This License" refers to version 3 of the GNU General Public License.

76  
77 "Copyright" also means copyright-like laws that apply to other kinds of  
78 works, such as semiconductor masks.

79  
80 "The Program" refers to any copyrightable work licensed under this  
81 License. Each licensee is addressed as "you". "Licensees" and  
82 "recipients" may be individuals or organizations.

83  
84 To "modify" a work means to copy from or adapt all or part of the work  
85 in a fashion requiring copyright permission, other than the making of an  
86 exact copy. The resulting work is called a "modified version" of the  
87 earlier work or a work "based on" the earlier work.

88  
89 A "covered work" means either the unmodified Program or a work based  
90 on the Program.

91  
92 To "propagate" a work means to do anything with it that, without  
93 permission, would make you directly or secondarily liable for  
94 infringement under applicable copyright law, except executing it on a  
95 computer or modifying a private copy. Propagation includes copying,  
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  
137 control those activities. However, it does not include the work's  
138 System Libraries, or general-purpose tools or generally available free  
139 programs which are used unmodified in performing those activities but  
140 which are not part of the work. For example, Corresponding Source  
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.

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source.

The Corresponding Source for a work in source code form is that same work.

## 2. Basic Permissions.

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## 3. Protecting Users' Legal Rights From Anti-Circumvention Law.

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When you convey a covered work, you waive any legal power to forbid circumvention of technological measures to the extent such circumvention is effected by exercising rights under this License with respect to the covered work, and you disclaim any intention to limit operation or modification of the work as a means of enforcing, against the work's

192 users, your or third parties' legal rights to forbid circumvention of  
193 technological measures.

194

#### 195 4. Conveying Verbatim Copies.

196

197 You may convey verbatim copies of the Program's source code as you  
198 receive it, in any medium, provided that you conspicuously and  
199 appropriately publish on each copy an appropriate copyright notice;  
200 keep intact all notices stating that this License and any  
201 non-permissive terms added in accord with section 7 apply to the code;  
202 keep intact all notices of the absence of any warranty; and give all  
203 recipients a copy of this License along with the Program.

204

205 You may charge any price or no price for each copy that you convey,  
206 and you may offer support or warranty protection for a fee.

207

#### 208 5. Conveying Modified Source Versions.

209

210 You may convey a work based on the Program, or the modifications to  
211 produce it from the Program, in the form of source code under the  
212 terms of section 4, provided that you also meet all of these conditions:

213

214 a) The work must carry prominent notices stating that you modified  
215 it, and giving a relevant date.

216

217 b) The work must carry prominent notices stating that it is  
218 released under this License and any conditions added under section  
219 7. This requirement modifies the requirement in section 4 to  
220 "keep intact all notices".

221

222 c) You must license the entire work, as a whole, under this  
223 License to anyone who comes into possession of a copy. This  
224 License will therefore apply, along with any applicable section 7  
225 additional terms, to the whole of the work, and all its parts,  
226 regardless of how they are packaged. This License gives no  
227 permission to license the work in any other way, but it does not  
228 invalidate such permission if you have separately received it.

229

230 d) If the work has interactive user interfaces, each must display  
231 Appropriate Legal Notices; however, if the Program has interactive  
232 interfaces that do not display Appropriate Legal Notices, your  
233 work need not make them do so.

234

235 A compilation of a covered work with other separate and independent  
236 works, which are not by their nature extensions of the covered work,  
237 and which are not combined with it such as to form a larger program,

238 in or on a volume of a storage or distribution medium, is called an  
239 "aggregate" if the compilation and its resulting copyright are not  
240 used to limit the access or legal rights of the compilation's users  
241 beyond what the individual works permit. Inclusion of a covered work  
242 in an aggregate does not cause this License to apply to the other  
243 parts of the aggregate.

244

## 245 6. Conveying Non-Source Forms.

246

247 You may convey a covered work in object code form under the terms  
248 of sections 4 and 5, provided that you also convey the  
249 machine-readable Corresponding Source under the terms of this License,  
250 in one of these ways:

251

252 a) Convey the object code in, or embodied in, a physical product  
253 (including a physical distribution medium), accompanied by the  
254 Corresponding Source fixed on a durable physical medium  
255 customarily used for software interchange.

256

257 b) Convey the object code in, or embodied in, a physical product  
258 (including a physical distribution medium), accompanied by a  
259 written offer, valid for at least three years and valid for as  
260 long as you offer spare parts or customer support for that product  
261 model, to give anyone who possesses the object code either (1) a  
262 copy of the Corresponding Source for all the software in the  
263 product that is covered by this License, on a durable physical  
264 medium customarily used for software interchange, for a price no  
265 more than your reasonable cost of physically performing this  
266 conveying of source, or (2) access to copy the  
267 Corresponding Source from a network server at no charge.

268

269 c) Convey individual copies of the object code with a copy of the  
270 written offer to provide the Corresponding Source. This  
271 alternative is allowed only occasionally and noncommercially, and  
272 only if you received the object code with such an offer, in accord  
273 with subsection 6b.

274

275 d) Convey the object code by offering access from a designated  
276 place (gratis or for a charge), and offer equivalent access to the  
277 Corresponding Source in the same way through the same place at no  
278 further charge. You need not require recipients to copy the  
279 Corresponding Source along with the object code. If the place to  
280 copy the object code is a network server, the Corresponding Source  
281 may be on a different server (operated by you or a third party)  
282 that supports equivalent copying facilities, provided you maintain  
283 clear directions next to the object code saying where to find the



284 Corresponding Source. Regardless of what server hosts the  
285 Corresponding Source, you remain obligated to ensure that it is  
286 available for as long as needed to satisfy these requirements.

287  
288 e) Convey the object code using peer-to-peer transmission, provided  
289 you inform other peers where the object code and Corresponding  
290 Source of the work are being offered to the general public at no  
291 charge under subsection 6d.

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  
297 A "User Product" is either (1) a "consumer product", which means any  
298 tangible personal property which is normally used for personal, family,  
299 or household purposes, or (2) anything designed or sold for incorporation  
300 into a dwelling. In determining whether a product is a consumer product,  
301 doubtful cases shall be resolved in favor of coverage. For a particular  
302 product received by a particular user, "normally used" refers to a  
303 typical or common use of that class of product, regardless of the status  
304 of the particular user or of the way in which the particular user  
305 actually uses, or expects or is expected to use, the product. A product  
306 is a consumer product regardless of whether the product has substantial  
307 commercial, industrial or non-consumer uses, unless such uses represent  
308 the only significant mode of use of the product.

309  
310 "Installation Information" for a User Product means any methods,  
311 procedures, authorization keys, or other information required to install  
312 and execute modified versions of a covered work in that User Product from  
313 a modified version of its Corresponding Source. The information must  
314 suffice to ensure that the continued functioning of the modified object  
315 code is in no case prevented or interfered with solely because  
316 modification has been made.

317  
318 If you convey an object code work under this section in, or with, or  
319 specifically for use in, a User Product, and the conveying occurs as  
320 part of a transaction in which the right of possession and use of the  
321 User Product is transferred to the recipient in perpetuity or for a  
322 fixed term (regardless of how the transaction is characterized), the  
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  
326 modified object code on the User Product (for example, the work has  
327 been installed in ROM).

328  
329 The requirement to provide Installation Information does not include a

330 requirement to continue to provide support service, warranty, or updates  
331 for a work that has been modified or installed by the recipient, or for  
332 the User Product in which it has been modified or installed. Access to a  
333 network may be denied when the modification itself materially and  
334 adversely affects the operation of the network or violates the rules and  
335 protocols for communication across the network.

336  
337 Corresponding Source conveyed, and Installation Information provided,  
338 in accord with this section must be in a format that is publicly  
339 documented (and with an implementation available to the public in  
340 source code form), and must require no special password or key for  
341 unpacking, reading or copying.

342  
343 7. Additional Terms.  
344

345 "Additional permissions" are terms that supplement the terms of this  
346 License by making exceptions from one or more of its conditions.  
347 Additional permissions that are applicable to the entire Program shall  
348 be treated as though they were included in this License, to the extent  
349 that they are valid under applicable law. If additional permissions  
350 apply only to part of the Program, that part may be used separately  
351 under those permissions, but the entire Program remains governed by  
352 this License without regard to the additional permissions.

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354 When you convey a copy of a covered work, you may at your option  
355 remove any additional permissions from that copy, or from any part of  
356 it. (Additional permissions may be written to require their own  
357 removal in certain cases when you modify the work.) You may place  
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363 that material) supplement the terms of this License with terms:

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  - 367  
368 b) Requiring preservation of specified reasonable legal notices or  
369 author attributions in that material or in the Appropriate Legal  
370 Notices displayed by works containing it; or
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372 c) Prohibiting misrepresentation of the origin of that material, or  
373 requiring that modified versions of such material be marked in  
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380 trade names, trademarks, or service marks; or  
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383 material by anyone who conveys the material (or modified versions of  
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387

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394 License, you may add to a covered work material governed by the terms  
395 of that license document, provided that the further restriction does  
396 not survive such relicensing or conveying.  
397

398 If you add terms to a covered work in accord with this section, you  
399 must place, in the relevant source files, a statement of the  
400 additional terms that apply to those files, or a notice indicating  
401 where to find the applicable terms.  
402

403 Additional terms, permissive or non-permissive, may be stated in the  
404 form of a separately written license, or stated as exceptions;  
405 the above requirements apply either way.  
406

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410 provided under this License. Any attempt otherwise to propagate or  
411 modify it is void, and will automatically terminate your rights under  
412 this License (including any patent licenses granted under the third  
413 paragraph of section 11).  
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416 license from a particular copyright holder is reinstated (a)  
417 provisionally, unless and until the copyright holder explicitly and  
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420 prior to 60 days after the cessation.  
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426 copyright holder, and you cure the violation prior to 30 days after  
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430 licenses of parties who have received copies or rights from you under  
431 this License. If your rights have been terminated and not permanently  
432 reinstated, you do not qualify to receive new licenses for the same  
433 material under section 10.

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436  
437 You are not required to accept this License in order to receive or  
438 run a copy of the Program. Ancillary propagation of a covered work  
439 occurring solely as a consequence of using peer-to-peer transmission  
440 to receive a copy likewise does not require acceptance. However,  
441 nothing other than this License grants you permission to propagate or  
442 modify any covered work. These actions infringe copyright if you do  
443 not accept this License. Therefore, by modifying or propagating a  
444 covered work, you indicate your acceptance of this License to do so.

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447  
448 Each time you convey a covered work, the recipient automatically  
449 receives a license from the original licensors, to run, modify and  
450 propagate that work, subject to this License. You are not responsible  
451 for enforcing compliance by third parties with this License.

452  
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608 PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS),  
609 EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF  
610 SUCH DAMAGES.

611

612 17. Interpretation of Sections 15 and 16.

613

614 If the disclaimer of warranty and limitation of liability provided  
615 above cannot be given local legal effect according to their terms,  
616 reviewing courts shall apply local law that most closely approximates  
617 an absolute waiver of all civil liability in connection with the  
618 Program, unless a warranty or assumption of liability accompanies a  
619 copy of the Program in return for a fee.

620

621 END OF TERMS AND CONDITIONS

622

623 How to Apply These Terms to Your New Programs

624

625 If you develop a new program, and you want it to be of the greatest  
626 possible use to the public, the best way to achieve this is to make it  
627 free software which everyone can redistribute and change under these terms.

628

629 To do so, attach the following notices to the program. It is safest  
630 to attach them to the start of each source file to most effectively  
631 state the exclusion of warranty; and each file should have at least  
632 the "copyright" line and a pointer to where the full notice is found.

633

634 <one line to give the program's name and a brief idea of what it does.>  
635 Copyright (C) <year> <name of author>

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646

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648 along with this program. If not, see <<https://www.gnu.org/licenses/>>.

649

650 Also add information on how to contact you by electronic and paper mail.

651



652 If the program does terminal interaction, make it output a short  
653 notice like this when it starts in an interactive mode:

654

```
655 <program> Copyright (C) <year> <name of author>
656 This program comes with ABSOLUTELY NO WARRANTY; for details type `show w'.
657 This is free software, and you are welcome to redistribute it
658 under certain conditions; type `show c' for details.
```

659

660 The hypothetical commands `show w' and `show c' should show the appropriate  
661 parts of the General Public License. Of course, your program's commands  
662 might be different; for a GUI interface, you would use an "about box".

663

664 You should also get your employer (if you work as a programmer) or school,  
665 if any, to sign a "copyright disclaimer" for the program, if necessary.  
666 For more information on this, and how to apply and follow the GNU GPL, see  
667 <<https://www.gnu.org/licenses/>>.

668

669 The GNU General Public License does not permit incorporating your program  
670 into proprietary programs. If your program is a subroutine library, you  
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14
15 As used herein, "this License" refers to version 3 of the GNU Lesser
16 General Public License, and the "GNU GPL" refers to version 3 of the GNU
17 General Public License.
18
19 "The Library" refers to a covered work governed by this License,
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

60 b) under the GNU GPL, with none of the additional permissions of  
61 this License applicable to that copy.  
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.  
143  
144       6. Revised Versions of the GNU Lesser General Public License.  
145  
146       The Free Software Foundation may publish revised and/or new versions  
147       of the GNU Lesser General Public License from time to time. Such new  
148       versions will be similar in spirit to the present version, but may  
149       differ in detail to address new problems or concerns.  
150  
151       Each version is given a distinguishing version number. If the  
152       Library as you received it specifies that a certain numbered version  
153       of the GNU Lesser General Public License "or any later version"  
154       applies to it, you have the option of following the terms and  
155       conditions either of that published version or of any later version  
156       published by the Free Software Foundation. If the Library as you  
157       received it does not specify a version number of the GNU Lesser  
158       General Public License, you may choose any version of the GNU Lesser

```
159 General Public License ever published by the Free Software Foundation.
160
161 If the Library as you received it specifies that a proxy can decide
162 whether future versions of the GNU Lesser General Public License shall
163 apply, that proxy's public statement of acceptance of any version is
164 permanent authorization for you to choose that version for the
165 Library.
```

## 2.50 git\_helpers/git\_checks.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 2023-2025 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     # shellcheck disable=SC2312
53     if git diff --cached --name-only | grep models;
54     then
55         notify-send "${LFBFL_send_summary_1}" "${LFBFL_send_body_1}"
56         notify-send "${LFBFL_send_summary_1}" "${LFBFL_send_body_2}"
57     fi
58     # shellcheck disable=SC2312
59     if git diff --cached --name-only | grep serializer;
60     then
61         notify-send "${LFBFL_send_summary_2}" "${LFBFL_send_body_3}"
62     fi
63     return 0
64 }
65
66
67 check_no_abusive_trailing_comma() {
68     # Useful for Python code, although it regularly yields
69     # false positives in Python code
70     # (but it is easy to distinguish by hand).
71     # Use `git commit --no-verify` after check.
72     declare -r LFBFL_send_summary_1="ATTENTION"
73     local LFBFL_send_body_1="Il semblerait que vous affectiez un tuple"
74     LFBFL_send_body_1+=" au lieu d'une autre valeur dans une variable."
75     readonly LFBFL_send_body_1
76     # shellcheck disable=SC2312
77     if git diff --cached -r | grep ' = .*,\s*$';
78     then
79         notify-send "${LFBFL_send_summary_1}" "${LFBFL_send_body_1}"
80         return 1
81     fi
82     return 0

```

```

83 }
84
85
86 check_black_code_formatting(){
87     # attention ça ne marche que sur les fichiers "stagés" avec git add
88     declare -r LFBFL_files_string=$( \
89         git diff --cached --name-only | grep '\.py' \
90     )
91     echo "${LFBFL_files_string}"
92     declare -a LFBFL_some_files
93     mapfile -t LFBFL_some_files <<< "${LFBFL_files_string}"
94     readonly LFBFL_some_files
95     declare -i LFBFL_error=0
96     # Not very useful since LFBFL_file should be local to the loop by
97     # default.
98     local LFBFL_file
99     for LFBFL_file in "${LFBFL_some_files[@]"; do
100         echo "Black will check formatting on file ${LFBFL_file}"
101         if ! black --check --diff "${LFBFL_file}";
102         then
103             LFBFL_error=1
104         fi
105     done
106     # shellcheck disable=SC2248,SC2250
107     return $LFBFL_error
108 }

```

## 2.51 git\_helpers/post-commit

```

1  #!/usr/bin/env bash
2  # This file is part of DevOrSysAdminScripts library.
3  #
4  # DevOrSysAdminScripts is free software:
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13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
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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 2023-2024 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 disable=SC1090
36 source "${LFBFL_library}"
37
38 commit_a_file_renamed_comment --verbose --log-directory-change
39 exit 0

```

## 2.52 git\_helpers/post\_commit\_renaming\_comment.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.
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17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
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```



```

22 #
23 # ©Copyright 2023-2025 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="${LFBFL_this_file_directory}/../"
39 pushd .
40 # shellcheck disable=SC2164
41 cd "${LFBFL_some_directory}"
42 # shellcheck disable=SC1091
43 source "build_and_checks_dependencies/strings_functions.lib.sh"
44 # shellcheck disable=SC2164
45 popd
46
47 # Never forget that the worse security is the illusion of security
48 # (Kevin Mitnick). So, do not expect to have an accurate trackability
49 # of code history just because you use this post-commit hook or
50 # something else more evolved. This is useful but not a guarantee.
51 # For this reason, this function will only handle when all files
52 # impacted in the preceding commit are only renamed.
53 # It assumes that 'diff' is the current default difference utility
54 # parametered with 'git'. This point could be enhanced.
55 commit_a_file_renamed_comment() {
56     declare -i LFBFL_verbose=0
57     if [[ "$1" == "--verbose" ]]; then
58         echo "$0 commit_a_file_renamed_comment $*"
59         LFBFL_verbose=1
60     fi
61     readonly LFBFL_verbose
62
63     declare -i LFBFL_log_directory_change=0
64     if [[ "$2" == "--log-directory-change" ]]; then
65         LFBFL_log_directory_change=1
66     fi
67     readonly LFBFL_log_directory_change

```

```

68
69 declare -i LFBFL_max_comment_line_length=70
70 if [[ -n "$3" ]]; then
71     LFBFL_max_comment_line_length="$3"
72 fi
73 readonly LFBFL_max_comment_line_length
74 # shellcheck disable=SC2250
75 if [[ $LFBFL_verbose -eq 1 ]]; then
76     echo "LFBFL_log_directory_change: ${LFBFL_log_directory_change}"
77     echo\
78         "LFBFL_max_comment_line_length: ${LFBFL_max_comment_line_length}"
79 fi
80 #-----
81
82 # shellcheck disable=SC2155
83 declare -r LFBFL_renaming_lines=$(
84     git log -p -1 | grep 'diff --git' -A 1
85 )
86 # shellcheck disable=SC2250
87 if [[ $LFBFL_verbose -eq 1 ]]; then
88     echo "LFBFL_renaming_lines: ${LFBFL_renaming_lines}"
89 fi
90
91 declare -a LFBFL_renaming_lines_array
92 mapfile -t LFBFL_renaming_lines_array <<< "${LFBFL_renaming_lines}"
93 readonly LFBFL_renaming_lines_array
94
95 # shellcheck disable=SC2155
96 declare -r LFBFL_timestamp=$(date --iso-8601="minute")
97 # shellcheck disable=SC2250
98 if [[ $LFBFL_verbose -eq 1 ]]; then
99     echo "LFBFL_timestamp: ${LFBFL_timestamp}"
100 fi
101 get_split_score_after_before_simple\
102     "${LFBFL_max_comment_line_length}" _
103 # shellcheck disable=SC2154
104 LFBFL_split_score_command1="${get_split_score_after_before_result}"
105 # shellcheck disable=SC2154
106 LFBFL_split_score_command_properties1=\
107 "${get_split_score_after_before_result2}"
108 get_split_score_after_before_simple\
109     "${LFBFL_max_comment_line_length}" /
110 # shellcheck disable=SC2154
111 LFBFL_split_score_command2="${get_split_score_after_before_result}"
112 # shellcheck disable=SC2154
113 LFBFL_split_score_command_properties2=\

```

```

114 "${get_split_score_after_before_result2}"
115 declare -i LFBFL_renaming_happened=0
116 declare -i LFBFL_i
117 # declare -r LFBFL_special_file_name="files_names_listing.txt"
118 declare -r LFBFL_sfn="files_names_listing.txt"
119 for ((LFBFL_i=0; LFBFL_i<${#LFBFL_renaming_lines_array[@]})); do
120     # shellcheck disable=SC2250
121     local LFBFL_diff_line="${LFBFL_renaming_lines_array[$LFBFL_i]}"
122     LFBFL_i=$((LFBFL_i + 1))
123     # shellcheck disable=SC2250
124     local\
125         LFBFL_similarity_line="${LFBFL_renaming_lines_array[$LFBFL_i]}"
126     LFBFL_i=$((LFBFL_i + 1))
127     # We need to increment 3 times since grep adds "--" lines between.
128     LFBFL_i=$((LFBFL_i + 1))
129     # shellcheck disable=SC2250
130     if [[ $LFBFL_verbose -eq 1 ]]; then
131         echo "LFBFL_diff_line: ${LFBFL_diff_line}"
132         echo "LFBFL_similarity_line: ${LFBFL_similarity_line}"
133     fi
134     if [[ "${LFBFL_similarity_line:17:4}" == "100%" ]]; then
135         # Extract old file name from diff line. -----
136         # shellcheck disable=SC2155
137         local LFBFL_old_file_path=$(
138             echo "${LFBFL_diff_line}" | cut -d ' ' -f 3
139         )
140         # It starts by "a/".
141         LFBFL_old_file_path=".${LFBFL_old_file_path:1}"
142         # shellcheck disable=SC2155
143         local LFBFL_old_file_name=$(basename "${LFBFL_old_file_path}")
144         # shellcheck disable=SC2155
145         local LFBFL_old_file_directory=$(
146             dirname "${LFBFL_old_file_path}"
147         )
148         # Extract new file name from diff line. -----
149         # shellcheck disable=SC2155
150         local LFBFL_new_file_path=$(
151             echo "${LFBFL_diff_line}" | cut -d ' ' -f 4
152         )
153         # It starts by "b/".
154         LFBFL_new_file_path=".${LFBFL_new_file_path:1}"
155         # shellcheck disable=SC2155
156         local LFBFL_new_file_name=$(basename "${LFBFL_new_file_path}")
157         # shellcheck disable=SC2155
158         local LFBFL_new_file_directory=$(
159             dirname "${LFBFL_new_file_path}"

```

```

160 )
161 # shellcheck disable=SC2250
162 if [[ $LFBFL_verbose -eq 1 ]]; then
163     echo "LFBFL_old_file_path: ${LFBFL_old_file_path}"
164     echo "LFBFL_old_file_name: ${LFBFL_old_file_name}"
165     echo "LFBFL_old_file_directory: ${LFBFL_old_file_directory}"
166     echo "LFBFL_new_file_path: ${LFBFL_new_file_path}"
167     echo "LFBFL_new_file_name: ${LFBFL_new_file_name}"
168     echo "LFBFL_new_file_directory: ${LFBFL_new_file_directory}"
169 fi
170 # Extract "LFBFL_extension" with smart guessing for .tpl -----
171 # and set prefix for line with ©Copyright. -----
172 local LFBFL_useful_file_name="${LFBFL_new_file_name}"
173 local LFBFL_extension="${LFBFL_useful_file_name##*.}"
174 # shellcheck disable=SC2250
175 if [[ $LFBFL_verbose -eq 1 ]]; then
176     echo "LFBFL_useful_file_name: ${LFBFL_useful_file_name}"
177     echo "LFBFL_extension: ${LFBFL_extension}"
178 fi
179 declare -i LFBFL_j
180 for ((LFBFL_j=0; LFBFL_j<3; ++LFBFL_j)); do
181     if [[ "${LFBFL_extension}" != "tpl" ]]; then
182         break
183     fi
184     LFBFL_useful_file_name="${LFBFL_useful_file_name:0:-4}"
185     LFBFL_extension="${LFBFL_useful_file_name##*.}"
186     # shellcheck disable=SC2250
187     if [[ $LFBFL_verbose -eq 1 ]]; then
188         echo "LFBFL_useful_file_name: ${LFBFL_useful_file_name}"
189         echo "LFBFL_extension: ${LFBFL_extension}"
190     fi
191 done
192 local LFBFL_comment_prefix=""
193 if [[ "${LFBFL_extension}" == "sh" ]]; then
194     LFBFL_comment_prefix="#"
195 fi
196 if [[ "${LFBFL_extension}" == "sql" ]]; then
197     LFBFL_comment_prefix="-- "
198 fi
199 if [[ "${LFBFL_extension}" == "tex" ]]; then
200     LFBFL_comment_prefix="% "
201 fi
202 if [[ "${LFBFL_useful_file_name}" == "${LFBFL_sfn}" ]]; then
203     LFBFL_comment_prefix="// "
204 fi
205 # shellcheck disable=SC2250

```

```

206 if [[ $LFBFL_verbose -eq 1 ]]; then
207     echo "LFBFL_comment_prefix: ${LFBFL_comment_prefix}"
208 fi
209 #-----
210 # Split if necessary old_file_name, new_file_name, etc. to have
211 # comment lines below max_comment_line_length.
212 local LFBFL_comment_prefix2="${LFBFL_comment_prefix}"' "'
213 # -----
214 local LFBFL_old_file_name2="${LFBFL_comment_prefix2}"
215 LFBFL_old_file_name2+="${LFBFL_old_file_name}"
216 repeated_split_last_line "${LFBFL_old_file_name2}"\
217     "${LFBFL_comment_prefix2}" "${LFBFL_max_comment_line_length}"\
218     ' "' "${LFBFL_split_score_command1}"\
219     "${LFBFL_split_score_command_properties1}"
220 # shellcheck disable=SC2154
221 LFBFL_old_file_name2="${repeated_split_last_line_result}"
222 # -----
223 local LFBFL_old_file_directory2="${LFBFL_comment_prefix2}"
224 LFBFL_old_file_directory2+="${LFBFL_old_file_directory}"
225 repeated_split_last_line "${LFBFL_old_file_directory2}"\
226     "${LFBFL_comment_prefix2}" "${LFBFL_max_comment_line_length}"\
227     ' "' "${LFBFL_split_score_command2}"\
228     "${LFBFL_split_score_command_properties2}"
229 # shellcheck disable=SC2154
230 LFBFL_old_file_directory2="${repeated_split_last_line_result}"
231 # -----
232 local LFBFL_new_file_name2="${LFBFL_comment_prefix2}"
233 LFBFL_new_file_name2+="${LFBFL_new_file_name}"
234 repeated_split_last_line "${LFBFL_new_file_name2}"\
235     "${LFBFL_comment_prefix2}" "${LFBFL_max_comment_line_length}"\
236     ' "' "${LFBFL_split_score_command1}"\
237     "${LFBFL_split_score_command_properties1}"
238 # shellcheck disable=SC2154
239 LFBFL_new_file_name2="${repeated_split_last_line_result}"
240 # -----
241 local LFBFL_new_file_directory2="${LFBFL_comment_prefix2}"
242 LFBFL_new_file_directory2+="${LFBFL_new_file_directory}"
243 repeated_split_last_line "${LFBFL_new_file_directory2}"\
244     "${LFBFL_comment_prefix2}" "${LFBFL_max_comment_line_length}"\
245     ' "' "${LFBFL_split_score_command2}"\
246     "${LFBFL_split_score_command_properties2}"
247 # shellcheck disable=SC2154
248 LFBFL_new_file_directory2="${repeated_split_last_line_result}"
249 # Create new comments strings. -----
250 local LFBFL_new_comment=""
251 if [[ "${LFBFL_new_file_name2}" != "${LFBFL_old_file_name2}" ]];

```

```

252 then
253     LFBFL_new_comment="${LFBFL_comment_prefix}"
254     LFBFL_new_comment+="${LFBFL_timestamp}"
255     LFBFL_new_comment+=": This file was renamed from\n"
256     LFBFL_new_comment+="${LFBFL_old_file_name2}"'\n'
257     LFBFL_new_comment+="${LFBFL_comment_prefix}to\n"
258     LFBFL_new_comment+="${LFBFL_new_file_name2}"'".'
259 fi
260 # shellcheck disable=SC2250
261 if [[ $LFBFL_log_directory_change -eq 1 ]] && [[\
262     "${LFBFL_new_file_directory}"\
263     != "${LFBFL_old_file_directory}"\
264 ]]; then
265     LFBFL_new_comment+="\n${LFBFL_comment_prefix}"
266     LFBFL_new_comment+="${LFBFL_timestamp}"
267     LFBFL_new_comment+=": This file was moved from\n"
268     LFBFL_new_comment+="${LFBFL_old_file_directory2}"'\n'
269     LFBFL_new_comment+="${LFBFL_comment_prefix}to\n"
270     LFBFL_new_comment+="${LFBFL_new_file_directory2}"'".'
271 fi
272 # shellcheck disable=SC2250
273 if [[ $LFBFL_verbose -eq 1 ]]; then
274     echo "LFBFL_new_comment: ${LFBFL_new_comment}"
275 fi
276 # Find line with ©Copyright. -----
277 # shellcheck disable=SC2155
278 declare -i LFBFL_copyright_line_number=$(
279     grep -n '©Copyright' "${LFBFL_new_file_path}"\
280     | head --lines=1\
281     | cut -d ':' -f 1
282 )
283 # shellcheck disable=SC2250
284 if [[ $LFBFL_verbose -eq 1 ]]; then
285     echo "LFBFL_copyright_line_number:\n
286         " ${LFBFL_copyright_line_number}"
287 fi
288 if [[ ${LFBFL_copyright_line_number} -eq 0 ]]; then
289     local LFBFL_send_summary_2="ATTENTION: No line with copyright"
290     notify-send "${LFBFL_send_summary_2}"\
291         "${LFBFL_send_summary_2} for: ${LFBFL_new_comment}"
292     # shellcheck disable=SC2250
293     if [[ $LFBFL_verbose -eq 1 ]]; then
294         echo "No copyright line. Skipping file."
295     fi
296     continue
297 fi

```

```

298     # Get total number of lines. -----
299     # shellcheck disable=SC2002,SC2155
300     declare -i LFBFL_line_count=$(
301         cat "${LFBFL_new_file_path}" | wc -l
302     )
303     # shellcheck disable=SC2250
304     if [[ $LFBFL_verbose -eq 1 ]]; then
305         echo "LFBFL_line_count: ${LFBFL_line_count}"
306     fi
307     # Compute number of lines after. -----
308     # shellcheck disable=SC2155
309     declare -i LFBFL_lines_after=$((
310         LFBFL_line_count - LFBFL_copyright_line_number
311     ))
312     # shellcheck disable=SC2250
313     if [[ $LFBFL_verbose -eq 1 ]]; then
314         echo "LFBFL_lines_after: ${LFBFL_lines_after}"
315     fi
316     # Update file. -----
317     local LFBFL_temp_file_path="${LFBFL_new_file_path}.LFBFL.temp"
318     head --lines="${LFBFL_copyright_line_number}" \
319         "${LFBFL_new_file_path}" > "${LFBFL_temp_file_path}"
320     echo -e "${LFBFL_new_comment}" >> "${LFBFL_temp_file_path}"
321     tail --lines="${LFBFL_lines_after}" \
322         "${LFBFL_new_file_path}" >> "${LFBFL_temp_file_path}"
323     mv "${LFBFL_temp_file_path}" "${LFBFL_new_file_path}"
324     # Add file to stage. -----
325     git add "${LFBFL_new_file_path}"
326     LFBFL_renaming_happened=1
327 fi
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 }

```

## 2.53 git\_helpers/pre-commit

```

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

```

```

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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 # shellcheck disable=SC1091
34 . ../git_checks.sh
35
36 declare -ig LFBFL_git_hook_error=0
37 if ! check_files; then
38     LFBFL_git_hook_error=1
39 fi
40 if ! check_no_abusive_trailing_comma; then
41     LFBFL_git_hook_error=1
42 fi
43 if ! check_black_code_formatting; then
44     LFBFL_git_hook_error=1
45 fi
46 readonly LFBFL_git_hook_error
47 # shellcheck disable=SC2250
48 if [[ $LFBFL_git_hook_error -eq 1 ]]; then
49     exit 1

```



```

50 fi
51 exit 0

```

## 2.54 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 -----

```

## 2.55 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
8  |                               **Some "small" useful scripts**                               |
9  |:-----:
10 | **for enhancing development or system-administrators tasks** |
11
12 Currently, the biggest part of this repository is in
13 a suite of shell scripts about build and checks that
14 I use in some of my other repositories.
15
16 I tried to follow some conventions for my bash code:
17
18 - I tried to encapsulate most of the code in functions.
19 - Unless used as return values, variables in functions are defined
20   as local variables (`local` keyword or `declare`)
21   with prefix "LFBFL_".
22 - When used as return values, variables in functions are defined
23   as global variables (`declare -g`) with prefix

```

```

24     "@function_name@_result_".
25 - Whenever a variable is no more modified after some point,
26   add the keyword 'readonly' or use 'declare -r'.
27 - Whenever a variable will only contain integer values (or boolean
28   values as 0 or 1), use 'declare -i'.
29 - I named bash files with suffixes ".exec.sh" when the script can
30   be runned
31   (executable, abbreviation stops before a vowel).
32 - I named bash files with suffixes ".lib.sh" when the script contains
33   only functions definitions
34   (library, abbreviation stops before a vowel).
35 - When some ".exec.sh" code is encapsulated into functions,
36   either these functions can be reused and go in some ".lib.sh" file,
37   either they are truly specific to this script and they are kept
38   in ".exec.sh" file.
39
40 But the files "pre-commit" and "post-commit" were not renamed,
41 since it is not possible to give them other names to use them as
42 pre-commit/post-commit hooks in 'git'.
43
44 [CodeFactor-badge]: https://www.codefactor.io/repository/github/\
45 llyaudet/DevOrSysAdminScripts/badge
46
47 [CodeFactor-package-page]: https://www.codefactor.io/repository/\
48 github/llyaudet/DevOrSysAdminScripts
49
50 [Codacy-badge]: https://app.codacy.com/project/badge/Grade/\
51 3dd6ef85e8db4460991d1ebc404b68dd
52
53 [Codacy-package-page]: https://app.codacy.com/gh/Llyaudet/\
54 DevOrSysAdminScripts/dashboard?utm\_source=gh&utm\_medium=referral\
55 &utm\_content=&utm\_campaign=Badge\_grade
56
57 [GitHub-top-language-badge]: https://img.shields.io/github/\
58 languages/top/llyaudet/DevOrSysAdminScripts
59
60 [GitHub-code-size-in-bytes-badge]: https://img.shields.io/github/\
61 languages/code-size/llyaudet/DevOrSysAdminScripts

```

## 2.56 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
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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 2023-2025 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 $s_result;
89 }
90 // 11110xxx 10xxxxxx 10xxxxxx 10xxxxxx
91 if($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 <?php
168 require_once("./unicode.lib.php");
169 var_dump(hexa_code_point_to_UTF8("002B"));
170 var_dump(hexa_code_point_to_UTF8("00E6"));
171 var_dump(hexa_code_point_to_UTF8("1400"));
172 var_dump(hexa_code_point_to_UTF8("10111"));
173 // https://en.wikibooks.org/wiki/Unicode/Character_reference/2000-2FFF
174 // Some invisible unicode characters that are a problem:
175 // 2000-200F 2028-202F 205F 2060-206F
176 $arr = [
177     '2000', '2001', '2002', '2003', '2004', '2005', '2006', '2007',
178     '2008', '2009', '200A', '200B', '200C', '200D', '200E', '200F',
179     '2028', '2029', '202A', '202B', '202C', '202D', '202E', '202F',
180     '205F',
181     '2060', '2061', '2062', '2063', '2064', '2065', '2066', '2067',
182     '2068', '2069', '206A', '206B', '206C', '206D', '206E', '206F',
183 ];
184 $arr_s = [];
185 $arr_s2 = [];
186 $arr_s3 = [];
187 foreach($arr as $s_hexa){
188     $s = hexa_code_point_to_UTF8($s_hexa);
189     $arr_s []= $s;

```

```

190     if(strlen($s) === 2){
191         $s2 = '\x'.bin2hex($s[0]).'\x'.bin2hex($s[1]);
192     }
193     if(strlen($s) === 3){
194         $s2 = '\x'.bin2hex($s[0]).'\x'.bin2hex($s[1])
195             .'\x'.bin2hex($s[2]);
196     }
197     $arr_s2 []= $s2;
198     $s3 = " | sed -e 's/\".$s2.\"/ /g'\\\"";
199     $arr_s3 []= $s3;
200     echo($s3."\\n");
201 }
202 //*/
203

```

## 2.57 upgrade\_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
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9  # or (at your option) any later version.
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13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
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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 2023–2025 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_verbos=""
29     if [[ "$1" == "--verbose" ]]; then

```

```

30     echo "$0 $*"
31     LFBFL_verbose="--verbose"
32 fi
33 readonly LFBFL_verbose
34 (\
35     cd build_and_checks_dependencies/\
36     && ./update_common_build_and_checks.exec.sh "${LFBFL_verbose}"\
37 )
38 ./build_and_checks.exec.sh "." "${LFBFL_verbose}"
39 }
40
41 upgrade_build_and_checks "$@"

```

## 2.58 wget\_sha512.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 #
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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 2023–2025 Laurent Frédéric Bernard François Lyaudet
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 [[ "$4" == "--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" "$2"
41 fi
42 # shellcheck disable=SC2312
43 declare -r \
44     LFBFL_present_sha512=$(sha512sum "$1" | cut -f1 -d' ')
45 if [[ "${LFBFL_present_sha512}" != "$3" ]];
46 then
47     echo "$1 does not have correct sha512"
48     echo "wanted $3"
49     echo "found ${LFBFL_present_sha512}"
50     exit
51 fi
52 }

```

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