

DevOrSysAdminScripts

Laurent Frédéric Bernard François Lyaudet

<https://lyaudet.eu/laurent/>

Laurent.Lyaudet@gmail.com

January 30, 2026

Abstract

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

Current version: 2026-01-30

Current number of commits: 259

Current git SHA1: b9d3b4705a2b236a7e593ceb81f3306ede168fa0

Code lines: 6798 total lines, 6128 not empty lines, 670 empty lines.

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1 Files tree

```
. └── build_and_checks_dependencies
    ├── build_and_checks.exec.sh.tpl
    ├── build_md_from_printable_md.exec.sh
    ├── check_shell_scripts_beginnings.libr.sh
    ├── check_URLs.libr.sh
    ├── common_build_and_checks.exec.sh
    ├── common_build_and_checks.exec.sh.tpl
    ├── comparisons.libr.sh
    ├── create_PDF.exec.sh
    ├── generate_from_template.libr.sh
    ├── get_common_text_glob_patterns.libr.sh
    ├── grammar_and_spell_check.libr.sh
    └── licenses_templates
        ├── build_licenses_templates.exec.sh
        ├── license_file_header GPLv3+.c.tpl
        ├── license_file_header GPLv3+.py.tpl
        ├── license_file_header GPLv3+.sh.tpl
        ├── license_file_header GPLv3+.tex.tpl
        ├── license_file_header GPLv3+.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 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
        └── lines_counts.libr.sh
        └── lines_filters.libr.sh
        └── lines_maps.libr.sh
        └── overwrite_if_not_equal.libr.sh
        └── python_black_complement.libr.sh
        └── python_isort_complement.libr.sh
```

```
    └── split_score.exec.php
    └── split_score.libr.php
    └── strings_functions.libr.sh
    └── too_long_code_lines.libr.sh
    └── update_common_build_and_checks.exec.sh
    └── update_or_check_files_names_listing.exec.sh
    └── build_and_checks.exec.sh
    └── build_and_checks_variables
        ├── bandit_baseline.json
        ├── bandit.ini
        ├── DevOrSysAdminScripts.html.tpl
        ├── DevOrSysAdminScripts.tex
        ├── DevOrSysAdminScripts.tex.tpl
        ├── files_listing.tex.tpl
        ├── files_names_listing.txt
        ├── .gitignore
        ├── licenses_notes.txt
        ├── pylintrc.toml
        └── repository_data.txt
    └── COPYING
    └── COPYING.LESSER
    └── DevOrSysAdminScripts.html
    └── DevOrSysAdminScripts.pdf
    └── git_helpers
        ├── git_checks.libr.sh
        ├── post-commit
        ├── post_commit_renaming_comment.libr.sh
        └── pre-commit
    └── LiensUtiles.txt
    └── README.html
    └── README.md
    └── README.md.tpl
    └── unicode.libr.php
    └── upgrade_build_and_checks.exec.sh
    └── wget_sha512.libr.sh
```

5 directories, 74 files

```
[ 12K Jan 30 19:43]  ./
└── [4.0K Jan 30 19:43]  build_and_checks_dependencies/
    ├── [2.6K Jan  3 18:57]  build_and_checks.exec.sh.tpl*
    ├── [2.5K Jan  3 18:57]  build_md_from_printable_md.exec.sh*
    ├── [1.3K Jan  3 18:57]  check_shell_scripts_beginnings.libr.sh
    ├── [2.7K Jan  3 19:40]  check_URLs.libr.sh
    ├── [ 21K Jan 30 19:43]  common_build_and_checks.exec.sh*
    └── [ 16K Jan 30 19:24]  common_build_and_checks.exec.sh.tpl
```

```

[3.1K Jan  3 18:57]  comparisons.libr.sh
[ 15K Jan  4 13:52]  create_PDF.exec.sh*
[3.1K Jan  3 18:57]  generate_from_template.libr.sh
[1.9K Jan  3 18:57]  get_common_text_glob_patterns.libr.sh
[1.9K Jan  3 18:57]  grammar_and_spell_check.libr.sh
[4.0K Jan 30 19:43]  licenses_templates/
[ 8.9K Jan  5 17:56]  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 Jan  5 17:57]  license_file_header_AGPLv3+.tex.tpl
[ 728 Dec 30 19:32]  license_file_header_AGPLv3+.tpl
[ 761 Jan  3 18:40]  license_file_header_GPLv3+.c
[ 713 Dec 27 21:48]  license_file_header_GPLv3+.c.tpl
[ 763 Jan  3 18:40]  license_file_header_GPLv3+.py
[ 715 Dec 27 21:48]  license_file_header_GPLv3+.py.tpl
[ 795 Jan  3 18:48]  license_file_header_GPLv3+.sh
[ 747 Dec 27 21:48]  license_file_header_GPLv3+.sh.tpl
[ 795 Jan  5 17:57]  license_file_header_GPLv3+.tex
[ 747 Jan  5 17:57]  license_file_header_GPLv3+.tex.tpl
[ 707 Dec 27 21:48]  license_file_header_GPLv3+.tpl
[ 782 Jan  3 18:40]  license_file_header_LGPLv3+.c
[ 734 Dec 27 21:48]  license_file_header_LGPLv3+.c.tpl
[ 784 Jan  3 18:40]  license_file_header_LGPLv3+.py
[ 736 Dec 27 21:48]  license_file_header_LGPLv3+.py.tpl
[ 816 Jan  3 18:48]  license_file_header_LGPLv3+.sh
[ 768 Dec 27 21:48]  license_file_header_LGPLv3+.sh.tpl
[ 816 Jan  3 18:48]  license_file_header_LGPLv3+.tex
[ 768 Dec 27 21:48]  license_file_header_LGPLv3+.tex.tpl
[ 728 Dec 27 21:48]  license_file_header_LGPLv3+.tpl
[2.2K Jan  3 18:57]  lines_counts.libr.sh
[6.7K Jan  3 18:57]  lines_filters.libr.sh
[2.8K Jan  3 18:57]  lines_maps.libr.sh
[1.4K Jan  3 18:57]  overwrite_if_not_equal.libr.sh
[1.4K Jan 24 18:32]  python_black_complement.libr.sh
[1.7K Jan  3 18:57]  python_isort_complement.libr.sh
[1.5K Jan  4 13:59]  split_score.exec.php
[1.9K Jan  4 13:38]  split_score.libr.php
[ 12K Jan  4 15:39]  strings_functions.libr.sh
[2.3K Jan  3 18:57]  too_long_code_lines.libr.sh
[3.8K Jan  4 13:46]  update_common_build_and_checks.exec.sh*
[4.2K Jan  4 13:49]  *
| update_or_check_files_names_listing.exec.sh**
[2.8K Jan 30 19:43]  build_and_checks.exec.sh*
[4.0K Jan 30 19:43]  build_and_checks_variables/
| [ 15 Jan  5 20:00]  bandit_baseline.json

```

```

    [ 25 Jan  5 18:49] bandit.ini
    [5.1K Jan  7 16:45] DevOrSysAdminScripts.html.tpl
    [ 27K Jan 30 19:41] DevOrSysAdminScripts.tex
    [3.8K Jan  7 16:46] DevOrSysAdminScripts.tex.tpl
    [ 15K Jan  5 20:05] files_listing.tex.tpl
    [5.4K Jan 30 19:43] files_names_listing.txt
    [ 24 Jan 15 22:26] .gitignore
    [1.1K Jan  7 16:44] licenses_notes.txt
    [ 173 Jan 30 19:40] pylintrc.toml
    [3.5K Jan 15 22:24] repository_data.txt
[ 34K May  6 2024] COPYING
[7.5K Dec 27 21:48] COPYING.LESSER
[272K Jan 30 19:41] DevOrSysAdminScripts.html
[266K Jan 30 19:41] DevOrSysAdminScripts.pdf
[4.0K Jan  4 13:54] git_helpers/
    [3.4K Jan  3 18:57] git_checks.libr.sh
    [1.2K Dec 30 17:25] post-commit
    [ 13K Jan  4 13:54] post_commit_renaming_comment.libr.sh
    [1.3K Dec 30 17:03] pre-commit
[ 830 Dec 29 19:10] LiensUtiles.txt
[3.4K Jan  5 19:29] README.html
[3.3K Jan  5 19:29] README.md
[3.3K Jan  5 19:29] README.md.tpl
[ 6.5K Jan  3 18:57] unicode.libr.php
[1.3K Jan  3 18:57] upgrade_build_and_checks.exec.sh*
[1.5K Jan  3 18:57] wget_sha512.libr.sh

5 directories, 74 files

```

2 Listing of files

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

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, pdflatex, pdfflatex, tree

- The following dependencies are GPLv2 licensed:
git, pylint
- The following dependencies are LGPLv2.1+ licensed:
notify-send
- The following dependencies are MIT licensed:
black, isort, mypy
- The following dependencies are Apache-2.0 licensed:
bandit
- 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, uutils coreutils is MIT licensed, whilst GNU coreutils is GPLv3+ licensed.

2.1 build_and_checks_dependencies/build_and_checks.exec.sh.tpl

```

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

```

```

25 # "build_and_checks.sh.tpl" to "build_and_checks.exec.sh.tpl".
26 # The file "build_and_checks.exec.sh" generated from the file
27 # "build_and_checks.sh.tpl" or "build_and_checks.exec.sh.tpl"
28 # was renamed from
29 # "build_and_checks.sh" to "build_and_checks.exec.sh".
30
31 build_and_checks() {
32     local LFBFL_working_directory="."
33     if [[ -n "$1" ]]; then
34         LFBFL_working_directory="$1"
35     fi
36     readonly LFBFL_working_directory
37
38     local LFBFL_verbose=""
39     if [[ "$2" == "--verbose" ]]; then
40         echo "$0 $*"
41         LFBFL_verbose="--verbose"
42     fi
43     readonly LFBFL_verbose
44
45     # shellcheck disable=SC1091
46     source ./wget_sha512.libr.sh
47
48     LFBFL_subdir="build_and_checks_dependencies"
49     mkdir -p "${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.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "build_md_from_printable_md.sh"
25 # to "build_md_from_printable_md.exec.sh".
26
27 LFBFL_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.libr.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     > "${file_name}_temp1.md"
64   sed -Ez "${LFBFL_sed_expression}" "${file_name}_temp1.md" \
65     > "${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.libr.sh

```

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

```

1 #!/usr/bin/env bash
2 # This file is part of DevOrSysAdminScripts library.
3 #
4 # DevOrSysAdminScripts is free software:
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19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "check_URLs.sh" to "check_URLs.libr.sh".
25
26 LFBFL_subdir="build_and_checks_dependencies"
27 # shellcheck disable=SC1090
28 source "./${LFBFL_subdir}/get_common_text_glob_patterns.libr.sh"
29 # shellcheck disable=SC1090
30 source "./${LFBFL_subdir}/lines_filters.libr.sh"
31
32 check_URLs() {
33     get_COMMON_TEXT_FILES_GLOB_PATTERNS
34
35     declare -A LFBFL_substitutions
36     LFBFL_substitutions=(\
37         ["http://www.gnu.org/licenses/"]="https://www.gnu.org/licenses/"\
38     )
39

```

```

40 local LFBFL_pattern
41 local LFBFL_file_name
42 local LFBFL_base_file_name
43 local LFBFL_substitution
44 local LFBFL_substitution2
45 # shellcheck disable=SC2154
46 for LFBFL_pattern in "${COMMON_TEXT_FILES_GLOB_PATTERNS[@]}"; do
47   [[ "$1" != "-v" ]] \
48     || echo "Iterating on pattern: ${LFBFL_pattern}"
49 # shellcheck disable=SC2312
50   find . -type f -name "${LFBFL_pattern}" -printf '%P\n' \
51     | xargs grep -H 'http:' \
52     | grep -v "| xargs grep -H 'htt'" \
53     | grep -vP "[^\"]http(:[^\\"]*)[^\\"].*[^\\"]https\\\"1[^\\"]"
54 # Last grep just above will remove false positives from
55 # substitutions that fit on one line.
56 # shellcheck disable=SC2312
57   find . -type f -name "${LFBFL_pattern}" -printf '%P\n' \
58     | relevant_find | not_main_html_find \
59     | while read -r LFBFL_file_name;
60   do
61     [[ -f "${LFBFL_file_name}" ]] || continue
62     LFBFL_base_file_name=$(basename "${LFBFL_file_name}")
63     [[ "${LFBFL_base_file_name}" != "check_URLs.libr.sh" ]] \
64       || continue
65     [[ "$1" != "-v" ]] \
66       || echo "Handling the file: ${LFBFL_file_name}"
67     for LFBFL_substitution in "${!LFBFL_substitutions[@]}"; do
68       LFBFL_substitution2=\${LFBFL_substitutions[$LFBFL_substitution]}
69       if grep -q "\${LFBFL_substitution}" "\${LFBFL_file_name}"; then
70         sed -i "s|\${LFBFL_substitution}|${LFBFL_substitution2}|g" \
71           "\${LFBFL_file_name}"
72       fi
73     done
74   done
75 done
76 }

```

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 #
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```

```

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11 # DevOrSysAdminScripts is distributed in the hope
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17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # 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.libr.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='38ae695f213ef1c7470a707eaf84d9377e6e636098851'
61 LFBFL_correct_sha512+='0878ec6bc7b8f1d37a104816723a2de0327758dec492'
62 LFBFL_correct_sha512+='09b2f2535671580d1146b8576cd78bc683c3f2c'
63 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
64     "${LFBFL_correct_sha512}" "${LFBFL_verbose}" \
65 chmod +x "./${LFBFL_file_path}"
66
67 LFBFL_file_name="check_shell_scripts_beginnings.libr.sh"
68 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
69 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
70 local LFBFL_correct_sha512
71 LFBFL_correct_sha512='c07397f927063fbe31e973461b77d7844ccab1a0db498'
72 LFBFL_correct_sha512+='ae9282114f65e6faf3fbe4eb1cd220a1b029334e4f3b'
73 LFBFL_correct_sha512+='9139721bb3123b83512df8817c06c00d4a4d559'
74 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
75     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
76
77 LFBFL_file_name="check_URLs.libr.sh"
78 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
79 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
80 local LFBFL_correct_sha512
81 LFBFL_correct_sha512='d966792d05fd23375f5006b5446b9b747a28f1ef1fe9d'
82 LFBFL_correct_sha512+='b6f8ff45caa36564bb18ddc38ba91e076bb3abceced2'
83 LFBFL_correct_sha512+='b899c7e5987a231c5165d6dacc9ec52cbe665f5'
84 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
85     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
86
87 LFBFL_file_name="comparisons.libr.sh"
88 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
89 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
90 local LFBFL_correct_sha512
91 LFBFL_correct_sha512='ffed791dabbæ1b841fab8b34a2f6d74ec2fa058a1dd5'
92 LFBFL_correct_sha512+='010a2cd222f76811f594659bd60ab18839b2aab7d74b'
93 LFBFL_correct_sha512+='19641fdaf7668524b079280d46da62d491b7f70'
94 wget_sha512 "${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='5a44f7a88c8cc8768de49d7ff1ebc11f8fea6fad9d722'
102 LFBFL_correct_sha512+=`7a0a4724fd17eb5686086394baa386ecea87c6e50286'
103 LFBFL_correct_sha512+=`2a6162a2751d04ee44289bf72f6790633cf6956'
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.libr.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='6687afda93cc8d45177eace4ade4e68a1bb9cc88a58e2'
113 LFBFL_correct_sha512+=`94029ecbacb2c9b6d868bc868647f4262360fab21119'
114 LFBFL_correct_sha512+=`7663df209b1ab969b5c672afa9c5336cf7bd8c4'
115 wget_sha512 "\${LFBFL_file_path}" "\${LFBFL_URL}" \
116     "\${LFBFL_correct_sha512}" "\${LFBFL_verbose}"
117
118 LFBFL_file_name="get_common_text_glob_patterns.libr.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='2b87067b4fb0b3ca6c107fdf76cb605a4e9311375cc0e'
123 LFBFL_correct_sha512+=`7d0735d4b6a2c182cf738a2f0b91b7210bfa63452943'
124 LFBFL_correct_sha512+=`89930f17bebad69c64389e47afe8d74ec462216'
125 wget_sha512 "\${LFBFL_file_path}" "\${LFBFL_URL}" \
126     "\${LFBFL_correct_sha512}" "\${LFBFL_verbose}"
127
128 LFBFL_file_name="grammar_and_spell_check.libr.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='a76c188a7769a1d170d415034331b1ca8574482bc1484'
133 LFBFL_correct_sha512+=`eccbbb4cadea825c0668caccaca7433fa1c476137fe9'
134 LFBFL_correct_sha512+=`f2a71ad6e0ee5bfbfd180bee5a775c997d79865'
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='c2fee55a889b379a3de67f0c425821bd2d7876df81221'
146 LFBFL_correct_sha512+='b7e5deca4cad459e80713ad834adeb5598e2565a8ef4'
147 LFBFL_correct_sha512+='5b55c63eb76ea78cc085c97cd6dc3342b6fd21b'
148 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
149     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
150 chmod +x "./${LFBFL_file_path}"
151
152 LFBFL_file_name="license_file_header GPLv3+.tpl"
153 LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
154 LFBFL_file_path="./${LFBFL_subdir2}/${LFBFL_file_name}"
155 local LFBFL_correct_sha512
156 LFBFL_correct_sha512='9f9aa56d9b90d5003a12c5ec3370ac31aab74fc4a2524'
157 LFBFL_correct_sha512+='2c5fbcb0197b0abbb8242f62dafc76eaf60faa5da173'
158 LFBFL_correct_sha512+='05924b31b64b037083532fcfd9f98445000e2d0'
159 wget_sha512 "${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}/${LFBFL_file_name}"
175 local LFBFL_correct_sha512
176 LFBFL_correct_sha512='265fd0d086b48ab798f35a072335a4976e4eda8c256fe'
177 LFBFL_correct_sha512+='bba6c77c98ca86cdd844c6ac150c3445c80debbb3fc2'
178 LFBFL_correct_sha512+='574b5fceeeaf79ec734a759bdef5fe798067c62'
179 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
180     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
181 # -----
182
183 LFBFL_file_name="lines_counts.libr.sh"
184 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
185 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
186 local LFBFL_correct_sha512
187 LFBFL_correct_sha512='3e34b8768b4356adf397f3ca1f47ef8f44da42808ca8b'
188 LFBFL_correct_sha512+='b95b830fa8bd9be46bb3cb1f012736b7a6d53549f8a9'
189 LFBFL_correct_sha512+='f60274d6db5d9699bc28270a7d42deaaa6d6d6f'

```

```

190 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
191     "${LFBFL_correct_sha512}" "${LFBFL_verbose}" \
192
193 LFBFL_file_name="lines_filters.libr.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='61af110e6d03c7f86dc79361c37896e7e3d4fdea18a6d'
198 LFBFL_correct_sha512+='b5ffe196ad314422e8479dfb4707c176b249a55509ff'
199 LFBFL_correct_sha512+='8413cdf44e130c691200c1e646ce59db14e9b35'
200 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
201     "${LFBFL_correct_sha512}" "${LFBFL_verbose}" \
202
203 LFBFL_file_name="lines_maps.libr.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='ca4fbc93c407de6aa742b0d5e4ee767d341777d60b3e8'
208 LFBFL_correct_sha512+='e08e8582bab5ee6b305d47e385c1701810691c46ec6'
209 LFBFL_correct_sha512+='a34b5f740b8304114f96ee7052da095ee09c789'
210 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
211     "${LFBFL_correct_sha512}" "${LFBFL_verbose}" \
212
213 LFBFL_file_name="overwrite_if_not_equal.libr.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='4a1203b1384133f546b30e2a57f3322b84da0ffc52a5b'
218 LFBFL_correct_sha512+='9a75a88d6f96dd6a8c79799f046a28173bb9cf22b5ec'
219 LFBFL_correct_sha512+='84f79fcf787aaa4c8bd6f4b6afc0505d3d43362'
220 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
221     "${LFBFL_correct_sha512}" "${LFBFL_verbose}" \
222
223 LFBFL_file_name="python_black_complement.libr.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='e28c6e0cfffe6b8eebef26bddfb440f0303d0dcc3987'
228 LFBFL_correct_sha512+='6d498d95b9d589e0800b8381124936e5103b372f509c'
229 LFBFL_correct_sha512+='aeb6213e909710a2ec1e345e076a44f0006fdbb'
230 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
231     "${LFBFL_correct_sha512}" "${LFBFL_verbose}" \
232
233 LFBFL_file_name="python_isort_complement.libr.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='637cddfb803fd8866fa2ab1c72bbcd5b55e2c0068a14d'
238 LFBFL_correct_sha512+='b6140ee00435a69990a6c5e08b6f0bf13ac9574a9ead'
239 LFBFL_correct_sha512+='c59d9b5adcc8f6d99d4d56ca1cc5785c7b22835'
240 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
241     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
242
243 LFBFL_file_name="split_score.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='e55922c93c3eaf220c101c0133e2b9b5df50bb24f9683'
248 LFBFL_correct_sha512+='21c696dbec80a2207592cf9e7f3270e5fe3a4570ea11'
249 LFBFL_correct_sha512+='9f711405efa83894b88ebac85193b8cf98f39d4'
250 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
251     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
252
253 LFBFL_file_name="split_score.libr.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='83f3eda17203b34c656353883806d3b2154911cc4d4f7'
258 LFBFL_correct_sha512+='592a42413dc9f24bbd08f72bc51d20f9ca26d06d6861'
259 LFBFL_correct_sha512+='6c40a2b08517ae25bb3bd87c33c28ab4bd8fdf8'
260 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
261     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
262
263 LFBFL_file_name="strings_functions.libr.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='90569be3419610c3ebff08c98ae9dfb4bdbed722767ab'
268 LFBFL_correct_sha512+='4ab5dab201bb8f88f8354fe3b6bff7a7ea9bc5b04a9d'
269 LFBFL_correct_sha512+='23071fad903ffd8e91ec50d0d3b2e5e9b6545fa'
270 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
271     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
272
273 LFBFL_file_name="too_long_code_lines.libr.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='69d3b3750ee5e119b3ce4b9a6a3420056fae903a28787'
278 LFBFL_correct_sha512+='0c6047df0883cf623925cc2774d1843996b91093611f'
279 LFBFL_correct_sha512+='97785dc3087769904aeffe3084887e97a736aed'
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='a0ec8202dcc962e5cbaf7908f285c9a182e6298dedaab'
288 LFBFL_correct_sha512+='af3d7b04369cf4e8639920b13b1dcc78d97bf195a202'
289 LFBFL_correct_sha512+='884d02c0c6c38982cf82ddcb673617d624ad900'
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.libr.sh"
297 # shellcheck disable=SC1090
298 source "./${LFBFL_subdir}/check_URLs.libr.sh"
299 # shellcheck disable=SC1090
300 source "./${LFBFL_subdir}/comparisons.libr.sh"
301 # shellcheck disable=SC1090
302 source "./${LFBFL_subdir}/generate_from_template.libr.sh"
303 # shellcheck disable=SC1090
304 source "./${LFBFL_subdir}/get_common_text_glob_patterns.libr.sh"
305 # shellcheck disable=SC1090
306 source "./${LFBFL_subdir}/grammar_and_spell_check.libr.sh"
307 # shellcheck disable=SC1090
308 source "./${LFBFL_subdir}/lines_counts.libr.sh"
309 # shellcheck disable=SC1090
310 source "./${LFBFL_subdir}/lines_filters.libr.sh"
311 # shellcheck disable=SC1090
312 source "./${LFBFL_subdir}/lines_maps.libr.sh"
313 # shellcheck disable=SC1090
314 source "./${LFBFL_subdir}/overwrite_if_not_equal.libr.sh"
315 # shellcheck disable=SC1090
316 source "./${LFBFL_subdir}/python_black_complement.libr.sh"
317 # shellcheck disable=SC1090
318 source "./${LFBFL_subdir}/python_isort_complement.libr.sh"
319 # shellcheck disable=SC1090
320 source "./${LFBFL_subdir}/strings_functions.libr.sh"
321 # shellcheck disable=SC1090
322 source "./${LFBFL_subdir}/too_long_code_lines.libr.sh"
323
324 local LFBFL_data_file_name=\
325 "build_and_checks_variables/repository_data.txt"
326
327 declare -i LFBFL_upgrade_venvs=0

```

```

328     declare -r LFBFL_upgrade_venvs_ts_file=\
329 "build_and_checks_variables/upgrade_venvs_ts"
330     declare -i LFBFL_upgrade_venvs_ts
331     declare -i LFBFL_current_ts
332     local LFBFL_upgrade_venvs_answer
333
334     upgrade_venvs_time_interval_in_seconds=""
335     grep_variable "${LFBFL_data_file_name}" \
336         upgrade_venvs_time_interval_in_seconds
337     if [[ "${upgrade_venvs_time_interval_in_seconds}" == "wat" ]]; then
338         upgrade_venvs_time_interval_in_seconds=${RANDOM}
339     fi
340     if
341         [[ "${upgrade_venvs_time_interval_in_seconds}" == "watyouwant?" ]]; then
342             upgrade_venvs_time_interval_in_seconds=${SRANDOM}
343         fi
344
345     if [[ -f "${LFBFL_upgrade_venvs_ts_file}" ]]; then
346         LFBFL_upgrade_venvs_ts=\
347     $(stat -c %Y "${LFBFL_upgrade_venvs_ts_file}")
348         LFBFL_current_ts=$(date +%s)
349         ((LFBFL_current_ts--=LFBFL_upgrade_venvs_ts))
350         ((LFBFL_current_ts-=upgrade_venvs_time_interval_in_seconds))
351         if [[ LFBFL_current_ts -gt 0 ]]; then
352             LFBFL_upgrade_venvs=1
353         fi
354     else
355         LFBFL_upgrade_venvs=1
356     fi
357     if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
358         upgrade_venvs=""
359         grep_variable "${LFBFL_data_file_name}" upgrade_venvs
360         if [[ "${upgrade_venvs}" != "auto" ]]; then
361             read -r -n 1 -t 10 -p "Upgrade venvs? [Y/n]" \
362                 LFBFL_upgrade_venvs_answer
363             if [[ "${LFBFL_upgrade_venvs_answer}" == "n" ]]; then
364                 LFBFL_upgrade_venvs=0
365             fi
366         fi
367     fi
368
369     echo "Building license headers"
370     "./${LFBFL_subdir2}/build_licenses_templates.exec.sh" \
371         "${LFBFL_verbose}"
372
373

```

```

374 echo "Building README.md"
375 "./${LFBFL_subdir}/build_md_from_printable_md.exec.sh" \
376     "${LFBFL_working_directory}" "README" "${LFBFL_verbose}"
377
378 pushd .
379 # shellcheck disable=SC2164
380 cd "${LFBFL_working_directory}"
381
382 echo "Running shellcheck"
383 declare -i LFBFL_file_path_length
384 declare -i LFBFL_to_skip_number
385 local LFBFL_file_path_end
386 # shellcheck disable=SC2312
387 find . -name "*.sh" | relevant_find | while read -r LFBFL_file_path;
388 do
389     LFBFL_file_path_length=${#LFBFL_file_path}
390     LFBFL_to_skip_number=$((LFBFL_file_path_length - 9))
391     LFBFL_file_path_end="${LFBFL_file_path}:${LFBFL_to_skip_number}"
392     if [[ "${LFBFL_file_path_end}" == "GPLv3+.sh" ]]; then
393         continue
394     fi
395     shellcheck --check-sourced --enable=all --external-sources\
396         "${LFBFL_file_path}"
397 done
398
399 echo "---Python---"
400 echo "Running isort"
401 isort_venv=""
402 grep_variable "${LFBFL_data_file_name}" isort_venv
403 if [[ -n "${isort_venv}" ]]; then
404     if command -v deactivate
405     then
406         deactivate
407     fi
408     # shellcheck disable=SC1090,SC1091
409     source "${isort_venv}/bin/activate"
410 fi
411 if [[ ${LFBFL_upgrade_venvs} -eq 1 ]]; then
412     pip install --upgrade isort
413 fi
414 isort .
415 if [[ -n "${isort_venv}" ]]; then
416     deactivate
417 fi
418 python_isort_complement
419

```

```

420 echo "Running black"
421 black_venv=""
422 grep_variable "${LFBFL_data_file_name}" black_venv
423 if [[ -n "${black_venv}" ]]; then
424     if command -v deactivate
425     then
426         deactivate
427     fi
428     # shellcheck disable=SC1090,SC1091
429     source "${black_venv}/bin/activate"
430 fi
431 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
432     pip install --upgrade black
433 fi
434 black .
435 if [[ -n "${black_venv}" ]]; then
436     deactivate
437 fi
438 python_black_complement
439
440 mypy_venv=""
441 grep_variable "${LFBFL_data_file_name}" mypy_venv
442 if [[ -n "${mypy_venv}" ]]; then
443     if command -v deactivate
444     then
445         deactivate
446     fi
447     # shellcheck disable=SC1090,SC1091
448     source "${mypy_venv}/bin/activate"
449 fi
450 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
451     pip install --upgrade mypy
452 fi
453 shopt -s lastpipe
454 local LFBFL_directory_path
455 declare -i LFBFL_no_toml=1
456 # shellcheck disable=SC2312
457 find . -name "pyproject.toml" | relevant_find\
458     | while read -r LFBFL_file_path;
459 do
460     if grep -q "Typing :: Typed" "${LFBFL_file_path}"; then
461         echo "Running mypy"
462         LFBFL_directory_path=$(dirname "${LFBFL_file_path}")
463         mypy "${LFBFL_directory_path}"
464     fi
465     LFBFL_no_toml=0

```

```

466     done
467     if [[ LFBFL_no_toml -eq 1 ]]; then
468         echo "Running mypy"
469         mypy .
470     fi
471     if [[ -n "${mypy_venv}" ]]; then
472         deactivate
473     fi
474
475     echo "Running bandit"
476     bandit_venv=""
477     grep_variable "${LFBFL_data_file_name}" bandit_venv
478     if [[ -n "${bandit_venv}" ]]; then
479         if command -v deactivate
480             then
481                 deactivate
482             fi
483             # shellcheck disable=SC1090,SC1091
484             source "${bandit_venv}/bin/activate"
485         fi
486     if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
487         pip install --upgrade bandit
488     fi
489     bandit --ini build_and_checks_variables/bandit.ini \
490         -b build_and_checks_variables/bandit_baseline.json \
491         -r .
492     # Saving new baseline in temp if necessary.
493     bandit --ini build_and_checks_variables/bandit.ini \
494         -f json -o build_and_checks_variables/temp/bandit_baseline.json \
495         -r .
496     if [[ -n "${bandit_venv}" ]]; then
497         deactivate
498     fi
499
500     echo "Running pylint"
501     pylint_venv=""
502     grep_variable "${LFBFL_data_file_name}" pylint_venv
503     if [[ -n "${pylint_venv}" ]]; then
504         if command -v deactivate
505             then
506                 deactivate
507             fi
508             # shellcheck disable=SC1090,SC1091
509             source "${pylint_venv}/bin/activate"
510         fi
511     if [[ LFBFL_upgrade_venvs -eq 1 ]]; then

```

```

512     pip install --upgrade pylint
513 fi
514 pylint --rcfile build_and_checks_variables/pylintrc.toml \
515   --recursive=y .
516 if [[ -n "${pylint_venv}" ]]; then
517   deactivate
518 fi
519 echo "---Python end---"
520
521 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
522   touch "${LFBFL_upgrade_venvs_ts_file}"
523 fi
524
525 echo "Analyzing too long lines"
526 # shellcheck disable=SC2312
527 too_long_code_lines | relevant_grep | not_license_grep
528
529 echo "Analyzing shell scripts beginnings"
530 # shellcheck disable=SC2312
531 check_shell_scripts_beginnings | relevant_grep
532
533 echo "Analyzing URLs"
534 # shellcheck disable=SC2312
535 check_URLs | relevant_grep
536
537 echo "Analyzing strange characters: hover over in doubt"
538 # shellcheck disable=SC1111
539 LFBFL_usual_characters="\x00-\x7Fàâéèëïîôûç©“”└─|«»"
540 # shellcheck disable=SC2312
541 grep --exclude-dir .git --color=always \
542   -nPr "[^${LFBFL_usual_characters}]" .
543
544 echo "Checking listed files"
545 "./${LFBFL_subdir}/update_or_check_files_names_listing.exec.sh"
546
547 echo "Creating the PDF file of the listing of the source code"
548 "./${LFBFL_subdir}/create_PDF.exec.sh" "${LFBFL_verbose}"
549
550 # shellcheck disable=SC2164
551 popd
552 }
553 common_build_and_checks "$@"

```

2.6 build_and_checks_dependencies/common_build_and_checks.exec.sh.tpl

```
1 #!/usr/bin/env bash
2 # This file is part of DevOrSysAdminScripts library.
3 #
4 # DevOrSysAdminScripts is free software:
5 # you can redistribute it and/or modify it under the terms
6 # of the GNU General Public License
7 # as published by the Free Software Foundation,
8 # either version 3 of the License,
9 # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,
13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # The file "common_build_and_checks.exec.sh.tpl" was renamed from
25 # "common_build_and_checks.sh.tpl" to
26 # "common_build_and_checks.exec.sh.tpl".
27 # The file "common_build_and_checks.exec.sh" generated from the file
28 # "common_build_and_checks.sh.tpl"
29 # or "common_build_and_checks.exec.sh.tpl"
30 # was renamed from
31 # "common_build_and_checks.sh" to "common_build_and_checks.exec.sh".
32 #
33 common_build_and_checks() {
34     # $1 LFBFL_working_directory
35     # $2 LFBFL_dependencies_URL
36     # $3 optional --verbose
37     declare -r LFBFL_working_directory="$1"
38     # declare -r LFBFL_dependencies_URL="$2" too long
39     declare -r LFBFL_start_URL="$2"
40     local LFBFL_verbose=""
41     if [[ "$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.libr.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 "./${LFBFL_file_path}"
63
64 LFBFL_file_name="check_shell_scripts_beginnings.libr.sh"
65 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
66 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
67 @sha512_check_shell_scripts_beginnings.libr.sh@
68 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
69     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
70
71 LFBFL_file_name="check_URLs.libr.sh"
72 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
73 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
74 @sha512_check_URLs.libr.sh@
75 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
76     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
77
78 LFBFL_file_name="comparisons.libr.sh"
79 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
80 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
81 @sha512_comparisons.libr.sh@
82 wget_sha512 "${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 "./${LFBFL_file_path}"
92
93 LFBFL_file_name="generate_from_template.libr.sh"
94 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
95 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
96 @sha512_generate_from_template.libr.sh@
97 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
98     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
99
100 LFBFL_file_name="get_common_text_glob_patterns.libr.sh"
101 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
102 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
103 @sha512_get_common_text_glob_patterns.libr.sh@
104 wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
105     "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
106
107 LFBFL_file_name="grammar_and_spell_check.libr.sh"
108 LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
109 LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
110 @sha512_grammar_and_spell_check.libr.sh@
111 wget_sha512 "${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.libr.sh"
148      LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
149      LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
150      @sha512_lines_counts.libr.sh@
151      wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
152          "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
153
154      LFBFL_file_name="lines_filters.libr.sh"
155      LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
156      LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
157      @sha512_lines_filters.libr.sh@
158      wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
159          "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
160
161      LFBFL_file_name="lines_maps.libr.sh"
162      LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
163      LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
164      @sha512_lines_maps.libr.sh@
165      wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
166          "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
167
168      LFBFL_file_name="overwrite_if_not_equal.libr.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.libr.sh@
172      wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
173          "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
174
175      LFBFL_file_name="python_black_complement.libr.sh"
176      LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
177      LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
178      @sha512_python_black_complement.libr.sh@
179      wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}" \
180          "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
181
182      LFBFL_file_name="python_isort_complement.libr.sh"

```

```

183 LFBFL_URL="\${LFBFL_start_URL}/\${LFBFL_file_name}"
184 LFBFL_file_path="./\${LFBFL_subdir}/\${LFBFL_file_name}"
185 @sha512_python_isort_complement.libr.sh@
186 wget_sha512 "\${LFBFL_file_path}" "\${LFBFL_URL}" \
187     "\${LFBFL_correct_sha512}" "\${LFBFL_verbose}"
188
189 LFBFL_file_name="split_score.exec.php"
190 LFBFL_URL="\${LFBFL_start_URL}/\${LFBFL_file_name}"
191 LFBFL_file_path="./\${LFBFL_subdir}/\${LFBFL_file_name}"
192 @sha512_split_score.exec.php@
193 wget_sha512 "\${LFBFL_file_path}" "\${LFBFL_URL}" \
194     "\${LFBFL_correct_sha512}" "\${LFBFL_verbose}"
195
196 LFBFL_file_name="split_score.libr.php"
197 LFBFL_URL="\${LFBFL_start_URL}/\${LFBFL_file_name}"
198 LFBFL_file_path="./\${LFBFL_subdir}/\${LFBFL_file_name}"
199 @sha512_split_score.libr.php@
200 wget_sha512 "\${LFBFL_file_path}" "\${LFBFL_URL}" \
201     "\${LFBFL_correct_sha512}" "\${LFBFL_verbose}"
202
203 LFBFL_file_name="strings_functions.libr.sh"
204 LFBFL_URL="\${LFBFL_start_URL}/\${LFBFL_file_name}"
205 LFBFL_file_path="./\${LFBFL_subdir}/\${LFBFL_file_name}"
206 @sha512_strings_functions.libr.sh@
207 wget_sha512 "\${LFBFL_file_path}" "\${LFBFL_URL}" \
208     "\${LFBFL_correct_sha512}" "\${LFBFL_verbose}"
209
210 LFBFL_file_name="too_long_code_lines.libr.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.libr.sh@
214 wget_sha512 "\${LFBFL_file_path}" "\${LFBFL_URL}" \
215     "\${LFBFL_correct_sha512}" "\${LFBFL_verbose}"
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_verbose}"
223 chmod +x "./\${LFBFL_file_path}"
224
225 shopt -s globstar
226 # shellcheck disable=SC1090
227 source "./\${LFBFL_subdir}/check_shell_scripts_beginnings.libr.sh"
228 # shellcheck disable=SC1090

```

```

229 source "./${LFBFL_subdir}/check_URLs.libr.sh"
230 # shellcheck disable=SC1090
231 source "./${LFBFL_subdir}/comparisons.libr.sh"
232 # shellcheck disable=SC1090
233 source "./${LFBFL_subdir}/generate_from_template.libr.sh"
234 # shellcheck disable=SC1090
235 source "./${LFBFL_subdir}/get_common_text_glob_patterns.libr.sh"
236 # shellcheck disable=SC1090
237 source "./${LFBFL_subdir}/grammar_and_spell_check.libr.sh"
238 # shellcheck disable=SC1090
239 source "./${LFBFL_subdir}/lines_counts.libr.sh"
240 # shellcheck disable=SC1090
241 source "./${LFBFL_subdir}/lines_filters.libr.sh"
242 # shellcheck disable=SC1090
243 source "./${LFBFL_subdir}/lines_maps.libr.sh"
244 # shellcheck disable=SC1090
245 source "./${LFBFL_subdir}/overwrite_if_not_equal.libr.sh"
246 # shellcheck disable=SC1090
247 source "./${LFBFL_subdir}/python_black_complement.libr.sh"
248 # shellcheck disable=SC1090
249 source "./${LFBFL_subdir}/python_isort_complement.libr.sh"
250 # shellcheck disable=SC1090
251 source "./${LFBFL_subdir}/strings_functions.libr.sh"
252 # shellcheck disable=SC1090
253 source "./${LFBFL_subdir}/too_long_code_lines.libr.sh"
254
255 local LFBFL_data_file_name=\
256 "build_and_checks_variables/repository_data.txt"
257
258 declare -i LFBFL_upgrade_venvs=0
259 declare -r LFBFL_upgrade_venvs_ts_file=\
260 "build_and_checks_variables/upgrade_venvs_ts"
261 declare -i LFBFL_upgrade_venvs_ts
262 declare -i LFBFL_current_ts
263 local LFBFL_upgrade_venvs_answer
264
265 upgrade_venvs_time_interval_in_seconds=""
266 grep_variable "${LFBFL_data_file_name}" \
267     upgrade_venvs_time_interval_in_seconds
268 if [[ "${upgrade_venvs_time_interval_in_seconds}" == "wat" ]]; then
269     upgrade_venvs_time_interval_in_seconds=$((RANDOM))
270 fi
271 if
272     [[ "${upgrade_venvs_time_interval_in_seconds}" == "watyouwant?" ]]; then
273         upgrade_venvs_time_interval_in_seconds=$((SRANDOM)}

```

```

275     fi
276
277     if [[ -f "${LFBFL_upgrade_venvs_ts_file}" ]]; then
278         LFBFL_upgrade_venvs_ts=\
279         $(stat -c %Y "${LFBFL_upgrade_venvs_ts_file}")
280         LFBFL_current_ts=$(date +%s)
281         ((LFBFL_current_ts==LFBFL_upgrade_venvs_ts))
282         ((LFBFL_current_ts==upgrade_venvs_time_interval_in_seconds))
283         if [[ LFBFL_current_ts -gt 0 ]]; then
284             LFBFL_upgrade_venvs=1
285         fi
286     else
287         LFBFL_upgrade_venvs=1
288     fi
289     if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
290         upgrade_venvs=""
291         grep_variable "${LFBFL_data_file_name}" upgrade_venvs
292         if [[ "$upgrade_venvs" != "auto" ]]; then
293             read -r -n 1 -t 10 -p "Upgrade venvs? [Y/n]" \
294                 LFBFL_upgrade_venvs_answer
295             if [[ "${LFBFL_upgrade_venvs_answer}" == "n" ]]; then
296                 LFBFL_upgrade_venvs=0
297             fi
298         fi
299     fi
300
301     echo "Building license headers"
302     "./${LFBFL_subdir2}/build_licenses_templates.exec.sh" \
303         "${LFBFL_verbose}"
304
305     echo "Building README.md"
306     "./${LFBFL_subdir}/build_md_from_printable_md.exec.sh" \
307         "${LFBFL_working_directory}" "README" "${LFBFL_verbose}"
308
309     pushd .
310     # shellcheck disable=SC2164
311     cd "${LFBFL_working_directory}"
312
313     echo "Running shellcheck"
314     declare -i LFBFL_file_path_length
315     declare -i LFBFL_to_skip_number
316     local LFBFL_file_path_end
317     # shellcheck disable=SC2312
318     find . -name "*.sh" | relevant_find | while read -r LFBFL_file_path;
319     do
320         LFBFL_file_path_length=${#LFBFL_file_path}

```

```

321 LFBFL_to_skip_number=$((LFBFL_file_path_length - 9))
322 LFBFL_file_path_end="${LFBFL_file_path:${LFBFL_to_skip_number}}"
323 if [[ "${LFBFL_file_path_end}" == "GPLv3+.sh" ]]; then
324     continue
325 fi
326 shellcheck --check-sourced --enable=all --external-sources\
327     "${LFBFL_file_path}"
328 done
329
330 echo "---Python---"
331 echo "Running isort"
332 isort_venv=""
333 grep_variable "${LFBFL_data_file_name}" isort_venv
334 if [[ -n "${isort_venv}" ]]; then
335     if command -v deactivate
336     then
337         deactivate
338     fi
339     # shellcheck disable=SC1090,SC1091
340     source "${isort_venv}/bin/activate"
341 fi
342 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
343     pip install --upgrade isort
344 fi
345 isort .
346 if [[ -n "${isort_venv}" ]]; then
347     deactivate
348 fi
349 python_isort_complement
350
351 echo "Running black"
352 black_venv=""
353 grep_variable "${LFBFL_data_file_name}" black_venv
354 if [[ -n "${black_venv}" ]]; then
355     if command -v deactivate
356     then
357         deactivate
358     fi
359     # shellcheck disable=SC1090,SC1091
360     source "${black_venv}/bin/activate"
361 fi
362 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
363     pip install --upgrade black
364 fi
365 black .
366 if [[ -n "${black_venv}" ]]; then

```

```

367     deactivate
368 fi
369 python_black_complement
370
371 mypy_venv=""
372 grep_variable "${LFBFL_data_file_name}" mypy_venv
373 if [[ -n "${mypy_venv}" ]]; then
374     if command -v deactivate
375     then
376         deactivate
377     fi
378     # shellcheck disable=SC1090,SC1091
379     source "${mypy_venv}/bin/activate"
380 fi
381 if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
382     pip install --upgrade mypy
383 fi
384 shopt -s lastpipe
385 local LFBFL_directory_path
386 declare -i LFBFL_no_toml=1
387 # shellcheck disable=SC2312
388 find . -name "pyproject.toml" | relevant_find\
389     | while read -r LFBFL_file_path;
390 do
391     if grep -q "Typing :: Typed" "${LFBFL_file_path}"; then
392         echo "Running mypy"
393         LFBFL_directory_path=$(dirname "${LFBFL_file_path}")
394         mypy "${LFBFL_directory_path}"
395     fi
396     LFBFL_no_toml=0
397 done
398 if [[ LFBFL_no_toml -eq 1 ]]; then
399     echo "Running mypy"
400     mypy .
401 fi
402 if [[ -n "${mypy_venv}" ]]; then
403     deactivate
404 fi
405
406 echo "Running bandit"
407 bandit_venv=""
408 grep_variable "${LFBFL_data_file_name}" bandit_venv
409 if [[ -n "${bandit_venv}" ]]; then
410     if command -v deactivate
411     then
412         deactivate

```

```

413     fi
414     # shellcheck disable=SC1090,SC1091
415     source "${bandit_venv}/bin/activate"
416   fi
417   if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
418     pip install --upgrade bandit
419   fi
420   bandit --ini build_and_checks_variables/bandit.ini \
421     -b build_and_checks_variables/bandit_baseline.json \
422     -r .
423   # Saving new baseline in temp if necessary.
424   bandit --ini build_and_checks_variables/bandit.ini \
425     -f json -o build_and_checks_variables/temp/bandit_baseline.json \
426     -r .
427   if [[ -n "${bandit_venv}" ]]; then
428     deactivate
429   fi
430
431   echo "Running pylint"
432   pylint_venv=""
433   grep_variable "${LFBFL_data_file_name}" pylint_venv
434   if [[ -n "${pylint_venv}" ]]; then
435     if command -v deactivate
436       then
437         deactivate
438       fi
439     # shellcheck disable=SC1090,SC1091
440     source "${pylint_venv}/bin/activate"
441   fi
442   if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
443     pip install --upgrade pylint
444   fi
445   pylint --rcfile build_and_checks_variables/pylintrc.toml \
446     --recursive=y .
447   if [[ -n "${pylint_venv}" ]]; then
448     deactivate
449   fi
450   echo "---Python end---"
451
452   if [[ LFBFL_upgrade_venvs -eq 1 ]]; then
453     touch "${LFBFL_upgrade_venvs_ts_file}"
454   fi
455
456   echo "Analyzing too long lines"
457   # shellcheck disable=SC2312
458   too_long_code_lines | relevant_grep | not_license_grep

```

```

459
460     echo "Analyzing shell scripts beginnings"
461     # shellcheck disable=SC2312
462     check_shell_scripts_beginnings | relevant_grep
463
464     echo "Analyzing URLs"
465     # shellcheck disable=SC2312
466     check_URLs | relevant_grep
467
468     echo "Analyzing strange characters: hover over in doubt"
469     # shellcheck disable=SC1111
470     LFBFL_usual_characters="\x00-\x7Fàâéèëïîôûç©“”└─|«»"
471     # shellcheck disable=SC2312
472     grep --exclude-dir .git --color=always \
473         -nPr "[^${LFBFL_usual_characters}]" .
474
475     echo "Checking listed files"
476     "./${LFBFL_subdir}/update_or_check_files_names_listing.exec.sh"
477
478     echo "Creating the PDF file of the listing of the source code"
479     "./${LFBFL_subdir}/create_PDF.exec.sh" "${LFBFL_verbose}"
480
481     # shellcheck disable=SC2164
482     popd
483 }
484
485 common_build_and_checks "$@"

```

2.7 build_and_checks_dependencies/comparisons.libr.sh

```

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

```

```

17  #
18  # You should have received a copy of
19  # the GNU General Public License
20  # along with DevOrSysAdminScripts.
21  # If not, see <https://www.gnu.org/licenses/>.
22  #
23  # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24  # The file "comparisons.sh" was renamed to "comparisons.libr.sh".
25
26 equal() {
27     # Returns 1 if all the arguments strings are equal.
28     # Renvoie 1 dans $? si toutes les chaînes en arguments sont égales.
29     # J'ai rerepensé au 3-way-merge
30     # et à mon article sur le principe de première différence
31     # appliquée à la largeur modulaire, de clique ou de rang avec
32     # l'idée d'un principe de première différence ternaire.
33     declare -r LFBFL_all_args="$*"
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('${LFBFL_var_2}');"
85     LFBFL_var_3+=" \$c = '/'.addcslashes(\$b, '/').'/';"
86     LFBFL_var_3+=" die(1 - preg_match(\$c, \$a));"
87     readonly LFBFL_var_3
88     php -r "${LFBFL_var_3}"
89     return $?
90 }
91
92 is_subfile(){
93     # $1=$file_name
94     # $2=$sub_file_name
95     local LFBFL_var_1="\$a = file_get_contents('$1');"
96     LFBFL_var_1+=" \$b = preg_quote(file_get_contents('$2'));"'
97     LFBFL_var_1+=" \$c = '/'.addcslashes(\$b, '/').'/';"
98     LFBFL_var_1+=" die(1 - preg_match(\$c, \$a));"
99     readonly LFBFL_var_1
100    php -r "${LFBFL_var_1}"
101    return $?
102 }
103
104 alias min_from_int_sort="min 'sort --numeric-sort'"
105 alias max_from_int_sort="max 'sort --numeric-sort'"

```

2.8 build_and_checks_dependencies/create_PDF.exec.sh

```
1 #!/usr/bin/env bash
2 # This file is part of DevOrSysAdminScripts library.
3 #
4 # DevOrSysAdminScripts is free software:
5 # you can redistribute it and/or modify it under the terms
6 # of the GNU General Public License
7 # as published by the Free Software Foundation,
8 # either version 3 of the License,
9 # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,
13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "create_PDF.sh" to "create_PDF.exec.sh".
25 #
26 LFBFL_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.libr.sh"
35 # shellcheck disable=SC1090
36 source "./${LFBFL_subdir}/lines_counts.libr.sh"
37 # shellcheck disable=SC1090
38 source "./${LFBFL_subdir}/lines_filters.libr.sh"
39 # shellcheck disable=SC1090
40 source "./${LFBFL_subdir}/lines_maps.libr.sh"
41 # shellcheck disable=SC1090
42 source "./${LFBFL_subdir}/overwrite_if_not_equal.libr.sh"
43 # shellcheck disable=SC1090
44 source "./${LFBFL_subdir}/strings_functions.libr.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 : > "${LFBFL_temp_files_listing}"
103 LFBFL_temp_files_listing2="./${LFBFL_subdir2}/temp/"
104 LFBFL_temp_files_listing2+="files_listing.html.tpl.temp"
105 : > "${LFBFL_temp_files_listing2}"
106 LFBFL_temp_files_lis="./${LFBFL_subdir2}/temp/files_lis.html.tpl"
107 : > "${LFBFL_temp_files_lis}"
108 get_split_score_simple 1 70 /
109 # shellcheck disable=SC2154
110 declare LFBFL_score_command="${get_split_score_result}"
111 # shellcheck disable=SC2154
112 declare LFBFL_score_command_properties="${get_split_score_result2}"
113 get_split_score_simple 1 70 ':'
114 # shellcheck disable=SC2154
115 declare LFBFL_score_command2="${get_split_score_result}"
116 declare LFBFL_score_command_properties2="${get_split_score_result2}"
117 declare LFBFL_suffix='%'
118 declare LFBFL_sed_expression='s/\\\\\\n//Mg'
119 declare -i LFBFL_i=0
120 declare LFBFL_suffix2='<!--'
121 declare LFBFL_prefix2='-->'
122 # shellcheck disable=SC2312
123 sed -Ez "${LFBFL_sed_expression}" \
124     "./${LFBFL_subdir2}/files_names_listing.txt" \
125     | sed -Ez "${LFBFL_sed_expression}" \
126     | sed -Ez "${LFBFL_sed_expression}" \
127     | sed -Ez "${LFBFL_sed_expression}" \
128     | grep -v '^//'\ \
129     | while read -r LFBFL_file_name;
130 do
131     echo "Listing file for tex/HTML : ${LFBFL_file_name}"
132     # echo "Listing file for tex : ${LFBFL_file_name}"
133     # LFBFL_base_file_name=$(basename "${LFBFL_file_name}")
134     LFBFL_cleaned_path1="${LFBFL_file_name//_/_\_\_}"
135     LFBFL_cleaned_path2=$(
136         sed -e 's//:/g' -e 's/\./g' <(echo "${LFBFL_file_name}")

```

```

137 )
138 echo "\subsection{" >> "${LFBFL_temp_files_listing}"
139 LFBFL_new_lines=" ${LFBFL_cleaned_path1}"
140 if [[ ${#LFBFL_new_lines} -gt 70 ]]; then
141     repeated_split_last_line "${LFBFL_new_lines}" "" 70 \
142         "${LFBFL_suffix}" "${LFBFL_score_command}" \
143         "${LFBFL_score_command_properties}" "\\"
144     # shellcheck disable=SC2154
145     LFBFL_new_lines=${repeated_split_last_line_result}
146 fi
147 # shellcheck disable=SC2129,SC2312
148 echo " ${LFBFL_file_name}" \
149     | sed -e "s| ${LFBFL_file_name}|${LFBFL_new_lines}|g" \
150         -e 's/_/\_\_/' \
151     >> "${LFBFL_temp_files_listing}"
152 echo ")" >> "${LFBFL_temp_files_listing}"
153 echo "\label{" >> "${LFBFL_temp_files_listing}"
154 LFBFL_new_lines=" ${LFBFL_cleaned_path2}"
155 if [[ ${#LFBFL_new_lines} -gt 70 ]]; then
156     repeated_split_last_line "${LFBFL_new_lines}" "" 70 \
157         "${LFBFL_suffix}" "${LFBFL_score_command2}" \
158         "${LFBFL_score_command_properties2}"
159     # shellcheck disable=SC2154
160     LFBFL_new_lines=${repeated_split_last_line_result}
161 fi
162 # shellcheck disable=SC2129,SC2312
163 echo " ${LFBFL_cleaned_path2}" \
164     | sed -e "s| ${LFBFL_cleaned_path2}|${LFBFL_new_lines}|g" \
165     >> "${LFBFL_temp_files_listing}"
166 echo ")" >> "${LFBFL_temp_files_listing}"
167 echo "" >> "${LFBFL_temp_files_listing}"
168 echo "\VerbatimInput [numbers=left,xleftmargin=-5mm] {" \
169     >> "${LFBFL_temp_files_listing}"
170 LFBFL_new_lines="${LFBFL_file_name}"
171 if [[ ${#LFBFL_new_lines} -gt 70 ]]; then
172     repeated_split_last_line "${LFBFL_new_lines}" "" 70 \
173         "${LFBFL_suffix}" "${LFBFL_score_command}" \
174         "${LFBFL_score_command_properties}"
175     # shellcheck disable=SC2154
176     LFBFL_new_lines=${repeated_split_last_line_result}
177 fi
178 # shellcheck disable=SC2129,SC2312
179 echo " ${LFBFL_file_name}" \
180     | sed -e "s| ${LFBFL_file_name}|${LFBFL_new_lines}|g" \
181     >> "${LFBFL_temp_files_listing}"
182 echo ")" >> "${LFBFL_temp_files_listing}"

```

```

183 echo "" >> "${LFBFL_temp_files_listing}"
184 echo "" >> "${LFBFL_temp_files_listing}"
185
186 # echo "Listing file for HTML : ${LFBFL_file_name}"
187 ((++LFBFL_i))
188 echo "<h3 id=\"subsection2.${LFBFL_i}\">2.${LFBFL_i} \"\"
189     >> "${LFBFL_temp_files_listing2}"
190 LFBFL_new_lines="${LFBFL_file_name}"
191 if [[ ${LFBFL_file_name} -gt 70 ]]; then
192     repeated_split_last_line "${LFBFL_new_lines}" "${LFBFL_prefix2}" \
193     70 "${LFBFL_suffix2}" "${LFBFL_score_command}" \
194     "${LFBFL_score_command_properties}"
195     # shellcheck disable=SC2154
196     LFBFL_new_lines=${repeated_split_last_line_result}
197 fi
198 # shellcheck disable=SC2001,SC2129,SC2312
199 echo "${LFBFL_file_name}" \
200     | sed -e "s|${LFBFL_file_name}|${LFBFL_new_lines}|g" \
201     >> "${LFBFL_temp_files_listing2}"
202 echo "</h3>" >> "${LFBFL_temp_files_listing2}"
203 echo "<pre class=\"numbered_lines\">" \
204     >> "${LFBFL_temp_files_listing2}"
205 sed -e 's/&/&/' -e 's/</&lt;/g' < "${LFBFL_file_name}" \
206     >> "${LFBFL_temp_files_listing2}"
207 echo "</pre>" >> "${LFBFL_temp_files_listing2}"
208 echo "" >> "${LFBFL_temp_files_listing2}"
209 echo "" >> "${LFBFL_temp_files_listing2}"
210
211 # shellcheck disable=SC2129
212 echo "      <li><a href=\"#${subsection2.${LFBFL_i}}\">" \
213     >> "${LFBFL_temp_files_lis}"
214 # shellcheck disable=SC2001
215 echo "${LFBFL_file_name}" \
216     | sed -e "s|${LFBFL_file_name}|${LFBFL_new_lines}|g" \
217     >> "${LFBFL_temp_files_lis}"
218 echo "      </a></li>" >> "${LFBFL_temp_files_lis}"
219 done
220 overwrite_if_not_equal "./${LFBFL_subdir2}/files_listing.tex.tpl" \
221     "${LFBFL_temp_files_listing}"
222 sed -i -e "s|\n</pre>|</pre>|g" "${LFBFL_temp_files_listing2}"
223 overwrite_if_not_equal \
224     "./${LFBFL_subdir2}/temp/files_listing.html.tpl" \
225     "${LFBFL_temp_files_listing2}"
226
227 # We verify if some lines are beyond 70 characters
228 # in current_tree_light.txt and current_tree.txt.

```

```

229 LFBFL_trees=("current_tree_light.txt" "current_tree.txt")
230 declare LFBFL_tree_path
231 for LFBFL_tree in "${LFBFL_trees[@]}"; do
232     LFBFL_tree_path="${LFBFL_subdir2}/temp/${LFBFL_tree}"
233     # shellcheck disable=SC2312
234     grep '\{71\}' "${LFBFL_tree_path}" | while read -r LFBFL_line; do
235         # echo "LFBFL_line: ${LFBFL_line}"
236         # shellcheck disable=SC2312
237         LFBFL_prefix=$\
238             echo "${LFBFL_line}" \
239                 | sed -E -e 's/(.*)-[^-]+$/\1/g' -e 's/[^\ ]+$/\ /'
240     )
241     LFBFL_prefix+=" "
242     # echo "LFBFL_prefix: ${LFBFL_prefix}"
243     # shellcheck disable=SC2312
244     LFBFL_file_name=$\
245         echo "${LFBFL_line}" \
246             | sed -E 's|.*(([a-zA-Z0-9\._/-]+).)$|\1|g' \
247     )
248     # echo "LFBFL_file_name: ${LFBFL_file_name}"
249     # shellcheck disable=SC2312
250     LFBFL_line_start=$\
251         echo "${LFBFL_line}" \
252             | sed -E "s/(.*[ ]*${LFBFL_file_name})/\1/g" \
253             | sed -e 's/*$/g'
254     )
255     # echo "LFBFL_line_start: ${LFBFL_line_start}"
256     LFBFL_line=$\
257         echo "${LFBFL_line}" \
258             | sed -E -e 's/\\[\\\\\\]/g' -e 's/\\]/\\\\]/g' \
259     )
260     LFBFL_new_lines="${LFBFL_prefix}${LFBFL_file_name}"
261     if [[ ${#LFBFL_new_lines} -gt 70 ]]; then
262         repeated_split_last_line "${LFBFL_new_lines}" "${LFBFL_prefix}" \
263             70 "" "" 3
264         # shellcheck disable=SC2154
265         LFBFL_new_lines=${repeated_split_last_line_result}
266     fi
267     sed -i -e\
268         "s/${LFBFL_line}/${LFBFL_line_start}\n${LFBFL_new_lines}/g" \
269         "${LFBFL_tree_path}"
270     done
271     done
272
273     if [[ -f "./${LFBFL_subdir2}/${repository_name}.tex.tpl" ]]; then
274         # If there is a template, we init the process from it.

```

```

275     cp "./${LFBFL_subdir2}/${repository_name}.tex.tpl"\n
276         "./${LFBFL_subdir2}/temp/${repository_name}.tex.1"\n
277 elif [[ -f "./${LFBFL_subdir2}/${repository_name}.tex" ]]; then\n
278     # Otherwise if there is a tex file, we init the process from it.\n
279     cp "./${LFBFL_subdir2}/${repository_name}.tex"\n
280         "./${LFBFL_subdir2}/temp/${repository_name}.tex.1"\n
281 else\n
282     echo "Neither .tex.tpl, nor .tex in ./${LFBFL_subdir2}/"\n
283 fi\n
284\n
285 # Same logic with repository HTML file.\n
286 if [[ -f "./${LFBFL_subdir2}/${repository_name}.html.tpl" ]]; then\n
287     cp "./${LFBFL_subdir2}/${repository_name}.html.tpl"\n
288         "./${LFBFL_subdir2}/temp/${repository_name}.html.1"\n
289 elif [[ -f "${repository_name}.html" ]]; then\n
290     cp "${repository_name}.html"\n
291         "./${LFBFL_subdir2}/temp/${repository_name}.html.1"\n
292 else\n
293     echo "Neither .html.tpl in ./${LFBFL_subdir2}/, nor .html in ./"\n
294 fi\n
295\n
296 declare -r LFBFL_tex_path_start=\n
297 "./${LFBFL_subdir2}/temp/${repository_name}.tex"\n
298 declare -r LFBFL_html_path_start=\n
299 "./${LFBFL_subdir2}/temp/${repository_name}.html"\n
300\n
301 # shellcheck disable=SC2001,SC2312\n
302 echo "${abstract}" | sed -e 's/\n/\n/g' \n
303 > "./${LFBFL_subdir2}/temp/abstract_temp"\n
304\n
305 # shellcheck disable=SC2001,SC2312\n
306 echo "${acknowledgments}" | sed -e 's/\n/\n/g' \n
307 > "./${LFBFL_subdir2}/temp/acknowledgments_temp"\n
308\n
309 # But the filling still occurs, in case the dev want to refill\n
310 # part of the tex/html file that he modified with @token@\n
311 # using some computed results.\n
312 # Tex filling:\n
313 if [[ -f "${LFBFL_tex_path_start}.1" ]]; then\n
314     sed -i "s|@repository_name@|${repository_name}|g"\n
315         "${LFBFL_tex_path_start}.1"\n
316\n
317     insert_file_at_token "${LFBFL_tex_path_start}.1" @abstract@\n
318         "./${LFBFL_subdir2}/temp/abstract_temp"\n
319         "${LFBFL_tex_path_start}.2"\n
320

```

```

321 insert_file_at_token "${LFBFL_tex_path_start}.2" @acknowledgments@ \
322     "./${LFBFL_subdir2}/temp/acknowledgments_temp" \
323     "${LFBFL_tex_path_start}.3"
324
325 sed -i "s|@author_email@|${author_email}|g" \
326     "${LFBFL_tex_path_start}.3"
327
328 sed -i "s|@author_full_name@|${author_full_name}|g" \
329     "${LFBFL_tex_path_start}.3"
330
331 sed -i "s|@author_website@|${author_website}|g" \
332     "${LFBFL_tex_path_start}.3"
333
334 sed -i "s|@current_date@|${LFBFL_current_date}|g" \
335     "${LFBFL_tex_path_start}.3"
336
337 sed -i "s|@current_git_SHA1@|${LFBFL_current_git_SHA1}|g" \
338     "${LFBFL_tex_path_start}.3"
339
340 sed -i "s|@number_of_commits@|${LFBFL_number_of_commits}|g" \
341     "${LFBFL_tex_path_start}.3"
342
343 sed -i "s|@number_of_lines@|${LFBFL_number_of_lines}|g" \
344     "${LFBFL_tex_path_start}.3"
345
346 pushd "./${LFBFL_subdir2}/temp/" || (echo "pushd failed" && exit)
347 sed -i -e '/@current_tree_light@/{r current_tree_light.txt' -e 'd}' \
348     "${repository_name}.tex.3"
349 sed -i -e '/@current_tree@/{r current_tree.txt' -e 'd}' \
350     "${repository_name}.tex.3"
351 popd || (echo "popd failed" && exit)
352
353 insert_file_at_token "${LFBFL_tex_path_start}.3" \
354     @files_listing_VerbatimInput@ \
355     "./${LFBFL_subdir2}/files_listing.tex.tpl" \
356     "${LFBFL_tex_path_start}.4"
357
358 overwrite_if_not_equal "./${LFBFL_subdir2}/${repository_name}.tex" \
359     "${LFBFL_tex_path_start}.4" 1
360 fi
361
362 # HTML filling:
363 if [[ -f "${LFBFL_html_path_start}.1" ]]; then
364     sed -i "s|@repository_name@|${repository_name}|g" \
365         "${LFBFL_html_path_start}.1"
366

```

```

367 insert_file_at_token "${LFBFL_html_path_start}.1" @abstract@ \
368     "./${LFBFL_subdir2}/temp/abstract_temp" \
369     "${LFBFL_html_path_start}.2"
370
371 insert_file_at_token "${LFBFL_html_path_start}.2" @acknowledgments@ \
372     "./${LFBFL_subdir2}/temp/acknowledgments_temp" \
373     "${LFBFL_html_path_start}.3"
374
375 sed -i "s|@author_email@|${author_email}|g" \
376     "${LFBFL_html_path_start}.3"
377
378 sed -i "s|@author_full_name@|${author_full_name}|g" \
379     "${LFBFL_html_path_start}.3"
380
381 sed -i "s|@author_website@|${author_website}|g" \
382     "${LFBFL_html_path_start}.3"
383
384 sed -i "s|@current_date@|${LFBFL_current_date}|g" \
385     "${LFBFL_html_path_start}.3"
386
387 sed -i "s|@current_git_SHA1@|${LFBFL_current_git_SHA1}|g" \
388     "${LFBFL_html_path_start}.3"
389
390 sed -i "s|@number_of_commits@|${LFBFL_number_of_commits}|g" \
391     "${LFBFL_html_path_start}.3"
392
393 sed -i "s|@number_of_lines@|${LFBFL_number_of_lines}|g" \
394     "${LFBFL_html_path_start}.3"
395
396 insert_file_at_token "${LFBFL_html_path_start}.3" \
397     @files_lis@ "${LFBFL_temp_files_lis}"
398
399 pushd "./${LFBFL_subdir2}/temp/" || (echo "pushd failed" && exit)
400 sed -i -e '/@current_tree_light@/{r current_tree_light.txt' -e 'd}' \
401     "${repository_name}.html.3"
402 sed -i -e '/@current_tree@/{r current_tree.txt' -e 'd}' \
403     "${repository_name}.html.3"
404 popd || (echo "popd failed" && exit)
405
406 insert_file_at_token "${LFBFL_html_path_start}.3" \
407     @files_listing_HTMLPreInput@ \
408     "./${LFBFL_subdir2}/temp/files_listing.html.tpl" \
409     "${LFBFL_html_path_start}.4"
410
411 overwrite_if_not_equal "./${repository_name}.html" \
412     "${LFBFL_html_path_start}.4" 1

```

```

413 fi
414
415 if [ [ -n "${LFBFL_verbose}" ]]; then
416     for ((i=0; i<3; i++)); do
417         pdflatex "./${LFBFL_subdir2}/${repository_name}.tex"
418     done
419 else
420     for ((i=0; i<3; i++)); do
421         pdflatex "./${LFBFL_subdir2}/${repository_name}.tex" > /dev/null
422     done
423 fi
424
425 LFBFL_files_to_temp=( \
426     "${repository_name}.aux" \
427     "${repository_name}.log" \
428     "${repository_name}.out" \
429     "${repository_name}.toc"
430 )
431 for LFBFL_file_name in "${LFBFL_files_to_temp[@]}"; do
432     mv "${LFBFL_file_name}" "${LFBFL_subdir2}/temp/"
433 done

```

2.9 build_and_checks_dependencies/generate_from_template.libr.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
12 # that it will be useful,
13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #

```

```

23  # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24  # This file was renamed from "generate_from_template.sh" to
25  # "generate_from_template.libr.sh".
26
27  LFBFL_subdir="build_and_checks_dependencies"
28  # shellcheck disable=SC1090
29  source "./${LFBFL_subdir}/lines_filters.libr.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     # $4=$file_name_result
81     declare -r LFBFL_start_file_name="$1.insert_file_at_token1.temp"
82     declare -r LFBFL_end_file_name="$1.insert_file_at_token2.temp"
83     local LFBFL_result_file_name
84     if [[ -n "$4" ]]; then
85         LFBFL_result_file_name="$4"
86     else
87         LFBFL_result_file_name="$1.insert_file_at_token3.temp"
88     fi
89     readonly LFBFL_result_file_name
90     split_file_in_two "$1" "$2" "${LFBFL_start_file_name}" \
91         "${LFBFL_end_file_name}"
92     cat "${LFBFL_start_file_name}" "$3" "${LFBFL_end_file_name}" \
93         > "${LFBFL_result_file_name}"
94     if [[ -z "$4" ]]; then
95         overwrite_if_not_equal "$1" "${LFBFL_result_file_name}"
96     fi
97     rm "${LFBFL_start_file_name}" "${LFBFL_end_file_name}"
98 }

```

2.10 build_and_checks_dependencies/get_common_text_glob_patterns.libr.sh

```

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2 # This file is part of DevOrSysAdminScripts library.
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9 # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
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```

```

14 # without even the implied warranty of
15 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16 # See the GNU General Public License for more details.
17 #
18 # You should have received a copy of
19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "get_common_text_glob_patterns.sh"
25 # to "get_common_text_glob_patterns.libr.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         '**/*.yml' \
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         '*.yml' \
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.libr.sh

```

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```

```

17  #
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22  #
23  # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24  # This file was renamed from "grammar_and_spell_check.sh"
25  # to "grammar_and_spell_check.libr.sh".
26
27 LFBFL_subdir="build_and_checks_dependencies"
28 # shellcheck disable=SC1090
29 source "./${LFBFL_subdir}/get_common_text_glob_patterns.libr.sh"
30 # shellcheck disable=SC1090
31 source "./${LFBFL_subdir}/lines_filters.libr.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.

```

```

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20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "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.libr.sh"
37 # shellcheck disable=SC1090
38 source "./${LFBFL_subdir}/generate_from_template.libr.sh"
39 # shellcheck disable=SC1090
40 source "./${LFBFL_subdir}/lines_filters.libr.sh"
41 # shellcheck disable=SC1090
42 source "./${LFBFL_subdir}/overwrite_if_not_equal.libr.sh"
43
44 declare -r\
45   LFBFL_license_subdir="./${LFBFL_subdir}/licenses_templates/"
46 declare -r\
47   LFBFL_license_prefix="${LFBFL_license_subdir}license_file_header_"
48 declare -ar LFBFL_licenses=( \

```

```

49      "AGPLv3+" \
50      "GPLv3+" \
51      "LGPLv3+" \
52  )
53
54  # -----
55 # Various language definitions for text file formats
56 declare -ar LFBFL_block_comment_languages=( \
57     "c" \
58     "py" \
59  )
60 declare -ar LFBFL_block_comment_enters=( \
61     '/*' \
62     '***' \
63  )
64 declare -ar LFBFL_block_comment_exits=( \
65     '*/' \
66     '***' \
67  )
68 equal "${#LFBFL_block_comment_languages[@]}"\ \
69     "${#LFBFL_block_comment_enters[@]}"\ \
70     "${#LFBFL_block_comment_exits[@]}"
71 # shellcheck disable=SC2181
72 if [[ $? == 0 ]]; then
73     # shellcheck disable=SC1003
74     echo '/!\\"Problème de définition des tableaux de langages 1"/!\'
75 fi
76
77 declare -ar LFBFL_line_comment_languages=( \
78     "sh" \
79     "tex" \
80  )
81 declare -ar LFBFL_line_comment_prefixes=( \
82     '# ' \
83     '%' \
84  )
85 equal "${#LFBFL_line_comment_languages[@]}"\ \
86     "${#LFBFL_line_comment_prefixes[@]}"
87 # shellcheck disable=SC2181
88 if [[ $? == 0 ]]; then
89     # shellcheck disable=SC1003
90     echo '/!\\"Problème de définition des tableaux de langages 2"/!\'
91 fi
92 # -----
93
94 # -----

```

```

95  # We generate the license header templates adapted to various text
96  # files formats.
97  # Kamoulox do endfor, Jacques Beauregard XD
98  # (C'est toujours mieux que l'inverse :) !)
99  # for do endfor -> for do done (Fort Doux Donne).
100 declare LFBFL_license
101 declare LFBFL_license_prefix2
102 declare LFBFL_extension
103 declare LFBFL_license_file_name
104 declare LFBFL_enter_string
105 declare LFBFL_exit_string
106 declare LFBFL_temp2
107 declare LFBFL_prefix_string
108 declare LFBFL_intermediate_file_name
109 for LFBFL_license in "${LFBFL_licenses[@]}"; do
110     LFBFL_license_prefix2="${LFBFL_license_prefix}${LFBFL_license}"
111     for ((i=0; i<${#LFBFL_block_comment_languages[@]}; i++)); do
112         LFBFL_extension=${LFBFL_block_comment_languages[i]}
113         LFBFL_license_file_name="${LFBFL_license_prefix2}"
114         LFBFL_license_file_name+=".${LFBFL_extension}"
115         LFBFL_enter_string=${LFBFL_block_comment_enters[i]}
116         LFBFL_exit_string=${LFBFL_block_comment_exits[i]}
117         generate_from_template_with_block_comments\
118             "${LFBFL_license_prefix2}.tpl"\ \
119             "${LFBFL_license_file_name}.tpl"\ \
120             "${LFBFL_enter_string}" "${LFBFL_exit_string}"
121     done
122     LFBFL_temp2=".generate_from_template_with_line_comments.temp"
123     for ((i=0; i<${#LFBFL_line_comment_languages[@]}; i++)); do
124         LFBFL_extension=${LFBFL_line_comment_languages[i]}
125         LFBFL_license_file_name="${LFBFL_license_prefix2}"
126         LFBFL_license_file_name+=".${LFBFL_extension}"
127         LFBFL_prefix_string=${LFBFL_line_comment_prefixes[i]}
128         LFBFL_intermediate_file_name="${LFBFL_license_file_name}.tpl"
129         LFBFL_intermediate_file_name+=".${LFBFL_temp2}"
130         generate_from_template_with_line_comments\
131             "${LFBFL_license_prefix2}.tpl"\ \
132             "${LFBFL_license_file_name}.tpl"\ \
133             "${LFBFL_prefix_string}"\ \
134             "sed -Ei -e 's/\s*$/g' '${LFBFL_intermediate_file_name}'"
135     done
136 done
137 #
138 declare -r LFBFL_data_file_name=\
139 "build_and_checks_variables/repository_data.txt"

```

```

141 repository_name=""
142 license=""
143 license2=""
144 author_full_name=""
145 grep_variable "${LFBFL_data_file_name}" repository_name
146 grep_variable "${LFBFL_data_file_name}" license
147 grep_variable "${LFBFL_data_file_name}" license2
148 grep_variable "${LFBFL_data_file_name}" author_full_name
149 LFBFL_license_prefix2="${LFBFL_license_prefix}${license}"
150 readonly LFBFL_license_prefix2
151 declare -r LFBFL_license_prefix3="${LFBFL_license_prefix}${license2}"
152
153 # First year according to current state of git repository.
154 # shellcheck disable=SC2155,SC2312
155 declare -r LFBFL_first_year=
156 "$(git log | grep 'Date:' | cut -f 8 -d ' ' | tail -1)"
157 # Last year according to current state of git repository.
158 # shellcheck disable=SC2155,SC2312
159 declare -r LFBFL_last_year=
160 "$(git log | grep 'Date:' | cut -f 8 -d ' ' | head -1)"
161 LFBFL_copyright_string="${LFBFL_first_year}-${LFBFL_last_year}"
162 LFBFL_copyright_string+=" ${author_full_name}"
163 readonly LFBFL_copyright_string
164
165 prepare_filled_license_file_block() {
166     # $1=license_file_name
167     sed -e "s/@repository_name@/${repository_name}/g" \
168         -e "s/@copyright_string@/${LFBFL_copyright_string}/g" \
169         "$1.tpl" > "$1.temp"
170     overwrite_if_not_equal "$1" "$1.temp"
171     # shellcheck disable=SC2312
172     head --lines=-1 "$1" | tail --lines=+2 > "$1.temp"
173     # Strange world: tail --lines=-1 was working to exclude first line.
174     # I tested it months ago, and saw with my eyes the start and end
175     # block comments removed with:
176     # head --lines=-1 "$1" | tail --lines=-1.
177     # Now, man page says to use --lines=+2 instead.
178     # Welcome in the world where AI change your environment and your doc
179     # on the fly...
180 }
181
182 declare -A LFBFL_all_block_comment_languages
183 LFBFL_all_block_comment_languages["c"]="c"
184 LFBFL_all_block_comment_languages["php"]="c"
185 LFBFL_all_block_comment_languages["py"]="py"
186

```

```

187 declare LFBFL_key
188 declare LFBFL_dest
189 declare LFBFL_license_file_name2
190 declare -i LFBFL_not_subfile
191 declare -i LFBFL_not_subfile2
192
193 for LFBFL_key in "${!LFBFL_all_block_comment_languages[@]}"; do
194     LFBFL_dest=${LFBFL_all_block_comment_languages[$LFBFL_key]}
195     LFBFL_license_file_name="${LFBFL_license_prefix2}.${LFBFL_dest}"
196     prepare_filled_license_file_block "${LFBFL_license_file_name}"
197     if [[ -n "${license2}" ]]; then
198         LFBFL_license_file_name2="${LFBFL_license_prefix3}.${LFBFL_dest}"
199         prepare_filled_license_file_block "${LFBFL_license_file_name2}"
200     fi
201     # shellcheck disable=SC2312
202     find . -type f -name "*.${LFBFL_key}" -printf '%P\n' \
203         | relevant_find | while read -r LFBFL_file_name;
204     do
205         is_subfile "${LFBFL_file_name}" "${LFBFL_license_file_name}.temp"
206         LFBFL_not_subfile=$?
207         LFBFL_not_subfile2=1
208         if [[ -n "${license2}" ]]; then
209             is_subfile "${LFBFL_file_name}" \
210                 "${LFBFL_license_file_name2}.temp"
211             LFBFL_not_subfile2=$?
212         fi
213         if [[ LFBFL_not_subfile -ge 1 && LFBFL_not_subfile2 -ge 1 ]]; then
214             echo "File ${LFBFL_file_name} has no/wrong license header?"
215         fi
216     done
217     rm "${LFBFL_license_file_name}.temp"
218     if [[ -n "${license2}" ]]; then
219         rm "${LFBFL_license_file_name2}.temp"
220     fi
221 done
222
223 prepare_filled_license_file_line() {
224     # $1=LFBFL_license_file_name
225     sed -e "s/@repository_name@/${repository_name}/g" \
226         -e "s/@copyright_string@/${LFBFL_copyright_string}/g" \
227         "$1.tpl" > "$1.temp"
228     overwrite_if_not_equal "$1" "$1.temp"
229 }
230
231 declare -A LFBFL_all_line_comment_languages
232 LFBFL_all_line_comment_languages["sh"]="sh"

```

```

233 LFBFL_all_line_comment_languages["tex"]="tex"
234
235 for LFBFL_key in "${!LFBFL_all_line_comment_languages[@]}"; do
236     LFBFL_dest=${LFBFL_all_line_comment_languages[$LFBFL_key]}
237     LFBFL_license_file_name="${LFBFL_license_prefix2}.${LFBFL_dest}"
238     prepare_filled_license_file_line "${LFBFL_license_file_name}"
239     if [[ -n "${license2}" ]]; then
240         LFBFL_license_file_name2="${LFBFL_license_prefix3}.${LFBFL_dest}"
241         prepare_filled_license_file_line "${LFBFL_license_file_name2}"
242     fi
243     # shellcheck disable=SC2312
244     find . -type f -name "*.${LFBFL_key}" -printf '%P\n' \
245         | relevant_find | while read -r LFBFL_file_name;
246     do
247         is_subfile "${LFBFL_file_name}" "${LFBFL_license_file_name}"
248         LFBFL_not_subfile=$?
249         LFBFL_not_subfile2=1
250         if [[ -n "${license2}" ]]; then
251             is_subfile "${LFBFL_file_name}" "${LFBFL_license_file_name2}"
252             LFBFL_not_subfile2=$?
253         fi
254         if [[ LFBFL_not_subfile -ge 1 && LFBFL_not_subfile2 -ge 1 ]]; then
255             echo "File ${LFBFL_file_name} has no/wrong license header?"
256         fi
257     done
258 done

```

2.13 build_and_checks_dependencies/licenses_templates/license_file_header_AGPLv3+.c.tpl

```

1  /*
2  This file is part of @repository_name@ library.
3
4  @repository_name@ is free software:
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6  of the GNU Affero 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 @repository_name@ 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 Affero General Public License for more details.
17

```

```

18 You should have received a copy of
19 the GNU Affero General Public License
20 along with @repository_name@.
21 If not, see <https://www.gnu.org/licenses/>.
22
23 ©Copyright @copyright_string@
24 */

```

2.14 build_and_checks_dependencies/licenses_templates/license_file_header_AGPLv3+.py.tp

```

1 """
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3
4 @repository_name@ is free software:
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7 as published by the Free Software Foundation,
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9 or (at your option) any later version.
10
11 @repository_name@ 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 Affero General Public License for more details.
17
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20 along with @repository_name@.
21 If not, see <https://www.gnu.org/licenses/>.
22
23 ©Copyright @copyright_string@
24 """

```

2.15 build_and_checks_dependencies/licenses_templates/license_file_header_AGPLv3+.sh.tp

```

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5 # of the GNU Affero 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 #

```

```

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14 # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
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22 # ©Copyright @copyright_string@

```

2.16 build_and_checks_dependencies/licenses_templates/license_file_header_AGPLv3+.tex.t

```

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5 % of the GNU Affero General Public License
6 % as published by the Free Software Foundation,
7 % either version 3 of the License,
8 % or (at your option) any later version.
9 %
10 % @repository_name@ is distributed in the hope
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12 % but WITHOUT ANY WARRANTY;
13 % without even the implied warranty of
14 % MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
15 % See the GNU Affero General Public License for more details.
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22 % ©Copyright @copyright_string@

```

2.17 build_and_checks_dependencies/licenses_templates/license_file_header_AGPLv3+.tpl

```

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```

```

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8   or (at your option) any later version.
9
10  @repository_name@ is distributed in the hope
11  that it will be useful,
12  but WITHOUT ANY WARRANTY;
13  without even the implied warranty of
14  MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
15  See the GNU Affero General Public License for more details.
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17  You should have received a copy of
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19  along with @repository_name@.
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21
22  ©Copyright @copyright_string@

```

2.18 build_and_checks_dependencies/licenses_templates/license_file_header_GPLv3+.c.tpl

```

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4  @repository_name@ is free software:
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7  as published by the Free Software Foundation,
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9  or (at your option) any later version.
10
11 @repository_name@ 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.
17
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19 the GNU General Public License
20 along with @repository_name@.
21 If not, see <https://www.gnu.org/licenses/>.
22
23 ©Copyright @copyright_string@
24 */

```

2.19 build_and_checks_dependencies/licenses_templates/license_file_header_GPLv3+.py.tpl

```
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9 or (at your option) any later version.
10
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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 @repository_name@.
21 If not, see <https://www.gnu.org/licenses/>.
22
23 ©Copyright @copyright_string@
24 """
```

2.20 build_and_checks_dependencies/licenses_templates/license_file_header_GPLv3+.sh.tpl

```
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9 #
10 # @repository_name@ is distributed in the hope
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15 # See the GNU General Public License for more details.
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```

```

18 # the GNU General Public License
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20 # If not, see <https://www.gnu.org/licenses/>.
21 #
22 # ©Copyright @copyright_string@

```

2.21 build_and_checks_dependencies/licenses_templates/license_file_header_GPLv3+.tex.tpl

```

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21 %
22 % ©Copyright @copyright_string@

```

2.22 build_and_checks_dependencies/licenses_templates/license_file_header_GPLv3+.tpl

```

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10 @repository_name@ is distributed in the hope
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```

```

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```

2.23 build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.c.tpl

```

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11 @repository_name@ is distributed in the hope
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20 along with @repository_name@.
21 If not, see <https://www.gnu.org/licenses/>.
22
23 ©Copyright @copyright_string@
24 */

```

2.24 build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.py.tpl

```

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3
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```

```

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24 """

```

2.25 build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.sh.tpl

```

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15 # See the GNU Lesser General Public License for more details.
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```

2.26 build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.tex.t

```
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8 % or (at your option) any later version.  
9 %  
10 % @repository_name@ is distributed in the hope  
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22 % ©Copyright @copyright_string@
```

2.27 build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.tpl

```
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6 as published by the Free Software Foundation,  
7 either version 3 of the License,  
8 or (at your option) any later version.  
9  
10 @repository_name@ is distributed in the hope  
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22  ©Copyright @copyright_string@

```

2.28 build_and_checks_dependencies/lines_counts.libr.sh

```

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19 # the GNU General Public License
20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "lines_counts.sh" to
25 # "lines_counts.libr.sh".
26
27 LFBFL_subdir="build_and_checks_dependencies"
28 # shellcheck disable=SC1090
29 source "./${LFBFL_subdir}/get_common_text_glob_patterns.libr.sh"
30 # shellcheck disable=SC1090
31 source "./${LFBFL_subdir}/lines_filters.libr.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 "${LFBFL_pattern}" -printf '%P\n' \
42         | xargs grep -H -v 'a(?!)a'
43 done
44 }
45
46 all_self_code_lines(){
47     # shellcheck disable=SC2312
48     all_code_lines "$@" | relevant_grep\
49         | not_license_grep | not_main_tex_grep | not_main_html_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.libr.sh

```

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```

```

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.
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20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "lines_filters.sh" to
25 # "lines_filters.libr.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.libr.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 "^[^:]*${repository_name}\.tex:"
242     }
243
244     not_main_html_find() {
245         grep -vE "^(|/)${repository_name}\.html$"
246     }
247
248     not_main_html_grep() {
249         grep -v "^[^:]*${repository_name}\.html:"
250     }
251
252     not_temp_file_find() {
253         grep -vE "^(|/)build_and_checks_variables/temp/.*\$"
254     }
255
256     not_temp_file_grep() {
257         grep -v "^[^:]*build_and_checks_variables/temp/[^:]*:"
258     }
259
260     relevant_find() {
261         # shellcheck disable=SC2312
262         not_dependencies_find | not_cache_find | not_git_find \
263         | not_archive_find | not_temp_file_find
264     }
265
266     relevant_grep() {
267         # shellcheck disable=SC2312
268         not_dependencies_grep | not_cache_grep | not_git_grep \
269         | not_archive_grep | not_temp_file_grep
270     }

```

2.30 build_and_checks_dependencies/lines_maps.libr.sh

```

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```

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22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "lines_maps.sh" to "lines_maps.libr.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 # [
31 #   '2000', '2001', '2002', '2003', '2004', '2005', '2006', '2007',
32 #   '2008', '2009', '200A', '200B', '200C', '200D', '200E', '200F',
33 #   '2028', '2029', '202A', '202B', '202C', '202D', '202E', '202F',
34 #   '205F',
35 #   '2060', '2061', '2062', '2063', '2064', '2065', '2066', '2067',
36 #   '2068', '2069', '206A', '206B', '206C', '206D', '206E', '206F',
37 # ]
38 replace_non_ascii_spaces() {
39     # shellcheck disable=SC2312
40     sed -e 's/\xc2\x{a0}/g' \
41         | sed -e 's/\xe2\x{80}\x{80}/g' \
42         | sed -e 's/\xe2\x{80}\x{81}/g' \
43         | sed -e 's/\xe2\x{80}\x{82}/g' \
44         | sed -e 's/\xe2\x{80}\x{83}/g' \
45         | sed -e 's/\xe2\x{80}\x{84}/g' \
46         | sed -e 's/\xe2\x{80}\x{85}/g' \
47         | sed -e 's/\xe2\x{80}\x{86}/g' \
48         | sed -e 's/\xe2\x{80}\x{87}/g' \
49         | sed -e 's/\xe2\x{80}\x{88}/g' \
50         | sed -e 's/\xe2\x{80}\x{89}/g' \
51         | sed -e 's/\xe2\x{80}\x{8a}/g' \
52         | sed -e 's/\xe2\x{80}\x{8b}/g' \
53         | sed -e 's/\xe2\x{80}\x{8c}/g' \
54         | sed -e 's/\xe2\x{80}\x{8d}/g' \
55         | sed -e 's/\xe2\x{80}\x{8e}/g' \
56         | sed -e 's/\xe2\x{80}\x{8f}/g' \
57         | sed -e 's/\xe2\x{80}\x{a8}/g' \
58         | sed -e 's/\xe2\x{80}\x{a9}/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.libr.sh

```

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```

```

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23  # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24  # This file was renamed from "overwrite_if_not_equal.sh"
25  # to "overwrite_if_not_equal.libr.sh".
26
27  overwrite_if_not_equal() {
28      # $1=$target_file_name
29      # $2=$temp_file_name
30      # $3=$keep_temp
31      if [[ ! -f "$1" ]]; then
32          if [[ -n "$3" ]]; then
33              cp -p "$2" "$1"
34          else
35              mv "$2" "$1"
36          fi
37          return
38      fi
39      diff -q "$1" "$2"
40      declare -ri LFBFL_is_equal=$?
41      # shellcheck disable=SC2250
42      if [[ $LFBFL_is_equal == 0 ]]; then
43          if [[ -z "$3" ]]; then
44              rm "$2"
45          fi
46      else
47          if [[ -n "$3" ]]; then
48              cp -p "$2" "$1"
49          else
50              mv "$2" "$1"
51          fi
52      fi
53  }

```

2.32 build_and_checks_dependencies/python_black_complement.libr.sh

```

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```

```

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22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "python_black_complement.sh"
25 # to "python_black_complement.libr.sh".
26 #
27 # It was rejected to enhance black with this currently.
28 # https://github.com/psf/black/issues/2370
29 # And moreover, at some point, I saw the reverse rule
30 # in black or pylint to add an empty line...
31 # This regexp may give false positives,
32 # but that's not the end of the world.
33 check_no_empty_line_after_python_function_docstring(){
34     echo "Checking empty lines after Python function docstrings"
35     pcregrep -M $'def [^"]*"""([^\"]|"(?!")")*"""\n\n(?!`def)`\n    -- **/*.py
36 }
37
38
39 python_black_complement(){
40     check_no_empty_line_after_python_function_docstring
41 }

```

2.33 build_and_checks_dependencies/python_isort_complement.libr.sh

```

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23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "python_isort_complement.sh"
25 # to "python_isort_complement.libr.sh".
26
27 LFBFL_subdir="build_and_checks_dependencies"
28 # shellcheck disable=SC1090
29 source "./${LFBFL_subdir}/lines_filters.libr.sh"
30 # shellcheck disable=SC1090
31 source "./${LFBFL_subdir}/overwrite_if_not_equal.libr.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_score.exec.php

```

1 #!/usr/bin/php
2 <?php
3 /*
4 This file is part of DevOrSysAdminScripts library.
5
```

```

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23 If not, see <https://www.gnu.org/licenses/>.
24
25 ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
26 2026-01-04T13:38+01:00: This file was renamed from
27 "split_line_at_most.exec.php"
28 to
29 "split_score.exec.php".
30 This file was renamed from
31 "call_split_score_after_before_or_before_after.exec.php" to
32 "split_line_at_most.exec.php".
33 This file was renamed from
34 "call_split_score_after_before_or_before_after.php" to
35 "call_split_score_after_before_or_before_after.exec.php".
36 */
37
38 require_once('./build_and_checks_dependencies/split_score.libr.php');
39
40 /*
41 php -r \
42 '$require_once('./build_and_checks_dependencies/' \
43 '$split_score.libr.php');' \
44 '$echo(generate_split_score' \
45 '$(true, 70, ["/\'])($"/\', 60, true));'
46 */
47
48 echo (
49     generate_split_score(
50         (bool) $argv[1], (int) $argv[2], explode(',', $argv[3]),
51         ($argv[4], (int) $argv[5], (bool) $argv[6])

```

52) ;

2.35 build_and_checks_dependencies/split_score.libr.php

```
1  <?php
2  /*
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4
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23
24 ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
25 2026-01-04T13:38+01:00: This file was renamed from
26 "split_line_at_most.libr.php"
27 to
28 "split_score.libr.php".
29 This file was renamed from "split_line_at_most.php" to
30 "split_line_at_most.libr.php".
31 */
32
33 function generate_split_score(
34     $b_after_before,
35     $i_max_length,
36     $a_delimiter_strings_domain,
37 ) {
38     return function(
39         $s_delimiter_string,
40         $i_cut_position,
41         $b_is_cut_after,
42     ) use ($b_after_before, $i_max_length, $s_delimiter_strings_domain) {
```

```

43     if(
44         !in_array(
45             $s_delimiter_string, $s_delimiter_strings_domain, true
46         )
47     ) {
48         // I do not handle regexps for the moment.
49         // I'm too brainfucked. I just want to finish this feature fast
50         // for HTML and Tex/PDF listings generation with HTML and Tex on
51         // at most 70 characters.
52         return 0;
53     }
54     if($b_is_cut_after === $b_after_before) {
55         // When $b_after_before,
56         // always way better to cut after '/' than before it.
57         // When !$b_after_before (aka before_after),
58         // always way better to cut before '/' than after it.
59         return 1 + $i_max_length + $i_cut_position;
60     }
61     return 1 + $i_cut_position;
62 };
63 }

```

2.36 build_and_checks_dependencies/strings_functions.libr.sh

```

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22 #

```

```

23  # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24  # I think I created a file strings_functions.sh or renamed to
25  # strings_functions.sh at some point, before committing.
26  # Hence, someone must have changed or reversed the name of this file
27  # to string_functions.sh at some point.
28  # This file was renamed from "string_functions.sh" to
29  # "strings_functions.libr.sh".
30
31 LFBFL_subdir="build_and_checks_dependencies"
32 # shellcheck disable=SC1090
33 source "./${LFBFL_subdir}/get_common_text_glob_patterns.libr.sh"
34 # shellcheck disable=SC1090
35 source "./${LFBFL_subdir}/comparisons.libr.sh"
36
37 split_line_at() {
38     # $1=$line
39     # $2=$position
40     declare -g split_line_at_result_beginning="${1:0:$2}"
41     declare -g split_line_at_result_end="${1:$2}"
42     # echo "$split_line_at_result_beginning"
43     # echo "$split_line_at_result_end"
44 }
45
46 split_score_simple() {
47     # $1=$after_before
48     # $2=$delimiters_strings_domain concatenated characters/delimiters
49     # $3=$delimiter_string a single character
50     # $4=$is_cut_after
51     declare -gi split_score_result
52     if [[ "$2" != *$3* ]]; then
53         split_score_result=0
54         return
55     fi
56     if [[ "$4" == "$1" ]]; then
57         split_score_result=2
58         return
59     fi
60     split_score_result=1
61 }
62
63 get_split_score_simple() {
64     # $1=$after_before
65     # $2=$max_length
66     # $3=$delimiters_strings_domain
67     declare -g get_split_score_result="split_score_simple \$1 '\$3'"
68     declare -gi get_split_score_result2

```

```

69  # shellcheck disable=SC2034,2125
70  get_split_score_result2=7+$1*4
71  # if [[ $1 -eq 1 ]]; then
72  #   get_split_score_result2=7
73  # else
74  #   get_split_score_result2=11
75  # fi
76 }
77
78 get_split_score_exec() {
79   declare -g SPLIT_SCORE_EXEC="./build_and_checks_dependencies"
80   SPLIT_SCORE_EXEC+="/split_score.exec.php"
81 }
82
83 split_score() {
84   # $1=$after_before
85   # $2=$max_length
86   # $3=$delimiters_strings_domain concatenated characters/delimiters
87   # $4=$delimiter_string a single character
88   # $5=$cut_position
89   # $6=$is_cut_after
90   get_split_score_exec
91   declare -r LFBFL_command="${SPLIT_SCORE_EXEC} \$1 \$2 '\$3' '\$4' \$5 \$6"
92   declare -gi split_score_result
93   split_score_result=$(eval "${LFBFL_command}")
94 }
95
96 get_split_score() {
97   # $1=$after_before
98   # $1=$max_length
99   # $2=$delimiters_strings_domain
100  # shellcheck disable=SC2034
101  declare -g get_split_score_result="split_score \$1 \$2 '\$3'"
102  declare -gi get_split_score_result2
103  # shellcheck disable=SC2034,2125
104  get_split_score_result2=5+$1*4
105 }
106
107 split_line_at_most() {
108   # $1=$line
109   # $2=$max_length of beginning result string
110   # $3=$split_score_command
111   # negative score means do not consider as a possible split
112   # $4=$split_score_command_properties :
113   # These properties are flags.
114   # If someday some property is not a flag,

```

```

115  # then create split_score_command_properties2.
116  # - null or 0 no property;
117  # - 1 split score doesn't depend on which delimiter matches;
118  # - 2 split score doesn't depend on the current position;
119  # - 4 any split score after is always larger
120  #     than any split score before;
121  # - 8 any split score before is always larger
122  #     than any split score after;
123  # $5=$forbidden_previous_character
124  # $6=$split_score_command_delimiter_strings_domain
125  # optimisation if small domain
126  # - this argument can be "null", then we will use $3 only instead,
127  #     in that case, only mono-character strings are considered,
128  # - this argument can be an array of characters,
129  #     optimize accordingly,
130  # - this argument can be an array of strings,
131  #     optimize accordingly,
132  # - this argument can be an array of regexps,
133  #     optimize accordingly.
134  # Not sure an array of regexps makes more sense than a single
135  # one. Maybe they could be both cases with corresponding
136  # optimizations. Same for a single character or substring.
137  #
138  # Note that we're always looking for the last position to split
139  # among maximum score;
140  # if some position gets as score from 2 delimiters,
141  # its score is always the maximum of the two corresponding scores.
142 declare -g split_line_at_most_result_start
143 declare -g split_line_at_most_result_end
144 declare -A LFBFL_positions
145 # echo "$1 $2 $3 $4"
146 # For my use case in bash scripts, I will need only an array of
147 # characters. See get_split_score_after_before().
148 if [[ -n "$6" ]]; then
149     echo "split_line_at_most() \$4 NOT IMPLEMENTED YET"
150 fi
151 if [[ "$2" -ge "${#1}" ]]; then
152     split_line_at_most_result_start=$1
153     split_line_at_most_result_end=""
154     return
155 fi
156 declare -r LFBFL_sort_command="sort --numeric-sort"
157 declare -r LFBFL_length_minus_1=$(( ${#1} - 1 ))
158 declare -r LFBFL_i_max=$(( ${LFBFL_sort_command} " ${LFBFL_length_minus_1}" "$2"
159 ))

```

```

161 local LFBFL_i
162 local LFBFL_j
163 local LFBFL_previous_char
164 local LFBFL_current_char
165
166 # At the beginning, each position has score 0.
167 for ((LFBFL_i=0; LFBFL_i<=LFBFL_i_max; ++LFBFL_i)) do
168     LFBFL_positions["${LFBFL_i}"]="0"
169 done
170 LFBFL_j=$((LFBFL_i+1))
171 LFBFL_positions["${LFBFL_j}"]="0"
172
173 # If we have a forbidden previous character,
174 # we mark the forbidden positions with -1.
175 if [[ -n "$5" ]]; then
176     LFBFL_previous_char=""
177     for ((LFBFL_i=0; LFBFL_i<LFBFL_i_max; ++LFBFL_i)) do
178         LFBFL_j=$((LFBFL_i+1))
179         if [[ ${LFBFL_i} -ge 1 ]]; then
180             LFBFL_previous_char="${LFBFL_current_char}"
181         fi
182         LFBFL_current_char="${1:${LFBFL_i}:1}"
183         if [[ "${LFBFL_previous_char}" == "$5" ]]; then
184             LFBFL_positions["${LFBFL_i}"]="-1"
185         fi
186         if [[ "${LFBFL_current_char}" == "$5" ]]; then
187             LFBFL_positions["${LFBFL_j}"]="-1"
188         fi
189     done
190 fi
191
192 if [[ "$4" == "7" ]]; then
193     for ((LFBFL_j=LFBFL_i_max; LFBFL_j>0; --LFBFL_j)) do
194         LFBFL_i=$((LFBFL_j-1))
195         LFBFL_current_char="${1:${LFBFL_i}:1}"
196         eval "$3 '\${LFBFL_current_char}' 0"
197         # echo "${split_score_result}|${LFBFL_i}"
198         if [[ ${split_score_result} -ge 1 ]]; then
199             # echo "${split_score_result}|${LFBFL_i}"
200             if [[ ${LFBFL_positions["${LFBFL_i}"]} != "-1" ]]; then
201                 LFBFL_positions["${LFBFL_i}"]=$(((
202                     max "${LFBFL_sort_command}" \
203                     "${LFBFL_positions["${LFBFL_i}"]} } ) \
204                     ${split_score_result}"
205             )
206         fi

```

```

207     fi
208     eval "$3 '\${LFBFL_current_char}' 1"
209     # echo "\${split_score_result}|${LFBFL_j}"
210     if [[ ${split_score_result} -ge 1 ]]; then
211         # echo "\${split_score_result}|${LFBFL_j}"
212         if [[ ${LFBFL_positions["${LFBFL_j}"]} != "-1" ]]; then
213             LFBFL_positions["${LFBFL_j}"]=$(((
214                 max "\${LFBFL_sort_command}" \
215                 "\${LFBFL_positions["${LFBFL_j}"]}" ) \
216                 "\${split_score_result}"
217             )
218             break
219         fi
220     fi
221     done
222 else
223     for ((LFBFL_i=0; LFBFL_i<LFBFL_i_max; ++LFBFL_i)) do
224         LFBFL_j=$((LFBFL_i+1))
225         LFBFL_current_char="\${1:\${LFBFL_i}:1}"
226         eval "$3 '\${LFBFL_current_char}' \${LFBFL_i} 0"
227         # echo "\${split_score_result}|${LFBFL_i}"
228         if [[ ${split_score_result} -ge 1 ]]; then
229             # echo "\${split_score_result}|${LFBFL_i}"
230             if [[ ${LFBFL_positions["${LFBFL_i}"]} != "-1" ]]; then
231                 LFBFL_positions["${LFBFL_i}"]=$(((
232                     max "\${LFBFL_sort_command}" \
233                     "\${LFBFL_positions["${LFBFL_i}"]}" ) \
234                     "\${split_score_result}"
235                 )
236             fi
237         fi
238         eval "$3 '\${LFBFL_current_char}' \${LFBFL_j} 1"
239         # echo "\${split_score_result}|${LFBFL_j}"
240         if [[ ${split_score_result} -ge 1 ]]; then
241             # echo "\${split_score_result}|${LFBFL_j}"
242             if [[ ${LFBFL_positions["${LFBFL_j}"]} != "-1" ]]; then
243                 LFBFL_positions["${LFBFL_j}"]=$(((
244                     max "\${LFBFL_sort_command}" \
245                     "\${LFBFL_positions["${LFBFL_j}"]}" ) \
246                     "\${split_score_result}"
247                 )
248             fi
249         fi
250     done
251 fi
252 declare -r LFBFL_max_score=\

```

```

253 $ (max 'sort --numeric-sort' "${LFBFL_positions[@]}")
254     local LFBFL_best_position
255     for ((LFBFL_i=0; LFBFL_i<=LFBFL_i_max; ++LFBFL_i)) do
256         local LFBFL_value=${LFBFL_positions[$LFBFL_i]}
257         # echo "${LFBFL_i} ${LFBFL_value}"
258         if [[ "${LFBFL_value}" == "${LFBFL_max_score}" ]]; then
259             LFBFL_best_position="${LFBFL_i}"
260         fi
261     done
262     split_line_at "$1" "${LFBFL_best_position}"
263     # shellcheck disable=SC2250
264     split_line_at_most_result_start=$split_line_at_result_beginning
265     split_line_at_most_result_end="$split_line_at_result_end"
266     # echo "$split_line_at_most_result_start"
267     # echo "$split_line_at_most_result_end"
268 }
269
270 split_last_line(){
271     # $1=$new_lines
272     # $2=$prefix
273     # $3=$max_length
274     # $4=$suffix
275     # $5=$split_score_command
276     # $6=$split_score_command_properties
277     # $7=$forbidden_previous_character ('\\' usually)
278     # In general, a prefix/suffix can be a required line prefix/suffix
279     # for all final lines like a comment prefix,
280     # or it can be a continuation line prefix/suffix applied only
281     # when splitting a line in 2 lines,
282     # or it can be a prefix/suffix for the string made of all the lines.
283     # Clearly, there is no gain to couple handling a prefix/suffix for
284     # the string made of all the lines in this function.
285     # Since we add a prefix/suffix when splitting,
286     # it is easy to see that we do not need to distinguish between
287     # required line prefix/suffix and continuation line prefix/suffix.
288     # The $2 and $4 arguments are given as concatenation of the
289     # required and continuation line prefixes/suffixes as needed by the
290     # user.
291     # Thus lines arguments should be given already prefixed
292     # and suffixed.
293     # This is logic, since it would be cumbersome to handle prefixing
294     # or not already splitted lines in this function
295     # (see repeated_split_last_line).
296     # The given max_length is the goal.
297     # This function adapts the effective max position for the split by
298     # taking into account the length of the suffix.

```

```

299 declare -g split_last_line_result="$1"
300 declare -r LFBFL_max_length_plus=$((($3 + 1))
301 declare -r LFBFL_length2=$((($3 - ${#4})))
302 declare -r LFBFL_regexp='.'."${LFBFL_max_length_plus}"'\}'$'
303 # shellcheck disable=SC2312
304 if echo "$1" | sed -e 's/\\n/\\n/g' | grep -q "${LFBFL_regexp}"; then
305     # shellcheck disable=SC2312
306     declare -r LFBFL_start=$(
307         echo "$1" | sed -e 's/\\n/\\n/g' | head --lines=-1 \
308         | sed -z 's/\\n/\\n/g' \
309     )
310     # echo "start: $LFBFL_start"
311     declare -r LFBFL_last_line=$(
312         echo "$1" | sed -e 's/\\n/\\n/g' | tail --lines=1 \
313     )
314     # echo "last_line: ${LFBFL_last_line}"
315     split_last_line_result=""
316     if [[ -n "${LFBFL_start}" ]]; then
317         split_last_line_result="${LFBFL_start}\\n"
318     fi
319     if [[ -n "$5" ]]; then
320         split_line_at_most "${LFBFL_last_line}" "${LFBFL_length2}" \
321             "$5" "$6" "$7"
322         split_last_line_result+="${split_line_at_most_result_start}$4"
323         split_last_line_result+="\\n"
324         split_last_line_result+="$2${split_line_at_most_result_end}"
325     else
326         # shellcheck disable=SC2250
327         split_last_line_result+="${LFBFL_last_line}:0:${LFBFL_length2}$4"
328         split_last_line_result+="\\n"
329         # shellcheck disable=SC2250
330         split_last_line_result+="$2${LFBFL_last_line}:$LFBFL_length2"
331     fi
332     fi
333 }
334
335 repeated_split_last_line(){
336     declare -g repeated_split_last_line_result="$1"
337     local LFBFL_i
338     for ((LFBFL_i=0; LFBFL_i<$6; ++LFBFL_i)) do
339         split_last_line "${repeated_split_last_line_result}" "$2" "$3" \
340             "$4" "$5" "$6" "$7"
341         repeated_split_last_line_result="${split_last_line_result}"
342         # echo "${split_last_line_result}"
343     done
344 }

```

2.37 build_and_checks_dependencies/too_long_code_lines.libr.sh

```
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2 # This file is part of DevOrSysAdminScripts library.
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20 # along with DevOrSysAdminScripts.
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22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "too_long_code_lines.sh"
25 # to "too_long_code_lines.libr.sh".
26
27 LFBFL_subdir="build_and_checks_dependencies"
28 # shellcheck disable=SC1090
29 source "./${LFBFL_subdir}/get_common_text_glob_patterns.libr.sh"
30
31 too_long_code_lines() {
32     get_COMMON_TEXT_FILES_GLOB_PATTERNS
33     local LFBFL_pattern
34     local LFBFL_file_name
35     local LFBFL_line
36     local LFBFL_extension
37     local LFBFL_base_name
38     # shellcheck disable=SC2154
39     for LFBFL_pattern in "${COMMON_TEXT_FILES_GLOB_PATTERNS[@]}"; do
40         [[ "$1" != "-v" ]]\|
41             || echo "Iterating on pattern: ${LFBFL_pattern}"
42     # shellcheck disable=SC2312
43     find . -type f -name "${LFBFL_pattern}" -printf '%P\n'\
44         | xargs grep -H '\{71\}' | while read -r LFBFL_long_line
```

```

45      do
46          LFBFL_file_name=${LFBFL_long_line%%:*}
47          LFBFL_line=${LFBFL_long_line#*:}
48          LFBFL_line="${LFBFL_line%/*}"
49          LFBFL_extension=${LFBFL_file_name##*.}
50          LFBFL_base_name=${LFBFL_file_name%.*}
51          if [[ "${LFBFL_extension}" == "html" ]]; then
52              if [[ -f "${LFBFL_base_name}.md" ]]; then
53                  continue
54              fi
55              if grep --quiet --fixed-strings "${LFBFL_line}" \
56                  "./build_and_checks_variables/temp/files_listing.html.tpl"
57              then
58                  continue
59              fi
60              echo "${LFBFL_long_line}"
61          elif [[ "${LFBFL_extension}" == "md" ]]; then
62              if ! [[ -f "${LFBFL_base_name}.md.tpl" ]]; then
63                  echo "${LFBFL_long_line}"
64              fi
65          else
66              echo "${LFBFL_long_line}"
67          fi
68      done
69  done
70 }

```

2.38 build_and_checks_dependencies/update_common_build_and_checks.exec.sh

```

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17 #

```

```

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23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "update_common_build_and_checks.sh"
25 # to "update_common_build_and_checks.exec.sh".
26
27 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.libr.sh" \
42         "check_URLs.libr.sh" \
43         "comparisons.libr.sh" \
44         "create_PDF.exec.sh" \
45         "generate_from_template.libr.sh" \
46         "get_common_text_glob_patterns.libr.sh" \
47         "grammar_and_spell_check.libr.sh" \
48         "licenses_templates/build_licenses_templates.exec.sh" \
49         "licenses_templates/license_file_header GPLv3+.tpl" \
50         "licenses_templates/license_file_header GPLv3+.tpl" \
51         "licenses_templates/license_file_header GPLv3+.tpl" \
52         "lines_counts.libr.sh" \
53         "lines_filters.libr.sh" \
54         "lines_maps.libr.sh" \
55         "update_or_check_files_names_listing.exec.sh" \
56         "overwrite_if_not_equal.libr.sh" \
57         "python_black_complement.libr.sh" \
58         "python_isort_complement.libr.sh" \
59         "split_score.exec.php" \
60         "split_score.libr.php" \
61         "strings_functions.libr.sh" \
62         "too_long_code_lines.libr.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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22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24
25 # 2025-12-30T21:33+01:00: This file was moved from
26 # "./build_and_checks_dependencies/listings"
27 # to
28 # "./build_and_checks_dependencies".
29 # This file was renamed from "update_or_check_files_names_listing.sh"
30 # to "update_or_check_files_names_listing.exec.sh".
31 # This file was renamed from "update_or_check_file_names_listing.sh"
32 # to "update_or_check_files_names_listing.sh"?
33
34 LFBFL_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.libr.sh"
44 # shellcheck disable=SC1090
```

```

45 source "./${LFBFL_subdir}/strings_functions.libr.sh"
46 LFBFL_subdir2="build_and_checks_variables"
47 files_names_listing="./${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_simple 1 70 /
63 # shellcheck disable=SC2154
64 split_score_command="${get_split_score_result}"
65 # shellcheck disable=SC2154
66 split_score_command_properties="${get_split_score_result2}"
67 # shellcheck disable=SC1003
68 suffix='\\'
69 # shellcheck disable=SC2312
70 find . -type f -printf '%P\n' | relevant_find | sort \
71   | while read -r file_name;
72 do
73   git check-ignore -q "${file_name}" && continue
74   base_file_name=$(basename "${file_name}")
75   [[ "${base_file_name}" != "files_names_listing.txt.temp1" ]] \
76     || continue
77   [[ "${base_file_name}" != "files_names_listing.txt.temp2" ]] \
78     || continue
79   [[ "${base_file_name}" != "files_names_listing.txt.temp3" ]] \
80     || continue
81   [[ "${base_file_name}" != "files_names_listing.txt.temp4" ]] \
82     || continue
83   if [[ "${base_file_name}" == *.md ]]; then
84     if [[ -f "${file_name}.tpl" ]]; then
85       continue
86     fi
87   fi
88   repeated_split_last_line "${file_name}" "" 70 "${suffix}" \
89   "${split_score_command}" "${split_score_command_properties}"
90 # shellcheck disable=SC2154

```

```

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

```

2.40 build_and_checks_variables/.gitignore

```
1 temp/
2 upgrade_venvs_ts
3
```

2.41 build_and_checks_variables/bandit.ini

```
1 # FILE: .bandit
2 [bandit]
```

2.42 build_and_checks_variables/bandit_baseline.json

```
1 {"results": []}
```

2.43 build_and_checks_variables/DevOrSysAdminScripts.html.tpl

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <!--
4 This file is part of DevOrSysAdminScripts library.
5
6 DevOrSysAdminScripts is free software:
7 you can redistribute it and/or modify it under the terms
8 of the GNU Lesser General Public License
9 as published by the Free Software Foundation,
10 either version 3 of the License,
11 or (at your option) any later version.
12
13 DevOrSysAdminScripts is distributed in the hope
14 that it will be useful,
15 but WITHOUT ANY WARRANTY;
16 without even the implied warranty of
17 MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
18 See the GNU Lesser General Public License for more details.
19
20 You should have received a copy of
21 the GNU Lesser General Public License
22 along with DevOrSysAdminScripts.
23 If not, see <https://www.gnu.org/licenses/>.
24
25 ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
26 -->
27 <head>
28 <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
29 <meta name="generator" content="DevOrSysAdminScripts">
```

```

30 <style 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 blockquote{
62   margin-left: 4ex;
63   margin-right: 4ex;
64   text-align: left;
65 }
66 ol.level1, ol.level2{
67   list-style-type: none;
68   /*
69   list-style-type: decimal;
70   Previous rule is shorter and more efficient if you need only level1.
71   But you don't have accessible counter if you use decimal.
72   */
73 }
74 ol.level1{
75   counter-reset: level1;

```

```

76    }
77  ol.level2{
78    counter-reset: level2;
79  }
80  ol.level1 li:before{
81    content: counter(level1) ". ";
82    counter-increment: level1;
83  }
84  ol.level2 li:before{
85    content: counter(level1) "." counter(level2) " ";
86    counter-increment: level2;
87  }
88  </style>
89  <title>@repository_name@</title>
90  </head>
91  <body >
92  <table class="title">
93    <tr>
94      <td style="padding:1ex">
95        <h1 class="titlemain">@repository_name@</h1>
96        <h3 class="titlerest">
97          @author_full_name@
98          <br>
99          <a href="@author_website@">
100            <span style="font-family:monospace">
101              @author_website@
102            </span>
103          </a>
104          <br>
105          <a href="mailto:@author_email@">
106            <span style="font-family:monospace">
107              @author_email@
108            </span>
109          </a>
110        </h3>
111      </td>
112    </tr>
113  </table>
114
115  <blockquote class="abstract">
116    <span style="font-weight:bold">Abstract:</span>
117    @abstract@
118  </blockquote>
119  <p>Current version: @current_date@</p>
120  <p>Current number of commits: @number_of_commits@</p>
121  <p>Current git SHA1: @current_git_SHA1@</p>

```

```

122 <p>
123 Code lines: @number_of_lines@
124 </p>
125
126
127 <h2>Contents</h2>
128
129 <ol class="level1">
130   <li><a href="#section1">Files Tree</a></li>
131   <li><a href="#section2">Listing of files</a><br>
132     <ol class="level2">
133       @files_lis@
134     </ol>
135   </li>
136 </ol>
137
138
139 <h2 id="section1">1 Files tree</h2>
140 <pre class="verbatim">
141 @current_tree_light@
142 </pre>
143 <pre class="verbatim">
144 @current_tree@
145 </pre>
146
147
148 <h2 id="section2">2 Listing of files</h2>
149
150 <p>
151 This repository is dual licensed.
152 All the Bash scripts source code is covered by GPLv3+.
153 All the PHP scripts source code is covered by LGPLv3+.
154 </p>
155
156 <p>
157 The text of the licenses is available at:
158 <a href="https://www.gnu.org/licenses/"><span
159   style="font-family:monospace"
160 >https://www.gnu.org/licenses/</span></a>.
161 The git repository of this source code is also available at:
162 <a href="https://github.com/LLyaudet/@repository_name@/"><span
163   style="font-family:monospace"
164 >https://github.com/LLyaudet/@repository_name@/</span></a>.
165 </p>
166
167 <p>
```

```

168 Here is a listing of the dependencies of the code in this repository:
169 <ul>
170 <li> The following dependencies are GPLv3+ licensed:<br>
171 basename, bash (and its builtins), cat, chmod, cp, cut, date, diff,
172 dirname, find, grep, head, mkdir, mv, realpath, rm, sed, sha512sum,
173 shellcheck, sort, tail, wc, wget, xargs
174 <li> The following dependencies are GPLv2+ licensed:<br>
175 more, pandoc, pdftex, pdflatex, tree
176 <li> The following dependencies are GPLv2 licensed:<br>
177 git, pylint
178 <li> The following dependencies are LGPLv2.1+ licensed:<br>
179 notify-send
180 <li> The following dependencies are MIT licensed:<br>
181 black, isort, mypy
182 <li> The following dependencies are Apache-2.0 licensed:<br>
183 bandit
184 <li> php is licensed under PHP License v3.01
185 <li> tex is licensed under Knuth license
186 <li> pcregrep has a custom license from Cambridge University
187 </ul>
188 </p>
189
190 <p>
191 Remark: Some commands listed under GPLv3+ are POSIX
192 and can have different implementations under another license;
193 for example, uutils coreutils is MIT licensed,
194 whilst GNU coreutils is GPLv3+ licensed.
195 </p>
196
197 @files_listing_HTMLPreInput@
198
199 <p>
200 @acknowledgments@
201 </p>
202
203 <script>
204 "use strict";
205 const pres = Array.from(
206   document.getElementsByClassName('numbered_lines')
207 );
208 pres.forEach(
209   (pre) => {
210     const nb = Array.from(pre.innerText.matchAll("\n")).length + 1;
211     let numbers = "";
212     for(let i = 1; i <= nb; ++i){
213       numbers += i.toString();

```

```

214         if(i < nb){ numbers += "\n "; }
215     }
216     pre.setAttribute('line-numbers', numbers);
217 }
218 );
219 </script>
220 </html>
```

2.44 build_and_checks_variables/DevOrSysAdminScripts.tex.tpl

```

1 % This file is part of DevOrSysAdminScripts library.
2 %
3 % DevOrSysAdminScripts is free software:
4 % you can redistribute it and/or modify it under the terms
5 % of the GNU Lesser General Public License
6 % as published by the Free Software Foundation,
7 % either version 3 of the License,
8 % or (at your option) any later version.
9 %
10 % DevOrSysAdminScripts is distributed in the hope
11 % that it will be useful,
12 % but WITHOUT ANY WARRANTY;
13 % without even the implied warranty of
14 % MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
15 % See the GNU Lesser General Public License for more details.
16 %
17 % You should have received a copy of
18 % the GNU Lesser General Public License
19 % along with DevOrSysAdminScripts.
20 % If not, see <https://www.gnu.org/licenses/>.
21 %
22 % ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
23
24 % 2025-12-29T17:08+01:00: This file was moved from
25 % "./latex"
26 % to
27 % "./build_and_checks_variables".
28
29 \documentclass{article}
30
31 \usepackage[utf8]{inputenc}
32 \usepackage[T1]{fontenc}
33 \usepackage{subfigure}
34 \usepackage{amsmath}
35 \usepackage{amssymb}
36 \usepackage{amsthm}
```

```

37  \usepackage[pdftex]{hyperref}
38  \usepackage{tikz}
39  \usepackage{caption}
40  \usepackage[round]{natbib}
41  \usepackage{fancyhdr}
42  \usepackage{amsfonts}
43  \usepackage{times}
44  \usepackage{ifpdf}
45  \usepackage{latexsym}
46  \usepackage{graphicx}
47  \usepackage{enumerate}
48  \usepackage{pmbboxdraw}
49  \usepackage{fancyvrb}
50  \usepackage[french,english]{babel}
51
52  % *** les environnements ***
53  %\theoremstyle{break}
54  \newtheorem{definition}{Definition}[section]
55  \newtheorem{proposition}[definition]{Proposition}
56  \newtheorem{theorem}[definition]{Theorem}
57  \newtheorem{lemma}[definition]{Lemma}
58  \newtheorem{corollary}[definition]{Corollary}
59  \newtheorem{remark}[definition]{Remark}
60  \newtheorem{openproblem}[definition]{Open problem}
61
62  \begin{document}
63
64  \author{
65    @author_full_name@\\
66    \url{@author_website@}\\
67    \href{mailto:@author_email@}{@author_email@}
68  }
69  \title{@repository_name@}
70
71  \maketitle
72  \begin{abstract}
73  @abstract@
74  \end{abstract}
75
76  Current version: @current_date@
77
78  Current number of commits: @number_of_commits@
79
80  Current git SHA1: @current_git_SHA1@
81
82  Code lines: @number_of_lines@

```

```

83
84 \tableofcontents
85 \newpage
86
87 \section{Files tree}
88 \label{section:tree}
89
90 \begin{verbatim}
91 @current_tree_light@
92 \end{verbatim}
93
94 \begin{verbatim}
95 @current_tree@
96 \end{verbatim}
97
98 \section{Listing of files}
99 \label{section:listing}
100
101 This repository is dual licensed.
102 All the Bash scripts source code is covered by GPLv3+.
103 All the PHP scripts source code is covered by LGPLv3+.
104
105 The text of the licenses is available at:
106 \url{https://www.gnu.org/licenses/}.
107 The git repository of this source code is also available at:
108 \url{https://github.com/LLyaudet/@repository_name@/}.
109
110 Here is a listing of the dependencies of the code in this repository:
111 \begin{itemize}
112 \item The following dependencies are GPLv3+ licensed:\newline
113 basename, bash (and its builtins), cat, chmod, cp, cut, date, diff,
114 dirname, find, grep, head, mkdir, mv, realpath, rm, sed, sha512sum,
115 shellcheck, sort, tail, wc, wget, xargs
116 \item The following dependencies are GPLv2+ licensed:\newline
117 more, pandoc, pdftex, pdflatex, tree
118 \item The following dependencies are GPLv2 licensed:\newline
119 git, pylint
120 \item The following dependencies are LGPLv2.1+ licensed:\newline
121 notify-send
122 \item The following dependencies are MIT licensed:\newline
123 black, isort, mypy
124 \item The following dependencies are Apache-2.0 licensed:\newline
125 bandit
126 \item php is licensed under PHP License v3.01
127 \item tex is licensed under Knuth license
128 \item pcregrep has a custom license from Cambridge University

```

```

129 \end{itemize}
130
131 Remark: Some commands listed under GPLv3+ are POSIX
132 and can have different implementations under another license;
133 for example, uutils coreutils is MIT licensed,
134 whilst GNU coreutils is GPLv3+ licensed.
135
136 @files_listing_VerbatimInput@
137
138 @acknowledgments@
139
140 \end{document}

```

2.45 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_checksexecshtpl
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.libr.sh
29 }
30 \label{
31     build_and_checks_dependencies:check_shell_scripts_beginningslibrsh

```

```

32 }
33
34 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
35 build_and_checks_dependencies/check_shell_scripts_beginnings.libr.sh
36 }
37
38
39 \subsection{
40   build\_and\_checks\_dependencies/check\_URLs.libr.sh
41 }
42 \label{
43   build_and_checks_dependencies:check_URLslibrsh
44 }
45
46 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
47 build_and_checks_dependencies/check_URLs.libr.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_checksexecstpl
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.libr.sh

```

```

78 }
79 \label{
80   build_and_checks_dependencies:comparisonslibrsh
81 }
82
83 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
84 build_and_checks_dependencies/comparisons.libr.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.libr.sh
102 }
103 \label{
104   build_and_checks_dependencies:generate_from_templatelibrsh
105 }
106
107 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
108 build_and_checks_dependencies/generate_from_template.libr.sh
109 }
110
111
112 \subsection{
113   build\_and\_checks\_dependencies/%
114 get_common_text_glob_patterns.libr.sh
115 }
116 \label{
117   build_and_checks_dependencies:get_common_text_glob_patternslibrsh
118 }
119
120 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
121 build_and_checks_dependencies/get_common_text_glob_patterns.libr.sh
122 }
123

```

```

124 \subsection{
125   build\_and\_checks\_dependencies/grammar\_and\_spell\_check.libr.sh
126 }
127 \label{
128   build_and_checks_dependencies:grammar_and_spell_checklibrsh
129 }
130 }
131
132 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
133 build_and_checks_dependencies/grammar_and_spell_check.libr.sh
134 }
135
136
137 \subsection{
138   build\_and\_checks\_dependencies/licenses\_templates/%
139 build\_licenses\_templates.exec.sh
140 }
141 \label{
142   build_and_checks_dependencies:licenses_templates:%
143 build_licenses_templatesexecsh
144 }
145
146 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
147 build_and_checks_dependencies/licenses_templates/%
148 build_licenses_templates.exec.sh
149 }
150
151
152 \subsection{
153   build\_and\_checks\_dependencies/licenses\_templates/%
154 license\_file\_header\_AGPLv3+.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+texttpl
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 \subsection{
272   build\_\_and\_\_checks\_\_dependencies/licenses\_templates/%
273   license\_\_file\_\_header\_\_GPLv3+.tex.tpl
274 }
275 \label{
276   build_and_checks_dependencies:licenses_templates:%
277   license_file_header_GPLv3+texttpl
278 }
279
280 \VerbatimInput[numbers=left,xleftmargin=-5mm] {
281 build_and_checks_dependencies/licenses_templates/%
282 license_file_header_GPLv3+.tex.tpl
283 }
284
285
286 \subsection{
287   build\_\_and\_\_checks\_\_dependencies/licenses\_templates/%
288   license\_\_file\_\_header\_\_GPLv3+.tpl
289 }
290 \label{
291   build_and_checks_dependencies:licenses_templates:%
292   license_file_header_GPLv3+tpl
293 }
294
295 \VerbatimInput[numbers=left,xleftmargin=-5mm] {
296 build_and_checks_dependencies/licenses_templates/%
297 license_file_header_GPLv3+.tpl
298 }
299
300
301 \subsection{
302   build\_\_and\_\_checks\_\_dependencies/licenses\_templates/%
303   license\_\_file\_\_header\_\_LGPLv3+.c.tpl
304 }
305 \label{
306   build_and_checks_dependencies:licenses_templates:%
307 }
```

```

308 license_file_header_LGPLv3+ctpl
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+texttpl

```

```

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.libr.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.libr.sh
386 }
387
388
389 \subsection{
390   build_and_checks_dependencies/lines\_filters.libr.sh
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.libr.sh
398 }
399

```

```

400 \subsection{
401   build\_\_and\_\_checks\_\_dependencies/lines\_maps.libr.sh
402 }
403 \label{
404   build_and_checks_dependencies:lines_mapslibrsh
405 }
406 }
407
408 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
409 build_and_checks_dependencies/lines_maps.libr.sh
410 }
411
412
413 \subsection{
414   build\_\_and\_\_checks\_\_dependencies/overwrite\_if\_not\_equal.libr.sh
415 }
416 \label{
417   build_and_checks_dependencies:overwrite_if_not_equallibrsh
418 }
419
420 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
421 build_and_checks_dependencies/overwrite_if_not_equal.libr.sh
422 }
423
424
425 \subsection{
426   build\_\_and\_\_checks\_\_dependencies/python\_\_black\_\_complement.libr.sh
427 }
428 \label{
429   build_and_checks_dependencies:python_black_complementlibrsh
430 }
431
432 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
433 build_and_checks_dependencies/python_black_complement.libr.sh
434 }
435
436
437 \subsection{
438   build\_\_and\_\_checks\_\_dependencies/python\_\_isort\_\_complement.libr.sh
439 }
440 \label{
441   build_and_checks_dependencies:python_isort_complementlibrsh
442 }
443
444 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
445 build_and_checks_dependencies/python_isort_complement.libr.sh

```

```

446 }
447
448
449 \subsection{
450     build\_and\_checks\_dependencies/split\_score.exec.php
451 }
452 \label{
453     build_and_checks_dependencies:split_scoreexecphp
454 }
455
456 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
457 build_and_checks_dependencies/split_score.exec.php
458 }
459
460
461 \subsection{
462     build\_and\_checks\_dependencies/split\_score.libr.php
463 }
464 \label{
465     build_and_checks_dependencies:split_scorelibrphp
466 }
467
468 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
469 build_and_checks_dependencies/split_score.libr.php
470 }
471
472
473 \subsection{
474     build\_and\_checks\_dependencies/strings\_functions.libr.sh
475 }
476 \label{
477     build_and_checks_dependencies:strings_functionslibrsh
478 }
479
480 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
481 build_and_checks_dependencies/strings_functions.libr.sh
482 }
483
484
485 \subsection{
486     build\_and\_checks\_dependencies/too\_long\_code\_lines.libr.sh
487 }
488 \label{
489     build_and_checks_dependencies:too_long_code_lineslibrsh
490 }
491

```

```

492 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
493 build_and_checks_dependencies/too_long_code_lines.libr.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_checksexecsh
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_listingexecsh
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/bandit.ini
539 }
540 \label{
541     build_and_checks_variables:banditini
542 }
543
544 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
545 build_and_checks_variables/bandit.ini
546 }
547
548
549 \subsection{
550     build\_and\_checks\_variables/bandit\_baseline.json
551 }
552 \label{
553     build_and_checks_variables:bandit_baselinejson
554 }
555
556 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
557 build_and_checks_variables/bandit_baseline.json
558 }
559
560
561 \subsection{
562     build\_and\_checks\_variables/DevOrSysAdminScripts.html.tpl
563 }
564 \label{
565     build_and_checks_variables:DevOrSysAdminScriptshmtltp1
566 }
567
568 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
569 build_and_checks_variables/DevOrSysAdminScripts.html.tpl
570 }
571
572
573 \subsection{
574     build\_and\_checks\_variables/DevOrSysAdminScripts.tex.tpl
575 }
576 \label{
577     build_and_checks_variables:DevOrSysAdminScriptstexttpl
578 }
579
580 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
581 build_and_checks_variables/DevOrSysAdminScripts.tex.tpl
582 }
583

```

```

584 \subsection{
585   build\_\_and\_\_checks\_\_variables/files\_listing.tex.tpl
586 }
587 \label{
588   build_and_checks_variables:files_listingtextpl
589 }
590 }
591
592 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
593 build_and_checks_variables/files_listing.tex.tpl
594 }
595
596
597 \subsection{
598   build\_\_and\_\_checks\_\_variables/files\_names\_listing.txt
599 }
600 \label{
601   build_and_checks_variables:files_names_listingtxt
602 }
603
604 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
605 build_and_checks_variables/files_names_listing.txt
606 }
607
608
609 \subsection{
610   build\_\_and\_\_checks\_\_variables/licenses\_notes.txt
611 }
612 \label{
613   build_and_checks_variables:licenses_notestxt
614 }
615
616 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
617 build_and_checks_variables/licenses_notes.txt
618 }
619
620
621 \subsection{
622   build\_\_and\_\_checks\_\_variables/pylintrc.toml
623 }
624 \label{
625   build_and_checks_variables:pylintrctoml
626 }
627
628 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
629 build_and_checks_variables/pylintrc.toml

```

```

630 }
631
632
633 \subsection{
634     build\_and\_checks\_variables/repository\_data.txt
635 }
636 \label{
637     build_and_checks_variables:repository_data.txt
638 }
639
640 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
641 build_and_checks_variables/repository_data.txt
642 }
643
644
645 \subsection{
646     build\_and\_checks.exec.sh
647 }
648 \label{
649     build_and_checksexecsh
650 }
651
652 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
653 build_and_checks.exec.sh
654 }
655
656
657 \subsection{
658     COPYING
659 }
660 \label{
661     COPYING
662 }
663
664 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
665 COPYING
666 }
667
668
669 \subsection{
670     COPYING.LESSER
671 }
672 \label{
673     COPYINGLESSER
674 }
675

```

```

676 \VerbatimInput[numbers=left,xleftmargin=-5mm] {
677 COPYING.LESSER
678 }
679
680
681 \subsection{
682     git\_helpers/git\_checks.libr.sh
683 }
684 \label{
685     git_helpers:git_checkslibrsh
686 }
687
688 \VerbatimInput[numbers=left,xleftmargin=-5mm] {
689 git_helpers/git_checks.libr.sh
690 }
691
692
693 \subsection{
694     git\_helpers/post-commit
695 }
696 \label{
697     git_helpers:post-commit
698 }
699
700 \VerbatimInput[numbers=left,xleftmargin=-5mm] {
701 git_helpers/post-commit
702 }
703
704
705 \subsection{
706     git\_helpers/post\_commit\_renaming\_comment.libr.sh
707 }
708 \label{
709     git_helpers:post_commit_renaming_commentlibrsh
710 }
711
712 \VerbatimInput[numbers=left,xleftmargin=-5mm] {
713 git_helpers/post_commit_renaming_comment.libr.sh
714 }
715
716
717 \subsection{
718     git\_helpers/pre-commit
719 }
720 \label{
721     git_helpers:pre-commit

```

```

722 }
723 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
724 git_helpers/pre-commit
725 }
726

727
728 \subsection{
729   LiensUtiles.txt
730 }
731 \label{
732   LiensUtilestxt
733 }
734 }

735 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
736 LiensUtiles.txt
737 }
738

739
740 \subsection{
741   README.md.tpl
742 }
743 \label{
744   READMEmdtpl
745 }
746 }

747 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
748 README.md.tpl
749 }
750

751
752 \subsection{
753   unicode.libr.php
754 }
755 \label{
756   unicodelibrphp
757 }
758 }

759 \VerbatimInput [numbers=left,xleftmargin=-5mm] {
760 unicode.libr.php
761 }
762

763
764 \subsection{
765   upgrade\build\_and\_checks.exec.sh
766 }
767

```

```

768 \label{
769     upgrade_build_and_checksexecsh
770 }
771
772 \VerbatimInput[numbers=left,xleftmargin=-5mm] {
773 upgrade_build_and_checks.exec.sh
774 }
775
776
777 \subsection{
778     wget\_sha512.libr.sh
779 }
780 \label{
781     wget_sha512librsh
782 }
783
784 \VerbatimInput[numbers=left,xleftmargin=-5mm] {
785 wget_sha512.libr.sh
786 }
787
788

```

2.46 build_and_checks_variables/files_names_listing.txt

```

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

```

```

23 // 2024-10-31T21:37+01:00: This file was moved from
24 // "./build_and_checks_dependencies/listings"
25 // to
26 // "./build_and_checks_variables".
27 // Blasé20240517Résultat.txt
28 // Blasé20240517.sh
29 // Blasé20240518_2.txt
30 // Blasé20240518_3.txt
31 build_and_checks_dependencies/build_and_checks.exec.sh.tpl
32 build_and_checks_dependencies/build_md_from_printable_md.exec.sh
33 build_and_checks_dependencies/check_shell_scripts_beginnings.libr.sh
34 build_and_checks_dependencies/check_URLs.libr.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.libr.sh
38 build_and_checks_dependencies/create_PDF.exec.sh
39 build_and_checks_dependencies/generate_from_template.libr.sh
40 build_and_checks_dependencies/get_common_text_glob_patterns.libr.sh
41 build_and_checks_dependencies/grammar_and_spell_check.libr.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.libr.sh
91 build_and_checks_dependencies/lines_filters.libr.sh
92 build_and_checks_dependencies/lines_maps.libr.sh
93 // build_and_checks_dependencies/listings/files_listing.tex.tpl
94 build_and_checks_dependencies/overwrite_if_not_equal.libr.sh
95 build_and_checks_dependencies/python_black_complement.libr.sh
96 build_and_checks_dependencies/python_isort_complement.libr.sh
97 build_and_checks_dependencies/split_score.exec.php
98 build_and_checks_dependencies/split_score.libr.php
99 build_and_checks_dependencies/strings_functions.libr.sh
100 build_and_checks_dependencies/too_long_code_lines.libr.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/bandit.ini
106 build_and_checks_variables/bandit_baseline.json
107 build_and_checks_variables/DevOrSysAdminScripts.html.tpl
108 // build_and_checks_variables/DevOrSysAdminScripts.tex
109 build_and_checks_variables/DevOrSysAdminScripts.tex.tpl
110 build_and_checks_variables/files_listing.tex.tpl
111 build_and_checks_variables/files_names_listing.txt
112 build_and_checks_variables/licenses_notes.txt
113 build_and_checks_variables/pylintrc.toml
114 build_and_checks_variables/repository_data.txt

```

```

115 // build_and_checks_variables/upgrade_venvs_ts
116 build_and_checks.exec.sh
117 COPYING
118 COPYING.LESSER
119 // DevOrSysAdminScripts.html
120 // DevOrSysAdminScripts.pdf
121 // EncoreBlasé20240517-20240518.txt
122 git_helpers/git_checks.libr.sh
123 git_helpers/post-commit
124 git_helpers/post_commit_renaming_comment.libr.sh
125 git_helpers/pre-commit
126 LiensUtiles.txt
127 // README.html
128 // README.md
129 README.md.tpl
130 unicode.libr.php
131 upgrade_build_and_checks.exec.sh
132 wget_sha512.libr.sh

```

2.47 build_and_checks_variables/licenses_notes.txt

```

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

```

```
26 for example, uutils coreutils is MIT licensed,  
27 whilst GNU coreutils is GPLv3+ licensed.
```

2.48 build_and_checks_variables/pylintrc.toml

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

2.49 build_and_checks_variables/repository_data.txt

```
1 Look at grep_variable to understand the structure of this file.  
2 Basically, it has almost no structure apart from some lines  
3 starting with a "variable_name=".  
4 Anything else is comments.  
5  
6 repository_name=DevOrSysAdminScripts  
7 repository_web_url=https://github.com/LLyaudet/DevOrSysAdminScripts/  
8 repository_git_url=git@github.com:LLyaudet/DevOrSysAdminScripts.git  
9  
10 abstract=Some "small" useful scripts  
11 abstract=for enhancing development or system-administrators tasks  
12  
13 license=GPLv3+  
14 license2=LGPLv3+  
15  
16 author_email=Laurent.Lyaudet@gmail.com  
17 author_full_name=Laurent Frédéric Bernard François Lyaudet  
18 author_last_name=Lyaudet  
19 author_name=Laurent Lyaudet  
20 author_website=https://lyaudet.eu/laurent/  
21  
22 acknowledgments=Merci Dieu !  
23 acknowledgments=Merci Père ! Merci Seigneur ! Merci Saint Esprit !  
24  
25 grammar_or_spell_checker_command=more  
26  
27  
28 Why one venv for each Python dependency ?  
29 Because no language of my knowledge did it right to handle all  
30 possible dependency conflicts.
```

```

31 So in case of such a conflict, one specialized venv can get you out
32 of any problem.
33 The best solution would have been to allow install of different
34 versions of the same package, and have a mechanism:
35 - first intent, use the latest available version of a package among
36 those that satisfy the declared dependency constraints of the package
37 that has this dependency;
38 - second intent, check a dependency overload configuration file
39 with tree structure: if calling python package is A version 1.1.1
40 with dependency B itself with dependency C, use B 2.2.2 and C 3.3.3;
41 you could have along that another rule saying that when called
42 directly B 2.2.2 should use C 4.4.4;
43 and even more complicated:
44 if calling python package is A version 1.1.1 with dependency B and D
45 both themselves with dependency C, use B 2.2.2, D 0.1.0,
46 and C 3.3.3 for B, and C 4.4.4 for D;
47 once you've seen that it can never be more complicated than that once
48 the same version number guarantees that the code is the same,
49 you create a config language "à la CSS" for cascading dependencies ;)
50 XD fit into JSON the dumbest possible way and you stop bothering
51 about dependency conflicts for the rest of history of informatics.
52 {
53     "A": {
54         "1.1.1": {
55             "B": {
56                 "2.2.2": {
57                     "C": {
58                         // Dumb, you did not find it by yourself? Failed exam.
59                         "3.3.3" : {}
60                     }
61                 }
62             },
63             "D": {
64                 "0.1.0": {
65                     "C": {
66                         // Dumb, you did not find it by yourself? Failed exam.
67                         "4.4.4" : {}
68                     }
69                 }
70             }
71         },
72         "B": {
73             "2.2.2": {
74                 "C": {
75                     // Dumb, you did not find it by yourself? Failed exam.
76                     "4.4.4" : {}
77                 }
78             }
79         }
80     }
81 }

```

```

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

```

2.50 build_and_checks.exec.sh

```

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

```

```

11  # DevOrSysAdminScripts is distributed in the hope
12  # that it will be useful,
13  # but WITHOUT ANY WARRANTY;
14  # without even the implied warranty of
15  # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16  # See the GNU General Public License for more details.
17  #
18  # You should have received a copy of
19  # the GNU General Public License
20  # along with DevOrSysAdminScripts.
21  # If not, see <https://www.gnu.org/licenses/>.
22  #
23  # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24  # The file "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 $*"
41         LFBFL_verbose="--verbose"
42     fi
43     readonly LFBFL_verbose
44
45     # shellcheck disable=SC1091
46     source ./wget_sha512.libr.sh
47
48     LFBFL_subdir="build_and_checks_dependencies"
49     mkdir -p "${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}/${LFBFL_common_file_name}"
68 local LFBFL_correct_sha512
69 LFBFL_correct_sha512='38db3a169ff7cdd878cf56e1c62669c259184a592ba8d'
70 LFBFL_correct_sha512+='6bbb550bfda6be0155f22533eebded2f2ba3d48ccc8f'
71 LFBFL_correct_sha512+='7d2ada02b15d84d96808a6df6307c11616da760'
72 wget_sha512 "${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 "$@"

```

2.51 COPYING

```

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2          Version 3, 29 June 2007
3
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7
8          Preamble
9
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11 software and other kinds of works.
12
13         The licenses for most software and other practical works are designed
14 to take away your freedom to share and change the works. By contrast,
15 the GNU General Public License is intended to guarantee your freedom to
16 share and change all versions of a program--to make sure it remains free
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18 GNU General Public License for most of our software; it applies also to
19 any other work released this way by its authors. You can apply it to

```

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27 free programs, and that you know you can do these things.

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30 these rights or asking you to surrender the rights. Therefore, you have
31 certain responsibilities if you distribute copies of the software, or if
32 you modify it: responsibilities to respect the freedom of others.

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

39
40 Developers that use the GNU GPL protect your rights with two steps:
41 (1) assert copyright on the software, and (2) offer you this License
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43
44 For the developers' and authors' protection, the GPL clearly explains
45 that there is no warranty for this free software. For both users' and
46 authors' sake, the GPL requires that modified versions be marked as
47 changed, so that their problems will not be attributed erroneously to
48 authors of previous versions.

49
50 Some devices are designed to deny users access to install or run
51 modified versions of the software inside them, although the manufacturer
52 can do so. This is fundamentally incompatible with the aim of
53 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.

146

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

150

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

153

154 2. Basic Permissions.

155

156 All rights granted under this License are granted for the term of
157 copyright on the Program, and are irrevocable provided the stated

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159 permission to run the unmodified Program. The output from running a
160 covered work is covered by this License only if the output, given its
161 content, constitutes a covered work. This License acknowledges your
162 rights of fair use or other equivalent, as provided by copyright law.

163

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168 with facilities for running those works, provided that you comply with
169 the terms of this License in conveying all material for which you do
170 not control copyright. Those thus making or running the covered works
171 for you must do so exclusively on your behalf, under your direction
172 and control, on terms that prohibit them from making any copies of
173 your copyrighted material outside their relationship with you.

174

175 Conveying under any other circumstances is permitted solely under
176 the conditions stated below. Sublicensing is not allowed; section 10
177 makes it unnecessary.

178

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

180

181 No covered work shall be deemed part of an effective technological
182 measure under any applicable law fulfilling obligations under article
183 11 of the WIPO copyright treaty adopted on 20 December 1996, or
184 similar laws prohibiting or restricting circumvention of such
185 measures.

186

187 When you convey a covered work, you waive any legal power to forbid
188 circumvention of technological measures to the extent such circumvention
189 is effected by exercising rights under this License with respect to
190 the covered work, and you disclaim any intention to limit operation or
191 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 A "User Product" is either (1) a "consumer product", which means any
297 tangible personal property which is normally used for personal, family,
298 or household purposes, or (2) anything designed or sold for incorporation
299 into a dwelling. In determining whether a product is a consumer product,
300 doubtful cases shall be resolved in favor of coverage. For a particular
301 product received by a particular user, "normally used" refers to a
302 typical or common use of that class of product, regardless of the status
303 of the particular user or of the way in which the particular user
304 actually uses, or expects or is expected to use, the product. A product
305 is a consumer product regardless of whether the product has substantial
306 commercial, industrial or non-consumer uses, unless such uses represent
307 the only significant mode of use of the product.

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

317 If you convey an object code work under this section in, or with, or
318 specifically for use in, a User Product, and the conveying occurs as
319 part of a transaction in which the right of possession and use of the
320 User Product is transferred to the recipient in perpetuity or for a
321 fixed term (regardless of how the transaction is characterized), the
322 Corresponding Source conveyed under this section must be accompanied
323 by the Installation Information. But this requirement does not apply
324 if neither you nor any third party retains the ability to install
325 modified object code on the User Product (for example, the work has
326 been installed in ROM).

328 The requirement to provide Installation Information does not include a
329 requirement to continue to provide support service, warranty, or updates
330 for a work that has been modified or installed by the recipient, or for
331 the User Product in which it has been modified or installed. Access to a
332 network may be denied when the modification itself materially and
333 adversely affects the operation of the network or violates the rules and
334 protocols for communication across the network.

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

342
343 7. Additional Terms.

344
345 "Additional permissions" are terms that supplement the terms of this
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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
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353
354 When you convey a copy of a covered work, you may at your option
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356 it. (Additional permissions may be written to require their own
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361 Notwithstanding any other provision of this License, for material you
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370 Notices displayed by works containing it; or
- 371
372 c) Prohibiting misrepresentation of the origin of that material, or
373 requiring that modified versions of such material be marked in
374 reasonable ways as different from the original version; or
- 375
376 d) Limiting the use for publicity purposes of names of licensors or
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- 378
379 e) Declining to grant rights under trademark law for use of some
380 trade names, trademarks, or service marks; or
- 381
382 f) Requiring indemnification of licensors and authors of that
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384 it) with contractual assumptions of liability to the recipient, for
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394 License, you may add to a covered work material governed by the terms
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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
407 8. Termination.

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420 prior to 60 days after the cessation.

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451 for enforcing compliance by third parties with this License.
452
453 An "entity transaction" is a transaction transferring control of an
454 organization, or substantially all assets of one, or subdividing an
455 organization, or merging organizations. If propagation of a covered
456 work results from an entity transaction, each party to that
457 transaction who receives a copy of the work also receives whatever
458 licenses to the work the party's predecessor in interest had or could
459 give under the previous paragraph, plus a right to possession of the
460 Corresponding Source of the work from the predecessor in interest, if
461 the predecessor has it or can get it with reasonable efforts.
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468 any patent claim is infringed by making, using, selling, offering for
469 sale, or importing the Program or any portion of it.
470
471 11. Patents.
472
473 A "contributor" is a copyright holder who authorizes use under this
474 License of the Program or a work on which the Program is based. The
475 work thus licensed is called the contributor's "contributor version".
476
477 A contributor's "essential patent claims" are all patent claims
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486
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491
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493 agreement or commitment, however denominated, not to enforce a patent
494 (such as an express permission to practice a patent or covenant not to
495 sue for patent infringement). To "grant" such a patent license to a
496 party means to make such an agreement or commitment not to enforce a
497 patent against the party.

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499 If you convey a covered work, knowingly relying on a patent license,
500 and the Corresponding Source of the work is not available for anyone
501 to copy, free of charge and under the terms of this License, through a
502 publicly available network server or other readily accessible means,
503 then you must either (1) cause the Corresponding Source to be so
504 available, or (2) arrange to deprive yourself of the benefit of the
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506 consistent with the requirements of this License, to extend the patent
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508 actual knowledge that, but for the patent license, your conveying the
509 covered work in a country, or your recipient's use of the covered work
510 in a country, would infringe one or more identifiable patents in that
511 country that you have reason to believe are valid.

512
513 If, pursuant to or in connection with a single transaction or
514 arrangement, you convey, or propagate by procuring conveyance of, a
515 covered work, and grant a patent license to some of the parties
516 receiving the covered work authorizing them to use, propagate, modify
517 or convey a specific copy of the covered work, then the patent license
518 you grant is automatically extended to all recipients of the covered
519 work and works based on it.

520
521 A patent license is "discriminatory" if it does not include within
522 the scope of its coverage, prohibits the exercise of, or is
523 conditioned on the non-exercise of one or more of the rights that are
524 specifically granted under this License. You may not convey a covered
525 work if you are a party to an arrangement with a third party that is

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562

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633

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654

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659

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662 might be different; for a GUI interface, you would use an "about box".

663

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12
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14
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18
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26
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31
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43
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46
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48
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54
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57 function or data, the facility still operates, and performs
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59
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62
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64
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71
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75
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80

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93

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98

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100

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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

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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

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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

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148 versions will be similar in spirit to the present version, but may
149 differ in detail to address new problems or concerns.

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165 Library.

2.53 git_helpers/git_checks.libr.sh

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

```

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22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # 2024-05-31T01:57+02:00: This file was renamed from
25 # "git_checks.libr.sh"
26 # to
27 # "git_checks.libr.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.libr.sh"
34 # to
35 # "git_checks.libr.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.libr.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 }
```

2.54 git_helpers/post-commit

```

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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.libr.sh"
35 # shellcheck disable=SC1090
36 source "${LFBFL_library}"
37
38 commit_a_file_renamed_comment --verbose --log-directory-change
39 exit 0

```

2.55 git_helpers/post_commit_renaming_comment.libr.sh

```

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22 #
23 # ©Copyright 2023-2026 Laurent Frédéric Bernard François Lyaudet
24 # 2024-05-31T01:49+02:00: This file was renamed from
25 # "post_commit_renaming_comment.libr.sh"
26 # to
27 # "post_commit_renaming_comment.libr.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.libr.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.libr.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: ${LFBFL_timestamp}"
100 fi
101 get_split_score_simple 1 "${LFBFL_max_comment_line_length}" \
102 # shellcheck disable=SC2154
103 LFBFL_split_score_command1="${get_split_score_result}"
104 # shellcheck disable=SC2154
105 LFBFL_split_score_command_properties1="${get_split_score_result2}"
106 get_split_score_simple 1 "${LFBFL_max_comment_line_length}" /
107 # shellcheck disable=SC2154
108 LFBFL_split_score_command2="${get_split_score_result}"
109 # shellcheck disable=SC2154
110 LFBFL_split_score_command_properties2="${get_split_score_result2}"
111 declare -i LFBFL_renaming_happened=0
112 declare -i LFBFL_i
113 # declare -r LFBFL_special_file_name="files_names_listing.txt"
114 declare -r LFBFL_sfn="files_names_listing.txt"
115 for ((LFBFL_i=0; LFBFL_i<${#LFBFL_renaming_lines_array[@]};)); do
116     # shellcheck disable=SC2250
117     local LFBFL_diff_line="${LFBFL_renaming_lines_array[$LFBFL_i]}"
118     LFBFL_i=$((LFBFL_i + 1))
119     # shellcheck disable=SC2250
120     local\
121         LFBFL_similarity_line="${LFBFL_renaming_lines_array[$LFBFL_i]}"
122     LFBFL_i=$((LFBFL_i + 1))
123     # We need to increment 3 times since grep adds "--" lines between.
124     LFBFL_i=$((LFBFL_i + 1))
125     # shellcheck disable=SC2250

```

```

126 if [[ $LFBFL_verbose -eq 1 ]]; then
127   echo "LFBFL_diff_line: ${LFBFL_diff_line}"
128   echo "LFBFL_similarity_line: ${LFBFL_similarity_line}"
129 fi
130 if [[ "${LFBFL_similarity_line:17:4}" == "100%" ]]; then
131   # Extract old file name from diff line. -----
132   # shellcheck disable=SC2155
133   local LFBFL_old_file_path=$(
134     echo "${LFBFL_diff_line}" | cut -d ' ' -f 3
135   )
136   # It starts by "a/".
137   LFBFL_old_file_path=".${LFBFL_old_file_path:1}"
138   # shellcheck disable=SC2155
139   local LFBFL_old_file_name=$(basename "${LFBFL_old_file_path}")
140   # shellcheck disable=SC2155
141   local LFBFL_old_file_directory=$(
142     dirname "${LFBFL_old_file_path}"
143   )
144   # Extract new file name from diff line. -----
145   # shellcheck disable=SC2155
146   local LFBFL_new_file_path=$((
147     echo "${LFBFL_diff_line}" | cut -d ' ' -f 4
148   )
149   # It starts by "b/".
150   LFBFL_new_file_path=".${LFBFL_new_file_path:1}"
151   # shellcheck disable=SC2155
152   local LFBFL_new_file_name=$(basename "${LFBFL_new_file_path}")
153   # shellcheck disable=SC2155
154   local LFBFL_new_file_directory=$((
155     dirname "${LFBFL_new_file_path}"
156   )
157   # shellcheck disable=SC2250
158   if [[ $LFBFL_verbose -eq 1 ]]; then
159     echo "LFBFL_old_file_path: ${LFBFL_old_file_path}"
160     echo "LFBFL_old_file_name: ${LFBFL_old_file_name}"
161     echo "LFBFL_old_file_directory: ${LFBFL_old_file_directory}"
162     echo "LFBFL_new_file_path: ${LFBFL_new_file_path}"
163     echo "LFBFL_new_file_name: ${LFBFL_new_file_name}"
164     echo "LFBFL_new_file_directory: ${LFBFL_new_file_directory}"
165   fi
166   # Extract "LFBFL_extension" with smart guessing for .tpl -----
167   # and set prefix for line with ©Copyright. -----
168   local LFBFL_useful_file_name="${LFBFL_new_file_name}"
169   local LFBFL_extension="${LFBFL_useful_file_name##*.}"
170   # shellcheck disable=SC2250
171   if [[ $LFBFL_verbose -eq 1 ]]; then

```

```

172     echo "LFBFL_useful_file_name: ${LFBFL_useful_file_name}"
173     echo "LFBFL_extension: ${LFBFL_extension}"
174 fi
175 declare -i LFBFL_j
176 for ((LFBFL_j=0; LFBFL_j<3; ++LFBFL_j)); do
177     if [[ "${LFBFL_extension}" != "tpl" ]]; then
178         break
179     fi
180     LFBFL_useful_file_name="${LFBFL_useful_file_name:0:-4}"
181     LFBFL_extension="${LFBFL_useful_file_name##*.}"
182     # shellcheck disable=SC2250
183     if [[ $LFBFL_verbose -eq 1 ]]; then
184         echo "LFBFL_useful_file_name: ${LFBFL_useful_file_name}"
185         echo "LFBFL_extension: ${LFBFL_extension}"
186     fi
187 done
188 local LFBFL_comment_prefix=""
189 if [[ "${LFBFL_extension}" == "sh" ]]; then
190     LFBFL_comment_prefix="# "
191 fi
192 if [[ "${LFBFL_extension}" == "sql" ]]; then
193     LFBFL_comment_prefix="-- "
194 fi
195 if [[ "${LFBFL_extension}" == "tex" ]]; then
196     LFBFL_comment_prefix="% "
197 fi
198 if [[ "${LFBFL_useful_file_name}" == "${LFBFL_sfn}" ]]; then
199     LFBFL_comment_prefix="// "
200 fi
201 # shellcheck disable=SC2250
202 if [[ $LFBFL_verbose -eq 1 ]]; then
203     echo "LFBFL_comment_prefix: ${LFBFL_comment_prefix}"
204 fi
205 -----
206 # Split if necessary old_file_name, new_file_name, etc. to have
207 # comment lines below max_comment_line_length.
208 local LFBFL_comment_prefix2="${LFBFL_comment_prefix}'''
209 # -----
210 local LFBFL_old_file_name2="${LFBFL_comment_prefix2}"
211 LFBFL_old_file_name2+="${LFBFL_old_file_name}"
212 repeated_split_last_line "${LFBFL_old_file_name2}" \
213     "${LFBFL_comment_prefix2}" "${LFBFL_max_comment_line_length}" \
214     '/''"${LFBFL_split_score_command1}"' \
215     "${LFBFL_split_score_command_properties1}"
216 # shellcheck disable=SC2154
217 LFBFL_old_file_name2="${repeated_split_last_line_result}"

```

```

218 # -----
219 local LFBFL_old_file_directory2="${LFBFL_comment_prefix2}"
220 LFBFL_old_file_directory2+="${LFBFL_old_file_directory}" \
221 repeated_split_last_line "${LFBFL_old_file_directory2}" \
222     "${LFBFL_comment_prefix2}" "${LFBFL_max_comment_line_length}" \
223     ' "' "${LFBFL_split_score_command2}" \
224     "${LFBFL_split_score_command_properties2}"
225 # shellcheck disable=SC2154
226 LFBFL_old_file_directory2="${repeated_split_last_line_result}"
227 # -----
228 local LFBFL_new_file_name2="${LFBFL_comment_prefix2}"
229 LFBFL_new_file_name2+="${LFBFL_new_file_name}" \
230 repeated_split_last_line "${LFBFL_new_file_name2}" \
231     "${LFBFL_comment_prefix2}" "${LFBFL_max_comment_line_length}" \
232     ' "' "${LFBFL_split_score_command1}" \
233     "${LFBFL_split_score_command_properties1}"
234 # shellcheck disable=SC2154
235 LFBFL_new_file_name2="${repeated_split_last_line_result}"
236 # -----
237 local LFBFL_new_file_directory2="${LFBFL_comment_prefix2}"
238 LFBFL_new_file_directory2+="${LFBFL_new_file_directory}" \
239 repeated_split_last_line "${LFBFL_new_file_directory2}" \
240     "${LFBFL_comment_prefix2}" "${LFBFL_max_comment_line_length}" \
241     ' "' "${LFBFL_split_score_command2}" \
242     "${LFBFL_split_score_command_properties2}"
243 # shellcheck disable=SC2154
244 LFBFL_new_file_directory2="${repeated_split_last_line_result}"
245 # Create new comments strings. -----
246 local LFBFL_new_comment=""
247 if [[ "${LFBFL_new_file_name2}" != "${LFBFL_old_file_name2}" ]];
248 then
249     LFBFL_new_comment="${LFBFL_comment_prefix}"
250     LFBFL_new_comment+=" ${LFBFL_timestamp}"
251     LFBFL_new_comment+=": This file was renamed from\n"
252     LFBFL_new_comment+="${LFBFL_old_file_name2}''\n"
253     LFBFL_new_comment+=" ${LFBFL_comment_prefix}to\n"
254     LFBFL_new_comment+="${LFBFL_new_file_name2}''."
255 fi
256 # shellcheck disable=SC2250
257 if [[ $LFBFL_log_directory_change -eq 1 ]] && [[ \
258     "${LFBFL_new_file_directory}" \
259     != "${LFBFL_old_file_directory}" \
260 ]]; then
261     LFBFL_new_comment+="\n${LFBFL_comment_prefix}"
262     LFBFL_new_comment+=" ${LFBFL_timestamp}"
263     LFBFL_new_comment+=": This file was moved from\n"

```

```

264     LFBFL_new_comment+="${LFBFL_old_file_directory2}"'"\\n'
265     LFBFL_new_comment+="${LFBFL_comment_prefix}to\\n"
266     LFBFL_new_comment+="${LFBFL_new_file_directory2}"'".'
267 fi
268 # shellcheck disable=SC2250
269 if [[ $LFBFL_verbose -eq 1 ]]; then
270     echo "LFBFL_new_comment: ${LFBFL_new_comment}"
271 fi
272 # Find line with ©Copyright. -----
273 # shellcheck disable=SC2155
274 declare -i LFBFL_copyright_line_number=$(((
275     grep -n '©Copyright' "${LFBFL_new_file_path}" \
276     | head --lines=1 \
277     | cut -d ':' -f 1
278 ))
279 # shellcheck disable=SC2250
280 if [[ $LFBFL_verbose -eq 1 ]]; then
281     echo "LFBFL_copyright_line_number:" \
282         "${LFBFL_copyright_line_number}"
283 fi
284 if [[ ${LFBFL_copyright_line_number} -eq 0 ]]; then
285     local LFBFL_send_summary_2="ATTENTION: No line with copyright"
286     notify-send "${LFBFL_send_summary_2}" \
287         "${LFBFL_send_summary_2}" for: ${LFBFL_new_comment}"
288 # shellcheck disable=SC2250
289 if [[ $LFBFL_verbose -eq 1 ]]; then
290     echo "No copyright line. Skipping file."
291 fi
292     continue
293 fi
294 # Get total number of lines. -----
295 # shellcheck disable=SC2002,SC2155
296 declare -i LFBFL_line_count=$(((
297     cat "${LFBFL_new_file_path}" | wc -l
298 ))
299 # shellcheck disable=SC2250
300 if [[ $LFBFL_verbose -eq 1 ]]; then
301     echo "LFBFL_line_count: ${LFBFL_line_count}"
302 fi
303 # Compute number of lines after. -----
304 # shellcheck disable=SC2155
305 declare -i LFBFL_lines_after=$(((
306     LFBFL_line_count - LFBFL_copyright_line_number
307 )))
308 # shellcheck disable=SC2250
309 if [[ $LFBFL_verbose -eq 1 ]]; then

```

```

310         echo "LFBFL_lines_after: ${LFBFL_lines_after}"
311     fi
312     # Update file. -----
313     local LFBFL_temp_file_path="${LFBFL_new_file_path}.LFBFL.temp"
314     head --lines="${LFBFL_copyright_line_number}" \
315           "${LFBFL_new_file_path}" > "${LFBFL_temp_file_path}"
316     echo -e "${LFBFL_new_comment}" >> "${LFBFL_temp_file_path}"
317     tail --lines="${LFBFL_lines_after}" \
318           "${LFBFL_new_file_path}" >> "${LFBFL_temp_file_path}"
319     mv "${LFBFL_temp_file_path}" "${LFBFL_new_file_path}"
320     # Add file to stage. -----
321     git add "${LFBFL_new_file_path}"
322     LFBFL_renaming_happened=1
323   fi
324 done
325 readonly LFBFL_renaming_happened
326 if [[ LFBFL_renaming_happened -eq 1 ]]; then
327   # Commit -----
328   local LFBFL_message="commit_a_file_renamed_comment()"
329   LFBFL_message+=" post-commit hook, ${LFBFL_timestamp}."
330   readonly LFBFL_message
331   git commit --message="${LFBFL_message}"
332 fi
333 }
```

2.56 git_helpers/pre-commit

```

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

```

20 # along with DevOrSysAdminScripts.
21 # If not, see <https://www.gnu.org/licenses/>.
22 #
23 # ©Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
24 # 2024-05-31T01:57+02:00: This file was renamed from
25 # "pre-commit"
26 # to
27 # "pre-commit".
28 # 2024-05-31T01:57+02:00: This file was moved from
29 # "."
30 # to
31 # "./git_helpers".
32
33 # 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

```

2.57 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 -----
```

2.58 README.md.tpl

```
1 # DevOrSysAdminScripts
2
3 [ ! [CodeFactor-badge] ] [CodeFactor-package-page]
4 [ ! [Codacy-badge] ] [Codacy-package-page]
5 ! [GitHub-top-language-badge]
6 ! [GitHub-code-size-in-bytes-badge]
7 [ ! [Security:bandit:badge] ] [Bandit-GitHub.com]
8 [ ! [Code-style:black:badge] ] [Black-GitHub.com]
9 [ ! [Imports:isort:badge] ] [Isort-GitHub.io]
10 [ ! [Typecheck:mypy:badge] ] [Typecheck-mypy-lang.org]
11 [ ! [Linting:pylint:badge] ] [PyLint-GitHub.com]
12
13 |           **Some "small" useful scripts** |
14 | :-----:|
15 | **for enhancing development or system-administrators tasks** |
16
17 Currently, the biggest part of this repository is in
18 a suite of shell scripts about build and checks that
19 I use in some of my other repositories.
20
21 I tried to follow some conventions for my bash code:
22
23 - I tried to encapsulate most of the code in functions.
24 - Unless used as return values, variables in functions are defined
25   as local variables ('local' keyword or 'declare')
26   with prefix "LFBFL_".
27 - When used as return values, variables in functions are defined
28   as global variables ('declare -g') with prefix
29   "@function_name@_result_".
30 - Whenever a variable is no more modified after some point,
31   add the keyword 'readonly' or use 'declare -r'.
32 - Whenever a variable will only contain integer values (or boolean
33   values as 0 or 1), use 'declare -i'.
34 - I named bash files with suffixes ".exec.sh" when the script can
35   be runned
36   (executable, abbreviation stops before a vowel).
37 - I named bash files with suffixes ".libr.sh" when the script contains
38   only functions definitions
39   (library, abbreviation stops before a vowel).
```

```

40   - When some ".exec.sh" code is encapsulated into functions,
41     either these functions can be reused and go in some ".libr.sh" file,
42     either they are truly specific to this script and they are kept
43     in ".exec.sh" file.
44
45 But the files "pre-commit" and "post-commit" were not renamed,
46 since it is not possible to give them other names to use them as
47 pre-commit/post-commit hooks in 'git'.
48
49 [CodeFactor-badge]: https://www.codefactor.io/repository/github/\
50 llyaudet/DevOrSysAdminScripts/badge
51
52 [CodeFactor-package-page]: https://www.codefactor.io/repository/\
53 github/llyaudet/DevOrSysAdminScripts
54
55 [Codacy-badge]: https://app.codacy.com/project/badge/Grade/\
56 3dd6ef85e8db4460991d1ebc404b68dd
57
58 [Codacy-package-page]: https://app.codacy.com/gh/LLyaudet/\
59 DevOrSysAdminScripts/dashboard?utm_source=gh&utm_medium=referral\
60 &utm_content=&utm_campaign=Badge_grade
61
62 [GitHub-top-language-badge]: https://img.shields.io/github/\
63 languages/top/llyaudet/DevOrSysAdminScripts
64
65 [GitHub-code-size-in-bytes-badge]: https://img.shields.io/github/\
66 languages/code-size/llyaudet/DevOrSysAdminScripts
67
68 [Security:bandit:badge]: https://img.shields.io/badge/\
69 security-bandit-yellow.svg
70
71 [Bandit-GitHub.com]: https://github.com/PyCQA/bandit
72
73 [Code-style:black:badge]: https://img.shields.io/badge/\
74 code%20style-black-000000.svg
75
76 [Black-GitHub.com]: https://github.com/psf/black
77
78 [Imports:isort:badge]: https://img.shields.io/badge/\
79 %20imports-isort-%231674b1?style=flat&labelColor=ef8336
80
81 [Isort-GitHub.io]: https://pycqa.github.io/isort/
82
83 [Typecheck:mypy:badge]: https://www.mypy-lang.org/static/\
84 mypy_badge.svg
85

```

```

86 [Typecheck-mypy-lang.org]: https://mypy-lang.org/
87
88 [Linting:pylint:badge]: https://img.shields.io/badge/\
89 linting-pylint-yellowgreen
90
91 [Pylint-GitHub.com]: https://github.com/pylint-dev/pylint

```

2.59 unicode.libr.php

```

1 <?php
2 /*
3 This file is part of DevOrSysAdminScripts library.
4
5 DevOrSysAdminScripts is free software:
6 you can redistribute it and/or modify it under the terms
7 of the GNU Lesser General Public License
8 as published by the Free Software Foundation,
9 either version 3 of the License,
10 or (at your option) any later version.
11
12 DevOrSysAdminScripts is distributed in the hope
13 that it will be useful,
14 but WITHOUT ANY WARRANTY;
15 without even the implied warranty of
16 MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
17 See the GNU Lesser General Public License for more details.
18
19 You should have received a copy of
20 the GNU Lesser General Public License
21 along with DevOrSysAdminScripts.
22 If not, see <https://www.gnu.org/licenses/>.
23
24 ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
25 This file was renamed from "unicode.php" to "unicode.libr.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     // 0xxxxxxxx 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/présuppose 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.libr.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

```

2.60 upgrade_build_and_checks.exec.sh

```

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```

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22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "upgrade_build_and_checks.sh"
25 # to "upgrade_build_and_checks.exec.sh".
26
27 upgrade_build_and_checks() {
28     local LFBFL_verbose=""
29     if [[ "$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 "." "${LFBFL_verbose}"
39 }
40
41 upgrade_build_and_checks "$@"

```

2.61 wget_sha512.libr.sh

```

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```

```

18 # You should have received a copy of
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22 #
23 # ©Copyright 2023–2026 Laurent Frédéric Bernard François Lyaudet
24 # This file was renamed from "wget_sha512.sh"
25 # to "wget_sha512.libr.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 "$1" ]]; then
39         wget "${LFBFL_verbose}" -O "$1" "$2"
40     fi
41     # shellcheck disable=SC2312
42     declare -r \
43         LFBFL_present_sha512=$(sha512sum "$1" | cut -f1 -d' ')
44     if [[ "${LFBFL_present_sha512}" != "$3" ]]; then
45         then
46             echo "$1 does not have correct sha512"
47             echo "wanted $3"
48             echo "found ${LFBFL_present_sha512}"
49             exit
50     fi
51 }

```

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