DevOrSysAdminScripts

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Abstract

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

Current version: 2025-12-31
Current number of commits: 227
Current git SHA1: 1735f9fabf8607ff80546fdae53220cf2b1f890a
Code lines: 6283 total lines, 5677 not empty lines, 606 empty lines.

1 Files tree

```
.
├── build_and_checks_dependencies
│   ├── build_and_checks.exec.sh.tpl
│   ├── build_md_from_printable_md.exec.sh
│   ├── check_shell_scripts_beginnings.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_AGPLv3+.c.tpl
│   │   ├── license_file_header_AGPLv3+.py.tpl
│   │   ├── license_file_header_AGPLv3+.sh.tpl
│   │   ├── license_file_header_AGPLv3+.tex.tpl
│   │   ├── license_file_header_AGPLv3+.tpl
│   │   ├── license_file_header_GPLv3+.c
```

```
│    │         ├── license_file_header_GPLv3+.c.tpl
│    │         ├── license_file_header_GPLv3+.py
│    │         ├── license_file_header_GPLv3+.py.tpl
│    │         ├── license_file_header_GPLv3+.sh
│    │         ├── license_file_header_GPLv3+.sh.tpl
│    │         ├── license_file_header_GPLv3+.tex
│    │         ├── license_file_header_GPLv3+.tex.tpl
│    │         ├── license_file_header_GPLv3+.tpl
│    │         ├── license_file_header_LGPLv3+.c
│    │         ├── license_file_header_LGPLv3+.c.tpl
│    │         ├── license_file_header_LGPLv3+.py
│    │         ├── license_file_header_LGPLv3+.py.tpl
│    │         ├── license_file_header_LGPLv3+.sh
│    │         ├── license_file_header_LGPLv3+.sh.tpl
│    │         ├── license_file_header_LGPLv3+.tex
│    │         ├── license_file_header_LGPLv3+.tex.tpl
│    │         └── license_file_header_LGPLv3+.tpl
│    ├── lines_counts.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_line_at_most.exec.php
│    ├── split_line_at_most.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
│    ├── DevOrSysAdminScripts.html.tpl
│    ├── DevOrSysAdminScripts.tex
│    ├── DevOrSysAdminScripts.tex.tpl
│    ├── files_listing.tex.tpl
│    ├── files_names_listing.txt
│    ├── .gitignore
│    ├── licenses_notes.txt
│    └── repository_data.txt
├── COPYING
├── COPYING.LESSER
├── DevOrSysAdminScripts.aux
├── DevOrSysAdminScripts.log
├── DevOrSysAdminScripts.out
├── 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, 73 files

[ 12K Dec 31 15:38]  ./
├── [4.0K Dec 31 15:38]  build_and_checks_dependencies/
│   ├── [2.6K Dec 30 22:26]  build_and_checks.exec.sh.tpl*
│   ├── [2.5K Dec 31 14:46]  build_md_from_printable_md.exec.sh*
│   ├── [1.3K Dec 30 17:50]  check_shell_scripts_beginnings.libr.sh
│   ├── [2.3K Dec 30 17:51]  check_URLs.libr.sh
│   ├── [ 17K Dec 31 15:38]  common_build_and_checks.exec.sh*
│   ├── [ 12K Dec 31 15:37]  common_build_and_checks.exec.sh.tpl
│   ├── [3.1K Dec 30 18:02]  comparisons.libr.sh
│   ├── [ 10K Dec 30 20:33]  create_PDF.exec.sh*
│   ├── [2.9K Dec 30 18:47]  generate_from_template.libr.sh
│   ├── [1.9K Dec 30 19:53]  get_common_text_glob_patterns.libr.sh
│   ├── [1.9K Dec 30 19:55]  grammar_and_spell_check.libr.sh
│   ├── [4.0K Dec 31 15:38]  licenses_templates/
│   │   ├── [7.7K Dec 30 19:53]  build_licenses_templates.exec.sh*
│   │   ├── [ 734 Dec 30 19:34]  license_file_header_AGPLv3+.c.tpl
│   │   ├── [ 736 Dec 30 19:34]  license_file_header_AGPLv3+.py.tpl
│   │   ├── [ 768 Dec 30 19:34]  license_file_header_AGPLv3+.sh.tpl
│   │   ├── [ 768 Dec 30 19:34]  license_file_header_AGPLv3+.tex.tpl
│   │   ├── [ 728 Dec 30 19:32]  license_file_header_AGPLv3+.tpl
│   │   ├── [ 761 Dec 30 16:12]  license_file_header_GPLv3+.c
│   │   ├── [ 713 Dec 27 21:48]  license_file_header_GPLv3+.c.tpl
│   │   ├── [ 763 Dec 30 16:12]  license_file_header_GPLv3+.py
│   │   ├── [ 715 Dec 27 21:48]  license_file_header_GPLv3+.py.tpl
│   │   ├── [ 795 Dec 30 16:12]  license_file_header_GPLv3+.sh
│   │   ├── [ 747 Dec 27 21:48]  license_file_header_GPLv3+.sh.tpl
│   │   ├── [ 795 Dec 30 16:12]  license_file_header_GPLv3+.tex
│   │   ├── [ 747 Dec 27 21:48]  license_file_header_GPLv3+.tex.tpl
│   │   ├── [ 707 Dec 27 21:48]  license_file_header_GPLv3+.tpl
│   │   ├── [ 782 Dec 27 21:48]  license_file_header_LGPLv3+.c
│   │   ├── [ 734 Dec 27 21:48]  license_file_header_LGPLv3+.c.tpl
│   │   ├── [ 784 Dec 27 21:48]  license_file_header_LGPLv3+.py
```

```
            │         ├── [ 736 Dec 27 21:48]   license_file_header_LGPLv3+.py.tpl
            │         ├── [ 816 Dec 27 21:48]   license_file_header_LGPLv3+.sh
            │         ├── [ 768 Dec 27 21:48]   license_file_header_LGPLv3+.sh.tpl
            │         ├── [ 816 Dec 27 21:48]   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
            ├── [2.1K Dec 30 20:01]   lines_counts.libr.sh
            ├── [6.4K Dec 30 20:02]   lines_filters.libr.sh
            ├── [2.8K Dec 30 20:05]   lines_maps.libr.sh
            ├── [1.2K Dec 30 20:07]   overwrite_if_not_equal.libr.sh
            ├── [1.4K Dec 30 20:15]   python_black_complement.libr.sh
            ├── [1.7K Dec 30 20:16]   python_isort_complement.libr.sh
            ├── [1.8K Dec 30 20:17]   split_line_at_most.exec.php*
            ├── [2.2K Dec 29 22:52]   split_line_at_most.libr.php
            ├── [ 12K Dec 30 20:18]   strings_functions.libr.sh
            ├── [1.4K Dec 30 20:20]   too_long_code_lines.libr.sh
            ├── [3.8K Dec 30 21:43]   update_common_build_and_checks.exec.sh*
            └── [4.3K Dec 30 22:40]   *
    │   update_or_check_files_names_listing.exec.sh**
├── [2.8K Dec 31 15:38]  build_and_checks.exec.sh*
├── [4.0K Dec 31 15:38]  build_and_checks_variables/
│   ├── [4.4K Dec 31 15:38]   DevOrSysAdminScripts.html.tpl
│   ├── [ 29K Dec 30 22:39]   DevOrSysAdminScripts.tex
│   ├── [3.7K Dec 31 14:41]   DevOrSysAdminScripts.tex.tpl
│   ├── [ 16K Dec 30 22:39]   files_listing.tex.tpl
│   ├── [5.2K Dec 31 15:11]   files_names_listing.txt
│   ├── [   7 Dec 29 17:13]   .gitignore
│   ├── [1.0K Dec 31 14:41]   licenses_notes.txt
│   └── [ 645 Dec 30 16:37]   repository_data.txt
├── [ 34K May  6  2024]  COPYING
├── [7.5K Dec 27 21:48]  COPYING.LESSER
├── [ 19K Dec 31 15:26]  DevOrSysAdminScripts.aux
├── [ 51K Dec 31 15:26]  DevOrSysAdminScripts.log
├── [ 21K Dec 31 15:26]  DevOrSysAdminScripts.out
├── [167K Dec 31 15:26]  DevOrSysAdminScripts.pdf
├── [4.0K Dec 31 15:11]  git_helpers/
│   ├── [3.4K Dec 30 17:02]   git_checks.libr.sh
│   ├── [1.2K Dec 30 17:25]   post-commit
│   ├── [ 13K Dec 31 15:11]   post_commit_renaming_comment.libr.sh
│   └── [1.3K Dec 30 17:03]   pre-commit
├── [ 830 Dec 29 19:10]  LiensUtiles.txt
├── [2.9K Dec 31 14:46]  README.html
├── [2.7K Dec 30 19:34]  README.md
├── [2.7K Dec 30 16:54]  README.md.tpl
├── [6.5K Dec 27 21:48]  unicode.libr.php
├── [1.3K Dec 30 16:51]  upgrade_build_and_checks.exec.sh*
```

```
└── [1.5K Dec 30 16:47]  wget_sha512.libr.sh

5 directories, 73 files
```

2   Listing of files

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

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

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

- The following dependencies are GPLv3+ licensed:
  basename, bash (and its builtins), cat, chmod, cp, cut, date, diff, dirname, find,
  grep, head, mkdir, mv, realpath, rm, sed, sha512sum, shellcheck, sort, tail, wc,
  wget, xargs

- The following dependencies are GPLv2+ licensed:
  more, pandoc, pdftex, pdflatex, tree

- The following dependencies are GPLv2 licensed:
  git

- The following dependencies are LGPLv2.1+ licensed:
  notify-send

- The following dependencies are MIT licensed:
  black, isort, mypy

- php is licensed under PHP License v3.01

- tex is licensed under Knuth license

- pcregrep has a custom license from Cambridge University

Remark: Some commands listed under GPLv3+ are POSIX and can have different
implementations under another license; for example, 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
```

```
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
```

```bash
# the GNU General Public License
# along with DevOrSysAdminScripts.
# If not, see <https://www.gnu.org/licenses/>.
#
# ©Copyright 2023-2025 Laurent Frédéric Bernard François Lyaudet
# This file was renamed from "build_md_from_printable_md.sh"
# to "build_md_from_printable_md.exec.sh".

LFBFL_verbose=""
if [[ "$3" == "--verbose" ]]; then
  echo "$0 $*"
  # shellcheck disable=SC2034
  LFBFL_verbose="--verbose"
fi

LFBFL_subdir="build_and_checks_dependencies"
# shellcheck disable=SC1090
source "./${LFBFL_subdir}/overwrite_if_not_equal.libr.sh"

LFBFL_sed_expression='s/(\[[a-zA-Z0-9:-]*\]: [^\n\\]*)\\\n/\1/Mg'
LFBFL_sed_expression+=';s/(<http[^\n\\]*)\\\n/\1/Mg'
LFBFL_sed_expression+=';s/(- <http[^\n\\]*)\\\n/\1/Mg'

declare -i LFBFL_cd_result
pushd .
if [[ -n "$1" ]];
then
  cd "$1" || {
    LFBFL_cd_result=$?;
    echo "build_md_from_printable_md no such directory";
    # shellcheck disable=SC2248,2250
    exit $LFBFL_cd_result;
  }
fi

file_name="README"
if [[ -n "$2" ]];
then
  file_name="$2"
fi

if [[ -f "${file_name}.md.tpl" ]];
then
  sed -Ez "${LFBFL_sed_expression}" "${file_name}.md.tpl"\
    > "${file_name}_temp1.md"
  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 2023-2025 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:
5   # you can redistribute it and/or modify it under the terms
6   # of the GNU General Public License
7   # as published by the Free Software Foundation,
8   # either version 3 of the License,
9   # or (at your option) any later version.
10  #
11  # DevOrSysAdminScripts is distributed in the hope
12  # that it will be useful,
13  # but WITHOUT ANY WARRANTY;
14  # without even the implied warranty of
15  # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16  # See the GNU General Public License for more details.
17  #
18  # You should have received a copy of
19  # the GNU General Public License
20  # along with DevOrSysAdminScripts.
21  # If not, see <https://www.gnu.org/licenses/>.
```

```
22  #
23  # ©Copyright 2023-2025 Laurent Frédéric Bernard François Lyaudet
24  # This file was renamed from "check_URLs.sh" to "check_URLs.libr.sh".
25
26  LFBFL_subdir="build_and_checks_dependencies"
27  # shellcheck disable=SC1090
28  source "./${LFBFL_subdir}/get_common_text_glob_patterns.libr.sh"
29
30  check_URLs(){
31    get_COMMON_TEXT_FILES_GLOB_PATTERNS
32
33    declare -A LFBFL_substitutions
34    LFBFL_substitutions=(\
35      ["http://www.gnu.org/licenses/"]="https://www.gnu.org/licenses/"\
36    )
37
38    local LFBFL_pattern
39    local LFBFL_file_name
40    local LFBFL_base_file_name
41    local LFBFL_substitution
42    # shellcheck disable=SC2154
43    for LFBFL_pattern in "${COMMON_TEXT_FILES_GLOB_PATTERNS[@]}"; do
44      [[ "$1" != "-v" ]]\
45        || echo "Iterating on pattern: ${LFBFL_pattern}"
46      # shellcheck disable=SC2312
47      find . -type f -name "${LFBFL_pattern}" -printf '%P\n'\
48        | xargs grep -H 'http:'\
49        | grep -v "^[^:]*check_URLs.libr.sh:"
50      for LFBFL_file_name in ${LFBFL_pattern}; do
51        [[ -f "${LFBFL_file_name}" ]] || continue
52        LFBFL_base_file_name=$(basename "${LFBFL_file_name}")
53        [[ "${LFBFL_base_file_name}" != "check_URLs.libr.sh" ]]\
54          || continue
55        [[ "$1" != "-v" ]]\
56          || echo "Handling the file: ${LFBFL_file_name}"
57        for LFBFL_substitution in "${!LFBFL_substitutions[@]}"; do
58          LFBFL_substitution2=\
59  ${LFBFL_substitutions[${LFBFL_substitution}]}
60          if grep -q "${LFBFL_substitution}" "${LFBFL_file_name}"; then
61            sed -i "s|${LFBFL_substitution}|${LFBFL_substitution2}|g"\
62              "${LFBFL_file_name}"
63          fi
64        done
65      done
66    done
67  }
```

2.5 build_and_checks_dependencies/common_build_and_checks.exec.sh

```bash
#!/usr/bin/env bash
# This file is part of DevOrSysAdminScripts library.
#
# DevOrSysAdminScripts is free software:
# you can redistribute it and/or modify it under the terms
# of the GNU General Public License
# as published by the Free Software Foundation,
# either version 3 of the License,
# or (at your option) any later version.
#
# DevOrSysAdminScripts is distributed in the hope
# that it will be useful,
# but WITHOUT ANY WARRANTY;
# without even the implied warranty of
# MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
# See the GNU General Public License for more details.
#
# You should have received a copy of
# the GNU General Public License
# along with DevOrSysAdminScripts.
# If not, see <https://www.gnu.org/licenses/>.
#
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# The file "common_build_and_checks.exec.sh.tpl" was renamed from
# "common_build_and_checks.sh.tpl" to
# "common_build_and_checks.exec.sh.tpl".
# The file "common_build_and_checks.exec.sh" generated from the file
# "common_build_and_checks.sh.tpl"
# or "common_build_and_checks.exec.sh.tpl"
# was renamed from
# "common_build_and_checks.sh" to "common_build_and_checks.exec.sh".

common_build_and_checks(){
  # $1 LFBFL_working_directory
  # $2 LFBFL_dependencies_URL
  # $3 optional --verbose
  declare -r LFBFL_working_directory="$1"
  # declare -r LFBFL_dependencies_URL="$2" too long
  declare -r LFBFL_start_URL="$2"
  local LFBFL_verbose=""
  if [[ "$3" == "--verbose" ]]; then
    echo "$0 $*"
    LFBFL_verbose="--verbose"
  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='1f53caeb84d9ea0b597678118dbf028114c9a37fab952'
61    LFBFL_correct_sha512+='6d4a6d8e08f4dd5a05d8cc69b52cc405613a325c9bf9'
62    LFBFL_correct_sha512+='7e91ef5206efa1a151cc94ade7c3d708c7ed2ef'
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='a17c932546262c82c168e7d4495dd4f2c2409b27c72c0'
72    LFBFL_correct_sha512+='99c8ea3bc5277aa11c64b61de0b93a5bdc9b660483d9'
73    LFBFL_correct_sha512+='4e61cb79935eb1f4ca04bf4ffe4b713f5e7eccc'
74    wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
75      "${LFBFL_correct_sha512}" "${LFBFL_verbose}"

76
77    LFBFL_file_name="check_URLs.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='d8ace5d442e87196bec34a3196d419965e435a18fafb2'
82    LFBFL_correct_sha512+='9c6a3e334f3dfdca49de686e28447678418c930fe3fa'
83    LFBFL_correct_sha512+='b5de8334ef2874aa3785daaf52987836ad3a583'
84    wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
85      "${LFBFL_correct_sha512}" "${LFBFL_verbose}"

86
87    LFBFL_file_name="comparisons.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='1dac26153e23dc9c4455d18a2b3dd76c8fb8278d3b24f'
92    LFBFL_correct_sha512+='86d1c2dfe513e06b16f398f11cc7e52efaafdf360808'
93    LFBFL_correct_sha512+='d9b36f4562621203e3da2ed57897a894272202a'
94    wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
95      "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
96
97    LFBFL_file_name="create_PDF.exec.sh"
98    LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
99    LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
100   local LFBFL_correct_sha512
101   LFBFL_correct_sha512='5ba4db9c05bed5ef18ca788f737b5866b601b5ce41aec'
102   LFBFL_correct_sha512+='51785ca75ad565172318ced7a8b2841904c9f5847ae0'
103   LFBFL_correct_sha512+='237923e196b484a9419f63e5ec48d8cdd616fb8'
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}/${LFBFL_file_name}"
111   local LFBFL_correct_sha512
112   LFBFL_correct_sha512='ea1cdb9e9ed3ba468e3398e52c44daca7b6a9c5c21d5b'
113   LFBFL_correct_sha512+='3cdf433183aec31286a52b2af5c177650b11d5590e23'
114   LFBFL_correct_sha512+='e498ce8e1c3fcad2738fbaec329c6204bc6314d'
115   wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
116      "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
117
118   LFBFL_file_name="get_common_text_glob_patterns.libr.sh"
119   LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
120   LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
121   local LFBFL_correct_sha512
122   LFBFL_correct_sha512='eba2a6665977a84897075fbc3d227d14937cf9c7b2270'
123   LFBFL_correct_sha512+='339810caef1a120486979e538a9bc8a9f791564c13c2'
124   LFBFL_correct_sha512+='3e699f6fdb88e4bb29a5eab01bdebabedc3bc70'
125   wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
126      "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
127
128   LFBFL_file_name="grammar_and_spell_check.libr.sh"
129   LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
130   LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
131   local LFBFL_correct_sha512
132   LFBFL_correct_sha512='33a477d25e46c49ad000473c1d05a822427d5e769b26e'
133   LFBFL_correct_sha512+='d9457ab182f2ad12d20d26d32a46d6016d7d41be0994'
134   LFBFL_correct_sha512+='c3ca2f2130f0e62b10763cbda60645e1a49dd0c'
135   wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
136      "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
```

```
137
138    # /licenses_templates/ ---------------------------------------------
139    declare -r LFBFL_subdir2="${LFBFL_subdir}/licenses_templates"
140    declare -r LFBFL_start_URL2="${LFBFL_start_URL}/licenses_templates"
141    LFBFL_file_name="build_licenses_templates.exec.sh"
142    LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
143    LFBFL_file_path="./${LFBFL_subdir2}/${LFBFL_file_name}"
144    local LFBFL_correct_sha512
145    LFBFL_correct_sha512='acfc0dfd02e77d69e6e5b61c4c44cfa3ad76bd3657fa4'
146    LFBFL_correct_sha512+='875d19ec249e84db8bc5a8570621cbbf64aa2e9b44de'
147    LFBFL_correct_sha512+='932c28674cdf05372f8577c9345fa8ac5398f6c'
148    wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
149      "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
150    chmod +x "./${LFBFL_file_path}"
151
152    LFBFL_file_name="license_file_header_AGPLv3+.tpl"
153    LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
154    LFBFL_file_path="./${LFBFL_subdir2}/${LFBFL_file_name}"
155    local LFBFL_correct_sha512
156    LFBFL_correct_sha512='9f9aa56d9b90d5003a12c5ec3370ac31aab74fc4a2524'
157    LFBFL_correct_sha512+='2c5fbcb0197b0abbb8242f62dafc76eaf60faa5da173'
158    LFBFL_correct_sha512+='05924b31b64b037083532fced9f98445000e2d0'
159    wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
160      "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
161
162    LFBFL_file_name="license_file_header_GPLv3+.tpl"
163    LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
164    LFBFL_file_path="./${LFBFL_subdir2}/${LFBFL_file_name}"
165    local LFBFL_correct_sha512
166    LFBFL_correct_sha512='2bdef9a729a5a9ca5ed87ef8a518877c5ee6b31b45336'
167    LFBFL_correct_sha512+='08660316a4e595fb31465a4847f4d53a2f7264118bd4'
168    LFBFL_correct_sha512+='eab7c1d1892e00bc1861455ed02898f194db067'
169    wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
170      "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
171
172    LFBFL_file_name="license_file_header_LGPLv3+.tpl"
173    LFBFL_URL="${LFBFL_start_URL2}/${LFBFL_file_name}"
174    LFBFL_file_path="./${LFBFL_subdir2}/${LFBFL_file_name}"
175    local LFBFL_correct_sha512
176    LFBFL_correct_sha512='265fd0d086b48ab798f35a072335a4976e4eda8c256fe'
177    LFBFL_correct_sha512+='bba6c77c98ca86cdd844c6ac150c3445c80debbb3fc2'
178    LFBFL_correct_sha512+='574b5fceeeaf79ec734a759bdef5fe798067c62'
179    wget_sha512 "${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='a4784ef043763467486ad53566dadf7b9906fcfacf361'
188    LFBFL_correct_sha512+='982e44320bbf21ed341cc5eaf5b2b64420b74c02aaae'
189    LFBFL_correct_sha512+='b2d0c5856f3843e99f2b020a70142febe56f490'
190    wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
191      "${LFBFL_correct_sha512}" "${LFBFL_verbose}"

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='d8fb1bb8c5228341d215383a652326b3a3f0eee84c344'
198    LFBFL_correct_sha512+='63b55ddd3ebaf564f84f07a10db9c34f007654e23fee'
199    LFBFL_correct_sha512+='4748acc9c80feb1c215076d2b88ba4805bd290f'
200    wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
201      "${LFBFL_correct_sha512}" "${LFBFL_verbose}"

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='10c650cddf78dd40bfde665989ae3561b2ae780bc1c8e'
208    LFBFL_correct_sha512+='841f5cdbe626cd1a61f01cea57757009c9b1ec3d2a7e'
209    LFBFL_correct_sha512+='ef57987dff725cff3e401e86b77a2f29324402d'
210    wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
211      "${LFBFL_correct_sha512}" "${LFBFL_verbose}"

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='dd5da872dedbc21fb6acc385fd9ec9f8f6c7b30b1dc0c'
218    LFBFL_correct_sha512+='dd91901a9030939f262303deec044725c12da49b06e8'
219    LFBFL_correct_sha512+='f6b41ee7f8b4ce6a3cacf9f7800584598efd859'
220    wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
221      "${LFBFL_correct_sha512}" "${LFBFL_verbose}"

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='f23f9bbb20902c67f59d24ff46aef99490fa06b467d6c'
228    LFBFL_correct_sha512+='bb63de0b010129bf3994aeab307a1dbbcde5e41958e0'
```

```
229    LFBFL_correct_sha512+='d5872add51d9e09c56e81845db34b9c50350d46'
230    wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
231      "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
232
233    LFBFL_file_name="python_isort_complement.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='5c27e0496016554cf8783ae0772db2564e56b92a5ed8a'
238    LFBFL_correct_sha512+='9b7b73a518c6a931fb431ee12feff001d5c33b6b22a2'
239    LFBFL_correct_sha512+='1af5491dd207eef3d810494baed7afc83cbf6cb'
240    wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
241      "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
242
243    LFBFL_file_name="split_line_at_most.exec.php"
244    LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
245    LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
246    local LFBFL_correct_sha512
247    LFBFL_correct_sha512='ecfc21afd7e4ba08c339e62647e3dc2cd3b7e9826364e'
248    LFBFL_correct_sha512+='d3d4dd5ce86db4ae6cb60271ed4f262350aa9690e82c'
249    LFBFL_correct_sha512+='865785abf3c531e74d196391e361cd599117935'
250    wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
251      "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
252
253    LFBFL_file_name="split_line_at_most.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='3f8a9c760adadda201ca70a3e9523da139d66e821a192'
258    LFBFL_correct_sha512+='d4205560850047a22d72528ddc48289755d742312e15'
259    LFBFL_correct_sha512+='2134031477a66a48cbc16a03568ca6bfeb8ac32'
260    wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
261      "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
262
263    LFBFL_file_name="strings_functions.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='e03f9c4e7a2a0a80f6a4d84d4be0c78fa6ab92b391f1e'
268    LFBFL_correct_sha512+='6d687fce4e4c0af04d5e4df39981bd9cfd7de4b2c545'
269    LFBFL_correct_sha512+='eb295c086141c46d3cf6a0d31f0053c458e7de8'
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='d6ce6082f1955fec53732c91196ff20c9465ad3b18ba0'
278  LFBFL_correct_sha512+='c5a6b9cb8f86e296a6c97dff6282eea8bf8ee4e7df6b'
279  LFBFL_correct_sha512+='98a0b8dafcf5e87b85ab364db077090c828a3e7'
280  wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
281    "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
282
283  LFBFL_file_name="update_or_check_files_names_listing.exec.sh"
284  LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
285  LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
286  local LFBFL_correct_sha512
287  LFBFL_correct_sha512='da58ab2f0d0ff526c226212c1dce96f9280befebcb19a'
288  LFBFL_correct_sha512+='217617f0df610f563c25d1ed5d8681f07cba9096461b'
289  LFBFL_correct_sha512+='9a38c8a39f82e0259cfc21cef87a960f3c76c5d'
290  wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
291    "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
292  chmod +x "./${LFBFL_file_path}"
293
294  shopt -s globstar
295  # shellcheck disable=SC1090
296  source "./${LFBFL_subdir}/check_shell_scripts_beginnings.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 "./${LFBFL_subdir}/too_long_code_lines.libr.sh"
323
324    echo "Building license headers"
325    "./${LFBFL_subdir2}/build_licenses_templates.exec.sh"\
326      "${LFBFL_verbose}"
327
328    echo "Building README.md"
329    "./${LFBFL_subdir}/build_md_from_printable_md.exec.sh"\
330      "${LFBFL_working_directory}" "README" "${LFBFL_verbose}"
331
332    pushd .
333    # shellcheck disable=SC2164
334    cd "${LFBFL_working_directory}"
335
336    echo "Running shellcheck"
337    declare -i LFBFL_file_path_length
338    declare -i LFBFL_to_skip_number
339    local LFBFL_file_path_end
340    # shellcheck disable=SC2312
341    find . -name "*.sh" | relevant_find | while read -r LFBFL_file_path;
342    do
343      LFBFL_file_path_length=${#LFBFL_file_path}
344      LFBFL_to_skip_number=$((LFBFL_file_path_length - 9))
345      LFBFL_file_path_end="${LFBFL_file_path:${LFBFL_to_skip_number}}"
346      if [[ "${LFBFL_file_path_end}" == "GPLv3+.sh" ]]; then
347        continue
348      fi
349      shellcheck --check-sourced --enable=all --external-sources\
350        "${LFBFL_file_path}"
351    done
352
353    echo "Running isort"
354    isort .
355    python_isort_complement
356
357    echo "Running black"
358    black .
359    python_black_complement
360
361    local LFBFL_directory_path
362    # shellcheck disable=SC2312
363    find . -name "pyproject.toml" | relevant_find\
364      | while read -r LFBFL_file_path;
365    do
366      if grep -q "Typing :: Typed" "${LFBFL_file_path}"; then
```

```
367    echo "Running mypy"
368    LFBFL_directory_path=$(dirname "${LFBFL_file_path}")
369    mypy "${LFBFL_directory_path}"
370  fi
371  done
372
373  echo "Analyzing too long lines"
374  # shellcheck disable=SC2312
375  too_long_code_lines | relevant_grep | not_license_grep
376
377  echo "Analyzing shell scripts beginnings"
378  # shellcheck disable=SC2312
379  check_shell_scripts_beginnings | relevant_grep
380
381  echo "Analyzing URLs"
382  # shellcheck disable=SC2312
383  check_URLs | relevant_grep
384
385  echo "Analyzing strange characters: hover over in doubt"
386  # shellcheck disable=SC1111
387  LFBFL_usual_characters="\x00-\x7Fàâéèêëîïôç©""└┤│«»"
388  # shellcheck disable=SC2312
389  grep --exclude-dir .git --color=always\
390    -nPr "[^${LFBFL_usual_characters}]" .
391
392  echo "Checking listed files"
393  "./${LFBFL_subdir}/update_or_check_files_names_listing.exec.sh"
394
395  echo "Creating the PDF file of the listing of the source code"
396  "./${LFBFL_subdir}/create_PDF.exec.sh" "${LFBFL_verbose}"
397
398  # shellcheck disable=SC2164
399  popd
400 }
401
402 common_build_and_checks "$@"
```

2.6 build_and_checks_dependencies/common_build_and_checks.exec.sh.tpl

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

```
8   # either version 3 of the License,
9   # or (at your option) any later version.
10  #
11  # DevOrSysAdminScripts is distributed in the hope
12  # that it will be useful,
13  # but WITHOUT ANY WARRANTY;
14  # without even the implied warranty of
15  # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16  # See the GNU General Public License for more details.
17  #
18  # You should have received a copy of
19  # the GNU General Public License
20  # along with DevOrSysAdminScripts.
21  # If not, see <https://www.gnu.org/licenses/>.
22  #
23  # ©Copyright 2023-2025 Laurent Frédéric Bernard François Lyaudet
24  # The file "common_build_and_checks.exec.sh.tpl" was renamed from
25  # "common_build_and_checks.sh.tpl" to
26  # "common_build_and_checks.exec.sh.tpl".
27  # The file "common_build_and_checks.exec.sh" generated from the file
28  # "common_build_and_checks.sh.tpl"
29  # or "common_build_and_checks.exec.sh.tpl"
30  # was renamed from
31  # "common_build_and_checks.sh" to "common_build_and_checks.exec.sh".
32
33  common_build_and_checks(){
34    # $1 LFBFL_working_directory
35    # $2 LFBFL_dependencies_URL
36    # $3 optional --verbose
37    declare -r LFBFL_working_directory="$1"
38    # declare -r LFBFL_dependencies_URL="$2" too long
39    declare -r LFBFL_start_URL="$2"
40    local LFBFL_verbose=""
41    if [[ "$3" == "--verbose" ]]; then
42      echo "$0 $*"
43      LFBFL_verbose="--verbose"
44    fi
45    readonly LFBFL_verbose
46
47    # shellcheck disable=SC1091
48    source ./wget_sha512.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_line_at_most.exec.php"
190    LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
191    LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
```

```
192    @sha512_split_line_at_most.exec.php@
193    wget_sha512 "${LFBFL_file_path}" "${LFBFL_URL}"\
194      "${LFBFL_correct_sha512}" "${LFBFL_verbose}"
195
196    LFBFL_file_name="split_line_at_most.libr.php"
197    LFBFL_URL="${LFBFL_start_URL}/${LFBFL_file_name}"
198    LFBFL_file_path="./${LFBFL_subdir}/${LFBFL_file_name}"
199    @sha512_split_line_at_most.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    echo "Building license headers"
256    "./${LFBFL_subdir2}/build_licenses_templates.exec.sh"\
257      "${LFBFL_verbose}"
258
259    echo "Building README.md"
260    "./${LFBFL_subdir}/build_md_from_printable_md.exec.sh"\
261      "${LFBFL_working_directory}" "README" "${LFBFL_verbose}"
262
263    pushd .
264    # shellcheck disable=SC2164
265    cd "${LFBFL_working_directory}"
266
267    echo "Running shellcheck"
268    declare -i LFBFL_file_path_length
269    declare -i LFBFL_to_skip_number
270    local LFBFL_file_path_end
271    # shellcheck disable=SC2312
272    find . -name "*.sh" | relevant_find | while read -r LFBFL_file_path;
273    do
274      LFBFL_file_path_length=${#LFBFL_file_path}
275      LFBFL_to_skip_number=$((LFBFL_file_path_length - 9))
276      LFBFL_file_path_end="${LFBFL_file_path:${LFBFL_to_skip_number}}"
277      if [[ "${LFBFL_file_path_end}" == "GPLv3+.sh" ]]; then
278        continue
279      fi
280      shellcheck --check-sourced --enable=all --external-sources\
281        "${LFBFL_file_path}"
282    done
283
```

```
284    echo "Running isort"
285    isort .
286    python_isort_complement
287
288    echo "Running black"
289    black .
290    python_black_complement
291
292    local LFBFL_directory_path
293    # shellcheck disable=SC2312
294    find . -name "pyproject.toml" | relevant_find\
295      | while read -r LFBFL_file_path;
296    do
297      if grep -q "Typing :: Typed" "${LFBFL_file_path}"; then
298        echo "Running mypy"
299        LFBFL_directory_path=$(dirname "${LFBFL_file_path}")
300        mypy "${LFBFL_directory_path}"
301      fi
302    done
303
304    echo "Analyzing too long lines"
305    # shellcheck disable=SC2312
306    too_long_code_lines | relevant_grep | not_license_grep
307
308    echo "Analyzing shell scripts beginnings"
309    # shellcheck disable=SC2312
310    check_shell_scripts_beginnings | relevant_grep
311
312    echo "Analyzing URLs"
313    # shellcheck disable=SC2312
314    check_URLs | relevant_grep
315
316    echo "Analyzing strange characters: hover over in doubt"
317    # shellcheck disable=SC1111
318    LFBFL_usual_characters="\x00-\x7Fàâéèêëîïôç©""└┤│«»"
319    # shellcheck disable=SC2312
320    grep --exclude-dir .git --color=always\
321      -nPr "[^${LFBFL_usual_characters}]" .
322
323    echo "Checking listed files"
324    "./${LFBFL_subdir}/update_or_check_files_names_listing.exec.sh"
325
326    echo "Creating the PDF file of the listing of the source code"
327    "./${LFBFL_subdir}/create_PDF.exec.sh" "${LFBFL_verbose}"
328
329    # shellcheck disable=SC2164
```

```
330    popd
331  }
332
333  common_build_and_checks "$@"
```

2.7 build_and_checks_dependencies/comparisons.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 2023-2025 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 $? si toutes les chaînes en arguments sont égales.
29    # J'ai rerepensé au 3-way-merge
30    # et à mon article sur le principe de première différence
31    # appliqué à la largeur modulaire, de clique ou de rang avec
32    # l'idée d'un principe de première différence ternaire.
33    declare -r LFBFL_all_args="'$*'"
34    local LFBFL_current="${LFBFL_all_args}"
35    local LFBFL_arg
36    for LFBFL_arg in "$@"; do
37      if [[ "${LFBFL_current}" == "${LFBFL_all_args}" ]]; then
38        LFBFL_current="${LFBFL_arg}"
39        continue
```

```
40    fi
41    if [[ "${LFBFL_current}" != "${LFBFL_arg}" ]]; then
42      return 0
43    fi
44  done
45  return 1
46 }

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 }

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 }

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(preg_match(\$c, \$a));"
87   readonly LFBFL_var_3
88   php -r "${LFBFL_var_3}"
89   }

90

91   is_subfile(){
92     # $1=$file_name
93     # $2=$sub_file_name
94     local LFBFL_var_1="\$a = file_get_contents('$1');"
95     LFBFL_var_1+=" \$b = preg_quote(file_get_contents('$2'));"
96     LFBFL_var_1+=" \$c = '/'.addcslashes(\$b, '/').'/';"
97     LFBFL_var_1+=" die(preg_match(\$c, \$a));"
98     readonly LFBFL_var_1
99     php -r "${LFBFL_var_1}"
100  }

101

102  alias min_from_int_sort="min 'sort --numeric-sort'"
103  alias max_from_int_sort="max 'sort --numeric-sort'"
```

2.8 build_and_checks_dependencies/create_PDF.exec.sh

```
1    #!/usr/bin/env bash
2    # This file is part of DevOrSysAdminScripts library.
3    #
4    # DevOrSysAdminScripts is free software:
5    # you can redistribute it and/or modify it under the terms
6    # of the GNU General Public License
7    # as published by the Free Software Foundation,
8    # either version 3 of the License,
9    # or (at your option) any later version.
10   #
11   # DevOrSysAdminScripts is distributed in the hope
12   # that it will be useful,
13   # but WITHOUT ANY WARRANTY;
14   # without even the implied warranty of
15   # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16   # See the GNU General Public License for more details.
17   #
18   # You should have received a copy of
19   # the GNU General Public License
20   # along with DevOrSysAdminScripts.
21   # If not, see <https://www.gnu.org/licenses/>.
22   #
23   # ©Copyright 2023-2025 Laurent Frédéric Bernard François Lyaudet
24   # This file was renamed from "create_PDF.sh" to "create_PDF.exec.sh".
25
```

```
26  LFBFL_verbose=""
27  if [[ "$1" == "--verbose" ]]; then
28    echo "$0 $*"
29    LFBFL_verbose="--verbose"
30  fi
31
32  LFBFL_subdir="build_and_checks_dependencies"
33  # shellcheck disable=SC1090
34  source "./${LFBFL_subdir}/generate_from_template.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
```

```bash
# shellcheck disable=SC2155
declare -r LFBFL_number_of_commits=$(
  git shortlog | space_starting_lines | wc -l
)

LFBFL_number_of_lines="$(code_lines_count_all) total lines,"
LFBFL_number_of_lines+=" $(code_lines_count_not_empty)"
LFBFL_number_of_lines+=" not empty lines,"
LFBFL_number_of_lines+=" $(code_lines_count_empty) empty lines."

# shellcheck disable=SC2094,SC2312
tree -a --gitignore\
  -I "node_modules/"\
  -I "__pycache__/"\
  -I ".mypy_cache/"\
  -I ".git/"\
  | replace_non_ascii_spaces\
  > "${LFBFL_subdir2}/temp/current_tree_light.txt"

# shellcheck disable=SC2094,SC2312
tree -a -DFh --gitignore\
  -I "node_modules/"\
  -I "__pycache__/"\
  -I ".mypy_cache/"\
  -I ".git/"\
  | replace_non_ascii_spaces\
  > "${LFBFL_subdir2}/temp/current_tree.txt"

LFBFL_temp_files_listing="./${LFBFL_subdir2}/temp/"
LFBFL_temp_files_listing+="files_listing.tex.tpl.temp"
: > "${LFBFL_temp_files_listing}"
get_split_score_after_before_simple 70 /
# split_score_command="$LFBFL_generic_result"
# shellcheck disable=SC2154
LFBFL_score_command="${get_split_score_after_before_result}"
# shellcheck disable=SC2154
LFBFL_score_command_properties=\
"${get_split_score_after_before_result2}"
get_split_score_after_before_simple 70 ':'
# split_score_command2="$LFBFL_generic_result"
# shellcheck disable=SC2154
LFBFL_score_command2="${get_split_score_after_before_result}"
LFBFL_score_command_properties2=\
"${get_split_score_after_before_result2}"
LFBFL_suffix='%'
LFBFL_sed_expression='s/\\n//Mg'
```

```
118  # shellcheck disable=SC2312
119  sed -Ez "${LFBFL_sed_expression}"\
120    "./${LFBFL_subdir2}/files_names_listing.txt"\
121    | sed -Ez "${LFBFL_sed_expression}"\
122    | sed -Ez "${LFBFL_sed_expression}"\
123    | sed -Ez "${LFBFL_sed_expression}"\
124    | grep -v '^//'\
125    | while read -r LFBFL_file_name;
126  do
127    echo "Listing file for tex : ${LFBFL_file_name}"
128    # LFBFL_base_file_name=$(basename "${LFBFL_file_name}")
129    # cleaned_path1=$(sed -e 's/_/\\_/g' <(echo "${LFBFL_file_name}"))
130    LFBFL_cleaned_path2=$(
131      sed -e 's/\//:/g' -e 's/\.//g' <(echo "${LFBFL_file_name}")
132    )
133    echo "\subsection{" >> "${LFBFL_temp_files_listing}"
134    LFBFL_new_lines="  ${LFBFL_file_name}"
135    if [[ ${#LFBFL_new_lines} -gt 70 ]]; then
136      repeated_split_last_line "${LFBFL_new_lines}" "" 70\
137        "${LFBFL_suffix}" "${LFBFL_score_command}"\
138        "${LFBFL_score_command_properties}"
139      # shellcheck disable=SC2154
140      LFBFL_new_lines=${repeated_split_last_line_result}
141    fi
142    # shellcheck disable=SC2312
143    echo "  ${LFBFL_file_name}"\
144      | sed -e "s|  ${LFBFL_file_name}|${LFBFL_new_lines}|g"\
145      > "${LFBFL_temp_files_listing}.2"
146    sed -i -e 's/_/\\_/g' "${LFBFL_temp_files_listing}.2"
147    cat "${LFBFL_temp_files_listing}.2" >> "${LFBFL_temp_files_listing}"
148    rm "${LFBFL_temp_files_listing}.2"
149    echo "}" >> "${LFBFL_temp_files_listing}"
150    echo "\label{" >> "${LFBFL_temp_files_listing}"
151    LFBFL_new_lines="  ${LFBFL_cleaned_path2}"
152    if [[ ${#LFBFL_new_lines} -gt 70 ]]; then
153      repeated_split_last_line "${LFBFL_new_lines}" "" 70\
154        "${LFBFL_suffix}" "${LFBFL_score_command2}"\
155        "${LFBFL_score_command_properties2}"
156      # shellcheck disable=SC2154
157      LFBFL_new_lines=${repeated_split_last_line_result}
158    fi
159    # shellcheck disable=SC2129,SC2312
160    echo "  ${LFBFL_cleaned_path2}"\
161      | sed -e "s|  ${LFBFL_cleaned_path2}|${LFBFL_new_lines}|g"\
162      >> "${LFBFL_temp_files_listing}"
163    echo "}" >> "${LFBFL_temp_files_listing}"
```

```
164    echo "" >> "${LFBFL_temp_files_listing}"
165    echo "\VerbatimInput[numbers=left,xleftmargin=-5mm]{"\
166      >> "${LFBFL_temp_files_listing}"
167    LFBFL_new_lines="${LFBFL_file_name}"
168    if [[ ${#LFBFL_new_lines} -gt 70 ]]; then
169      repeated_split_last_line "${LFBFL_new_lines}" "" 70\
170        "${LFBFL_suffix}" "${LFBFL_score_command}"\
171        "${LFBFL_score_command_properties}"
172      # shellcheck disable=SC2154
173      LFBFL_new_lines=${repeated_split_last_line_result}
174    fi
175    # shellcheck disable=SC2129,SC2312
176    echo "  ${LFBFL_file_name}"\
177      | sed -e "s|  ${LFBFL_file_name}|${LFBFL_new_lines}|g"\
178      >> "${LFBFL_temp_files_listing}"
179    echo "}" >> "${LFBFL_temp_files_listing}"
180    echo "" >> "${LFBFL_temp_files_listing}"
181    echo "" >> "${LFBFL_temp_files_listing}"
182  done
183  overwrite_if_not_equal "./${LFBFL_subdir2}/files_listing.tex.tpl"\
184    "${LFBFL_temp_files_listing}"
185
186  # We verify if some lines are beyond 70 characters
187  # in current_tree_light.txt and current_tree.txt.
188  LFBFL_trees=("current_tree_light.txt" "current_tree.txt")
189  declare LFBFL_tree_path
190  for LFBFL_tree in "${LFBFL_trees[@]}"; do
191    LFBFL_tree_path="${LFBFL_subdir2}/temp/${LFBFL_tree}"
192    # shellcheck disable=SC2312
193    grep '.\{71\}' "${LFBFL_tree_path}" | while read -r LFBFL_line; do
194      # echo "LFBFL_line: ${LFBFL_line}"
195      # shellcheck disable=SC2312
196      LFBFL_prefix=$(\
197        echo "${LFBFL_line}"\
198          | sed -E -e 's/(.*)-[^-]+$/\1/g' -e 's/[^ ]+$//g'\
199      )
200      LFBFL_prefix+="│ "
201      # echo "LFBFL_prefix: ${LFBFL_prefix}"
202      # shellcheck disable=SC2312
203      LFBFL_file_name=$(\
204        echo "${LFBFL_line}"\
205          | sed -E 's|.* (([a-zA-Z0-9\._/-]+).)$|\1|g'\
206      )
207      # echo "LFBFL_file_name: ${LFBFL_file_name}"
208      # shellcheck disable=SC2312
209      LFBFL_line_start=$(\
```

34

```
210     echo "${LFBFL_line}"\
211       | sed -E "s/(.*)[ ]*${LFBFL_file_name}/\1/g"\
212       | sed -e 's/ *$//g'
213     )
214     # echo "LFBFL_line_start: ${LFBFL_line_start}"
215     LFBFL_line=$(\
216       echo "${LFBFL_line}"\
217         | sed -E -e 's/\[/\\\[/g' -e 's/\]/\\\]/g'\
218     )
219     LFBFL_new_lines="${LFBFL_prefix}${LFBFL_file_name}"
220     if [[ ${#LFBFL_new_lines} -gt 70 ]]; then
221       repeated_split_last_line "${LFBFL_new_lines}" "${LFBFL_prefix}"\
222         70 "" "" 3
223       # shellcheck disable=SC2154
224       LFBFL_new_lines=${repeated_split_last_line_result}
225     fi
226     sed -i -e\
227       "s/${LFBFL_line}/${LFBFL_line_start}\n${LFBFL_new_lines}/g"\
228       "${LFBFL_tree_path}"
229   done
230 done
231
232 if [[ -f "./${LFBFL_subdir2}/${repository_name}.tex.tpl" ]];
233 then
234   # We overwrite current tex file only if it can be generated from
235   # template.
236   cp "./${LFBFL_subdir2}/${repository_name}.tex.tpl"\
237     "./${LFBFL_subdir2}/${repository_name}.tex"
238 fi
239
240 # But the filling still occurs, in case the dev want to refill
241 # part of the tex file that he modified with @token@
242 # using some computed results.
243 sed -i "s|@repository_name@|${repository_name}|g"\
244   "./${LFBFL_subdir2}/${repository_name}.tex"
245
246 # shellcheck disable=SC2001,SC2312
247 echo "${abstract}" | sed -e 's/\\n/\n/g'\
248   > "./${LFBFL_subdir2}/temp/abstract_temp"
249 insert_file_at_token "./${LFBFL_subdir2}/${repository_name}.tex"\
250   @abstract@ "./${LFBFL_subdir2}/temp/abstract_temp"
251
252 # shellcheck disable=SC2001,SC2312
253 echo "${acknowledgments}" | sed -e 's/\\n/\n/g'\
254   > "./${LFBFL_subdir2}/temp/acknowledgments_temp"
255 insert_file_at_token "./${LFBFL_subdir2}/${repository_name}.tex"\
```

```
256    @acknowledgments@ "./${LFBFL_subdir2}/temp/acknowledgments_temp"

257
258  sed -i "s|@author_email@|${author_email}|g"\
259    "./${LFBFL_subdir2}/${repository_name}.tex"

260
261  sed -i "s|@author_full_name@|${author_full_name}|g"\
262    "./${LFBFL_subdir2}/${repository_name}.tex"

263
264  sed -i "s|@author_website@|${author_website}|g"\
265    "./${LFBFL_subdir2}/${repository_name}.tex"

266
267  sed -i "s|@current_date@|${LFBFL_current_date}|g"\
268    "./${LFBFL_subdir2}/${repository_name}.tex"

269
270  sed -i "s|@current_git_SHA1@|${LFBFL_current_git_SHA1}|g"\
271    "./${LFBFL_subdir2}/${repository_name}.tex"

272
273  sed -i "s|@number_of_commits@|${LFBFL_number_of_commits}|g"\
274    "./${LFBFL_subdir2}/${repository_name}.tex"

275
276  sed -i "s|@number_of_lines@|${LFBFL_number_of_lines}|g"\
277    "./${LFBFL_subdir2}/${repository_name}.tex"

278
279  pushd "./${LFBFL_subdir2}/temp/" || (echo "pushd failed" && exit)
280  sed -i -e '/@current_tree_light@/{r current_tree_light.txt' -e 'd}'\
281    "../${repository_name}.tex"
282  sed -i -e '/@current_tree@/{r current_tree.txt' -e 'd}'\
283    "../${repository_name}.tex"
284  popd || (echo "popd failed" && exit)

285
286  insert_file_at_token "./${LFBFL_subdir2}/${repository_name}.tex"\
287    @files_listing_VerbatimInput@\
288    "./${LFBFL_subdir2}/files_listing.tex.tpl"

289
290  if [[ -n "${LFBFL_verbose}" ]]; then
291    for ((i=0; i<3; i++)); do
292      pdflatex "./${LFBFL_subdir2}/${repository_name}.tex"
293    done
294  else
295    for ((i=0; i<3; i++)); do
296      pdflatex "./${LFBFL_subdir2}/${repository_name}.tex" > /dev/null
297    done
298  fi

299
300  LFBFL_files_to_temp=(\
301    "${repository_name}.aux"\
```

```
302    "${repository_name}.log"\
303    "${repository_name}.out"
304  )
305  for LFBFL_file_name in "${LFBFL_files_to_temp[@]}"; do
306    mv "${LFBFL_file_name}" "${LFBFL_subdir2}/temp/"
307  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   #
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9   # or (at your option) any later version.
10  #
11  # DevOrSysAdminScripts is distributed in the hope
12  # that it will be useful,
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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 2023-2025 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"
```

```bash
38    readonly LFBFL_temp
39    echo "$3" > "${LFBFL_temp}"
40    cat "$1" >> "${LFBFL_temp}"
41    echo "$4" >> "${LFBFL_temp}"
42    overwrite_if_not_equal "$2" "${LFBFL_temp}"
43  }

44
45  generate_from_template_with_line_comments(){
46    # $1=base_file_name
47    # $2=target_file_name
48    # $3=line_comment_prefix
49    # $4=optional_post_processing
50    local LFBFL_temp
51    LFBFL_temp="$2.generate_from_template_with_line_comments.temp"
52    readonly LFBFL_temp
53    sed -e "s/^/$3/g" "$1" > "${LFBFL_temp}"
54    if [[ -n "$4" ]]; then
55      eval "$4"
56    fi
57    overwrite_if_not_equal "$2" "${LFBFL_temp}"
58  }

59
60  split_file_in_two(){
61    # $1=$file_name
62    # $2=$token assume that token is the only thing on his line.
63    # $3=$file_name_part1
64    # $4=$file_name_part2
65    declare -ir LFBFL_line_number=$(
66      grep -n "$2" "$1" | head --lines=1 | cut -f 1 -d ':'
67    )
68    declare -ir LFBFL_line_count=$(ll_wc -l -n "$1")
69    declare -ir LFBFL_lines_after=$((
70      LFBFL_line_count - LFBFL_line_number
71    ))
72    head --lines="$((LFBFL_line_number - 1))" "$1" > "$3"
73    tail --lines="${LFBFL_lines_after}" "$1" > "$4"
74  }

75
76  insert_file_at_token(){
77    # $1=$file_name
78    # $2=$token assume that token is the only thing on his line.
79    # $3=$file_name_to_insert
80    declare -r LFBFL_start_file_name="$1.insert_file_at_token1.temp"
81    declare -r LFBFL_end_file_name="$1.insert_file_at_token2.temp"
82    declare -r LFBFL_result_file_name="$1.insert_file_at_token3.temp"
83    split_file_in_two "$1" "$2" "${LFBFL_start_file_name}"\
```

```
84      "${LFBFL_end_file_name}"
85    cat "${LFBFL_start_file_name}" "$3" "${LFBFL_end_file_name}"\
86      > "${LFBFL_result_file_name}"
87    overwrite_if_not_equal "$1" "${LFBFL_result_file_name}"
88    rm "${LFBFL_start_file_name}" "${LFBFL_end_file_name}"
89  }
```

2.10   build_and_checks_dependencies/get_common_text_glob_patterns.libr.sh

```
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23  # ©Copyright 2023-2025 Laurent Frédéric Bernard François Lyaudet
24  # This file was renamed from "get_common_text_glob_patterns.sh"
25  # to "get_common_text_glob_patterns.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

```
1  #!/usr/bin/env bash
2  # This file is part of DevOrSysAdminScripts library.
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22  #
23  # ©Copyright 2023-2025 Laurent Frédéric Bernard François Lyaudet
24  # This file was renamed from "grammar_and_spell_check.sh"
25  # to "grammar_and_spell_check.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

```
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22  #
23  # ©Copyright 2023-2025 Laurent Frédéric Bernard François Lyaudet
24  # This file was renamed from "build_licenses_templates.sh"
25  # to "build_licenses_templates.exec.sh".
26
```

```
27  LFBFL_verbose=""
28  if [[ "$1" == "--verbose" ]]; then
29    echo "$0 $*"
30    # shellcheck disable=SC2034
31    LFBFL_verbose="--verbose"
32  fi
33
34  LFBFL_subdir="build_and_checks_dependencies"
35  # shellcheck disable=SC1090
36  source "./${LFBFL_subdir}/comparisons.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 "./${LFBFL_subdir}/overwrite_if_not_equal.libr.sh"
43
44  LFBFL_license_subdir="./${LFBFL_subdir}/licenses_templates/"
45  LFBFL_license_prefix="${LFBFL_license_subdir}license_file_header_"
46  licenses=(\
47    "AGPLv3+"\
48    "GPLv3+"\
49    "LGPLv3+"
50  )
51
52  # ----------------------------------------------------------------
53  # Various language definitions for text file formats
54  block_comment_languages=(\
55    "c"\
56    "py"\
57  )
58  block_comment_enters=(\
59    '/*'\
60    '"""'\
61  )
62  block_comment_exits=(\
63    '*/'\
64    '"""'\
65  )
66  equal "${#block_comment_languages[@]}"\
67        "${#block_comment_enters[@]}"\
68        "${#block_comment_exits[@]}"
69  # shellcheck disable=SC2181
70  if [[ $? == 0 ]]; then
71    # shellcheck disable=SC1003
72    echo '/!\'"Problème de définition des tableaux de langages 1"'/!\'
```

```
73   fi
74
75   line_comment_languages=(\
76     "sh"\
77     "tex"\
78   )
79   line_comment_prefixes=(\
80     '# '\
81     '% '\
82   )
83   equal "${#line_comment_languages[@]}"\
84        "${#line_comment_prefixes[@]}"
85   # shellcheck disable=SC2181
86   if [[ $? == 0 ]]; then
87     # shellcheck disable=SC1003
88     echo '/!\'"Problème de définition des tableaux de langages 2"'/!\'
89   fi
90   # --------------------------------------------------------------------
91
92   # --------------------------------------------------------------------
93   # We generate the license header templates adapted to various text
94   # files formats.
95   # Kamoulox do endfor, Jacques Beauregard XD
96   # (C'est toujours mieux que l'inverse :) !)
97   # for do endfor -> for do done (Fort Doux Donne).
98   for LFBFL_license in "${licenses[@]}"; do
99     LFBFL_license_prefix2="${LFBFL_license_prefix}${LFBFL_license}"
100    for ((i=0; i<${#block_comment_languages[@]}; i++)); do
101      LFBFL_extension=${block_comment_languages[i]}
102      license_file_name="${LFBFL_license_prefix2}.${LFBFL_extension}"
103      LFBFL_enter_string=${block_comment_enters[i]}
104      LFBFL_exit_string=${block_comment_exits[i]}
105      generate_from_template_with_block_comments\
106        "${LFBFL_license_prefix2}.tpl"\
107        "${license_file_name}.tpl"\
108        "${LFBFL_enter_string}" "${LFBFL_exit_string}"
109    done
110    LFBFL_temp2=".generate_from_template_with_line_comments.temp"
111    for ((i=0; i<${#line_comment_languages[@]}; i++)); do
112      LFBFL_extension=${line_comment_languages[i]}
113      license_file_name="${LFBFL_license_prefix2}.${LFBFL_extension}"
114      LFBFL_prefix_string=${line_comment_prefixes[i]}
115      LFBFL_intermediate_file_name="${license_file_name}.tpl"
116      LFBFL_intermediate_file_name+="${LFBFL_temp2}"
117      generate_from_template_with_line_comments\
118        "${LFBFL_license_prefix2}.tpl"\
```

44

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

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

```
211   is_subfile "${LFBFL_file_name}" "${license_file_name}"
212   declare -i LFBFL_not_subfile=$?
213   declare -i LFBFL_not_subfile2=1
214   if [[ -n "${license2}" ]]; then
215     is_subfile "${LFBFL_file_name}" "${license_file_name2}"
216     LFBFL_not_subfile2=$?
217   fi
218   if [[ LFBFL_not_subfile -ge 1 && LFBFL_not_subfile2 -ge 1 ]]; then
219     echo "File ${LFBFL_file_name} has no/wrong license header?"
220   fi
221   done
222 done
```

2.13   build_and_checks_dependencies/licenses_templates/license_file_header_AGPLv3+.c.tpl

```
1  /*
2  This file is part of @repository_name@ library.
3
4  @repository_name@ is free software:
5  you can redistribute it and/or modify it under the terms
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.tpl

```
1  """
2  This file is part of @repository_name@ library.
3
4  @repository_name@ is free software:
```

```
5   you can redistribute it and/or modify it under the terms
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  """
```

2.15 build_and_checks_dependencies/licenses_templates/license_file_header_AGPLv3+.sh.tp

```
1   # This file is part of @repository_name@ library.
2   #
3   # @repository_name@ is free software:
4   # you can redistribute it and/or modify it under the terms
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
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.
16  #
17  # You should have received a copy of
18  # the GNU Affero General Public License
19  # along with @repository_name@.
20  # If not, see <https://www.gnu.org/licenses/>.
21  #
22  # ©Copyright @copyright_string@
```

2.16 build_and_checks_dependencies/licenses_templates/license_file_header_AGPLv3+.tex.t

```
1  % This file is part of @repository_name@ library.
2  %
3  % @repository_name@ is free software:
4  % you can redistribute it and/or modify it under the terms
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
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.
16 %
17 % You should have received a copy of
18 % the GNU Affero General Public License
19 % along with @repository_name@.
20 % If not, see <https://www.gnu.org/licenses/>.
21 %
22 % ©Copyright @copyright_string@
```

2.17 build_and_checks_dependencies/licenses_templates/license_file_header_AGPLv3+.tpl

```
1  This file is part of @repository_name@ library.
2
3  @repository_name@ is free software:
4  you can redistribute it and/or modify it under the terms
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
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.
16
17 You should have received a copy of
18 the GNU Affero General Public License
19 along with @repository_name@.
```

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

2.18 build_and_checks_dependencies/licenses_templates/license_file_header_GPLv3+.c.tpl

```
1    /*
2    This file is part of @repository_name@ library.
3
4    @repository_name@ 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   @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 General Public License for more details.
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   */
```

2.19 build_and_checks_dependencies/licenses_templates/license_file_header_GPLv3+.py.tpl

```
1    """
2    This file is part of @repository_name@ library.
3
4    @repository_name@ 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   @repository_name@ is distributed in the hope
12   that it will be useful,
13   but WITHOUT ANY WARRANTY;
```

2.20   build_and_checks_dependencies/licenses_templates/license_file_header_GPLv3+.sh.tpl

2.21   build_and_checks_dependencies/licenses_templates/license_file_header_GPLv3+.tex.tp

51

```
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 General Public License for more details.
16  %
17  % You should have received a copy of
18  % the GNU General Public License
19  % along with @repository_name@.
20  % If not, see <https://www.gnu.org/licenses/>.
21  %
22  % ©Copyright @copyright_string@
```

2.22 build_and_checks_dependencies/licenses_templates/license_file_header_GPLv3+.tpl

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

2.23 build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.c.tpl

```
1   /*
2   This file is part of @repository_name@ library.
3
```

```
4  @repository_name@ is free software:
5  you can redistribute it and/or modify it under the terms
6  of the GNU Lesser 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 Lesser General Public License for more details.
17
18 You should have received a copy of
19 the GNU Lesser General Public License
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.t

```
1  """
2  This file is part of @repository_name@ library.
3
4  @repository_name@ is free software:
5  you can redistribute it and/or modify it under the terms
6  of the GNU Lesser 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 Lesser General Public License for more details.
17
18 You should have received a copy of
19 the GNU Lesser General Public License
20 along with @repository_name@.
21 If not, see <https://www.gnu.org/licenses/>.
22
```

```
23   ©Copyright @copyright_string@
24   """
```

2.25 build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.sh.tp

```
1   # This file is part of @repository_name@ library.
2   #
3   # @repository_name@ 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  # @repository_name@ is distributed in the hope
11  # that it will be useful,
12  # but WITHOUT ANY WARRANTY;
13  # without even the implied warranty of
14  # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
15  # See the GNU Lesser General Public License for more details.
16  #
17  # You should have received a copy of
18  # the GNU Lesser General Public License
19  # along with @repository_name@.
20  # If not, see <https://www.gnu.org/licenses/>.
21  #
22  # ©Copyright @copyright_string@
```

2.26 build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.tex.t

```
1   % This file is part of @repository_name@ library.
2   %
3   % @repository_name@ 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  % @repository_name@ is distributed in the hope
11  % that it will be useful,
12  % but WITHOUT ANY WARRANTY;
13  % without even the implied warranty of
14  % MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
15  % See the GNU Lesser General Public License for more details.
16  %
```

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

2.27   build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.tpl

```
1   This file is part of @repository_name@ library.
2
3   @repository_name@ 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  @repository_name@ is distributed in the hope
11  that it will be useful,
12  but WITHOUT ANY WARRANTY;
13  without even the implied warranty of
14  MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
15  See the GNU Lesser General Public License for more details.
16
17  You should have received a copy of
18  the GNU Lesser General Public License
19  along with @repository_name@.
20  If not, see <https://www.gnu.org/licenses/>.
21
22  ©Copyright @copyright_string@
```

2.28   build_and_checks_dependencies/lines_counts.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 2023-2025 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)a'
43    done
44  }
45
46  all_self_code_lines(){
47    # shellcheck disable=SC2312
48    all_code_lines "$@" | relevant_grep\
49      | not_license_grep | not_main_tex_grep
50  }
51
52  all_self_empty_code_lines(){
53    # shellcheck disable=SC2312
54    all_self_code_lines "$@" | empty_lines_after_file_name
55  }
56
57  all_self_not_empty_code_lines(){
58    # shellcheck disable=SC2312
```

```
59    all_self_code_lines "$@" | not_empty_lines_after_file_name
60  }
61
62  code_lines_count_all(){
63    # shellcheck disable=SC2312
64    all_self_code_lines "$@" | wc -l
65  }
66
67  code_lines_count_empty(){
68    # shellcheck disable=SC2312
69    all_self_empty_code_lines "$@" | wc -l
70  }
71
72  code_lines_count_not_empty(){
73    # shellcheck disable=SC2312
74    all_self_not_empty_code_lines "$@" | wc -l
75  }
```

2.29   build_and_checks_dependencies/lines_filters.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 2023-2025 Laurent Frédéric Bernard François Lyaudet
24  # This file was renamed from "lines_filters.sh" to
25  # "lines_filters.libr.sh".
26
```

57

```
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  relevant_find(){
245    # shellcheck disable=SC2312
246    not_dependencies_find | not_cache_find | not_git_find\
247    | not_archive_find
248  }
249
250  relevant_grep(){
251    # shellcheck disable=SC2312
252    not_dependencies_grep | not_cache_grep | not_git_grep\
253    | not_archive_grep
254  }
```

2.30   build_and_checks_dependencies/lines_maps.libr.sh

```
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22 #
23 # ©Copyright 2023-2025 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 #   '2000', '2001', '2002', '2003', '2004', '2005', '2006', '2007',
31 #   '2008', '2009', '200A', '200B', '200C', '200D', '200E', '200F',
32 #   '2028', '2029', '202A', '202B', '202C', '202D', '202E', '202F',
33 #   '205F',
34 #   '2060', '2061', '2062', '2063', '2064', '2065', '2066', '2067',
35 #   '2068', '2069', '206A', '206B', '206C', '206D', '206E', '206F',
36 # ]
37 replace_non_ascii_spaces(){
38   # shellcheck disable=SC2312
39   sed -e 's/\xc2\xa0/ /g'\
40   | sed -e 's/\xe2\x80\x80/ /g'\
41   | sed -e 's/\xe2\x80\x81/ /g'\
42   | sed -e 's/\xe2\x80\x82/ /g'\
43   | sed -e 's/\xe2\x80\x83/ /g'\
44   | sed -e 's/\xe2\x80\x84/ /g'\
```

```
45    | sed -e 's/\xe2\x80\x85/ /g'\
46    | sed -e 's/\xe2\x80\x86/ /g'\
47    | sed -e 's/\xe2\x80\x87/ /g'\
48    | sed -e 's/\xe2\x80\x88/ /g'\
49    | sed -e 's/\xe2\x80\x89/ /g'\
50    | sed -e 's/\xe2\x80\x8a/ /g'\
51    | sed -e 's/\xe2\x80\x8b/ /g'\
52    | sed -e 's/\xe2\x80\x8c/ /g'\
53    | sed -e 's/\xe2\x80\x8d/ /g'\
54    | sed -e 's/\xe2\x80\x8e/ /g'\
55    | sed -e 's/\xe2\x80\x8f/ /g'\
56    | sed -e 's/\xe2\x80\xa8/ /g'\
57    | sed -e 's/\xe2\x80\xa9/ /g'\
58    | sed -e 's/\xe2\x80\xaa/ /g'\
59    | sed -e 's/\xe2\x80\xab/ /g'\
60    | sed -e 's/\xe2\x80\xac/ /g'\
61    | sed -e 's/\xe2\x80\xad/ /g'\
62    | sed -e 's/\xe2\x80\xae/ /g'\
63    | sed -e 's/\xe2\x80\xaf/ /g'\
64    | sed -e 's/\xe2\x81\x9f/ /g'\
65    | sed -e 's/\xe2\x81\xa0/ /g'\
66    | sed -e 's/\xe2\x81\xa1/ /g'\
67    | sed -e 's/\xe2\x81\xa2/ /g'\
68    | sed -e 's/\xe2\x81\xa3/ /g'\
69    | sed -e 's/\xe2\x81\xa4/ /g'\
70    | sed -e 's/\xe2\x81\xa5/ /g'\
71    | sed -e 's/\xe2\x81\xa6/ /g'\
72    | sed -e 's/\xe2\x81\xa7/ /g'\
73    | sed -e 's/\xe2\x81\xa8/ /g'\
74    | sed -e 's/\xe2\x81\xa9/ /g'\
75    | sed -e 's/\xe2\x81\xaa/ /g'\
76    | sed -e 's/\xe2\x81\xab/ /g'\
77    | sed -e 's/\xe2\x81\xac/ /g'\
78    | sed -e 's/\xe2\x81\xad/ /g'\
79    | sed -e 's/\xe2\x81\xae/ /g'\
80    | sed -e 's/\xe2\x81\xaf/ /g'
81  }
```

2.31   build_and_checks_dependencies/overwrite_if_not_equal.libr.sh

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

2.32   build_and_checks_dependencies/python_black_complement.libr.sh

```
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```

```
26
27  # It was rejected to enhance black with this currently.
28  # And moreover, at some point, I saw the reverse rule
29  # in black or pylint to add an empty line...
30  # This regexp may give false positives,
31  # but that's not the end of the world.
32  check_no_empty_line_after_python_function_docstring(){
33    echo "Checking empty lines after Python function docstrings"
34    pcregrep -M $'def [^"]*"""([^"]|"(?!""))*"""\n\n(?!\s*def)'\
35      -- **/*.py
36  }
37
38  python_black_complement(){
39    check_no_empty_line_after_python_function_docstring
40  }
```

2.33   build_and_checks_dependencies/python_isort_complement.libr.sh

```
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10  #
```

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23  # ©Copyright 2023-2025 Laurent Frédéric Bernard François Lyaudet
24  # This file was renamed from "python_isort_complement.sh"
25  # to "python_isort_complement.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 "${LFBFL_file_name}" ]] || continue
40      sed -Ez 's/\n(\nfrom _collections_abc[^\n]*)/\1\n/Mg'\
41        "${LFBFL_file_name}" > "${LFBFL_file_name}${LFBFL_temp}"
42      overwrite_if_not_equal "${LFBFL_file_name}"\
43        "${LFBFL_file_name}${LFBFL_temp}"
44    done
45  }
46
47  python_isort_complement(){
48    check_collections_abc_place
49  }
```

2.34 build_and_checks_dependencies/split_line_at_most.exec.php

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

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

```
51      //  $argv[1], array_slice($argv, 5)
52      //)($argv[3], $argv[2], $argv[4])
53      //  $argv[1], explode(',', $argv[2]),
54      //)($argv[3], $argv[4], $argv[5])
55        (int) $argv[2], explode(',', $argv[3]),
56      )($argv[4], (int) $argv[5], $argv[6])
57    );
58    exit();
59  }
60
61  echo(
62    generate_split_score_before_after(
63      (int) $argv[2], explode(',', $argv[3]),
64    )($argv[4], (int) $argv[5], $argv[6])
65  );
```

2.35 build_and_checks_dependencies/split_line_at_most.libr.php

```
1   <?php
2   /*
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24  ©Copyright 2023−2025 Laurent Frédéric Bernard François Lyaudet
25  This file was renamed from "split_line_at_most.php" to
26  "split_line_at_most.libr.php".
27  */
28
```

```
29  function generate_split_score_after_before(
30    $max_length,
31    $delimiter_strings_domain,
32  ){
33    return function(
34      $delimiter_string,
35      $cut_position,
36      $is_cut_after,
37    ) use ($max_length, $delimiter_strings_domain){
38      if(!in_array($delimiter_string, $delimiter_strings_domain, true)){
39        // I do not handle regexps for the moment.
40        // I'm too brainfucked. I just want to finish this feature fast
41        // for HTML and Tex/PDF listings generation with HTML and Tex on
42        // at most 70 characters.
43        return 0;
44      }
45      if($is_cut_after){
46        // Always way better to cut after '/' than before it.
47        return 1 + $max_length + $cut_position;
48      }
49      return 1 + $cut_position;
50    };
51  }
52
53
54
55  function generate_split_score_before_after(
56    $max_length,
57    $delimiter_strings_domain,
58  ){
59    return function(
60      $delimiter_string,
61      $cut_position,
62      $is_cut_after,
63    ) use ($max_length, $delimiter_strings_domain){
64      if(!in_array($delimiter_string, $delimiter_strings_domain, true)){
65        // I do not handle regexps for the moment.
66        // I'm too brainfucked. I just want to finish this feature fast
67        // for HTML and Tex/PDF listings generation with HTML and Tex on
68        // at most 70 characters.
69        return 0;
70      }
71      if(!$is_cut_after){
72        // Always way better to cut before '/' than after it.
73        return 1 + $max_length + $cut_position;
74      }
```

```
75    return 1 + $cut_position;
76  };
77 }
78
```

2.36 build_and_checks_dependencies/strings_functions.libr.sh

```
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22 #
23 # ©Copyright 2023-2025 Laurent Frédéric Bernard François Lyaudet
24 # I think I created a file strings_functions.sh or renamed to
25 # strings_functions.sh at some point, before committing.
26 # Hence, someone must have changed or reversed the name of this file
27 # to string_functions.sh at some point.
28 # This file was renamed from "string_functions.sh" to
29 # "strings_functions.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
```

```bash
40    declare -g split_line_at_result_beginning="${1:0:$2}"
41    declare -g split_line_at_result_end="${1:$2}"
42    # echo "$split_line_at_result_beginning"
43    # echo "$split_line_at_result_end"
44  }
45
46  split_score_after_before_simple(){
47    # $1=$delimiters_strings_domain concatenated characters/delimiters
48    # $2=$delimiter_string a single character
49    # $3=$is_cut_after
50    if [[ "$1" != "*$2*" ]]; then
51      echo "0"
52      return
53    fi
54    if [[ "$3" == "1" ]]; then
55      echo "2"
56      return
57    fi
58    echo "1"
59    return
60  }
61
62  split_score_before_after_simple(){
63    # $1=$delimiters_strings_domain concatenated characters/delimiters
64    # $2=$delimiter_string a single character
65    # $3=$is_cut_after
66    if [[ "$1" != "*$2*" ]]; then
67      echo "0"
68      return
69    fi
70    if [[ "$3" == "0" ]]; then
71      echo "2"
72      return
73    fi
74    echo "1"
75    return
76  }
77
78  get_split_score_after_before_simple(){
79    # $1=$max_length
80    # $2=$delimiters_strings_domain
81    declare -g get_split_score_after_before_result=\
82  "split_score_after_before_simple $2"
83    # shellcheck disable=SC2034
84    declare -g get_split_score_after_before_result2="7"
85  }
```

```
86
87  get_split_score_before_after_simple(){
88    # $1=$max_length
89    # $2=$delimiters_strings_domain
90    declare -g get_split_score_before_after_result=\
91  "split_score_before_after_simple $2"
92    # shellcheck disable=SC2034
93    declare -g get_split_score_before_after_result2="7"
94  }
95
96  get_split_line_at_most_exec(){
97    declare -g SPLIT_LINE_AT_MOST_EXEC="./"
98    SPLIT_LINE_AT_MOST_EXEC+="build_and_checks_dependencies"
99    SPLIT_LINE_AT_MOST_EXEC+="/split_line_at_most.exec.php"
100 }
101
102 get_split_score_after_before(){
103   # $1=$max_length
104   # $2=$delimiters_strings_domain
105   get_split_line_at_most_exec
106   declare -g\
107     get_split_score_after_before_result="${SPLIT_LINE_AT_MOST_EXEC}"
108   get_split_score_after_before_result+=" 1 '$1' '$2'"
109   # shellcheck disable=SC2034
110   declare -g get_split_score_after_before_result2="7"
111 }
112
113 get_split_score_before_after(){
114   # $1=$max_length
115   # $2=$delimiters_strings_domain
116   get_split_line_at_most_exec
117   declare -g\
118     get_split_score_before_after_result="${SPLIT_LINE_AT_MOST_EXEC}"
119   get_split_score_before_after_result+=" 0 '$1' '$2'"
120   # shellcheck disable=SC2034
121   declare -g get_split_score_before_after_result2="7"
122 }
123
124 split_line_at_most(){
125   # $1=$line
126   # $2=$max_length of beginning result string
127   # $3=$split_score_command
128   #   negative score means do not consider as a possible split
129   # $4=$split_score_command_properties :
130   #   These properties are flags.
131   #   If someday some property is not a flag,
```

```
132    #     then create split_score_command_properties2.
133    #     - null or 0 no property;
134    #     - 1 split score never decreases when cut position increases;
135    #     - 2 split score is >= 0 after delimiter iff it is >= 0 before;
136    #     - 4 split score doesn't depend on the delimiter;
137    # $5=$split_score_command_delimiter_strings_domain
138    #     optimisation if small domain
139    #     - this argument can be "null", then we will use $3 only instead,
140    #       in that case, only mono-character strings are considered,
141    #     - this argument can be an array of characters,
142    #       optimize accordingly,
143    #     - this argument can be an array of strings,
144    #       optimize accordingly,
145    #     - this argument can be an array of regexps,
146    #       optimize accordingly.
147    #       Not sure an array of regexps makes more sense than a single
148    #       one. Maybe they could be both cases with corresponding
149    #       optimizations. Same for a single character or substring.
150    declare -g split_line_at_most_result_start
151    declare -g split_line_at_most_result_end
152    declare -A LFBFL_positions
153    LFBFL_positions=(["$2"]="0")
154    # echo "$1 $2 $3 $4"
155    # For my use case in bash scripts, I will need only an array of
156    # characters. See get_split_score_after_before().
157    if [[ -n "$5" ]]; then
158      echo "split_line_at_most() \$4 NOT IMPLEMENTED YET"
159    fi
160    if [[ "$2" -ge "${#1}" ]]; then
161      split_line_at_most_result_start=$1
162      split_line_at_most_result_end=""
163      return
164    fi
165    declare -r LFBFL_sort_command="sort --numeric-sort"
166    declare -r LFBFL_length_minus_1=$((${#1} - 1))
167    declare -r LFBFL_i_max=$(
168      min "${LFBFL_sort_command}" "${LFBFL_length_minus_1}" "$2"
169    )
170    local LFBFL_i
171    local LFBFL_j
172    local LFBFL_current_char
173    local LFBFL_command1
174    local LFBFL_command2
175    local LFBFL_temp
176    if [[ "$4" == "7" ]]; then
177      for ((LFBFL_j=LFBFL_i_max; LFBFL_j>0; LFBFL_j--)) do
```

```
178      LFBFL_i=$((LFBFL_j-1))
179      LFBFL_current_char="${1:${LFBFL_i}:1}"
180      LFBFL_command1="$3 '${LFBFL_current_char}' ${LFBFL_i} 0"
181      LFBFL_command2="$3 '${LFBFL_current_char}' ${LFBFL_j} 1"
182      # echo "${LFBFL_command1}"
183      # echo "${LFBFL_command2}"
184      LFBFL_temp=$(eval "${LFBFL_command1}")
185      # echo "${LFBFL_temp}|${LFBFL_i}"
186      if [[ ${LFBFL_temp} -ge 1 ]]; then
187        # echo "${LFBFL_temp}|${LFBFL_i}"
188        if [[ ${#LFBFL_positions["${LFBFL_i}"]} == "0" ]]; then
189          LFBFL_positions["${LFBFL_i}"]="${LFBFL_temp}"
190        else
191          LFBFL_positions["${LFBFL_i}"]=$(
192            max "${LFBFL_sort_command}"\
193              "${LFBFL_positions["${LFBFL_i}"]}" "${LFBFL_temp}"
194          )
195        fi
196      fi
197      LFBFL_temp=$(eval "${LFBFL_command2}")
198      # echo "${LFBFL_temp}|${LFBFL_j}"
199      if [[ ${LFBFL_temp} -ge 1 ]]; then
200        # echo "${LFBFL_temp}|${LFBFL_j}"
201        if [[ ${#LFBFL_positions["${LFBFL_j}"]} == "0" ]]; then
202          LFBFL_positions["${LFBFL_j}"]="${LFBFL_temp}"
203        else
204          LFBFL_positions["${LFBFL_j}"]=$(
205            max "${LFBFL_sort_command}"\
206              "${LFBFL_positions["${LFBFL_j}"]}" "${LFBFL_temp}"
207          )
208        fi
209        break
210      fi
211    done
212  else
213    for ((LFBFL_i=0; LFBFL_i<LFBFL_i_max; LFBFL_i++)) do
214      LFBFL_j=$((LFBFL_i+1))
215      LFBFL_current_char="${1:${LFBFL_i}:1}"
216      LFBFL_command1="$3 '${LFBFL_current_char}' ${LFBFL_i} 0"
217      LFBFL_command2="$3 '${LFBFL_current_char}' ${LFBFL_j} 1"
218      # echo "${LFBFL_command1}"
219      # echo "${LFBFL_command2}"
220      LFBFL_temp=$(eval "${LFBFL_command1}")
221      # echo "${LFBFL_temp}|${LFBFL_i}"
222      if [[ ${LFBFL_temp} -ge 1 ]]; then
223        # echo "${LFBFL_temp}|${LFBFL_i}"
```

```bash
224        if [[ ${#LFBFL_positions["${LFBFL_i}"]} == "0" ]]; then
225          LFBFL_positions["${LFBFL_i}"]="${LFBFL_temp}"
226        else
227          LFBFL_positions["${LFBFL_i}"]=$(
228            max "${LFBFL_sort_command}"\
229              "${LFBFL_positions["${LFBFL_i}"]}" "${LFBFL_temp}"
230          )
231        fi
232      fi
233      LFBFL_temp=$(eval "${LFBFL_command2}")
234      # echo "${LFBFL_temp}|${LFBFL_j}"
235      if [[ ${LFBFL_temp} -ge 1 ]]; then
236        # echo "${LFBFL_temp}|${LFBFL_j}"
237        if [[ ${#LFBFL_positions["${LFBFL_j}"]} == "0" ]]; then
238          LFBFL_positions["${LFBFL_j}"]="${LFBFL_temp}"
239        else
240          LFBFL_positions["${LFBFL_j}"]=$(
241            max "${LFBFL_sort_command}"\
242              "${LFBFL_positions["${LFBFL_j}"]}" "${LFBFL_temp}"
243          )
244        fi
245      fi
246    done
247  fi
248  declare -a LFBFL_joined_args=()
249  LFBFL_i=0
250  local LFBFL_key
251  for LFBFL_key in "${!LFBFL_positions[@]}"; do
252    local LFBFL_value=${LFBFL_positions[${LFBFL_key}]}
253    # echo "$LFBFL_key $LFBFL_value"
254    LFBFL_joined_args[LFBFL_i]="${LFBFL_key} ${LFBFL_value}"
255    LFBFL_i=$((LFBFL_i + 1))
256  done
257  # shellcheck disable=SC2145,SC2312
258  while read -r LFBFL_best_position ;
259  do
260    split_line_at "$1" "${LFBFL_best_position}"
261    # shellcheck disable=SC2250
262    split_line_at_most_result_start=$split_line_at_result_beginning
263    split_line_at_most_result_end="${split_line_at_result_end}"
264  done <<EOT
265 $(max 'sort --numeric-sort -k2' "${LFBFL_joined_args[@]}"\
266   | cut -d ' ' -f 1)
267 EOT
268    # echo "$split_line_at_most_result_start"
269    # echo "$split_line_at_most_result_end"
```

```
270    }
271
272    split_last_line(){
273       # $1=$new_lines
274       # $2=$prefix
275       # $3=$max_length
276       # $4=$suffix
277       # $5=$split_score_command
278       # $6=$split_score_command_properties
279       # In general, a prefix/suffix can be a required line prefix/suffix
280       # for all final lines like a comment prefix,
281       # or it can be a continuation line prefix/suffix applied only
282       # when splitting a line in 2 lines,
283       # or it can be a prefix/suffix for the string made of all the lines.
284       # Clearly, there is no gain to couple handling a prefix/suffix for
285       # the string made of all the lines in this function.
286       # Since we add a prefix/suffix when splitting,
287       # it is easy to see that we do not need to distinguish between
288       # required line prefix/suffix and continuation line prefix/suffix.
289       # The $2 and $4 arguments are given as concatenation of the
290       # required and continuation line prefixes/suffixes as needed by the
291       # user.
292       # Thus lines arguments should be given already prefixed
293       # and suffixed.
294       # This is logic, since it would be cumbersome to handle prefixing
295       # or not already splitted lines in this function
296       # (see repeated_split_last_line).
297       # The given max_length is the goal.
298       # This function adapts the effective max position for the split by
299       # taking into account the length of the suffix.
300       declare -g split_last_line_result="$1"
301       declare -r LFBFL_max_length_plus=$(($3 + 1))
302       declare -r LFBFL_length2=$(($3 - ${#4}))
303       declare -r LFBFL_regexp='.\{'"${LFBFL_max_length_plus}"'\}$'
304       # shellcheck disable=SC2312
305       if echo "$1" | sed -e 's/\\n/\n/g' | grep -q "${LFBFL_regexp}"; then
306          # shellcheck disable=SC2312
307          declare -r LFBFL_start=$(\
308             echo "$1" | sed -e 's/\\n/\n/g' | head --lines=-1\
309             | sed -z 's/\n/\\n/g'\
310          )
311          # echo "start: $LFBFL_start"
312          declare -r LFBFL_last_line=$(\
313             echo "$1" | sed -e 's/\\n/\n/g' | tail --lines=1\
314          )
315          # echo "last_line: $LFBFL_last_line"
```

```
316    split_last_line_result=""
317    if [[ -n "${LFBFL_start}" ]]; then
318      split_last_line_result="${LFBFL_start}\n"
319    fi
320    if [[ -n "$5" ]]; then
321      split_line_at_most "${LFBFL_last_line}" "${LFBFL_length2}"\
322        "$5" "$6"
323      split_last_line_result+="${split_line_at_most_result_start}$4"
324      split_last_line_result+="\n"
325      split_last_line_result+="$2${split_line_at_most_result_end}"
326    else
327      # shellcheck disable=SC2250
328      split_last_line_result+="${LFBFL_last_line:0:$LFBFL_length2}$4"
329      split_last_line_result+="\n"
330      # shellcheck disable=SC2250
331      split_last_line_result+="$2${LFBFL_last_line:$LFBFL_length2}"
332    fi
333  fi
334 }
335
336 repeated_split_last_line(){
337   declare -g repeated_split_last_line_result="$1"
338   local LFBFL_i
339   for ((LFBFL_i=0; LFBFL_i<$6; ++LFBFL_i)) do
340     split_last_line "${repeated_split_last_line_result}" "$2" "$3"\
341       "$4" "$5" "$6"
342     repeated_split_last_line_result="${split_last_line_result}"
343   done
344 }
```

2.37 build_and_checks_dependencies/too_long_code_lines.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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9  # or (at your option) any later version.
10 #
11 # DevOrSysAdminScripts is distributed in the hope
12 # that it will be useful,
13 # but WITHOUT ANY WARRANTY;
14 # without even the implied warranty of
```

```
15  # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
16  # See the GNU General Public License for more details.
17  #
18  # You should have received a copy of
19  # the GNU General Public License
20  # along with DevOrSysAdminScripts.
21  # If not, see <https://www.gnu.org/licenses/>.
22  #
23  # ©Copyright 2023-2025 Laurent Frédéric Bernard François Lyaudet
24  # This file was renamed from "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 "./${LFBFL_subdir}/get_common_text_glob_patterns.libr.sh"
30
31  too_long_code_lines(){
32    get_COMMON_TEXT_FILES_GLOB_PATTERNS
33    local LFBFL_pattern
34    # shellcheck disable=SC2154
35    for LFBFL_pattern in "${COMMON_TEXT_FILES_GLOB_PATTERNS[@]}"; do
36      [[ "$1" != "-v" ]]\
37        || echo "Iterating on pattern: ${LFBFL_pattern}"
38      # shellcheck disable=SC2312
39      find . -type f -name "${LFBFL_pattern}" -printf '%P\n'\
40        | xargs grep -H '.\{71\}'
41    done
42  }
```

2.38 build_and_checks_dependencies/update_common_build_and_checks.exec.sh

```
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2   # This file is part of DevOrSysAdminScripts library.
3   #
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10  #
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15  # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
```

```
16   # See the GNU General Public License for more details.
17   #
18   # You should have received a copy of
19   # the GNU General Public License
20   # along with DevOrSysAdminScripts.
21   # If not, see <https://www.gnu.org/licenses/>.
22   #
23   # ©Copyright 2023-2025 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_AGPLv3+.tpl"\
50       "licenses_templates/license_file_header_GPLv3+.tpl"\
51       "licenses_templates/license_file_header_LGPLv3+.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_line_at_most.exec.php"\
60       "split_line_at_most.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

```bash
#!/usr/bin/env bash
# This file is part of DevOrSysAdminScripts library.
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# 2025-12-30T21:33+01:00: This file was moved from
# "./build_and_checks_dependencies/listings"
# to
# "./build_and_checks_dependencies".
# This file was renamed from "update_or_check_files_names_listing.sh"
# to "update_or_check_files_names_listing.exec.sh".
# This file was renamed from "update_or_check_file_names_listing.sh"
# to "update_or_check_files_names_listing.sh"?

LFBFL_verbose=""
if [[ "$2" == "--verbose" ]]; then
  echo "$0 $*"
  LFBFL_verbose="--verbose"
fi
readonly LFBFL_verbose

LFBFL_subdir="build_and_checks_dependencies"
# shellcheck disable=SC1090
source "./${LFBFL_subdir}/lines_filters.libr.sh"
# 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_after_before_simple 70 /
63  # shellcheck disable=SC2154
64  split_score_command="${get_split_score_after_before_result}"
65  # shellcheck disable=SC2154
66  split_score_command_properties=\
67  "${get_split_score_after_before_result2}"
68  # shellcheck disable=SC1003
69  suffix='\\'
70  # shellcheck disable=SC2312
71  find . -type f -printf '%P\n' | relevant_find | sort\
72    | while read -r file_name;
73  do
74    git check-ignore -q "${file_name}" && continue
75    base_file_name=$(basename "${file_name}")
76    [[ "${base_file_name}" != "files_names_listing.txt.temp1" ]]\
77      || continue
78    [[ "${base_file_name}" != "files_names_listing.txt.temp2" ]]\
79      || continue
80    [[ "${base_file_name}" != "files_names_listing.txt.temp3" ]]\
81      || continue
82    [[ "${base_file_name}" != "files_names_listing.txt.temp4" ]]\
83      || continue
84    if [[ "${base_file_name}" == *.md ]]; then
85      if [[ -f "${file_name}.tpl" ]]; then
86        continue
87      fi
88    fi
89    repeated_split_last_line "${file_name}" "" 70 "${suffix}"\
90      "${split_score_command}" "${split_score_command_properties}"
```

```
91   # shellcheck disable=SC2154
92   split_file_name="${repeated_split_last_line_result}"
93   if [[ "$1" == "--write" ]]; then
94     # shellcheck disable=SC2001
95     echo "${file_name}"\
96       | sed -e "s|${file_name}|${split_file_name}|g"\
97       >> "${files_names_listing}"
98     continue
99   fi
100  if grep -q "${file_name}\$" "${files_names_listing}.temp4"; then
101    :
102  else
103    echo\
104      "The file ${file_name} is not listed in ${files_names_listing}."
105    if [[ "$1" == "--append" ]]; then
106      # shellcheck disable=SC2001
107      echo "${file_name}"\
108        | sed -e\
109        "s|${file_name}|${split_file_name}|g"\
110        >> "${files_names_listing}"
111    fi
112  fi
113 done
114
115 # shellcheck disable=SC2002,2312
116 cat "${files_names_listing}.temp4" | while read -r file_name;
117 do
118   [[ "${file_name}" != '//'* ]] || continue
119   base_file_name=$(basename "${file_name}")
120   if ! [[ -f "${file_name}" ]]; then
121     echo\
122       "The non-file ${file_name} is listed in ${files_names_listing}."
123   fi
124 done
125
126 rm "${files_names_listing}.temp1" "${files_names_listing}.temp2"\
127   "${files_names_listing}.temp3" "${files_names_listing}.temp4"
128 shopt -u dotglob
129 shopt -s globstar
130
131 if [[ -n "${LFBFL_verbose}" ]]; then
132   cat "${files_names_listing}"
133 fi
```

2.40 build_and_checks_variables/files_names_listing.txt

```
1   // This file is part of DevOrSysAdminScripts library.
2   //
3   // DevOrSysAdminScripts is free software:
4   // you can redistribute it and/or modify it under the terms
5   // of the GNU Lesser General Public License
6   // as published by the Free Software Foundation,
7   // either version 3 of the License,
8   // or (at your option) any later version.
9   //
10  // DevOrSysAdminScripts is distributed in the hope
11  // that it will be useful,
12  // but WITHOUT ANY WARRANTY;
13  // without even the implied warranty of
14  // MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
15  // See the GNU Lesser General Public License for more details.
16  //
17  // You should have received a copy of
18  // the GNU Lesser General Public License
19  // along with DevOrSysAdminScripts.
20  // If not, see <https://www.gnu.org/licenses/>.
21  //
22  // ©Copyright 2023-2025 Laurent Frédéric Bernard François Lyaudet
23  // 2024-10-31T21:37+01:00: This file was moved from
24  // "./build_and_checks_dependencies/listings"
25  // to
26  // "./build_and_checks_variables".
27  // Blasé20240517Résultat.txt
28  // Blasé20240517.sh
29  // Blasé20240518_2.txt
30  // Blasé20240518_3.txt
31  build_and_checks_dependencies/build_and_checks.exec.sh.tpl
32  build_and_checks_dependencies/build_md_from_printable_md.exec.sh
33  build_and_checks_dependencies/check_shell_scripts_beginnings.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_line_at_most.exec.php
 98  build_and_checks_dependencies/split_line_at_most.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/files_names_listing.txt
105  build_and_checks_variables/.gitignore
106  build_and_checks_variables/DevOrSysAdminScripts.html.tpl
107  // build_and_checks_variables/DevOrSysAdminScripts.tex
108  build_and_checks_variables/DevOrSysAdminScripts.tex.tpl
109  build_and_checks_variables/repository_data.txt
110  build_and_checks_variables/licenses_notes.txt
111  build_and_checks.exec.sh
112  // COPYING
113  // COPYING.LESSER
114  // DevOrSysAdminScripts.html
115  // DevOrSysAdminScripts.pdf
116  // EncoreBlasé20240517-20240518.txt
117  git_helpers/git_checks.libr.sh
118  git_helpers/post-commit
119  git_helpers/post_commit_renaming_comment.libr.sh
120  git_helpers/pre-commit
121  LiensUtiles.txt
122  // README.html
123  // README.md
124  README.md.tpl
125  unicode.libr.php
126  upgrade_build_and_checks.exec.sh
127  wget_sha512.libr.sh
```

2.41   build_and_checks_variables/.gitignore

```
 1  temp/
 2
```

2.42 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 2023-2025 Laurent Frédéric Bernard François Lyaudet
26 -->
27 <head>
28 <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
29 <meta name="generator" content="DevOrSysAdminScripts">
30 <style type="text/css">
31 .title{
32   margin: 2ex auto;
33   text-align: center;
34 }
35 .titlemain{
36   margin: 1ex 2ex 2ex 1ex;
37 }
38 .titlerest{
39   margin: 0ex 2ex;
40 }
41 table{
42   border-collapse: collapse;
43 }
44 td{
```

```
45    padding: 0;
46  }
47  pre{
48    text-align: left;
49    margin-left: 0ex;
50    margin-right: auto;
51  }
52  pre.numbered_lines:before{
53    background: snow;
54    border-right: 1px black solid;
55    color: #010101;
56    content: attr(line-numbers);
57    float: left;
58    padding: 0 1ch;
59    text-align: right;
60  }
61
62  blockquote{
63    margin-left: 4ex;
64    margin-right: 4ex;
65    text-align: left;
66  }
67  </style>
68  <title>@repository_name@</title>
69  </head>
70  <body >
71  <table class="title">
72    <tr>
73      <td style="padding:1ex">
74        <h1 class="titlemain">@repository_name@</h1>
75        <h3 class="titlerest">
76          @author_full_name@
77          <br>
78          <a href="@author_website@">
79            <span style="font-family:monospace">@author_website@</span>
80          </a>
81          <br>
82          <a href="mailto:@author_email@">
83            <span style="font-family:monospace">@author_email@</span>
84          </a>
85        </h3>
86      </td>
87    </tr>
88  </table>
89
90  <blockquote class="abstract">
```

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

```
137  <li> The following dependencies are MIT licensed:<br>
138  black, isort, mypy
139  <li> php is licensed under PHP License v3.01
140  <li> tex is licensed under Knuth license
141  <li> pcregrep has a custom license from Cambridge University
142  </ul>
143  </p>
144
145  <p>
146  Remark: Some commands listed under GPLv3+ are POSIX
147  and can have different implementations under another license;
148  for example, uutils coreutils is MIT licensed,
149  whilst GNU coreutils is GPLv3+ licensed.
150  </p>
151
152  @files_listing_HTMLPreInput@
153
154  <p>@acknowledgments@</p>
155
156  <script>
157  "use strict";
158  const pres = Array.from(
159    document.getElementsByClassName('numbered_lines')
160  );
161  pres.forEach(
162    (pre) => {
163      const nb = Array.from(pre.innerText.matchAll("\n")).length + 1;
164      let numbers = "";
165      for(let i = 1; i <= nb; ++i){
166        numbers += i.toString();
167        if(i < nb){ numbers += "\n "; }
168      }
169      pre.setAttribute('line-numbers', numbers);
170    }
171  );
172  </script>
173  </html>
```

2.43   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,
```

```
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{pmboxdraw}
49  \usepackage{fancyvrb}
50  \usepackage[french,english]{babel}
51
52  % *** les environnements ***
```

```latex
53  %\theoremstyle{break}
54  \newtheorem{definition}{Definition}[section]
55  \newtheorem{proposition}[definition]{Proposition}
56  \newtheorem{theorem}[definition]{Theorem}
57  \newtheorem{lemma}[definition]{Lemma}
58  \newtheorem{corollary}[definition]{Corollary}
59  \newtheorem{remark}[definition]{Remark}
60  \newtheorem{openproblem}[definition]{Open problem}
61
62  \begin{document}
63
64  \author{
65    @author_full_name@\\
66    \url{@author_website@}\\
67    \href{mailto:@author_email@}{@author_email@}
68  }
69  \title{@repository_name@}
70
71  \maketitle
72  \begin{abstract}
73  @abstract@
74  \end{abstract}
75
76  Current version: @current_date@
77
78  Current number of commits: @number_of_commits@
79
80  Current git SHA1: @current_git_SHA1@
81
82  Code lines: @number_of_lines@
83
84  \section{Files tree}
85  \label{section:tree}
86
87  \begin{verbatim}
88  @current_tree_light@
89  \end{verbatim}
90
91  \begin{verbatim}
92  @current_tree@
93  \end{verbatim}
94
95  \section{Listing of files}
96  \label{section:listing}
97
98  This repository is dual licensed.
```

```
 99  All the Bash scripts source code is covered by GPLv3+.
100  All the PHP scripts source code is covered by LGPLv3+.
101
102  The text of the licenses is available at:
103  \url{https://www.gnu.org/licenses/}.
104  The git repository of this source code is also available at:
105  \url{https://github.com/LLyaudet/@repository_name@/}.
106
107  Here is a listing of the dependencies of the code in this repository:
108  \begin{itemize}
109  \item The following dependencies are GPLv3+ licensed:\newline
110  basename, bash (and its builtins), cat, chmod, cp, cut, date, diff,
111  dirname, find, grep, head, mkdir, mv, realpath, rm, sed, sha512sum,
112  shellcheck, sort, tail, wc, wget, xargs
113  \item The following dependencies are GPLv2+ licensed:\newline
114  more, pandoc, pdftex, pdflatex, tree
115  \item The following dependencies are GPLv2 licensed:\newline
116  git
117  \item The following dependencies are LGPLv2.1+ licensed:\newline
118  notify-send
119  \item The following dependencies are MIT licensed:\newline
120  black, isort, mypy
121  \item php is licensed under PHP License v3.01
122  \item tex is licensed under Knuth license
123  \item pcregrep has a custom license from Cambridge University
124  \end{itemize}
125
126  Remark: Some commands listed under GPLv3+ are POSIX
127  and can have different implementations under another license;
128  for example, uutils coreutils is MIT licensed,
129  whilst GNU coreutils is GPLv3+ licensed.
130
131  @files_listing_VerbatimInput@
132
133  @acknowledgments@
134
135  \end{document}
```

2.44 build_and_checks_variables/repository_data.txt

```
1  repository_name=DevOrSysAdminScripts
2  repository_web_url=https://github.com/LLyaudet/DevOrSysAdminScripts/
3  repository_git_url=git@github.com:LLyaudet/DevOrSysAdminScripts.git
4  abstract=Some "small" useful scripts
5  abstract=for enhancing development or system-administrators tasks
6  license=GPLv3+
```

```
 7  license2=LGPLv3+
 8  author_email=Laurent.Lyaudet@gmail.com
 9  author_full_name=Laurent Frédéric Bernard François Lyaudet
10  author_last_name=Lyaudet
11  author_name=Laurent Lyaudet
12  author_website=https://lyaudet.eu/laurent/
13  acknowledgments=Merci Dieu !
14  acknowledgments=Merci Père ! Merci Seigneur ! Merci Saint Esprit !
15  grammar_or_spell_checker_command=more
```

2.45 build_and_checks_variables/licenses_notes.txt

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

2.46 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
```

```
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}/${LFBFL_common_file_name}"
68    local LFBFL_correct_sha512
69    LFBFL_correct_sha512='d62745fe50f7d7b2c5df5472232cec2412ba2c6dbca34'
70    LFBFL_correct_sha512+='88649970644be19f23c661484a366bae21cd1760dfba'
71    LFBFL_correct_sha512+='0b25b939d082430c91fdadf5a1f68c67390bf7f'
72    wget_sha512 "${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 "$@"
```

2.47   git_helpers/git_checks.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 2023-2025 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    }
```

2.48   git_helpers/post-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  # 2024-05-31T01:49+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
```

2.49 git_helpers/post_commit_renaming_comment.libr.sh

```bash
#!/usr/bin/env bash
# This file is part of DevOrSysAdminScripts library.
#
# DevOrSysAdminScripts is free software:
# you can redistribute it and/or modify it under the terms
# of the GNU General Public License
# as published by the Free Software Foundation,
# either version 3 of the License,
# or (at your option) any later version.
#
# DevOrSysAdminScripts is distributed in the hope
# that it will be useful,
# but WITHOUT ANY WARRANTY;
# without even the implied warranty of
# MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
# See the GNU General Public License for more details.
#
# You should have received a copy of
# the GNU General Public License
# along with DevOrSysAdminScripts.
# If not, see <https://www.gnu.org/licenses/>.
#
# ©Copyright 2023-2025 Laurent Frédéric Bernard François Lyaudet
# 2024-05-31T01:49+02:00: This file was renamed from
# "post_commit_renaming_comment.libr.sh"
# to
# "post_commit_renaming_comment.libr.sh".
# 2024-05-31T01:49+02:00: This file was moved from
# "."
# to
# "./git_helpers".
# This file was renamed from "post_commit_renaming_comment"
# to "post_commit_renaming_comment.libr.sh".
# (Before first commit it seems. But I had the old name in listing.)

LFBFL_this_file_path=$(realpath "${BASH_SOURCE[0]}")
LFBFL_this_file_directory=$(dirname "${LFBFL_this_file_path}")
LFBFL_some_directory="${LFBFL_this_file_directory}/../"
pushd .
# shellcheck disable=SC2164
cd "${LFBFL_some_directory}"
# shellcheck disable=SC1091
source "build_and_checks_dependencies/strings_functions.libr.sh"
# shellcheck disable=SC2164
```

```
45  popd
46
47  # Never forget that the worse security is the illusion of security
48  # (Kevin Mitnick). So, do not expect to have an accurate trackability
49  # of code history just because you use this post-commit hook or
50  # something else more evolved. This is useful but not a guarantee.
51  # For this reason, this function will only handle when all files
52  # impacted in the preceding commit are only renamed.
53  # It assumes that `diff` is the current default difference utility
54  # parametered with `git`. This point could be enhanced.
55  commit_a_file_renamed_comment(){
56    declare -i LFBFL_verbose=0
57    if [[ "$1" == "--verbose" ]]; then
58      echo "$0 commit_a_file_renamed_comment $*"
59      LFBFL_verbose=1
60    fi
61    readonly LFBFL_verbose
62
63    declare -i LFBFL_log_directory_change=0
64    if [[ "$2" == "--log-directory-change" ]]; then
65      LFBFL_log_directory_change=1
66    fi
67    readonly LFBFL_log_directory_change
68
69    declare -i LFBFL_max_comment_line_length=70
70    if [[ -n "$3" ]]; then
71      LFBFL_max_comment_line_length="$3"
72    fi
73    readonly LFBFL_max_comment_line_length
74    # shellcheck disable=SC2250
75    if [[ $LFBFL_verbose -eq 1 ]]; then
76      echo "LFBFL_log_directory_change: ${LFBFL_log_directory_change}"
77      echo\
78       "LFBFL_max_comment_line_length: ${LFBFL_max_comment_line_length}"
79    fi
80    #----------------------------------------------------------------
81
82    # shellcheck disable=SC2155
83    declare -r LFBFL_renaming_lines=$(
84      git log -p -1 | grep 'diff --git' -A 1
85    )
86    # shellcheck disable=SC2250
87    if [[ $LFBFL_verbose -eq 1 ]]; then
88      echo "LFBFL_renaming_lines: ${LFBFL_renaming_lines}"
89    fi
90
```

```
91   declare -a LFBFL_renaming_lines_array
92   mapfile -t LFBFL_renaming_lines_array <<< "${LFBFL_renaming_lines}"
93   readonly LFBFL_renaming_lines_array
94
95   # shellcheck disable=SC2155
96   declare -r LFBFL_timestamp=$(date --iso-8601="minute")
97   # shellcheck disable=SC2250
98   if [[ $LFBFL_verbose -eq 1 ]]; then
99     echo "LFBFL_timestamp: ${LFBFL_timestamp}"
100  fi
101  get_split_score_after_before_simple\
102    "${LFBFL_max_comment_line_length}" _
103  # shellcheck disable=SC2154
104  LFBFL_split_score_command1="${get_split_score_after_before_result}"
105  # shellcheck disable=SC2154
106  LFBFL_split_score_command_properties1=\
107 "${get_split_score_after_before_result2}"
108  get_split_score_after_before_simple\
109    "${LFBFL_max_comment_line_length}" /
110  # shellcheck disable=SC2154
111  LFBFL_split_score_command2="${get_split_score_after_before_result}"
112  # shellcheck disable=SC2154
113  LFBFL_split_score_command_properties2=\
114 "${get_split_score_after_before_result2}"
115  declare -i LFBFL_renaming_happened=0
116  declare -i LFBFL_i
117  # declare -r LFBFL_special_file_name="files_names_listing.txt"
118  declare -r LFBFL_sfn="files_names_listing.txt"
119  for ((LFBFL_i=0; LFBFL_i<${#LFBFL_renaming_lines_array[@]};)); do
120    # shellcheck disable=SC2250
121    local LFBFL_diff_line="${LFBFL_renaming_lines_array[$LFBFL_i]}"
122    LFBFL_i=$((LFBFL_i + 1))
123    # shellcheck disable=SC2250
124    local\
125      LFBFL_similarity_line="${LFBFL_renaming_lines_array[$LFBFL_i]}"
126    LFBFL_i=$((LFBFL_i + 1))
127    # We need to increment 3 times since grep adds "--" lines between.
128    LFBFL_i=$((LFBFL_i + 1))
129    # shellcheck disable=SC2250
130    if [[ $LFBFL_verbose -eq 1 ]]; then
131      echo "LFBFL_diff_line: ${LFBFL_diff_line}"
132      echo "LFBFL_similarity_line: ${LFBFL_similarity_line}"
133    fi
134    if [[ "${LFBFL_similarity_line:17:4}" == "100%" ]]; then
135      # Extract old file name from diff line. -----------------------
136      # shellcheck disable=SC2155
```

```
137        local LFBFL_old_file_path=$(
138          echo "${LFBFL_diff_line}" | cut -d ' ' -f 3
139        )
140        # It starts by "a/".
141        LFBFL_old_file_path=".${LFBFL_old_file_path:1}"
142        # shellcheck disable=SC2155
143        local LFBFL_old_file_name=$(basename "${LFBFL_old_file_path}")
144        # shellcheck disable=SC2155
145        local LFBFL_old_file_directory=$(
146          dirname "${LFBFL_old_file_path}"
147        )
148        # Extract new file name from diff line. -----------------------
149        # shellcheck disable=SC2155
150        local LFBFL_new_file_path=$(
151          echo "${LFBFL_diff_line}" | cut -d ' ' -f 4
152        )
153        # It starts by "b/".
154        LFBFL_new_file_path=".${LFBFL_new_file_path:1}"
155        # shellcheck disable=SC2155
156        local LFBFL_new_file_name=$(basename "${LFBFL_new_file_path}")
157        # shellcheck disable=SC2155
158        local LFBFL_new_file_directory=$(
159          dirname "${LFBFL_new_file_path}"
160        )
161        # shellcheck disable=SC2250
162        if [[ $LFBFL_verbose -eq 1 ]]; then
163          echo "LFBFL_old_file_path: ${LFBFL_old_file_path}"
164          echo "LFBFL_old_file_name: ${LFBFL_old_file_name}"
165          echo "LFBFL_old_file_directory: ${LFBFL_old_file_directory}"
166          echo "LFBFL_new_file_path: ${LFBFL_new_file_path}"
167          echo "LFBFL_new_file_name: ${LFBFL_new_file_name}"
168          echo "LFBFL_new_file_directory: ${LFBFL_new_file_directory}"
169        fi
170        # Extract "LFBFL_extension" with smart guessing for .tpl -------
171        # and set prefix for line with ©Copyright. --------------------
172        local LFBFL_useful_file_name="${LFBFL_new_file_name}"
173        local LFBFL_extension="${LFBFL_useful_file_name##*.}"
174        # shellcheck disable=SC2250
175        if [[ $LFBFL_verbose -eq 1 ]]; then
176          echo "LFBFL_useful_file_name: ${LFBFL_useful_file_name}"
177          echo "LFBFL_extension: ${LFBFL_extension}"
178        fi
179        declare -i LFBFL_j
180        for ((LFBFL_j=0; LFBFL_j<3; ++LFBFL_j)); do
181          if [[ "${LFBFL_extension}" != "tpl" ]]; then
182            break
```

```
183      fi
184      LFBFL_useful_file_name="${LFBFL_useful_file_name:0:-4}"
185      LFBFL_extension="${LFBFL_useful_file_name##*.}"
186      # shellcheck disable=SC2250
187      if [[ $LFBFL_verbose -eq 1 ]]; then
188        echo "LFBFL_useful_file_name: ${LFBFL_useful_file_name}"
189        echo "LFBFL_extension: ${LFBFL_extension}"
190      fi
191    done
192    local LFBFL_comment_prefix=""
193    if [[ "${LFBFL_extension}" == "sh" ]]; then
194      LFBFL_comment_prefix="# "
195    fi
196    if [[ "${LFBFL_extension}" == "sql" ]]; then
197      LFBFL_comment_prefix="-- "
198    fi
199    if [[ "${LFBFL_extension}" == "tex" ]]; then
200      LFBFL_comment_prefix="% "
201    fi
202    if [[ "${LFBFL_useful_file_name}" == "${LFBFL_sfn}" ]]; then
203      LFBFL_comment_prefix="// "
204    fi
205    # shellcheck disable=SC2250
206    if [[ $LFBFL_verbose -eq 1 ]]; then
207      echo "LFBFL_comment_prefix: ${LFBFL_comment_prefix}"
208    fi
209    #------------------------------------------------------------
210    # Split if necessary old_file_name, new_file_name, etc. to have
211    # comment lines below max_comment_line_length.
212    local LFBFL_comment_prefix2="${LFBFL_comment_prefix}"'"'
213    # -----
214    local LFBFL_old_file_name2="${LFBFL_comment_prefix2}"
215    LFBFL_old_file_name2+="${LFBFL_old_file_name}"
216    repeated_split_last_line "${LFBFL_old_file_name2}"\
217      "${LFBFL_comment_prefix2}" "${LFBFL_max_comment_line_length}"\
218      '"' "${LFBFL_split_score_command1}"\
219      "${LFBFL_split_score_command_properties1}"
220    # shellcheck disable=SC2154
221    LFBFL_old_file_name2="${repeated_split_last_line_result}"
222    # -----
223    local LFBFL_old_file_directory2="${LFBFL_comment_prefix2}"
224    LFBFL_old_file_directory2+="${LFBFL_old_file_directory}"
225    repeated_split_last_line "${LFBFL_old_file_directory2}"\
226      "${LFBFL_comment_prefix2}" "${LFBFL_max_comment_line_length}"\
227      '"' "${LFBFL_split_score_command2}"\
228      "${LFBFL_split_score_command_properties2}"
```

```
229    # shellcheck disable=SC2154
230    LFBFL_old_file_directory2="${repeated_split_last_line_result}"
231    # -----
232    local LFBFL_new_file_name2="${LFBFL_comment_prefix2}"
233    LFBFL_new_file_name2+="${LFBFL_new_file_name}"
234    repeated_split_last_line "${LFBFL_new_file_name2}"\
235      "${LFBFL_comment_prefix2}" "${LFBFL_max_comment_line_length}"\
236      '"' "${LFBFL_split_score_command1}"\
237      "${LFBFL_split_score_command_properties1}"
238    # shellcheck disable=SC2154
239    LFBFL_new_file_name2="${repeated_split_last_line_result}"
240    # -----
241    local LFBFL_new_file_directory2="${LFBFL_comment_prefix2}"
242    LFBFL_new_file_directory2+="${LFBFL_new_file_directory}"
243    repeated_split_last_line "${LFBFL_new_file_directory2}"\
244      "${LFBFL_comment_prefix2}" "${LFBFL_max_comment_line_length}"\
245      '"' "${LFBFL_split_score_command2}"\
246      "${LFBFL_split_score_command_properties2}"
247    # shellcheck disable=SC2154
248    LFBFL_new_file_directory2="${repeated_split_last_line_result}"
249    # Create new comments strings. -------------------------------
250    local LFBFL_new_comment=""
251    if [[ "${LFBFL_new_file_name2}" != "${LFBFL_old_file_name2}" ]];
252    then
253      LFBFL_new_comment="${LFBFL_comment_prefix}"
254      LFBFL_new_comment+="${LFBFL_timestamp}"
255      LFBFL_new_comment+=": This file was renamed from\n"
256      LFBFL_new_comment+="${LFBFL_old_file_name2}"'"'"\n'
257      LFBFL_new_comment+="${LFBFL_comment_prefix}to\n"
258      LFBFL_new_comment+="${LFBFL_new_file_name2}"'"'.'
259    fi
260    # shellcheck disable=SC2250
261    if [[ $LFBFL_log_directory_change -eq 1 ]] && [[\
262      "${LFBFL_new_file_directory}"\
263      != "${LFBFL_old_file_directory}"\
264    ]]; then
265      LFBFL_new_comment+="\n${LFBFL_comment_prefix}"
266      LFBFL_new_comment+="${LFBFL_timestamp}"
267      LFBFL_new_comment+=": This file was moved from\n"
268      LFBFL_new_comment+="${LFBFL_old_file_directory2}"'"'"\n'
269      LFBFL_new_comment+="${LFBFL_comment_prefix}to\n"
270      LFBFL_new_comment+="${LFBFL_new_file_directory2}"'"'.'
271    fi
272    # shellcheck disable=SC2250
273    if [[ $LFBFL_verbose -eq 1 ]]; then
274      echo "LFBFL_new_comment: ${LFBFL_new_comment}"
```

```
275        fi
276        # Find line with ©Copyright. ---------------------------------
277        # shellcheck disable=SC2155
278        declare -i LFBFL_copyright_line_number=$(
279          grep -n '©Copyright' "${LFBFL_new_file_path}"\
280          | head --lines=1\
281          | cut -d ':' -f 1
282        )
283        # shellcheck disable=SC2250
284        if [[ $LFBFL_verbose -eq 1 ]]; then
285          echo "LFBFL_copyright_line_number:"\
286               " ${LFBFL_copyright_line_number}"
287        fi
288        if [[ ${LFBFL_copyright_line_number} -eq 0 ]]; then
289          local LFBFL_send_summary_2="ATTENTION: No line with copyright"
290          notify-send "${LFBFL_send_summary_2}"\
291            "${LFBFL_send_summary_2} for: ${LFBFL_new_comment}"
292          # shellcheck disable=SC2250
293          if [[ $LFBFL_verbose -eq 1 ]]; then
294            echo "No copyright line. Skipping file."
295          fi
296          continue
297        fi
298        # Get total number of lines. ---------------------------------
299        # shellcheck disable=SC2002,SC2155
300        declare -i LFBFL_line_count=$(
301          cat "${LFBFL_new_file_path}" | wc -l
302        )
303        # shellcheck disable=SC2250
304        if [[ $LFBFL_verbose -eq 1 ]]; then
305          echo "LFBFL_line_count: ${LFBFL_line_count}"
306        fi
307        # Compute number of lines after. -----------------------------
308        # shellcheck disable=SC2155
309        declare -i LFBFL_lines_after=$((
310          LFBFL_line_count - LFBFL_copyright_line_number
311        ))
312        # shellcheck disable=SC2250
313        if [[ $LFBFL_verbose -eq 1 ]]; then
314          echo "LFBFL_lines_after: ${LFBFL_lines_after}"
315        fi
316        # Update file. -----------------------------------------------
317        local LFBFL_temp_file_path="${LFBFL_new_file_path}.LFBFL.temp"
318        head --lines="${LFBFL_copyright_line_number}"\
319          "${LFBFL_new_file_path}" > "${LFBFL_temp_file_path}"
320        echo -e "${LFBFL_new_comment}" >> "${LFBFL_temp_file_path}"
```

```
321    tail --lines="${LFBFL_lines_after}"\
322      "${LFBFL_new_file_path}" >> "${LFBFL_temp_file_path}"
323    mv "${LFBFL_temp_file_path}" "${LFBFL_new_file_path}"
324    # Add file to stage. ------------------------------------------
325    git add "${LFBFL_new_file_path}"
326    LFBFL_renaming_happened=1
327   fi
328  done
329  readonly LFBFL_renaming_happened
330  if [[ LFBFL_renaming_happened -eq 1 ]]; then
331    # Commit ------------------------------------------------------
332    local LFBFL_message="commit_a_file_renamed_comment()"
333    LFBFL_message+=" post-commit hook, ${LFBFL_timestamp}."
334    readonly LFBFL_message
335    git commit --message="${LFBFL_message}"
336  fi
337 }
```

2.50   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
```

2.51   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  ----------------------------------------------------------------------
```

2.52 README.md.tpl

```
# DevOrSysAdminScripts

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|                     **Some "small" useful scripts**              |
|:---------------------------------------------------------------:|
| **for enhancing development or system-administrators tasks** |

Currently, the biggest part of this repository is in
a suite of shell scripts about build and checks that
I use in some of my other repositories.

I tried to follow some conventions for my bash code:

- I tried to encapsulate most of the code in functions.
- Unless used as return values, variables in functions are defined
  as local variables (`local` keyword or `declare`)
  with prefix "LFBFL_".
- When used as return values, variables in functions are defined
  as global variables (`declare -g`) with prefix
  "@function_name@_result_".
- Whenever a variable is no more modified after some point,
  add the keyword `readonly` or use `declare -r`.
- Whenever a variable will only contain integer values (or boolean
  values as 0 or 1), use `declare -i`.
- I named bash files with suffixes ".exec.sh" when the script can
  be runned
  (executable, abbreviation stops before a vowel).
- I named bash files with suffixes ".libr.sh" when the script contains
  only functions definitions
  (library, abbreviation stops before a vowel).
- When some ".exec.sh" code is encapsulated into functions,
  either these functions can be reused and go in some ".libr.sh" file,
  either they are truly specific to this script and they are kept
  in ".exec.sh" file.

But the files "pre-commit" and "post-commit" were not renamed,
since it is not possible to give them other names to use them as
pre-commit/post-commit hooks in `git`.
```

2.53   unicode.libr.php

```php
1   <?php
2   /*
3   This file is part of DevOrSysAdminScripts library.
4
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15  without even the implied warranty of
16  MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
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19  You should have received a copy of
```

```
27
28  function decimal_code_point_to_UTF8(
29    $i_code_point_in_decimal_notation
30  ){
31    // var_dump($i_code_point_in_decimal_notation);
32    // 0xxxxxxx ASCII
33    if($i_code_point_in_decimal_notation < 128){
34      return chr($i_code_point_in_decimal_notation);
35    }
36    $i_continuation_base_value = 128;
37    // 110xxxxx 10xxxxxx
38    if($i_code_point_in_decimal_notation < 256 * (2**3)){
39      $i_first_byte_base_value = 192;
40      $i_last_byte_significant_bits = (
41        $i_code_point_in_decimal_notation % (2**6)
42      );
43      $i_first_byte_significant_bits = (int) (
44        (
45          $i_code_point_in_decimal_notation
46          - $i_last_byte_significant_bits
47        ) / (2**6)
48      );
49      $s_result = chr(
50        $i_first_byte_base_value
51        + $i_first_byte_significant_bits
52      );
53      $s_result .= chr(
54        $i_continuation_base_value
55        + $i_last_byte_significant_bits
56      );
57      return $s_result;
58    }
59    // 1110xxxx 10xxxxxx 10xxxxxx
60    if($i_code_point_in_decimal_notation < 256 * 256){
61      $i_first_byte_base_value = 224;
62      $arr_arr_data_per_byte_reverse = [
63        ["i_bits" => 6, "i_base_value" => $i_continuation_base_value],
64        ["i_bits" => 6, "i_base_value" => $i_continuation_base_value],
65        ["i_bits" => 4, "i_base_value" => $i_first_byte_base_value],
```

112

```php
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       }
```

```php
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  }




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      }
```

```php
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
```

2.54   upgrade_build_and_checks.exec.sh

```bash
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# This file was renamed from "upgrade_build_and_checks.sh"
# to "upgrade_build_and_checks.exec.sh".

upgrade_build_and_checks(){
  local LFBFL_verbose=""
  if [[ "$1" == "--verbose" ]]; then
    echo "$0 $*"
    LFBFL_verbose="--verbose"
  fi
  readonly LFBFL_verbose
  (\
    cd build_and_checks_dependencies/\
    && ./update_common_build_and_checks.exec.sh "${LFBFL_verbose}"\
  )
  ./build_and_checks.exec.sh "." "${LFBFL_verbose}"
}

upgrade_build_and_checks "$@"
```

2.55 wget_sha512.libr.sh

```bash
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# ©Copyright 2023-2025 Laurent Frédéric Bernard François Lyaudet
# This file was renamed from "wget_sha512.sh"
# to "wget_sha512.libr.sh".

wget_sha512(){
  # $1 file_path
  # $2 download_URL
  # $3 correct_sha512
  # $4 optional --verbose
  local LFBFL_verbose=""
  if [[ "$4" == "--verbose" ]]; then
    echo "$0 wget_sha512 $*"
    LFBFL_verbose="--verbose"
  fi
  readonly LFBFL_verbose
  if [[ ! -f "$1" ]];
  then
    wget "${LFBFL_verbose}" -O "$1" "$2"
  fi
  # shellcheck disable=SC2312
  declare -r \
    LFBFL_present_sha512=$(sha512sum "$1" | cut -f1 -d' ')
```

```
45    if [[ "${LFBFL_present_sha512}" != "$3" ]];
46    then
47      echo "$1 does not have correct sha512"
48      echo "wanted $3"
49      echo "found ${LFBFL_present_sha512}"
50      exit
51    fi
52  }
```

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