DevOrSysAdminScripts

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Abstract

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

Current version: 2024-05-19 Current number of commits: 127

Current git SHA1: 2defb27ef681186148879ba0693e96ef0f6fe747 Code lines: 4502 total lines, 4023 not empty lines, 479 empty lines.

1 Files tree

```
- build_and_checks_dependencies
  --- build_and_checks.sh.tpl
    - build_md_from_printable_md.sh
   - call_split_score_after_before_or_before_after.php
    - check_shell_scripts_beginnings.sh
    - check_URLs.sh
    - common_build_and_checks.sh
    - common_build_and_checks.sh.tpl

    comparisons.sh

    - create PDF.sh
    - generate_from_template.sh
    get_common_text_glob_patterns.sh
    grammar_and_spell_check.sh
    - licenses_templates
       build_licenses_templates.sh
       - license_file_header_GPLv3+.c.tpl
       — license_file_header_GPLv3+.py.tpl
       - license_file_header_GPLv3+.sh.tpl
        - license_file_header_GPLv3+.tex.tpl
       - license_file_header_GPLv3+.tpl
```

```
— license_file_header_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.sh
      lines_filters.sh
      - lines_maps.sh
      - listings
        files_listing.tex.tpl
          - files_names_listing.txt
       update_or_check_files_names_listing.sh
     - overwrite_if_not_equal.sh
      python_black_complement.sh
     — python_isort_complement.sh
     — split_line_at_most.php
    — string_functions.sh
      - too_long_code_lines.sh
    update_common_build_and_checks.sh
  build_and_checks.sh
 — COPYING
  - COPYING.LESSER

    DevOrSysAdminScripts.html

  - DevOrSysAdminScripts.pdf
 — git_checks.sh
  - latex
    — DevOrSysAdminScripts.tex
   DevOrSysAdminScripts.tex.tpl

    LiensUtiles.txt

    pre-commit

  - README.md
  - README.md.tpl
  repository_data.txt
 - unicode.php
  upgrade_build_and_checks.sh
 - wget_sha512.sh
5 directories, 56 files
[ 12K May 19 03:47] ./
  - [4.0K May 19 03:47] build_and_checks_dependencies/
  - [1.5K May 17 01:12] build_and_checks.sh.tpl*
```

```
— [1.7K May 16 13:46] build_md_from_printable_md.sh*
   — [1.5K May 17 17:20] *
  call_split_score_after_before_or_before_after.php**
   — [1.2K May 16 19:53] check_shell_scripts_beginnings.sh
   - [1.9K May 16 15:23] check_URLs.sh
   — [9.1K May 19 03:47] common_build_and_checks.sh*
    - [6.1K May 18 06:48] common_build_and_checks.sh.tpl
    - [3.0K May 18 18:42] comparisons.sh
   — [8.1K May 19 03:38] create_PDF.sh*
   - [2.8K May 18 23:57] generate_from_template.sh
    - [1.7K May 16 02:42] get_common_text_glob_patterns.sh
   — [1.5K May 16 20:01] grammar_and_spell_check.sh
    - [4.0K May 19 03:47] licenses_templates/
      [5.1K May 16 19:58] build licenses templates.sh*
        - [ 713 May 16 14:58] license_file_header_GPLv3+.c.tpl
       — [ 715 May 16 14:58] license_file_header_GPLv3+.py.tpl
       — [ 747 May 16 14:58] license_file_header_GPLv3+.sh.tpl
        - [ 747 May 16 14:58] license_file_header_GPLv3+.tex.tpl
       - [ 707 May 14 23:23] license_file_header_GPLv3+.tpl
       - [ 782 May 16 14:58] license_file_header_LGPLv3+.c
       — [ 734 May 16 14:58] license_file_header_LGPLv3+.c.tpl
       - [ 784 May 16 14:58] license_file_header_LGPLv3+.py
       - [ 736 May 16 14:58] license_file_header_LGPLv3+.py.tpl
       — [ 816 May 16 14:58] license_file_header_LGPLv3+.sh
       — [ 768 May 16 14:58] license_file_header_LGPLv3+.sh.tpl
       - [ 816 May 16 14:58] license_file_header_LGPLv3+.tex
        - [ 768 May 16 14:58] license_file_header_LGPLv3+.tex.tpl
       — [ 728 May 14 23:24] license_file_header_LGPLv3+.tpl
   — [1.7K May 16 15:15] lines_counts.sh
    - [5.8K May 19 00:37] lines_filters.sh
    - [2.7K May 18 06:43] lines_maps.sh
    - [4.0K May 19 03:46] listings/
      - [ 13K May 19 03:40] files_listing.tex.tpl
        - [2.9K May 19 03:05] files_names_listing.txt
     [3.6K May 19 02:16] *
     update_or_check_files_names_listing.sh**
    - [1.1K May 16 15:32] overwrite_if_not_equal.sh
    - [1.3K May 16 02:43] python_black_complement.sh
    - [1.5K May 16 15:27] python_isort_complement.sh
   — [2.0K May 17 16:28] split_line_at_most.php
    - [7.0K May 19 02:45] string_functions.sh
    - [1.2K May 16 15:32] too_long_code_lines.sh
   — [2.5K May 18 06:45] update_common_build_and_checks.sh*
- [1.6K May 19 03:47] build and checks.sh*
- [ 34K May 6 00:49] COPYING
- [7.5K May 6 00:49] COPYING.LESSER
```

5 directories, 56 files

2 Listing of files

The following source code is covered by LGPLv3+. The text of the license is available at: https://www.gnu.org/licenses/. The git repository of this source code is also available at: https://github.com/LLyaudet/DevOrSysAdminScripts/.

${\bf 2.1} \quad build_and_checks_dependencies/build_and_checks.sh.tpl$

```
#!/usr/bin/env bash
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```

```
# If not, see <a href="https://www.gnu.org/licenses/">https://www.gnu.org/licenses/>.</a>
  # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
  source ./wget_sha512.sh
25
  mkdir -p build_and_checks_dependencies/licenses_templates
  mkdir -p build_and_checks_dependencies/listings
   subdir="build_and_checks_dependencies"
  personal_github="https://raw.githubusercontent.com/LLyaudet/"
  dependencies="DevOrSysAdminScripts/main/build_and_checks_dependencies"
  URL_beginning="$personal_github$dependencies"
  script="$URL_beginning/common_build_and_checks.sh"
  @sha512 common build and checks.sh@
  wget_sha512 "./$subdir/common_build_and_checks.sh" "$script"\
     "$correct_sha512"
  chmod +x "./$subdir/common_build_and_checks.sh"
  cwd="."
42 if [[ -n "$1" ]];
  t.hen
     cwd="$1"
  fi
   ./build_and_checks_dependencies/common_build_and_checks.sh "$cwd"
```

2.2 build_and_checks_dependencies/build_md_from_printable_md.sh

```
#!/usr/bin/env bash
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```

```
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   # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
   subdir="build and checks dependencies"
25
   source "./$subdir/overwrite_if_not_equal.sh"
  sed_expression='s/([[a-zA-Z0-9:-]*\]: [^\n\]*)\\n/\1/Mg'
  sed_expression+=';s/(<http[^\n\\]*)\\n/\1/Mg'</pre>
   sed expression+=';s/(- \langle http[^\n \rangle) \rangle / n//1/Mg'
   pushd .
  if [[ -n "$1" ]];
  then
     cd "$1"
  if [[ -n "$2" ]];
   t.hen
     file_name="$2"
   else
     file name="README"
  fi
   if [[ -f "${file_name}.md.tpl" ]];
     sed -Ez "$sed expression" "${file name}.md.tpl"\
       > "${file_name}_temp1.md"
48
     sed -Ez "$sed_expression" "${file_name}_temp1.md"\
       > "${file_name}_temp2.md"
     sed -Ez "$sed_expression" "${file_name}_temp2.md"\
51
       > "${file_name}_temp3.md"
     sed -Ez "$sed_expression" "${file_name}_temp3.md"\
       > "${file_name}_temp4.md"
     overwrite_if_not_equal "${file_name}.md" "${file_name}_temp4.md"
     rm "${file_name}_temp1.md" "${file_name}_temp2.md"\
       "${file_name}_temp3.md"
  else
     echo "No file ${file name}.md.tpl"
  fi
  popd
```

2.3 build_and_checks_dependencies/call_split_score_after_before_or_before_after.php

```
#!/usr/bin/php
  <?php
  /*
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  @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
  */
26
  require_once(
   './build and checks dependencies/split line at most.php'
  );
31
  /*
32
  php -r\
  $'require_once(\'./build_and_checks_dependencies/'\
  $'split_line_at_most.php\'); echo(generate_split_score_after_before'\
  $'(70, [\'/\'])(\'/\', 60, true));'
  $after_before = $argv[1];
  if($after before){
41
    echo(
       generate_split_score_after_before(
       // $argv[1], array_slice($argv, 5)
```

```
//) ($argv[3], $argv[2], $argv[4])

// $argv[1], explode(',', $argv[2]),

//) ($argv[3], $argv[4], $argv[5])

(int) $argv[2], explode(',', $argv[3]),

($argv[4], (int) $argv[5], $argv[6])

);

exit();

echo(

generate_split_score_before_after(
    (int) $argv[2], explode(',', $argv[3]),

) ($argv[4], (int) $argv[5], $argv[6])

($argv[4], (int) $argv[5], $argv[6])
```

2.4 build_and_checks_dependencies/check_shell_scripts_beginnings.sh

```
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 # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
check_one_shell_script_beginning() {
   LFBFL_file_name=$ (basename "$1")
   if [[ "$LFBFL_file_name" =~ license_file_header_.*\.sh ]];
   then
     return 0
```

```
fi
diff <(head -n 1 "$1") <(echo '#!/usr/bin/env bash')

check_shell_scripts_beginnings() {
    shopt -s globstar
    for check_shell_scripts_beginnings_var_i in **/*.sh; do
    check_one_shell_scripts_beginning\
    "$check_shell_scripts_beginning\
    "$check_shell_scripts_beginnings_var_i"

done

done
</pre>
```

2.5 build_and_checks_dependencies/check_URLs.sh

```
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subdir="build_and_checks_dependencies"
source "./$subdir/get_common_text_glob_patterns.sh"
check_URLs(){
  get_common_text_files_glob_patterns
  declare -A LFBFL_substitutions
```

```
LFBFL_substitutions=(\
       ["http://www.gnu.org/licenses/"]="https://www.gnu.org/licenses/"\
33
34
     for LFBFL_pattern in "${common_file_patterns[@]}"; do
       [ "$1" != "-v" ] || echo "Iterating on pattern: $LFBFL_pattern"
      find . -type f -name "$LFBFL_pattern" -printf '%P\n'\
         | xargs grep -H 'http:'\
         | grep -v "^[^:]*check_URLs.sh:"
       for LFBFL_file_name in $LFBFL_pattern; do
         [ -f "$LFBFL_file_name" ] || continue
         LFBFL_base_file_name=$(basename "$LFBFL_file_name")
         [ "$LFBFL_base_file_name" != "check_URLs.sh" ] || continue
         [ "$1" != "-v" ] || echo "Handling the file: $LFBFL file name"
         for LFBFL substitution in "${!LFBFL substitutions[@]}"; do
           LFBFL substitution2=\
  ${LFBFL_substitutions[$LFBFL_substitution]}
           if grep -q "$LFBFL_substitution" "$LFBFL_file_name"; then
             sed -i "s|$LFBFL_substitution|$LFBFL_substitution2|g"\
               "$LFBFL_file_name"
51
           fi
         done
      done
    done
  }
```

2.6 build_and_checks_dependencies/common_build_and_checks.sh

```
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  # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
23
  source ./wget_sha512.sh
  personal github="https://raw.githubusercontent.com/LLyaudet/"
  dependencies="DevOrSysAdminScripts/main/build and checks dependencies"
  URL beginning="$personal github$dependencies"
  subdir="build_and_checks_dependencies"
31
  script="$URL beginning/build md from printable md.sh"
  correct sha512='5231a90246a58da4bb27440edd3281c02b05e29cd9b1bfe340a25'
  correct_sha512+='7eefcf7df82f70ed3ce95a112bc03710839b2dfde066317c938f'
  correct_sha512+='302bc599f8d293d45910b8a'
  wget_sha512 "./$subdir/build_md_from_printable_md.sh" "$script"\
     "$correct_sha512"
  chmod +x "./$subdir/build_md_from_printable_md.sh"
  script="$URL_beginning/check_shell_scripts_beginnings.sh"
  correct sha512='d94931d4b20b7987aed4dd02663ad5feba3389c8fdea2fdbfb91d'
  correct_sha512+='0b71eed4ef80c8d4a8eef5c147837183b2c9ed6d577cda3ad67f'
  correct sha512+='6d6485a015eac56fa0daa3b'
  wget sha512 "./$subdir/check shell scripts beginnings.sh" "$script"\
     "$correct sha512"
  script="$URL_beginning/check_URLs.sh"
  correct sha512='d83cac890cc02fabaed5612ff59dd581e4e42e4f9de5710ad80bb'
  correct sha512+='41db46f9e2ec6f5bddb6006e209e81d45432a908717d10188ebc'
  correct sha512+='a623b1493e4098dd78cd80b'
  wget_sha512 "./$subdir/check_URLs.sh" "$script" "$correct_sha512"
script="$URL_beginning/comparisons.sh"
ss correct_sha512='0ee812694f1cb1666f02351e96642445c18b9b288bebfa88a6ddd'
  correct sha512+='dbe465d8bc2413f08cce766c4f02ff66c95bdd3d6e448069520f'
  correct sha512+='17ee0c04c19a5c52c3c7380'
  wget_sha512 "./$subdir/comparisons.sh" "$script" "$correct_sha512"
  script="$URL_beginning/create_PDF.sh"
  correct sha512='95b4a64ad3207a36c6168d333cd79ef6e8e57250373d48068b20a'
correct sha512+='294796065e9c0c348e198971b068d2b98d68fa6efe023fe09d7c'
  correct sha512+='99822bbdac7e9041a619c41'
  wget_sha512 "./$subdir/create_PDF.sh" "$script" "$correct_sha512"
```

```
chmod +x "./$subdir/create_PDF.sh"
  script="$URL beginning/generate from template.sh"
  correct sha512='36c92a15b93f199d28476bfa83612e3e9dd5153b9cc8ed2013bf6'
   correct sha512+='e8e87a041e5f07935357d1e9dce76b3901ecf9d25eee8d99e47c'
   correct_sha512+='19cc6a1384a0fc2feb76b49'
   wget_sha512 "./$subdir/generate_from_template.sh" "$script"\
     "$correct_sha512"
73
   script="$URL beginning/get common text glob patterns.sh"
   correct sha512='cd341e8fd1074d53f6ea88b332fc4375f06af0e4c0b56e1ddb39c'
   correct sha512+='8ab988ea5f0c21ec4088fe1946ae44f3ea7ba394f558c03a446f'
   correct sha512+='0971482a4a7a8d6fe041153'
   wget sha512 "./$subdir/get common text glob patterns.sh" "$script"\
     "$correct sha512"
   script="$URL_beginning/grammar_and_spell_check.sh"
   correct sha512='69dcb77061f2e560d6268622ae72ef11d412b996520b7321b1f20'
  correct_sha512+='427fb4eda6d2fb5909938da6c0af4099921190298d372466dea3'
   correct_sha512+='b45805f0c271da852578075'
   wget_sha512 "./$subdir/grammar_and_spell_check.sh" "$script"\
     "$correct sha512"
   URL_beginning2="$URL_beginning/licenses_templates"
   subdir2="$subdir/licenses_templates"
  script="$URL beginning2/build licenses templates.sh"
  correct sha512='6cc01a243d5561a8be48af1867eda7ce05b28470abe72e0f20cf9'
  correct sha512+='06db230aed50a886b632cb722a1b7c20e97fd31e70686da2db88'
   correct sha512+='f467fdf5479199f15ed0df8'
   wget sha512 "./$subdir2/build licenses templates.sh" "$script"\
     "$correct sha512"
   chmod +x "./$subdir2/build licenses templates.sh"
   script="$URL_beginning2/license_file_header_GPLv3+.tpl"
   correct sha512='2bdef9a729a5a9ca5ed87ef8a518877c5ee6b31b4533608660316'
   correct_sha512+='a4e595fb31465a4847f4d53a2f7264118bd4eab7c1d1892e00bc'
   correct_sha512+='1861455ed02898f194db067'
101
   wqet sha512 "./$subdir2/license_file_header_GPLv3+.tpl" "$script"\
     "$correct sha512"
103
   script="$URL_beginning2/license_file_header_LGPLv3+.tpl"
105
   correct_sha512='265fd0d086b48ab798f35a072335a4976e4eda8c256febba6c77c'
   correct sha512+='98ca86cdd844c6ac150c3445c80debbb3fc2574b5fceeeaf79ec'
   correct_sha512+='734a759bdef5fe798067c62'
   wget sha512 "./$subdir2/license file header LGPLv3+.tpl" "$script"\
109
     "$correct sha512"
```

```
111
   script="$URL_beginning/lines_counts.sh"
   correct sha512='4aa984d1a3709d3ed6ad5a4accc5e1d9cee2f174730ef232dbcd6'
   correct sha512+='1d3661191e1904a0072fdb818c96e4aff5e58d5d7b0b024a874f'
   correct sha512+='17acb35d98bbde10fb6dacd'
   wget_sha512 "./$subdir/lines_counts.sh" "$script" "$correct_sha512"
117
   script="$URL_beginning/lines_filters.sh"
   correct sha512='a144c6e57df8a6dc4e99aecefcef3e5d1f93ef22a76f0089bb6e1'
119
   correct sha512+='be6189193a1ea4ac316173a36b83a2c92f75856e6cec97a2bbcf'
   correct sha512+='ba23110239e5a1d10455bf6'
   wget sha512 "./$subdir/lines filters.sh" "$script" "$correct sha512"
   script="$URL beginning/lines maps.sh"
124
   correct sha512='26db8b6d3d4de7dd4286e620efc1b3621f406ca13f3336da8f29b'
   correct sha512+='6f60d3e836f8b35cd7de9bd5f0366e46dd187bf977a7d7138df7'
   correct sha512+='bf1f59fb20a6aa3d2156352'
   wget_sha512 "./$subdir/lines_maps.sh" "$script" "$correct_sha512"
128
   URL_beginning3="$URL_beginning/listings"
130
   subdir3="$subdir/listings"
   script="$URL_beginning3/update_or_check_files_names_listing.sh"
   correct_sha512='771c73acad73dd998381e5051dfd816004ada2ca5a695bebe0735'
   correct sha512+='f8f80c215ef9e1ea35d8b45208792cfeac6a049f29e1bbfa668e'
   correct_sha512+='31be7b93f60f79c98b37425'
   wget sha512 "./$subdir3/update or check files names listing.sh"
     "$script" "$correct sha512"
   chmod +x "./$subdir3/update or check files names listing.sh"
138
139
   script="$URL_beginning3/files_names_listing.txt"
   correct sha512='19003318a81ac923b3053abb87dcf1d92b825cc0cf88da4285c4a'
   correct sha512+='5c7b73878c0fb0a8ca50a3ab0aa744bd872edfa3a91846189e23'
   correct sha512+='dd3e9a01430f22d8e369012'
   wget_sha512 "./$subdir3/files_names_listing.txt" "$script"\
     "$correct sha512"
145
   script="$URL_beginning/overwrite_if_not_equal.sh"
147
   correct sha512='afabf6f384e61920dbc575afb1519173ac2654b6180b9a28c5ffc'
   correct sha512+='173a05c6e6d4011d7bc8912da15caee923c9033d8355967920e4'
   correct_sha512+='d05e2cd575c3cf065fc8e40'
   wget_sha512 "./$subdir/overwrite_if_not_equal.sh" "$script"\
151
     "$correct_sha512"
153
  script="$URL_beginning/python_black_complement.sh"
   correct sha512='7152e9d01cc3c72371695635cd6866b2e13ce25f4842afb8e4e87'
   correct sha512+='b6447b26abafbdbc850f69946913b5b2c423b265c9066a2b4655'
```

```
correct_sha512+='6dea19c04a5416588423a74'
   wget_sha512 "./$subdir/python_black_complement.sh" "$script"\
     "$correct sha512"
159
   script="$URL_beginning/python_isort_complement.sh"
161
   correct_sha512='770e5ed16e4b5f6d61577794033161d361bc2eacea6d08a5c7b9a'
   correct sha512+='1577666cf655d1c947108adb9151d87f937471d30716a6d50d76'
163
   correct_sha512+='f84bbcf1f1620fb9ede4575'
   wget sha512 "./$subdir/python isort complement.sh" "$script"\
165
     "$correct sha512"
167
   script="$URL_beginning/too_long_code_lines.sh"
   correct sha512='a8716971f22a14160701b6e801c4f66220e2e1dd174f24e43775e'
   correct sha512+='e743aeaa4ee66dadae185e134c3554f8c37d8ee457d051336ed3'
   correct sha512+='430b734bcf80e8d5704064b'
   wget sha512 "./$subdir/too long code lines.sh" "$script"\
172
     "$correct sha512"
173
174
   shopt -s globstar
   source "./$subdir/check_shell_scripts_beginnings.sh"
   source "./$subdir/check_URLs.sh"
   source "./$subdir/comparisons.sh"
   source "./$subdir/generate_from_template.sh"
   source "./$subdir/get_common_text_glob_patterns.sh"
   source "./$subdir/lines_counts.sh"
  source "./$subdir/lines filters.sh"
   source "./$subdir/overwrite if not equal.sh"
   source "./$subdir/python_black_complement.sh"
   source "./$subdir/python_isort_complement.sh"
   source "./$subdir/too long code lines.sh"
   cwd="."
   if [[ -n "$1" ]];
   then
     cwd="$1"
191
   fi
192
193
   echo "Building license headers"
   ./$subdir2/build_licenses_templates.sh "$cwd"
195
   echo "Building README.md"
   ./$subdir/build_md_from_printable_md.sh "$cwd"
199
   pushd .
   cd "$cwd"
201
```

```
echo "Running isort"
   isort .
   python_isort_complement
   echo "Running black"
207
  black .
   python_black_complement
209
   find . -name "pyproject.toml" | relevant_find\
     | while read -r file name;
213
     if grep -q "Typing :: Typed" "$file_name"; then
       echo "Running mypy"
215
       mypy $(dirname "$file name")
216
     fi
217
   done
218
219
   echo "Analyzing too long lines"
220
   too_long_code_lines | relevant_grep | not_license_grep
222
   echo "Analyzing shell scripts beginnings"
   check_shell_scripts_beginnings | relevant_grep
224
   echo "Analyzing URLs"
   check_URLs | relevant_grep
228
   echo "Analyzing strange characters : hover over in doubt"
   usual_characters="\x00-\x7Fàâéèêëîïôç©"" └- | «»"
   grep --exclude-dir '.git' -nPrv "^[$usual_characters]*$" .\
     | grep --color='auto' -nP "[^$usual_characters]"
232
   echo "Creating the PDF file of the listing of the source code"
   ./build and checks dependencies/create PDF.sh
236
   popd
```

2.7 build_and_checks_dependencies/common_build_and_checks.sh.tpl

```
#!/usr/bin/env bash
# This file is part of DevOrSysAdminScripts library.
# 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 Lesser 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 Lesser General Public License for more details.
  # You should have received a copy of
  # the GNU Lesser General Public License
  # along with DevOrSysAdminScripts.
  # If not, see <a href="https://www.gnu.org/licenses/">https://www.gnu.org/licenses/>.</a>
  # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
  source ./wget_sha512.sh
  personal_github="https://raw.githubusercontent.com/LLyaudet/"
  dependencies="DevOrSysAdminScripts/main/build_and_checks_dependencies"
  URL_beginning="$personal_github$dependencies"
  subdir="build_and_checks_dependencies"
32
  script="$URL_beginning/build_md_from_printable_md.sh"
  @sha512 build md from printable md.sh@
  wget_sha512 "./$subdir/build_md_from_printable_md.sh" "$script"\
     "$correct sha512"
  chmod +x "./$subdir/build_md_from_printable_md.sh"
  script="$URL_beginning/check_shell_scripts_beginnings.sh"
  @sha512_check_shell_scripts_beginnings.sh@
  wget sha512 "./$subdir/check shell scripts beginnings.sh" "$script"\
    "$correct_sha512"
42
44 script="$URL_beginning/check_URLs.sh"
 @sha512_check_URLs.sh@
  wget_sha512 "./$subdir/check_URLs.sh" "$script" "$correct_sha512"
 script="$URL_beginning/comparisons.sh"
49 @sha512_comparisons.sh@
  wget_sha512 "./$subdir/comparisons.sh" "$script" "$correct_sha512"
script="$URL beginning/create PDF.sh"
93 @sha512 create PDF.sh@
  wget_sha512 "./$subdir/create_PDF.sh" "$script" "$correct_sha512"
```

```
chmod +x "./$subdir/create_PDF.sh"
  script="$URL beginning/generate from template.sh"
  @sha512_generate_from_template.sh@
  wget_sha512 "./$subdir/generate_from_template.sh" "$script"\
    "$correct_sha512"
  script="$URL_beginning/get_common_text_glob_patterns.sh"
  @sha512 get common text glob patterns.sh@
  wget_sha512 "./$subdir/get_common_text_glob_patterns.sh" "$script"\
    "$correct sha512"
  script="$URL_beginning/grammar_and_spell_check.sh"
  @sha512 grammar and spell check.sh@
  wget sha512 "./$subdir/grammar and spell check.sh" "$script"\
    "$correct sha512"
71
  URL_beginning2="$URL_beginning/licenses_templates"
  subdir2="$subdir/licenses_templates"
  script="$URL_beginning2/build_licenses_templates.sh"
  @sha512_build_licenses_templates.sh@
  wget_sha512 "./$subdir2/build_licenses_templates.sh" "$script"\
    "$correct_sha512"
  chmod +x "./$subdir2/build_licenses_templates.sh"
  script="$URL beginning2/license file header GPLv3+.tpl"
  @sha512_license_file_header_GPLv3+.tpl@
  wget_sha512 "./$subdir2/license_file_header_GPLv3+.tpl" "$script"\
    "$correct sha512"
  script="$URL beginning2/license file header LGPLv3+.tpl"
  @sha512 license file header LGPLv3+.tpl@
  wget sha512 "./$subdir2/license file header LGPLv3+.tpl" "$script"\
    "$correct_sha512"
  script="$URL_beginning/lines_counts.sh"
  @sha512_lines_counts.sh@
  wget_sha512 "./$subdir/lines_counts.sh" "$script" "$correct_sha512"
  script="$URL_beginning/lines_filters.sh"
  @sha512_lines_filters.sh@
  wget_sha512 "./$subdir/lines_filters.sh" "$script" "$correct_sha512"
  script="$URL beginning/lines maps.sh"
  @sha512 lines maps.sh@
  wget_sha512 "./$subdir/lines_maps.sh" "$script" "$correct_sha512"
```

```
101
   URL_beginning3="$URL_beginning/listings"
   subdir3="$subdir/listings"
   script="$URL_beginning3/update_or_check_files_names_listing.sh"
   @sha512_update_or_check_files_names_listing.sh@
   wget_sha512 "./$subdir3/update_or_check_files_names_listing.sh"\
     "$script" "$correct sha512"
107
   chmod +x "./$subdir3/update_or_check_files_names_listing.sh"
109
   script="$URL beginning3/files names listing.txt"
   @sha512 files names listing.txt@
111
   wget_sha512 "./$subdir3/files_names_listing.txt" "$script"\
     "$correct sha512"
113
114
   script="$URL beginning/overwrite if not equal.sh"
115
   @sha512 overwrite if not equal.sh@
   wget_sha512 "./$subdir/overwrite_if_not_equal.sh" "$script"\
     "$correct_sha512"
118
119
   script="$URL beginning/python black complement.sh"
   @sha512_python_black_complement.sh@
   wget sha512 "./$subdir/python black complement.sh" "$script"\
122
     "$correct_sha512"
124
   script="$URL_beginning/python_isort_complement.sh"
   @sha512 python isort complement.sh@
   wget sha512 "./$subdir/python isort complement.sh" "$script"\
     "$correct sha512"
128
   script="$URL_beginning/too_long_code_lines.sh"
130
   @sha512_too_long_code_lines.sh@
   wget sha512 "./$subdir/too long code lines.sh" "$script"\
     "$correct sha512"
133
134
   shopt -s globstar
135
   source "./$subdir/check_shell_scripts_beginnings.sh"
   source "./$subdir/check_URLs.sh"
137
   source "./$subdir/comparisons.sh"
   source "./$subdir/generate from template.sh"
  source "./$subdir/get_common_text_glob_patterns.sh"
  source "./$subdir/lines_counts.sh"
  source "./$subdir/lines_filters.sh"
  source "./$subdir/overwrite_if_not_equal.sh"
source "./$subdir/python black complement.sh"
source "./$subdir/python isort complement.sh"
  source "./$subdir/too_long_code_lines.sh"
```

```
147
   cwd="."
   if [[ -n "$1" ]];
   then
    cwd="$1"
151
   fi
152
153
   echo "Building license headers"
   ./$subdir2/build licenses templates.sh "$cwd"
155
   echo "Building README.md"
157
   ./$subdir/build_md_from_printable_md.sh "$cwd"
158
159
   pushd .
160
   cd "$cwd"
   echo "Running isort"
   isort .
   python_isort_complement
166
   echo "Running black"
   black .
   python_black_complement
170
   find . -name "pyproject.toml" | relevant_find\
     | while read -r file name;
172
   do
     if grep -q "Typing :: Typed" "$file_name"; then
174
       echo "Running mypy"
       mypy $(dirname "$file_name")
     fi
177
   done
179
   echo "Analyzing too long lines"
   too_long_code_lines | relevant_grep | not_license_grep
181
   echo "Analyzing shell scripts beginnings"
183
   check_shell_scripts_beginnings | relevant_grep
185
   echo "Analyzing URLs"
   check_URLs | relevant_grep
187
   echo "Analyzing strange characters : hover over in doubt"
189
   usual_characters="\x00-\x7Fàâéèêëîïôç@\"└-|-|«»"
   grep --exclude-dir '.git' -nPrv "^[$usual_characters]*$" .\
     | grep --color='auto' -nP "[^$usual_characters]"
```

```
echo "Creating the PDF file of the listing of the source code"
./build_and_checks_dependencies/create_PDF.sh
popd
```

2.8 build_and_checks_dependencies/comparisons.sh

```
#!/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 Lesser 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 Lesser General Public License for more details.
  # You should have received a copy of
  # the GNU Lesser General Public License
  # along with DevOrSysAdminScripts.
  # If not, see <a href="https://www.gnu.org/licenses/">https://www.gnu.org/licenses/>.</a>
   # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
24
  equal(){
    # Returns 1 if all the arguments strings are equal.
     # Renvoie 1 dans $? si toutes les chaînes en arguments sont égales.
     # J'ai rerepensé au 3-way-merge
     # et à mon article sur le principe de première différence
     # appliqué à la largeur modulaire, de clique ou de rang avec
     # l'idée d'un principe de première différence ternaire.
     equal_var_all_args="'$*'"
     equal_var_current="$equal_var_all_args"
33
     for equal_var_arg in $0; do
       if [[ "$equal_var_current" == "$equal_var_all_args" ]]; then
35
         equal_var_current="$equal_var_arg"
         continue
       fi
```

```
if [[ "$equal_var_current" != "$equal_var_arg" ]]; then
         return 0
       fi
41
     done
     return 1
43
  }
45
  max(){
     # Returns the maximum string among the arguments.
     # Renvoie la chaîne la plus grande parmi celles proposées.
    # $1=$sort command with the flags you want to be applied.
     # $ max sort a b c
     # C
     if [["$\#" == 0]]; then
      return 1
     printf "%s\n" "${@:2}" | eval "$1 -r" | head -1
  }
56
  min(){
58
     # Returns the minimum string among the arguments.
     # Renvoie la chaîne la plus petite parmi celles proposées.
     # $1=$sort command with the flags you want to be applied.
     # $ min sort a b c
     if [["$\#" == 0]]; then
       return 1
     printf "%s\n" "${@:2}" | eval "$1" | head -1
  }
  is_substring() {
    # $1=$string
    # $2=$substring
    is_substring_var_1=$(\
73
       echo "$1" | sed -e 's/\\\&/g' -e "s/'\\\\&/g"\
74
     is_substring_var_2=$(\
       echo "$2" | sed -e 's/\\\&/g' -e "s/'\\\&/g"\
77
     is_substring_var_3="\$a = '$is_substring_var_1';"
     is_substring_var_3+=" \$b = preg_quote('$is_substring_var_2');"
     is_substring_var_3+=" \c = '/'.addcslashes(\b, '/').'/';"
     is_substring_var_3+=" die(preg_match(\$c, \$a));"
     php -r "$is substring var 3"
```

```
is_subfile(){
    # $1=$file_name
    # $2=$sub_file_name
    is_subfile_var_1="\$a = file_get_contents('$1');"
    is_subfile_var_1+=" \$b = preg_quote(file_get_contents('$2'));"
    is_subfile_var_1+=" \$c = '/'.addcslashes(\$b, '/').'/';"
    is_subfile_var_1+=" die(preg_match(\$c, \$a));"
    php -r "$is_subfile_var_1"
}
alias min_from_int_sort="min 'sort --numeric-sort'"
alias max_from_int_sort="max 'sort --numeric-sort'"
```

2.9 build_and_checks_dependencies/create_PDF.sh

```
#!/usr/bin/env bash
2 # This file is part of DevOrSysAdminScripts library.
  # DevOrSysAdminScripts is free software:
5 # you can redistribute it and/or modify it under the terms
  # of the GNU Lesser 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 Lesser General Public License for more details.
18 # You should have received a copy of
  # the GNU Lesser General Public License
  # along with DevOrSysAdminScripts.
  # If not, see <https://www.gnu.org/licenses/>.
  # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
25 subdir="build_and_checks_dependencies"
26 source "./$subdir/generate_from_template.sh"
27 source "./$subdir/lines_counts.sh"
source "./$subdir/lines_filters.sh"
29 source "./$subdir/lines maps.sh"
30 source "./$subdir/overwrite_if_not_equal.sh"
```

```
source "./$subdir/string_functions.sh"
  subdir2="$subdir/listings"
  grep_variable repository_data.txt repository_name
35
  cp "./latex/$repository_name.tex.tpl"\
      "./latex/$repository_name.tex"
37
  sed -i "s|@repository name@|$repository name|g"\
    "./latex/$repository_name.tex"
  grep_variable repository_data.txt abstract
  echo "$abstract" | sed -e 's/\\n/\n/g' > "abstract_temp"
  insert file at token "./latex/$repository name.tex" @abstract@
    "abstract temp"
  rm "abstract temp"
  grep_variable repository_data.txt acknowledgments
  echo "$acknowledgments" | sed -e 's/\\n/\n/g' > "acknowledgments_temp"
  insert_file_at_token "./latex/$repository_name.tex" @acknowledgments@\
    "acknowledgments_temp"
  rm "acknowledgments temp"
  grep_variable repository_data.txt author_full_name
   sed -i "s|@author_full_name@|$author_full_name|g"\
    "./latex/$repository name.tex"
  grep_variable repository_data.txt author_website
  sed -i "s|@author_website@|$author_website|g"\
    "./latex/$repository_name.tex"
  grep variable repository data.txt author email
  sed -i "s|@author email@|$author email|g"\
    "./latex/$repository_name.tex"
  current_date=$(date -I"date")
  sed -i "s|@current_date@|$current_date|q"\
    "./latex/$repository_name.tex"
  current_git_SHA1=$(git rev-parse HEAD)
  sed -i "s|@current_git_SHA1@|$current_git_SHA1|g"\
    "./latex/$repository_name.tex"
  number_of_commits=$(git shortlog | space_starting_lines | wc -l)
  sed -i "s|@number of commits@|\$number of commits|q"\
    "./latex/$repository_name.tex"
```

```
number_of_lines="$(code_lines_count_all) total lines,"
   number of lines+=" $(code lines count not empty) not empty lines,"
   number_of_lines+=" $(code_lines_count_empty) empty lines."
   sed -i "s|@number_of_lines@|$number_of_lines|g"\
     "./latex/$repository_name.tex"
   tree -a --gitignore\
     -I "$repository name.aux"\
     -I "$repository_name.log"\
     -I "$repository name.out"\
     -I current_tree.txt\
     -I current_tree_light.txt\
     -I "node modules/"
     -I "__pycache__/"\
     -I ".mypy cache/"
     -I ".git/"\
     | replace_non_ascii_spaces\
     > current_tree_light.txt
   tree -a -DFh --gitignore\
     -I "$repository_name.aux"\
     -I "$repository_name.log"\
     -I "$repository_name.out"\
100
     -I current_tree.txt\
     -I current_tree_light.txt\
102
     -I "node modules/"
     -I "__pycache__/"\
104
     -I ".mypy_cache/"\
     -I ".git/"\
106
     | replace_non_ascii_spaces\
     > current tree.txt
109
   temp_files_listing="./$subdir2/files_listing.tex.tpl.temp"
   > "$temp_files_listing"
  get_split_score_after_before 70 /
  # split_score_command="$LFBFL_generic_result"
113
  score_command="$LFBFL_generic_result"
  get_split_score_after_before 70 ':'
  # split_score_command2="$LFBFL_generic_result"
score_command2="$LFBFL_generic_result"
  suffix='%'
   sed expression='s/\\n//Mg'
   cat "./$subdir2/files names listing.txt"\
     | sed -Ez "$sed expression" | sed -Ez "$sed expression" \
     | sed -Ez "$sed_expression" | sed -Ez "$sed_expression" |
```

```
| grep -v '^// '\
123
     | while read -r file_name;
   do
125
     base_file_name=$(basename "$file_name")
     \# cleaned_path1=\$(sed -e 's/_/\\_/g' <(echo "\$file_name"))
127
     cleaned_path2 = \$ (sed -e 's/\//:/g' -e 's/\.//g' < (echo "\$file_name"))
     echo "\subsection{" >> "$temp_files_listing"
129
130
     new lines=" $file name"
131
     if [[ ${#new_lines} -gt 60 ]]; then
       split last line "$new lines" "" 60 "$suffix" "$score command"
133
       new_lines=$split_last_line_result
134
       split_last_line "$new_lines" "" 60 "$suffix" "$score_command"
135
       new lines=$split last line result
136
       split last line "$new lines" "" 60 "$suffix" "$score command"
137
       new lines=$split last line result
138
     fi
139
     echo " $file_name" | sed -e "s| $file_name|$new_lines|g"\
140
       > "$temp_files_listing.2"
     sed -i -e 's/_/\\_/g' "$temp_files_listing.2"
142
     cat "$temp_files_listing.2" >> "$temp_files_listing"
     rm "$temp_files_listing.2"
144
     echo "}" >> "$temp_files_listing"
146
     echo "\label{" >> "$temp_files_listing"
147
148
     new lines=" $cleaned path2"
     if [[ ${#new_lines} -gt 68 ]]; then
150
       split_last_line "$new_lines" "" 70 "$suffix" "$score_command2"
151
       new_lines=$split_last_line_result
152
       split_last_line "$new_lines" "" 70 "$suffix" "$score_command2"
153
       new_lines=$split_last_line_result
154
       split last line "$new lines" "" 70 "$suffix" "$score command2"
155
       new_lines=$split_last_line_result
156
157
     echo " $cleaned_path2" | sed -e "s| $cleaned_path2|$new_lines|g"\
       >> "$temp_files_listing"
159
     echo "}" >> "$temp_files_listing"
161
     echo "" >> "$temp_files_listing"
162
     echo "\VerbatimInput[numbers=left,xleftmargin=-5mm]{"\
163
       >> "$temp_files_listing"
165
     new lines="$file name"
     if [[ ${#new_lines} -gt 68 ]]; then
167
       split_last_line "$new_lines" "" 70 "$suffix" "$score_command"
```

```
new_lines=$split_last_line_result
169
       split_last_line "$new_lines" "" 70 "$suffix" "$score_command"
170
       new lines=$split_last_line_result
171
       split_last_line "$new_lines" "" 70 "$suffix" "$score_command"
       new_lines=$split_last_line_result
173
     fi
     echo " $file_name" | sed -e "s| $file_name|$new_lines|g"\
175
       >> "$temp_files_listing"
177
     echo "}" >> "$temp_files_listing"
     echo "" >> "$temp_files_listing"
179
     echo "" >> "$temp_files_listing"
   done
181
   overwrite if not equal "./$subdir2/files listing.tex.tpl"
182
     "$temp files listing"
   insert file at token "./latex/$repository name.tex"\
184
     @files_listing_VerbatimInput@ "./$subdir2/files_listing.tex.tpl"
185
186
   # We verify if some lines are beyond 70 characters
   # in current_tree_light.txt et current_tree.txt.
   trees=("current_tree_light.txt" "current_tree.txt")
   for some_tree in "${trees[@]}"; do
190
     grep '.\{71\}' "$some_tree" | while read -r some_line; do
        # echo "some_line: $some_line"
192
       prefix=$(\
193
          echo "$some line"\
194
            | sed -E -e 's/(.*)-[^-]+$/\1/g' -e 's/[^ ]+$//g'
196
       prefix+="| "
197
       # echo "prefix: $prefix"
198
       file_name=$(\
199
          echo "$some line"\
200
            | sed -E 's|.* (([a-zA-Z0-9\. /-]+).)$|\1|q'
201
202
        # echo "file_name: $file_name"
203
       line_start=$(\
204
          echo "$some_line"\
205
            | sed -E "s/(.*)[]*file_name/\1/q"\
            | sed -e 's/ *$//q'
207
        # echo "line_start: $line_start"
209
       some_line=$(\
         echo "$some line"\
211
            | sed -E -e 's/[///[/g' -e 's//]///]/g'/
213
       new_lines="$prefix$file_name"
```

```
if [[ ${#new_lines} -gt 68 ]]; then
215
         split_last_line "$new_lines" "$prefix" 70 ""
         new_lines=$split_last_line_result
217
         split_last_line "$new_lines" "$prefix" 70 ""
         new_lines=$split_last_line_result
219
         split_last_line "$new_lines" "$prefix" 70 ""
         new_lines=$split_last_line_result
221
         split_last_line "$new_lines" "$prefix" 70 ""
         new lines=$split last line result
223
       sed -i -e "s/$some_line/$line_start\n$new_lines/g" "$some_tree"
225
     done
   done
227
228
   sed -i -e '/@current_tree_light@/{r current_tree_light.txt' -e 'd}'\
229
     "./latex/$repository name.tex"
230
   sed -i -e '/@current_tree@/{r current_tree.txt' -e 'd}'\
     "./latex/$repository_name.tex"
232
   pdflatex "./latex/$repository_name.tex" > /dev/null
   pdflatex "./latex/$repository_name.tex" > /dev/null
   pdflatex "./latex/$repository_name.tex" > /dev/null
   files_to_delete=(\
238
     "$repository_name.aux"\
     "$repository name.log"
240
     "$repository_name.out"\
     "current tree.txt"
242
     "current_tree_light.txt"
244
   # Comment the following line if you need to debug.
   for file_name in "${files_to_delete[@]}"; do
     rm -f "$file name"
   done
```

2.10 build_and_checks_dependencies/generate_from_template.sh

```
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  # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
  subdir="build and checks dependencies"
  source "./$subdir/lines_filters.sh"
  generate_from_template_with_block_comments() {
    # $1=base file name
    # $2=target_file_name
    # $3=enter_block_comment
    # $4=exit_block_comment
    LFBFL_temp=".generate_from_template_with_block_comments.temp"
    echo "$3" > "$2$LFBFL_temp"
    cat "$1" >> "$2$LFBFL temp"
     echo "$4" >> "$2$LFBFL temp"
     overwrite_if_not_equal "$2" "$2$LFBFL_temp"
  }
  generate_from_template_with_line_comments() {
    # $1=base file name
     # $2=target file name
    # $3=line_comment_prefix
     # $4=optional_post_processing
    LFBFL_temp=".generate_from_template_with_line_comments.temp"
     sed -e \frac{s}{\sqrt{3}} "$1" > "$2$LFBFL_temp"
     if [[ -n "$4" ]]; then
       eval "$4"
    fi
     overwrite_if_not_equal "$2" "$2$LFBFL_temp"
52
  split_file_in_two() {
    # $1=$file name
     # $2=$token assume that token is the only thing on his line.
```

```
# $3=$file_name_part1
  # $4=$file_name_part2
  split file in two line number=$(
    grep -n "$2" "$1" | cut -f 1 -d ':'
  split_file_in_two_line_count=$(ll_wc -l -n "$1")
  split_file_in_two_lines_after=$((
    $split_file_in_two_line_count - $split_file_in_two_line_number
  head --lines="$(($split_file_in_two_line_number - 1))" "$1" > "$3"
  tail --lines="$split_file_in_two_lines_after" "$1" > "$4"
insert file at token(){
  # $1=$file name
  # $2=$token assume that token is the only thing on his line.
  # $3=$file_name_to_insert
  insert_at_token_var_start_file_name="$1.insert_file_at_token1.temp"
  insert_at_token_var_end_file_name="$1.insert_file_at_token2.temp"
  insert_at_token_var_result_file_name="$1.insert_file_at_token3.temp"
  split_file_in_two "$1" "$2" "$insert_at_token_var_start_file_name"\
    "$insert_at_token_var_end_file_name"
  cat "$insert_at_token_var_start_file_name" "$3"\
    "$insert_at_token_var_end_file_name"\
    > "$insert_at_token_var_result_file_name"
  overwrite if not equal "$1"\
    "$insert_at_token_var_result_file_name"
  rm "$insert_at_token_var_start_file_name"\
     "$insert_at_token_var_end_file_name"
}
```

2.11 build_and_checks_dependencies/get_common_text_glob_patterns.sh

```
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   # If not, see <a href="https://www.gnu.org/licenses/">https://www.gnu.org/licenses/>.</a>
   # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
   get_common_text_paths_glob_patterns() {
    export common_patterns=(\
26
       '**/*.c'\
27
       '**/*.css'\
       '**/*.h'\
       ' **/*.htm' \
       '**/*.html'\
       '**/*.js'\
       '**/*.json'\
33
       '**/*.md'\
       '**/*.php'\
       '**/*.py'\
       '**/*.sh'\
37
       '**/*.sql'\
       '**/*.tex'\
       '**/*.toml'\
       '**/*.tpl'\
       '**/*.ts'\
       '**/*.txt'\
43
       '**/*.yml'\
       '**/COPYING'\
       '**/COPYING.LESSER'\
       '**/pre-commit'\
       '**/.gitignore'\
       '**/py.typed'\
50
   }
52
   get_common_text_files_glob_patterns() {
     export common_file_patterns=(\
       '*.c'\
56
       '*.css'\
       '*.h'\
       ' * . htm' \
```

```
'*.html'\
    '*.js'\
    '*.json'\
    '*.md'\
    '*.php'\
    '*.py'\
    '*.sh'\
    '*.sql'\
    '*.tex'\
    '*.toml'\
    '*.tpl'\
    '*.ts'\
    '*.txt'\
    '*.yml'\
    'COPYING'\
    'COPYING.LESSER'
    'pre-commit'\
    '.gitignore'\
    'py.typed'\
}
```

2.12 build_and_checks_dependencies/grammar_and_spell_check.sh

```
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```

```
# @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
  subdir="build and checks dependencies"
  source "./$subdir/get_common_text_glob_patterns.sh"
  source "./$subdir/lines_filters.sh"
  grammar_and_spell_check() {
     get_common_text_files_glob_patterns
    grep_variable "$1" grammar_or_spell_checker_command
31
    LFBFL command=$(\
       echo "$grammar_or_spell_checker_command"\
       \mid sed -Ez -e "s/\n//Mg"\
     for LFBFL pattern in "${common file patterns[@]}"; do
       [ "$2" != "-v" ] || echo "Iterating on pattern: $LFBFL_pattern"
       find . -type f -name "$LFBFL_pattern" -printf '%P\n'\
          | while read -r file_name;
         LFBFL_eval_string="$LFBFL_command $file_name"
         eval "$LFBFL_eval_string"
       done
     done
  }
```

2.13 build_and_checks_dependencies/licenses_templates/build_licenses_templates.sh

```
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19 # the GNU Lesser General Public License
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```

```
# If not, see <a href="https://www.gnu.org/licenses/">https://www.gnu.org/licenses/>.
   # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
23
  subdir="build_and_checks_dependencies"
25
  source "./$subdir/comparisons.sh"
  source "./$subdir/generate_from_template.sh"
   source "./$subdir/lines_filters.sh"
   source "./$subdir/overwrite if not equal.sh"
  license_subdir="./$subdir/licenses_templates/"
  license_prefix="$license_subdir""license_file_header_"
  licenses=(\
     "GPLv3+"\
     "LGPLv3+"
35
36
37
   # Various language definitions for text file formats
  block_comment_languages=(\
     " C " \
     "py"\
42
  block_comment_enters=(\
     '/*'\
     / """/
46
  block_comment_exits=(\
48
    ' */'\
     / " " " / \
50
51
   equal "${#block_comment_languages[@]}"\
         "${#block comment enters[@]}"\
53
         "${#block_comment_exits[@]}"
  if [[ \$? == 0 ]]; then
55
     echo '/!\'"Problème de définition des tableaux de langages 1"'/!\'
57
   line_comment_languages=(\
     "sh"\
     "tex"\
61
  line_comment_prefixes=(\
    ′# ′\
     18 1\
65
  )
```

```
equal "${#line_comment_languages[@]}"\
         "${#line_comment_prefixes[@]}"
  if [[ \$? == 0 ]]; then
    echo '/!\"Problème de définition des tableaux de langages 2"'/!\"
       ______
   # We generate the license header templates adapted to various text
  # files formats.
  # Kamoulox do endfor, Jacques Beauregard XD
  # (C'est toujours mieux que l'inverse :) !)
  # for do endfor -> for do done (Fort Doux Donne).
  for license in "${licenses[@]}"; do
     license_prefix2="$license_prefix$license"
     for ((i=0; i<\$\{\#block comment languages[@]\}; i++)); do
       extension=${block_comment_languages[i]}
       license_file_name="$license_prefix2.$extension"
       enter_string=${block_comment_enters[i]}
       exit_string=${block_comment_exits[i]}
       generate_from_template_with_block_comments\
         "$license_prefix2.tpl"\
         "$license_file_name.tpl"
         "$enter_string" "$exit_string"
     LFBFL_temp2=".generate_from_template_with_line_comments.temp"
     for ((i=0; i<\$\{\#line\_comment\_languages[@]\}; i++)); do
       extension=${line_comment_languages[i]}
       license_file_name="$license_prefix2.$extension"
       prefix_string=${line_comment_prefixes[i]}
       generate_from_template_with_line_comments\
         "$license prefix2.tpl"\
         "$license_file_name.tpl"
         "$prefix_string"\
101
         "sed -i -E -e 's/\s*$//g' '$license_file_name.tpl$LFBFL_temp2'"
103
   done
105
  file_name=repository_data.txt
107
  grep_variable "$file_name" repository_name
  grep_variable "$file_name" license
  grep variable "$file name" author full name
  license_prefix2="$license_prefix$license"
  # First year according to current state of git repository.
```

```
first_year="$(git log | grep 'Date:' | cut -f 8 -d ' ' | tail -1)"
   # Last year according to current state of git repository.
   last_year="$(git log | grep 'Date:' | cut -f 8 -d ' ' | head -1)"
   copyright_string="$first_year-$last_year $author_full_name"
   for ((i=0; i<${#block_comment_languages[@]}; i++)); do</pre>
     extension=${block_comment_languages[i]}
     license_file_name="$license_prefix2.$extension"
119
     sed -e "s/@repository_name@/$repository_name/g"\
       -e "s/@copyright_string@/$copyright_string/g"\
121
       "$license_file_name.tpl" > "$license_file_name.temp"
     overwrite_if_not_equal "$license_file_name"\
123
       "$license_file_name.temp"
124
     head --lines=-1 "$license_file_name" | tail --lines=-1\
125
       > "$license_file_name.temp"
126
     find . -type f -name "*.$extension" -printf '%P\n' | relevant_find\
127
        | while read -r file name;
128
     do
129
       if is_subfile "$file_name" "$license_file_name.temp"
130
         echo "File $file_name has no/wrong license header?"
132
134
     rm "$license_file_name.temp"
   done
136
   for ((i=0; i<${#line_comment_languages[@]}; i++)); do</pre>
     extension=${line comment languages[i]}
138
     license_file_name="$license_prefix2.$extension"
     sed -e "s/@repository_name@/$repository_name/g"\
140
       -e "s/@copyright_string@/$copyright_string/g"\
141
       "$license_file_name.tpl" > "$license_file_name.temp"
142
     overwrite if not equal "$license file name"\
143
       "$license file name.temp"
144
     find . -type f -name "*.$extension" -printf '%P\n' | relevant find\
145
       | while read -r file_name;
147
       if is_subfile "$file_name" "$license_file_name"
148
149
         echo "File $file_name has no/wrong license header?"
151
     done
   done
153
```

2.14 build_and_checks_dependencies/licenses_templates/license_file_header_GPLv3+.c.tpl

```
/*
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```

```
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24 */
```

2.15 build_and_checks_dependencies/licenses_templates/license_file_header_GPLv3+.py.tpl

```
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```

```
©Copyright @copyright_string@
```

2.16 build_and_checks_dependencies/licenses_templates/license_file_header_GPLv3+.sh.tpl

```
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```

$2.17 \quad build_and_checks_dependencies/licenses_templates/license_file_header_GPLv3+.tex.tp$

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Repository_name@ it and/or modify it under the terms
Repository_name@ is distributed in the hope
Repository_name@
```

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

2.18 build_and_checks_dependencies/licenses_templates/license_file_header_GPLv3+.tpl

```
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```

2.19 build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.c

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```

2.20 build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.c.tpl

```
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  @Copyright @copyright_string@
24 */
```

2.21 build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.py

```
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```

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```

2.22 build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.py.ty

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```

2.23 build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.sh

```
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```

2.24 build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.sh.tp

```
# This file is part of @repository_name@ library.

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```

2.25 build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.tex

```
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  % as published by the Free Software Foundation,
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  % MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
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  % the GNU Lesser General Public License
  % along with DevOrSysAdminScripts.
 % If not, see <a href="https://www.gnu.org/licenses/">https://www.gnu.org/licenses/>.</a>
22 % @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
```

2.26 build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.tex.t

```
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```

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```

2.27 build_and_checks_dependencies/licenses_templates/license_file_header_LGPLv3+.tpl

```
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6 as published by the Free Software Foundation,
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  or (at your option) any later version.
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12 but WITHOUT ANY WARRANTY;
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14 MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
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17 You should have received a copy of
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19 along with @repository_name@.
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  ©Copyright @copyright_string@
```

2.28 build_and_checks_dependencies/lines_counts.sh

```
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```

```
# or (at your option) any later version.
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   # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
  subdir="build_and_checks_dependencies"
  source "./$subdir/get_common_text_glob_patterns.sh"
  source "./$subdir/lines_filters.sh"
  all_code_lines(){
     get_common_text_files_glob_patterns
     for LFBFL_pattern in "${common_file_patterns[@]}"; do
       [ "$1" != "-v" ] || echo "Iterating on pattern: $LFBFL_pattern"
32
       find . -type f -name "$LFBFL_pattern" -printf '%P\n'\
         | xarqs grep -H -v 'a(?!a)a'
     done
  }
  all_self_code_lines() {
     all_code_lines | relevant_grep\
       | not_license_grep | not_main_tex_grep
  all_self_empty_code_lines(){
     all_self_code_lines | empty_lines_after_file_name
45
   all_self_not_empty_code_lines() {
     all_self_code_lines | not_empty_lines_after_file_name
49
  code lines count all() {
     all self code lines | wc -l
  }
53
```

```
code_lines_count_empty() {
    all_self_empty_code_lines | wc -l
    }

code_lines_count_not_empty() {
    all_self_not_empty_code_lines | wc -l
}
```

2.29 build_and_checks_dependencies/lines_filters.sh

```
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  # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
 # The goal of ths file is to have some common line filters
 # for bash processing and pipes.
 # As is the case for other .sh files in this repository,
 # it can be copied somewhere in your home directory
  # and sourced in your .bashrc.
 ll_wc() {
   # current options to wc:
    # -c --bytes
    # -m --chars
    # -l --lines
    # --files0-from # Incompatible with cat,
```

```
# another thing intentional by ?
                # I don't see the meaning of "files0".
# -L --max-line-length
# -w --words
# --help
# --version
# New option by Laurent Lyaudet (and probably other before):
# -n --no-filenames display only number(s)
# I think I did that the first time many years ago (Teliae ?).
# Since then, they added it as ignored... (-n)
declare -a ll_wc_var_args=()
ll_wc_var_number_only=0
ll_wc_var_i=0
for 11 wc var arg in $0; do
  # echo "$11 wc var arg"
  if [[ $ll_wc_var_arg == "-n" ]]; then
    ll_wc_var_number_only=1
  elif [[ $11_wc_var_arg == "--no-filenames" ]]; then
    ll_wc_var_number_only=1
  elif [[ $ll_wc_var_number_only -eq 0 ]]; then
    ll_wc_var_args[$ll_wc_var_i]="$ll_wc_var_arg"
    ll_wc_var_i=$(($ll_wc_var_i + 1))
  elif [[ "$11_wc_var_arg" =~ -.* ]]; then
    11_wc_var_args[$11_wc_var_i]="$11_wc_var_arg"
    ll_wc_var_i=$(($ll_wc_var_i + 1))
  fi
done
# typeset -p ll_wc_var_args
# echo "$11_wc_var_number_only"
if [[ $ll_wc_var_number_only -gt 0 ]]; then
  # Too simple code, only the base use case is handled now.
  # Convenient but incomplete.
  # With more time,
  # the simpler would be to submit a patch to GNU coreutils,
  # unless blockade from assholes.
  # Otherwise, it may be more simply handled in PHP or Python
  # (argparse, etc.).
  # You'll need to start by improving cat first,
  # with --files0-from handling.
  # wc does not display file_name when stream...
  # hence cat of last arg "${!#}"
  cat "${!#}" | wc "${ll_wc_var_args[@]}"
else
  # echo "normal"
  wc "${ll_wc_var_args[@]}"
fi
```

```
83
   # I submitted a patch for wc :).
   # echo "https://domain/list-path/2024-05/msq00013.html" | \
       sed -e 's|domain|lists.gnu.org|' \
           -e 's|list-path|archive/html/bug-coreutils|'
   # I found another way to have a long URL fit on 70 characters.
   # If it is merged, the following would be better:
   # If --no-filenames option available,
  # we redefine ll_wc command as an alias.
   wc_help_text=$(wc --help)
   if [[ "$wc_help_text" == *" --no-filenames "* ]]; then
     alias ll wc='wc'
   fi
   # $ ll_wc wget_sha512.sh
   # 41 189 1224 wget_sha512.sh
   # $ ll_wc -n wget_sha512.sh
               189 1224
        41
   # $ ll_wc -l wget_sha512.sh
   # 41 wget_sha512.sh
  # $ 11_wc -1 -n wget_sha512.sh
   # 41
106
   in_place_grep() {
107
     LFBFL_temp=".in_place_grep.temp"
108
     grep $@ > "${!#}""$LFBFL_temp"
     LFBFL_lines_before=$(ll_wc -l -n "${!#}")
110
     LFBFL_lines_after=$(ll_wc -l -n "${!#}""$LFBFL_temp")
     # echo "$LFBFL lines before"
112
     # echo "$LFBFL_lines_after"
     if [[ "$LFBFL lines before" == "$LFBFL lines after" ]]; then
       rm "${!#}""$LFBFL temp"
115
       return
116
     fi
117
     mv "${!#}""$LFBFL_temp" "${!#}"
118
119
   grep_variable(){
121
     # $1=$file
     # $2=$variable_name
123
     LFBFL_regexp="(?<=^$2=).*$"
     # echo $LFBFL regexp
125
     LFBFL variable value="$(grep -oP "$LFBFL regexp" "$1")"
     # echo $LFBFL variable value
127
     declare -g "$2"="$LFBFL_variable_value"
```

```
}
129
   grep_variable repository_data.txt repository_name
131
   empty_lines(){
133
      grep '^$'
134
    }
135
136
   not_empty_lines(){
137
      grep -v '^$'
139
140
   space_starting_lines(){
141
     grep '^[]'
142
    }
143
144
   not_space_starting_lines(){
      grep '^[^ ]'
146
147
148
   empty_lines_after_file_name() {
      grep '^[^:]\+:$'
150
151
152
   not_empty_lines_after_file_name() {
153
      grep -v '^[^:]\+:$'
154
155
156
   space_starting_lines_after_file_name() {
157
      grep '^[^:]\+: '
158
159
160
   not_space_starting_lines_after_file_name() {
161
      grep '^[^:]\+:[^ ]'
162
163
   not_JS_dependencies_find() {
165
      grep -vE "(^|/)node_modules/" | grep -vE "(^|/)package-lock\.json$"
167
168
   not_JS_dependencies_grep() {
169
      grep -v "^[^:]*node_modules/" | grep -v "^[^:]*package-lock\.json:"
171
   not_dependencies_find(){
173
      not_JS_dependencies_find
```

```
175
   not_dependencies_grep(){
177
     not_JS_dependencies_grep
178
179
180
   not_python_cache_find() {
181
      grep -vE "(^|/)__pycache__/" | grep -vE "(^|/)\.mypy_cache/"
182
183
184
   not_python_cache_grep() {
185
      grep -v "^[^:]*__pycache__/" | grep -v "^[^:]*\.mypy_cache/"
186
187
188
   not_cache_find() {
     not_python_cache_find
190
191
192
   not_cache_grep() {
     not_python_cache_grep
194
196
   not_git_find(){
197
      grep -vE "(^|/)\.git/"
198
199
200
201
   not_git_grep() {
     grep -v "^[^:]*\.git/"
202
203
   not archive find() {
205
      grep -vE "(\.gz|\.rar|\.tar|\.tgz|\.whl)$"
206
207
208
   not_archive_grep() {
209
      grep -vE "^[^:]*(\.gz|\.rar|\.tar|\.tgz|\.whl):"
211
   not_license_find() {
213
      grep -vE "(^|/)COPYING$" | grep -vE "(^|/)COPYING\.LESSER$"
215
   not_license_grep() {
217
      grep -v "^[^:]*COPYING:" | grep -v "^[^:]*COPYING\.LESSER:"
   }
219
220
```

```
not_main_tex_find() {
     grep -vE "(^|/)$repository_name\.tex$"
223
225    not_main_tex_grep() {
   grep -v "^[^:]*$repository_name\.tex:"
   }
227
   relevant find() {
229
   not_dependencies_find | not_cache_find | not_git_find\
     | not_archive_find
231
233
234 relevant grep(){
    not_dependencies_grep | not_cache_grep | not_git_grep\
     | not_archive_grep
   }
```

2.30 build_and_checks_dependencies/lines_maps.sh

```
#!/usr/bin/env bash
<sup>2</sup> # This file is part of DevOrSysAdminScripts library.
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  # If not, see <a href="https://www.gnu.org/licenses/">https://www.gnu.org/licenses/>.</a>
  # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
  # https://en.wikibooks.org/wiki/Unicode/Character reference/2000-2FFF
  # Some invisible unicode characters that are a problem:
```

```
# 2000-200F 2028-202F 205F 2060-206F
    '2000', '2001', '2002', '2003', '2004', '2005', '2006', '2007',
    '2008', '2009', '200A', '200B', '200C', '200D', '200E', '200F',
    '2028', '2029', '202A', '202B', '202C', '202D', '202E', '202F',
    '205F',
    '2060', '2061', '2062', '2063', '2064', '2065', '2066', '2067',
    '2068', '2069', '206A', '206B', '206C', '206D', '206E', '206F',
replace_non_ascii_spaces(){
 sed -e 's/\xc2\xa0/ /q'\
  \mid sed -e 's/\xe2\x00\x80/ /g'\
  \mid sed -e 's/\xe2\x01\x81/ /g'\
  | sed -e's/\langle xe2 \rangle x82//g' \rangle
  \mid sed -e 's/\xe2\x03\x83/ /g'\
  | sed -e's/\xe2\x04\x84/ /g' 
  | sed -e 's/\xe2\x05\x85/ /g'\
  | sed -e's/\xe2\x06\x86/ /g'
  | sed -e 's/\xe2\x07\x87/ /g'\
  | sed -e 's/\xe2\x08\x88/ /g'\
  | sed -e's/\xe2\x09\x89//g'
  | sed -e's/\xe2\x0a\x8a//g'
  | sed -e 's/\xe2\x0b\x8b/ /g'
  | sed -e 's/\xe2\x0c\x8c/ /g'\
  | sed -e's/\xe2\x0d\x8d//g'
  | sed -e 's/\xe2\x0e\x8e/ /g'\
  | sed -e 's/\xe2\x0f\x8f/ /q'\
  | sed -e's/\langle xe2 \rangle x28 \rangle / g' \rangle
  | sed -e 's/\xe2\x29\xa9/ /g'\
  | sed -e 's/\xe2\x2a\xaa/ /g'\
  | sed -e 's/\xe2\x2b\xab/ /g'\
  | sed -e 's/\xe2\x2c\xac/ /g'\
  | sed -e's/\langle xe2 \rangle x2d \rangle / g' \rangle
  | sed -e's/\xe2\x2e\xae//g'
  | sed -e 's/\xe2\x2f\xaf/ /g'\
  \mid sed -e 's/\xe2\x20\x9f/ /g'\
  | sed -e's/\xe2\x21\xa0//g'
  | sed -e 's/\xe2\x22\xa1/ /g'
  | sed -e's/\langle xe2 \rangle x23 \rangle xa2//g' \rangle
  | sed -e's/\xe2\x24\xa3//g'
  | sed -e 's/\xe2\x25\xa4/ /g'
  | sed -e 's/\xe2\x26\xa5/ /g'\
  | sed -e's/\xe2\x27\xa6//g'
  | sed -e's/\xe2\x28\xa7//g'
  | sed -e's/xe2x29xa8//g' 
  | sed -e 's/\xe2\x2a\xa9/ /g'
```

```
73  | sed -e 's/\xe2\x2b\xaa/ /g'\
74  | sed -e 's/\xe2\x2c\xab/ /g'\
75  | sed -e 's/\xe2\x2d\xac/ /g'\
76  | sed -e 's/\xe2\x2e\xad/ /g'\
77  | sed -e 's/\xe2\x2f\xae/ /g'\
78  | sed -e 's/\xe2\x30\xaf/ /g'
79  }
```

2.31 build_and_checks_dependencies/listings/files_listing.tex.tpl

```
\subsection{
    build\_and\_checks\_dependencies/build\_and\_checks.sh.tpl
  \label{
    build and checks dependencies: build and checksshtpl
  \VerbatimInput[numbers=left,xleftmargin=-5mm]{
  build_and_checks_dependencies/build_and_checks.sh.tpl
11
  \subsection{
    build\_and\_checks\_dependencies/%
  build\_md\_from\_printable\_md.sh
  \label{
    build and checks dependencies: build md from printable mdsh
  }
  \VerbatimInput[numbers=left,xleftmargin=-5mm] {
  build and checks dependencies/build md from printable md.sh
  \subsection{
    build\_and\_checks\_dependencies/%
  call\_split\_score\_after\_before\_or\_before\_after.php
  \label{
    build_and_checks_dependencies:%
  call_split_score_after_before_or_before_afterphp
35 \VerbatimInput[numbers=left,xleftmargin=-5mm]{
36 build_and_checks_dependencies/%
```

```
call_split_score_after_before_or_before_after.php
  \subsection{
    build\_and\_checks\_dependencies/%
  check\_shell\_scripts\_beginnings.sh
  }
  \label{
    build_and_checks_dependencies:check_shell_scripts_beginningssh
  \VerbatimInput[numbers=left,xleftmargin=-5mm]{
  build and checks dependencies/check shell scripts beginnings.sh
   }
   \subsection{
    build\_and\_checks\_dependencies/check\_URLs.sh
  \label{
     build_and_checks_dependencies:check_URLssh
  \VerbatimInput[numbers=left,xleftmargin=-5mm] {
  build and checks dependencies/check URLs.sh
   \subsection{
     build\ and\ checks\ dependencies/common\ build\ and\ checks.sh
  }
  \label{
     build_and_checks_dependencies:common_build_and_checkssh
  \VerbatimInput[numbers=left,xleftmargin=-5mm] {
  build_and_checks_dependencies/common_build_and_checks.sh
   }
75
  \subsection{
    build\ and\ checks\ dependencies/%
  common\_build\_and\_checks.sh.tpl
  \label{
```

```
build_and_checks_dependencies:common_build_and_checksshtpl
83
84
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build_and_checks_dependencies/common_build_and_checks.sh.tpl
   \subsection{
     build\_and\_checks\_dependencies/comparisons.sh
   \label{
     build_and_checks_dependencies:comparisonssh
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build_and_checks_dependencies/comparisons.sh
100
102
   \subsection{
     build\_and\_checks\_dependencies/create\_PDF.sh
104
   \label{
106
     build_and_checks_dependencies:create_PDFsh
108
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
110
   build_and_checks_dependencies/create_PDF.sh
   }
112
114
   \subsection{
115
     build\_and\_checks\_dependencies/generate\_from\_template.sh
116
117
   \label{
     build_and_checks_dependencies:generate_from_templatesh
119
   }
121
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build_and_checks_dependencies/generate_from_template.sh
123
125
   \subsection{
127
     build\_and\_checks\_dependencies/%
```

```
get\_common\_text\_glob\_patterns.sh
129
   }
   \label{
131
     build_and_checks_dependencies:get_common_text_glob_patternssh
133
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
135
   build_and_checks_dependencies/get_common_text_glob_patterns.sh
137
139
   \subsection{
     build\_and\_checks\_dependencies/grammar\_and\_spell\_check.sh
141
142
   \label{
     build and checks dependencies: grammar and spell checksh
144
145
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build_and_checks_dependencies/grammar_and_spell_check.sh
148
150
   \subsection{
152
     build\_and\_checks\_dependencies/licenses\_templates/%
   build\ licenses\ templates.sh
154
   \label{
156
     build_and_checks_dependencies:licenses_templates:%
   build_licenses_templatessh
158
   }
159
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
161
   build_and_checks_dependencies/licenses_templates/%
   build_licenses_templates.sh
   }
164
165
   \subsection{
     build\_and\_checks\_dependencies/licenses\_templates/%
   license\_file\_header\_GPLv3+.c.tpl
169
  \label{
171
    build_and_checks_dependencies:licenses_templates:%
  license file header GPLv3+ctpl
  }
```

```
175
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build and checks dependencies/licenses templates/%
   license_file_header_GPLv3+.c.tpl
179
181
   \subsection{
     build\ and\ checks\ dependencies/licenses\ templates/%
183
   license\_file\_header\_GPLv3+.py.tpl
185
   \label{
     build_and_checks_dependencies:licenses_templates:%
   license file header GPLv3+pytpl
   }
189
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build_and_checks_dependencies/licenses_templates/%
   license_file_header_GPLv3+.py.tpl
194
195
196
   \subsection{
     build\_and\_checks\_dependencies/licenses\_templates/%
   license\_file\_header\_GPLv3+.sh.tpl
200
   \label{
     build and checks dependencies: licenses templates: %
202
   license_file_header_GPLv3+shtpl
   }
204
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build and checks dependencies/licenses templates/%
   license_file_header_GPLv3+.sh.tpl
208
209
210
211
   \subsection{
     build\_and\_checks\_dependencies/licenses\_templates/%
213
   license\_file\_header\_GPLv3+.tex.tpl
   }
215
   \label{
     build and checks dependencies: licenses templates: %
   license_file_header_GPLv3+textpl
   }
219
```

```
\VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build_and_checks_dependencies/licenses_templates/%
   license file header GPLv3+.tex.tpl
225
   \subsection{
227
     build\_and\_checks\_dependencies/licenses\_templates/%
   license\ file\ header\ GPLv3+.tpl
229
   }
   \label{
231
     build_and_checks_dependencies:licenses_templates:%
   license_file_header_GPLv3+tpl
233
234
235
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build_and_checks_dependencies/licenses_templates/%
   license_file_header_GPLv3+.tpl
238
240
   \subsection{
242
     build\_and\_checks\_dependencies/licenses\_templates/%
   license\_file\_header\_LGPLv3+.c
   }
   \label{
246
     build_and_checks_dependencies:licenses_templates:%
   license file header LGPLv3+c
248
   }
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build and checks dependencies/licenses templates/%
   license file header LGPLv3+.c
253
   }
254
255
   \subsection{
257
     build\_and\_checks\_dependencies/licenses\_templates/%
   license\_file\_header\_LGPLv3+.c.tpl
259
   }
   \label{
     build_and_checks_dependencies:licenses_templates:%
   license file header LGPLv3+ctpl
263
265
   \VerbatimInput[numbers=left,xleftmargin=-5mm] {
```

```
build_and_checks_dependencies/licenses_templates/%
   license_file_header_LGPLv3+.c.tpl
269
271
   \subsection{
     build\_and\_checks\_dependencies/licenses\_templates/%
273
   license\_file\_header\_LGPLv3+.py
   }
275
   \label{
     build_and_checks_dependencies:licenses_templates:%
277
   license_file_header_LGPLv3+py
   }
279
280
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build and checks dependencies/licenses templates/%
   license_file_header_LGPLv3+.py
284
286
   \subsection{
     build\_and\_checks\_dependencies/licenses\_templates/%
   license\_file\_header\_LGPLv3+.py.tpl
   }
290
   \label{
     build and checks dependencies: licenses templates: %
292
   license_file_header_LGPLv3+pytpl
294
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build and checks dependencies/licenses templates/%
   license_file_header_LGPLv3+.py.tpl
299
300
301
   \subsection{
     build\_and\_checks\_dependencies/licenses\_templates/%
303
   license\_file\_header\_LGPLv3+.sh
   }
305
   \label{
     build_and_checks_dependencies:licenses_templates:%
   license_file_header_LGPLv3+sh
   }
309
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build_and_checks_dependencies/licenses_templates/%
```

```
license_file_header_LGPLv3+.sh
315
   \subsection{
317
     build\_and\_checks\_dependencies/licenses\_templates/%
   license\_file\_header\_LGPLv3+.sh.tpl
319
   }
   \label{
321
     build and checks dependencies: licenses templates: %
   license_file_header_LGPLv3+shtpl
323
325
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build and checks dependencies/licenses templates/%
   license file header LGPLv3+.sh.tpl
   }
329
330
   \subsection{
     build\_and\_checks\_dependencies/licenses\_templates/%
   license\_file\_header\_LGPLv3+.tex
334
   \label{
     build_and_checks_dependencies:licenses_templates:%
   license file header LGPLv3+tex
338
340
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build_and_checks_dependencies/licenses_templates/%
342
   license_file_header_LGPLv3+.tex
   }
344
345
   \subsection{
     build\_and\_checks\_dependencies/licenses\_templates/%
   license\_file\_header\_LGPLv3+.tex.tpl
349
   }
   \label{
     build_and_checks_dependencies:licenses_templates:%
   license_file_header_LGPLv3+textpl
353
355
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build and checks dependencies/licenses templates/%
   license_file_header_LGPLv3+.tex.tpl
```

```
}
359
361
   \subsection{
     build\_and\_checks\_dependencies/licenses\_templates/%
363
   license\_file\_header\_LGPLv3+.tpl
   }
365
   \label{
     build and checks dependencies: licenses templates: %
367
   license_file_header_LGPLv3+tpl
369
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build and checks dependencies/licenses templates/%
   license_file_header_LGPLv3+.tpl
374
375
   \subsection{
     build\_and\_checks\_dependencies/lines\_counts.sh
378
   \label{
380
     build_and_checks_dependencies:lines_countssh
382
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
384
   build_and_checks_dependencies/lines_counts.sh
386
   \subsection{
     build\_and\_checks\_dependencies/lines\_filters.sh
390
391
   \label{
     build_and_checks_dependencies:lines_filterssh
   }
394
395
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build_and_checks_dependencies/lines_filters.sh
399
   \subsection{
     build\_and\_checks\_dependencies/lines\_maps.sh
403
   \label{
```

```
build_and_checks_dependencies:lines_mapssh
405
   }
406
407
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build_and_checks_dependencies/lines_maps.sh
409
411
   \subsection{
413
     build\_and\_checks\_dependencies/listings/%
   files\ listing.tex.tpl
415
416
   \label{
417
     build and checks dependencies: listings: files listingtextpl
418
   }
419
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build_and_checks_dependencies/listings/files_listing.tex.tpl
422
423
424
425
   \subsection{
426
     build\_and\_checks\_dependencies/listings/%
   files\_names\_listing.txt
428
   }
   \label{
430
     build_and_checks_dependencies:listings:files_names_listingtxt
432
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
434
   build_and_checks_dependencies/listings/files_names_listing.txt
   }
436
437
438
   \subsection{
439
     build\_and\_checks\_dependencies/listings/%
   update\_or\_check\_files\_names\_listing.sh
441
   }
442
   \label{
443
     build_and_checks_dependencies:listings:%
   update_or_check_files_names_listingsh
445
447
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build and checks dependencies/listings/%
449
   update_or_check_files_names_listing.sh
```

```
451
452
453
   \subsection{
     build\_and\_checks\_dependencies/overwrite\_if\_not\_equal.sh
455
   \label{
457
     build_and_checks_dependencies:overwrite_if_not_equalsh
459
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build_and_checks_dependencies/overwrite_if_not_equal.sh
   }
463
464
   \subsection{
466
     build\_and\_checks\_dependencies/python\_black\_complement.sh
467
468
   \label{
     build_and_checks_dependencies:python_black_complementsh
470
471
472
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build_and_checks_dependencies/python_black_complement.sh
475
476
   \subsection{
478
     build\_and\_checks\_dependencies/python\_isort\_complement.sh
479
   }
480
   \label{
     build and checks dependencies: python isort complementsh
482
483
181
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
485
   build_and_checks_dependencies/python_isort_complement.sh
487
489
   \subsection{
     build\_and\_checks\_dependencies/split\_line\_at\_most.php
491
   \label{
493
     build_and_checks_dependencies:split_line_at_mostphp
   }
495
```

```
\VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build_and_checks_dependencies/split_line_at_most.php
499
501
   \subsection{
     build\_and\_checks\_dependencies/string\_functions.sh
503
   \label{
505
     build_and_checks_dependencies:string_functionssh
507
   \VerbatimInput[numbers=left,xleftmargin=-5mm] {
   build and checks dependencies/string functions.sh
510
511
512
513
   \subsection{
514
     build\_and\_checks\_dependencies/too\_long\_code\_lines.sh
516
   \label{
     build_and_checks_dependencies:too_long_code_linessh
518
520
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build and checks dependencies/too long code lines.sh
524
   \subsection{
526
     build\_and\_checks\_dependencies/%
   update\_common\_build\_and\_checks.sh
528
529
   \label{
     build_and_checks_dependencies:update_common_build_and_checkssh
531
   }
532
533
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build_and_checks_dependencies/update_common_build_and_checks.sh
535
537
   \subsection{
539
     build\_and\_checks.sh
541
   \label{
```

```
build_and_checkssh
543
544
545
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   build_and_checks.sh
549
   \subsection{
551
     git\_checks.sh
553
   \label{
     git_checkssh
555
556
557
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
558
   git_checks.sh
560
562
   \subsection{
      latex/DevOrSysAdminScripts.tex.tpl
564
   \label{
566
      latex:DevOrSysAdminScriptstextpl
568
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
570
   latex/DevOrSysAdminScripts.tex.tpl
   }
572
573
574
   \subsection{
575
     LiensUtiles.txt
576
577
   \label{
     LiensUtilestxt
579
581
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   LiensUtiles.txt
583
585
   \subsection{
587
     pre-commit
```

```
589
   \label{
      pre-commit
591
593
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   pre-commit
595
   }
597
    \subsection{
599
      README.md
600
601
   \label{
602
      READMEmd
603
604
605
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
606
   README.md
608
609
610
    \subsection{
      README.md.tpl
612
   \label{
614
      READMEmdtpl
616
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
618
   README.md.tpl
   }
620
621
622
    \subsection{
623
     repository\_data.txt
624
625
   \label{
      repository_datatxt
627
629
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   repository_data.txt
631
633
```

```
\subsection{
      unicode.php
637
   \label{
      unicodephp
639
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
   unicode.php
643
645
   \subsection{
647
      upgrade\ build\ and\ checks.sh
648
649
   \label{
650
      upgrade_build_and_checkssh
651
652
   \VerbatimInput[numbers=left,xleftmargin=-5mm]{
654
   upgrade_build_and_checks.sh
   }
656
658
   \subsection{
      wget\_sha512.sh
660
   \label{
662
      wget_sha512sh
663
664
665
   \VerbatimInput[numbers=left,xleftmargin=-5mm] {
   wget sha512.sh
667
   }
668
669
670
```

2.32 build_and_checks_dependencies/listings/files_names_listing.txt

```
// Blasé20240517Résultat.txt
// Blasé20240517.sh
// Blasé20240518_2.txt
// Blasé20240518_3.txt
build_and_checks_dependencies/build_and_checks.sh.tpl
build_and_checks_dependencies/build_md_from_printable_md.sh
build_and_checks_dependencies/\
```

```
call_split_score_after_before_or_before_after.php
build_and_checks_dependencies/check_shell_scripts_beginnings.sh
build and checks dependencies/check URLs.sh
build_and_checks_dependencies/common_build_and_checks.sh
build_and_checks_dependencies/common_build_and_checks.sh.tpl
build_and_checks_dependencies/comparisons.sh
build_and_checks_dependencies/create_PDF.sh
build_and_checks_dependencies/generate_from_template.sh
build and checks dependencies/get common text glob patterns.sh
build_and_checks_dependencies/grammar_and_spell_check.sh
build_and_checks_dependencies/licenses_templates/\
build_licenses_templates.sh
build_and_checks_dependencies/licenses_templates/\
license file header GPLv3+.c.tpl
build and checks dependencies/licenses templates/\
license file header GPLv3+.py.tpl
build_and_checks_dependencies/licenses_templates/\
license_file_header_GPLv3+.sh.tpl
build_and_checks_dependencies/licenses_templates/\
license_file_header_GPLv3+.tex.tpl
build_and_checks_dependencies/licenses_templates/\
license_file_header_GPLv3+.tpl
build_and_checks_dependencies/licenses_templates/\
license_file_header_LGPLv3+.c
build_and_checks_dependencies/licenses_templates/\
license_file_header_LGPLv3+.c.tpl
build_and_checks_dependencies/licenses_templates/\
license file header LGPLv3+.py
build_and_checks_dependencies/licenses_templates/\
license_file_header_LGPLv3+.py.tpl
build_and_checks_dependencies/licenses_templates/\
license file header LGPLv3+.sh
build and checks dependencies/licenses templates/\
license_file_header_LGPLv3+.sh.tpl
build_and_checks_dependencies/licenses_templates/\
license_file_header_LGPLv3+.tex
build_and_checks_dependencies/licenses_templates/\
license_file_header_LGPLv3+.tex.tpl
build and checks dependencies/licenses templates/\
license_file_header_LGPLv3+.tpl
build_and_checks_dependencies/lines_counts.sh
build_and_checks_dependencies/lines_filters.sh
build and checks dependencies/lines maps.sh
build and checks dependencies/listings/files listing.tex.tpl
build and checks dependencies/listings/files names listing.txt
build_and_checks_dependencies/listings/\
```

```
update_or_check_files_names_listing.sh
  build_and_checks_dependencies/overwrite_if_not_equal.sh
56 build_and_checks_dependencies/python_black_complement.sh
 build_and_checks_dependencies/python_isort_complement.sh
  build_and_checks_dependencies/split_line_at_most.php
 build_and_checks_dependencies/string_functions.sh
  build_and_checks_dependencies/too_long_code_lines.sh
  build_and_checks_dependencies/update_common_build_and_checks.sh
 build and checks.sh
 // EncoreBlasé20240517-20240518.txt
 git_checks.sh
  latex/DevOrSysAdminScripts.tex.tpl
66 LiensUtiles.txt
67 pre-commit
68 README.md
  README.md.tpl
70 repository_data.txt
11 unicode.php
upgrade_build_and_checks.sh
vget_sha512.sh
```

2.33 build_and_checks_dependencies/listings/update_or_check_files_names_listing.sh

```
#!/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 Lesser 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.
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  # along with DevOrSysAdminScripts.
# If not, see <a href="https://www.gnu.org/licenses/">https://www.gnu.org/licenses/>.
  # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
```

```
24
  subdir="build_and_checks_dependencies"
  source "./$subdir/lines filters.sh"
  source "./$subdir/string_functions.sh"
  subdir2="$subdir/listings"
  files_names_listing="./$subdir2/files_names_listing.txt"
  grep_variable repository_data.txt repository_name
32
  if [[ "$1" == "--write" ]]; then
    > "$files names listing"
34
  fi
  sed_expression='s/\\n//Mg'
  sed -Ez "$sed expression" "$files names listing"\
    > "$files names listing.temp1"
  sed -Ez "$sed expression" "$files names listing.temp1"\
    > "$files_names_listing.temp2"
  sed -Ez "$sed_expression" "$files_names_listing.temp2"\
    > "$files_names_listing.temp3"
  sed -Ez "$sed_expression" "$files_names_listing.temp3"\
    > "$files_names_listing.temp4"
  shopt -s dotglob
  get_split_score_after_before 70 /
  split_score_command="$LFBFL_generic_result"
  suffix='\\'
  find . -type f -printf '%P\n' | relevant find | sort\
     | while read -r file name;
  do
51
    git check-ignore -q "$file_name" && continue
    base_file_name=$(basename "$file_name")
     [ "$base_file_name" != "current_tree_light.txt" ] || continue
     [ "$base_file_name" != "current_tree.txt" ] || continue
     [ "$base file name" != "COPYING" ] || continue
     [ "$base_file_name" != "COPYING.LESSER" ] || continue
     [ "$base_file_name" != "$repository_name.pdf" ] || continue
     [ "$base_file_name" != "$repository_name.tex" ] || continue
     [ "$base_file_name" != "files_names_listing.txt.temp1" ] || continue
     [ "$base_file_name" != "files_names_listing.txt.temp2" ] || continue
     [ "$base_file_name" != "files_names_listing.txt.temp3" ] || continue
62
     [ "$base_file_name" != "files_names_listing.txt.temp4" ] || continue
     if [[ "$base_file_name" == *.md ]]; then
       if [ -f "$file_name.tpl" ]; then
         # in_place_grep -v "$base_file_name$" current_tree.txt
         # in_place_grep -v "$base_file_name$" current_tree_light.txt
        continue
       fi
```

```
fi
  new_lines="$file_name"
  split last line "$new lines" "" 70 "$suffix" "$split score command"
  new_lines=$split_last_line_result
  split_last_line "$new_lines" "" 70 "$suffix" "$split_score_command"
  new_lines=$split_last_line_result
  split_last_line "$new_lines" "" 70 "$suffix" "$split_score_command"
  new_lines=$split_last_line_result
  if [[ "$1" == "--write" ]]; then
    echo "$file_name"\
       | sed -e "s|$file_name|$new_lines|g"\
      >> "$files_names_listing"
    continue
  fi
  if grep -q "$file_name\$" "$files_names_listing.temp4"; then
    echo ""
  else
    echo "The file $file_name is not listed in $files_names_listing."
    if [[ "$1" == "--append" ]]; then
      echo "$file name"\
        | sed -e "s|$file_name|$new_lines|q"\
        >> "$files_names_listing"
    fi
   fi
rm "$files names listing.temp1" "$files names listing.temp2"\
  "$files_names_listing.temp3" "$files_names_listing.temp4"
shopt -u dotglob
shopt -s globstar
```

2.34 build_and_checks_dependencies/overwrite_if_not_equal.sh

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

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# of the GNU Lesser 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.
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# along with DevOrSysAdminScripts.
# If not, see <a href="https://www.gnu.org/licenses/">https://www.gnu.org/licenses/>.</a>
# @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
overwrite_if_not_equal(){
  # $1=$target_file_name
  # $2=$temp_file_name
  if [[ ! -f "$1" ]]; then
   mv "$2" "$1"
    return
  fi
  diff -q "$1" "$2"
  overwrite_if_not_equal_var_is_equal=$?
  if [[ $overwrite_if_not_equal_var_is_equal == 0 ]]; then
    rm "$2"
  else
    mv "$2" "$1"
  fi
}
```

2.35 build_and_checks_dependencies/python_black_complement.sh

```
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# This file is part of DevOrSysAdminScripts library.
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# MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
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# You should have received a copy of
```

```
# the GNU Lesser General Public License
  # along with DevOrSysAdminScripts.
  # If not, see <a href="https://www.gnu.org/licenses/">https://www.gnu.org/licenses/>.
  # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
  # It was rejected to enhance black with this currently.
  # And moreover, at some point, I saw the reverse rule
  # in black or pylint to add an empty line...
  # This regexp may give false positives,
  # but that's not the end of the world.
  check_no_empty_line_after_python_function_docstring() {
     echo "Checking empty lines after Python function docstrings"
     pcregrep -M $'def [^"]*"""([^"]|"(?!""))*"""\n\n(?!\s*def)'\
       -- **/*.py
34
  python_black_complement() {
     check_no_empty_line_after_python_function_docstring
```

2.36 build_and_checks_dependencies/python_isort_complement.sh

```
#!/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
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```

```
24
  subdir="build_and_checks_dependencies"
  source "./$subdir/lines filters.sh"
  source "./$subdir/overwrite_if_not_equal.sh"
  check_collections_abc_place() {
     echo "Checking import of _collections_abc is at the right place"
     LFBFL_temp=".check_collections_abc_place.temp"
     find . -name "*.py" | relevant_find\
32
       | while read -r LFBFL file name; do
       [ -f "$LFBFL_file_name" ] || continue
       sed -Ez 's/\n(\nfrom _collections_abc[^{n}_*)/\1\n/Mg'\
         "$LFBFL_file_name" > "$LFBFL_file_name$LFBFL_temp"
       overwrite if not equal "$LFBFL file name"\
         "$LFBFL file name$LFBFL temp"
     done
   }
  python_isort_complement() {
     check_collections_abc_place
43
  }
44
```

2.37 build_and_checks_dependencies/split_line_at_most.php

```
<?php
  /*
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```

```
23
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25
  function generate_split_score_after_before(
2.7
     $max_length,
     $delimiter_strings_domain,
  ) {
     return function(
31
       $delimiter_string,
       $cut_position,
33
       $is_cut_after
     ) use ($max_length, $delimiter_strings_domain) {
35
       if(!in array($delimiter string, $delimiter strings domain, true)){
         // I do not handle regexps for the moment.
         // I'm too brainfucked. I just want to finish this feature fast
         // for HTML and Tex/PDF listings generation with HTML and Tex on
         // at most 70 characters.
         return -1;
42
       if($is_cut_after){
43
         return $max_length + $cut_position;
       return $cut_position;
     };
48
50
   function generate_split_score_before_after(
52
     $max_length,
     $delimiter_strings_domain,
55
     return function(
       $delimiter_string,
57
       $cut_position,
       $is_cut_after
     ) use ($max_length, $delimiter_strings_domain) {
       if(!in_array($delimiter_string, $delimiter_strings_domain, true)){
         // I do not handle regexps for the moment.
         // I'm too brainfucked. I just want to finish this feature fast
         // for HTML and Tex/PDF listings generation with HTML and Tex on \,
         // at most 70 characters.
         return -1;
       if(!$is_cut_after){
```

```
return $max_length + $cut_position;

return $cut_position;

;
};
```

2.38 build_and_checks_dependencies/string_functions.sh

```
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  # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
 # I think I created a file strings_functions.sh or renamed to
 # strings_functions.sh at some point, before committing.
 # Hence, someone must have changed or reversed the name of this file
 # to string_functions.sh at some point.
 subdir="build_and_checks_dependencies"
  source "./$subdir/get_common_text_glob_patterns.sh"
 source "./$subdir/comparisons.sh"
 split_line_at(){
   # $1=$line
    # $2=$position
    split line at result beginning="${1:0:$2}"
    split_line_at_result_end="${1:$2}"
```

```
# echo "$split_line_at_result_beginning"
     # echo "$split_line_at_result_end"
   }
40
  split_score_after_before(){
42
    # No function generator in bash, this function and the following
     # will assume that we just take into account the third argument.
     # $1=$delimiter_string
     # $2=$cut_position
     # $3=$is_cut_after
    if [["$3" == "1"]]; then
      return 2
    fi
     return 1
51
  }
52
53
  split_score_before_after() {
    # No function generator in bash, this function and the following
    # will assume that we just take into account the third argument.
     # $1=$delimiter_string
     # $2=$cut_position
    # $3=$is cut after
     if [[ "$3" == "0" ]]; then
       return 2
     fi
    return 1
  get_split_score_after_before() {
     # $1=$max_length
     # $2=delimiters_strings_domain
    LFBFL_generic_result="./build_and_checks_dependencies/"
     LFBFL generic result+="call split score after before or"
     LFBFL_generic_result+="_before_after.php 1 $1 '$2' "
72
73
  get_split_score_before_after() {
     # $1=$max_length
     # $2=delimiters_strings_domain
    LFBFL_generic_result="./build_and_checks_dependencies/"
    LFBFL_generic_result+="call_split_score_after_before_or"
     LFBFL_generic_result+="_before_after.php 0 $1 '$2' "
80
split_line_at_most(){
    # $1=$line
```

```
# $2=$max_length of beginning result string
     # $3=$split_score_command
         negative score means do not consider as a possible split
     # $4=$split_score_command_delimiter_strings_domain
         optimisation if small domain
         - this argument can be "null", then we will use $3 only instead,
           in that case, only mono-character strings are considered,
         - this argument can be an array of characters,
           optimize accordingly,
         - this argument can be an array of strings,
           optimize accordingly,
     #
         - this argument can be an array of regexps,
           optimize accordingly.
           Not sure an array of regexps makes more sense than a single
           one. Maybe they could be both cases with corresponding
           optimizations. Same for a single character or substring.
     declare -g split_line_at_most_result_start
100
     declare -g split_line_at_most_result_end
101
     declare -A split_line_at_most_var_positions
     split_line_at_most_var_positions=(["$2"]=0)
103
     # echo "$1 $2 $3"
     # For my use case in bash scripts, I will need only an array of
105
     # characters. See get_split_score_after_before().
     if [[ -n "$4" ]]; then
107
       echo "split_line_at_most() \$4 NOT IMPLEMENTED YET"
108
     fi
109
     if [[ "$2" -qe "${#1}" ]]; then
       split_line_at_most_result_start=$1
111
       split_line_at_most_result_end=""
112
       return
113
     fi
114
     split_line_at_most_var_sort_command="sort --numeric-sort"
115
     LFBFL length minus 1=\$((\$\{\#1\} - 1))
116
     LFBFL_i_max=$(min 'sort --numeric-sort' $LFBFL_length_minus_1 $2)
117
     for ((i=0; i<$LFBFL_i_max; i++)) do
118
       j=$(($i+1))
119
       split_line_at_most_var_current_char="${1:$i:1}"
120
       LFBFL_command1="$3 '$split_line_at_most_var_current_char' $i 0"
       LFBFL_command2="$3 '$split_line_at_most_var_current_char' $j 1"
122
       # echo "$LFBFL_command1"
       # echo "$LFBFL_command2"
124
       LFBFL_temp=$(eval $LFBFL_command1)
       # echo "$LFBFL temp|$i"
126
       if [[ $LFBFL temp -qe 0 ]]; then
         # echo "$LFBFL temp|$i"
128
         if [[ ${#split_line_at_most_var_positions["$i"]} == 0 ]]; then
```

```
split_line_at_most_var_positions["$i"]=$LFBFL_temp
130
         else
131
           split line at most var positions["$i"]=$(\
132
             max "$split_line_at_most_var_sort_command"\
                split_line_at_most_var_positions["$i"] \
134
                $LFBFL_temp
135
           )
136
         fi
137
138
       LFBFL temp=$(eval $LFBFL command2)
       # echo "$LFBFL temp|$j"
140
       if [[ $LFBFL_temp -ge 0 ]]; then
141
         # echo "$LFBFL_temp|$j"
142
         143
           split_line_at_most_var_positions["$j"]=$LFBFL_temp
144
145
           split_line_at_most_var_positions["$j"]=$(\
146
             max "$split_line_at_most_var_sort_command"\
147
                split_line_at_most_var_positions["$j"]\
                $LFBFL_temp
149
           )
         fi
151
       fi
     done
153
     declare -a LFBFL_joined_args=()
154
     LFBFL i=0
155
     for LFBFL_key in "${!split_line_at_most_var_positions[@]}"; do
       LFBFL_value=${split_line_at_most_var_positions[$LFBFL_key]}
157
       # echo "$LFBFL key $LFBFL value"
158
       LFBFL_joined_args[$LFBFL_i]="$LFBFL_key $LFBFL_value"
159
       LFBFL_i=$((LFBFL_i + 1))
160
     done
161
     while read -r LFBFL best position ;
162
     do
163
       split_line_at "$1" "$LFBFL_best_position"
164
       split_line_at_most_result_start=$split_line_at_result_beginning
165
       split_line_at_most_result_end=$split_line_at_result_end
166
     done <<EOT
   $(max 'sort --numeric-sort -k2' "${LFBFL_joined_args[@]}"\
168
     | cut -d ' ' -f 1)
   EOT
170
     # echo "$split_line_at_most_result_start"
     # echo "$split line at most result end"
172
173
174
   split_last_line() {
```

```
# $1=$new_lines
176
     # $2=$prefix
177
      # $3=$max length
178
      # $4=$suffix
      # $5=$split_score_command
180
     split_last_line_result="$1"
     LFBFL_max_length_plus=$(($3 + 1))
182
     LFBFL_length2=\$((\$3 - \$\{\#4\}))
     LFBFL_regexp='.\{'"$LFBFL_max_length_plus"'\}$'
184
     if echo "$1" | sed -e 's/\\n/\n/g' | grep -q "$LFBFL_regexp"; then
       LFBFL start=$(\
186
          echo "$1" | sed -e 's/\\n/\n/g' | head --lines=-1\
          \mid sed -z 's/\n/\n/g'
188
189
        # echo "start: $LFBFL_start"
190
       LFBFL last line=$(\
191
          echo "$1" | sed -e 's/\n/\n/g' | tail --lines=1\
192
193
        # echo "last_line: $LFBFL_last_line"
        split_last_line_result=""
195
       if [[ -n "$LFBFL_start" ]]; then
          split_last_line_result="$LFBFL_start\n"
197
        if [[ -n "$5" ]]; then
199
          split_line_at_most "$LFBFL_last_line" "$LFBFL_length2"\
200
            "$5"
201
          split_last_line_result+="$split_line_at_most_result_start$4"
          split_last_line_result+="\n"
203
          split_last_line_result+="$2$split_line_at_most_result_end"
204
       else
205
          split_last_line_result+="${LFBFL_last_line:0:$LFBFL_length2}$4"
206
          split_last_line_result+="\n"
207
          split last line result+="$2${LFBFL last line:$LFBFL length2}"
208
        fi
209
     fi
210
   }
211
```

2.39 build_and_checks_dependencies/too_long_code_lines.sh

```
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  subdir="build_and_checks_dependencies"
  source "./$subdir/get_common_text_glob_patterns.sh"
too_long_code_lines() {
    get_common_text_files_glob_patterns
     for LFBFL_pattern in "${common_file_patterns[@]}"; do
       [ "$1" != "-v" ] || echo "Iterating on pattern: $LFBFL_pattern"
       find . -type f -name "$LFBFL_pattern" -printf '%P\n'\
         | xargs grep -H '.\{71\}'
     done
  }
35
```

2.40 build_and_checks_dependencies/update_common_build_and_checks.sh

```
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```

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   # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
24
   cp ./common_build_and_checks.sh.tpl ./common_build_and_checks.sh
  file_names=(\
     "build_md_from_printable_md.sh"\
28
     "check shell scripts beginnings.sh"
     "check URLs.sh"\
     "comparisons.sh"
31
     "create_PDF.sh"\
32
     "generate_from_template.sh"\
     "get_common_text_glob_patterns.sh"\
     "grammar_and_spell_check.sh"\
     "licenses_templates/build_licenses_templates.sh"
     "licenses_templates/license_file_header_GPLv3+.tpl"
     "licenses_templates/license_file_header_LGPLv3+.tpl"
     "lines_counts.sh"\
     "lines_filters.sh"\
     "lines maps.sh"\
     "listings/update_or_check_files_names_listing.sh"\
     "listings/files_names_listing.txt"\
     "overwrite_if_not_equal.sh"\
     "python_black_complement.sh"\
     "python_isort_complement.sh"\
     "too_long_code_lines.sh"\
47
48
   for file_name in "${file_names[@]}"; do
     file_sha512=$(sha512sum "./$file_name" | cut -f1 -d' ')
     file_sha512_1="correct_sha512='${file_sha512:0:53}'"
52
     file_sha512_2="correct_sha512\+='${file_sha512:53:52}'"
     file_sha512_3="correct_sha512\+='${file_sha512:105}'"
     file_sha512_all="$file_sha512_1\n"
     file_sha512_all+="$file_sha512_2\n"
     file_sha512_all+="$file_sha512_3"
     base file name=$(basename "$file name")
     sed -i "s|@sha512_$base_file_name@|$file_sha512_all|g" \
         ./common build and checks.sh
   done
```

```
cp ./build_and_checks.sh.tpl ../build_and_checks.sh

file_sha512=$(sha512sum common_build_and_checks.sh | cut -f1 -d' ')

file_sha512_1="correct_sha512='${file_sha512:0:53}'"

file_sha512_2="correct_sha512\+='${file_sha512:53:52}'"

file_sha512_3="correct_sha512\+='${file_sha512:105}'"

file_sha512_all="$file_sha512_1\n"

file_sha512_all+="$file_sha512_2\n"

file_sha512_all+="$file_sha512_3"

sed -i "s|@sha512_common_build_and_checks.sh@|$file_sha512_all|g"\
../build_and_checks.sh
```

2.41 build_and_checks.sh

```
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  # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
  source ./wget_sha512.sh
27 mkdir -p build_and_checks_dependencies/licenses_templates
28 mkdir -p build_and_checks_dependencies/listings
  subdir="build_and_checks_dependencies"
personal_github="https://raw.githubusercontent.com/LLyaudet/"
```

```
dependencies="DevOrSysAdminScripts/main/build_and_checks_dependencies"
URL_beginning="$personal_github$dependencies"

script="$URL_beginning/common_build_and_checks.sh"
correct_sha512='elb0b3316cd46f4b7fa2b3c8c2ad7bf10e8d17936b421ca3e43b5'
correct_sha512+='2b07dda112fe39d62768b59512977cc20aa208e9c16657eed77f'
correct_sha512+='2abd0f12006605de46a22b1'
wget_sha512 "./$subdir/common_build_and_checks.sh" "$script"\
"$correct_sha512"
chmod +x "./$subdir/common_build_and_checks.sh"

cwd="."
if [[ -n "$1" ]];
then
    cwd="$1"
fi

// build_and_checks_dependencies/common_build_and_checks.sh "$cwd"
```

2.42 git_checks.sh

```
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# @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
check_files(){
```

```
check_files_var_send_summary_1="ATTENTION : models modifiés"
     check_files_var_send_body_1="Vérifiez si besoin de migrations"
    check files var send body 2=\
   "Pensez aussi aux contraintes d'unicités"
     check_files_var_send_body_2+=" dès la création du modèle"
     check_files_var_send_summary_2="ATTENTION : serializers modifiés"
     check_files_var_send_body_3=\
   "Les nouveaux preloadings sont interdits -> #Prefetch()"
     if git diff --cached --name-only | grep models;
    then
       notify-send "$check_files_var_send_summary_1"\
         "$check_files_var_send_body_1"
       notify-send "$check_files_var_send_summary_1"\
         "$check files var send body 2"
    fi
    if git diff --cached --name-only | grep serializer;
41
    then
42
       notify-send "$check_files_var_send_summary_2"\
43
         "$check_files_var_send_body_3"
44
     fi
45
    return 0
   }
47
49
  check_no_abusive_trailing_comma() {
    LFBFL send summary 1="ATTENTION"
51
    LFBFL_send_body_1="Il semblerait que vous affectiez un tuple"
    LFBFL_send_body_1+=" au lieu d'une autre valeur dans une variable."
53
    if git diff --cached -r | grep ' = .*, \s*$';
       notify-send "$LFBFL send summary 1" "$LFBFL send body 1"
      return 1
57
     fi
    return 0
60
61
62
  check_black_code_formatting() {
     # attention ça ne marche que sur les fichiers "stagés" avec git add
64
    LFBFL_files_string=$(\
       git diff --cached --name-only | grep '\.py'\
    echo "$LFBFL files string"
    mapfile -t LFBFL some files <<< "$LFBFL files string"</pre>
    LFBFL error=0
     for LFBFL_file in ${LFBFL_some_files[@]}; do
```

```
echo "Black will check formatting on file $LFBFL_file"

if ! black --check --diff "$LFBFL_file";

then

LFBFL_error=1

fi

done

if [ $LFBFL_error -eq '1' ];

then

return 1

fi

return 0
```

2.43 latex/DevOrSysAdminScripts.tex.tpl

```
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21
  % @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
  \documentclass{article}
25
  \usepackage[utf8]{inputenc}
27 \usepackage[T1]{fontenc}
  \usepackage{subfigure}
29 \usepackage{amsmath}
  \usepackage{amssymb}
31 \usepackage{amsthm}
```

```
\usepackage[pdftex]{hyperref}
\usepackage{tikz}
\usepackage{caption}
\usepackage[round] {natbib}
\usepackage { fancyhdr }
\usepackage{amsfonts}
\usepackage{times}
\usepackage{ifpdf}
\usepackage{latexsym}
\usepackage{graphicx}
\usepackage{enumerate}
\usepackage{pmboxdraw}
\usepackage{fancyvrb}
\usepackage[french,english]{babel}
% *** les environnements ***
%\theoremstyle{break}
\newtheorem{definition} {Definition} [section]
\newtheorem{proposition} [definition] {Proposition}
\newtheorem{theorem} [definition] {Theorem}
\newtheorem{lemma} [definition] {Lemma}
\newtheorem{corollary} [definition] {Corollary}
 \newtheorem{remark} [definition] {Remark}
\newtheorem{openproblem}[definition]{Open problem}
\begin{document}
 \author{
  @author_full_name@\\
   \url{@author_website@}\\
   \href{mailto:@author_email@}{@author_email@}
\title{@repository_name@}
\maketitle
\begin{abstract}
@abstract@
\end{abstract}
Current version: @current_date@
Current number of commits: @number_of_commits@
Current git SHA1: @current_git_SHA1@
Code lines: @number_of_lines@
```

```
\section{Files tree}
  \label{section:tree}
  \begin{verbatim}
  @current_tree_light@
  \end{verbatim}
   \begin{verbatim}
  @current tree@
  \end{verbatim}
   \section{Listing of files}
  \label{section:listing}
   The following source code is covered by LGPLv3+.
   The text of the license is available at:
   \url{https://www.gnu.org/licenses/}.
   The git repository of this source code is also available at:
   \url{https://github.com/LLyaudet/@repository_name@/}.
   @files_listing_VerbatimInput@
   @acknowledgments@
101
   \end{document}
```

2.44 LiensUtiles.txt

```
https://support.google.com/a/answer/9476255?hl=fr#zippy=%2C%C3%A9tape\
configurez-le-service-de-migration-de-donn%C3%A9es
https://stackoverflow.com/a/78413334/5796086
https://stackoverflow.com/questions/21612980/\
why-is-usr-bin-env-bash-superior-to-bin-bash/78413334
https://web.archive.org/web/20240501105801/https://stackoverflow.com\
questions/21612980/why-is-usr-bin-env-bash-superior-to-bin-bash/\
8413334#78413334
```

2.45 pre-commit

```
#!/usr/bin/env bash
# This file is part of DevOrSysAdminScripts library.
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# you can redistribute it and/or modify it under the terms
# of the GNU Lesser General Public License
```

```
# as published by the Free Software Foundation,
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  # or (at your option) any later version.
  # DevOrSysAdminScripts is distributed in the hope
  # that it will be useful,
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  # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
  # See the GNU Lesser General Public License for more details.
  # You should have received a copy of
  # the GNU Lesser General Public License
  # along with DevOrSysAdminScripts.
   # If not, see <a href="https://www.gnu.org/licenses/">https://www.gnu.org/licenses/>.</a>
   # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
  . ../git_checks.sh
27 git_hook_error=0
28 if ! check_files
  then
     git_hook_error=1
  if ! check_no_abusive_trailing_comma
  then
     git_hook_error=1
  fi
  if ! check_black_code_formatting
  then
     git_hook_error=1
  if [ $git_hook_error -eq '1' ];
  then
     exit 1
43 fi
44 exit 0
```

2.46 README.md

```
# DevOrSysAdminScripts

[![CodeFactor-badge]][CodeFactor-package-page]

[![CodeClimateMaintainability-badge]][CodeClimateM13y-package-page]

[![Codacy-badge]][Codacy-package-page]
```

```
![GitHub-top-language-badge]
  ![GitHub-license-badge]
  ![GitHub-code-size-in-bytes-badge]
                  **Some "small" useful scripts**
10
  |:----:|
   | **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.
   [CodeFactor-badge]: https://www.codefactor.io/repository/github/llyaudet/DevOrSysAc
18
19
   [CodeFactor-package-page]: https://www.codefactor.io/repository/github/llyaudet/De-
21
   [CodeClimateMaintainability-badge]: https://api.codeclimate.com/v1/badges/b619ce83
22
23
   [CodeClimateM13y-package-page]: https://codeclimate.com/github/LLyaudet/DevOrSysAdi
25
   [Codacy-badge]: https://app.codacy.com/project/badge/Grade/3dd6ef85e8db4460991d1ebe
   [Codacy-package-page]: https://app.codacy.com/gh/LLyaudet/DevOrSysAdminScripts/dasl
28
29
   [GitHub-top-language-badge]: https://img.shields.io/github/languages/top/llyaudet/
   [GitHub-license-badge]: https://img.shields.io/github/license/llyaudet/DevOrSysAdm.
33
   [GitHub-code-size-in-bytes-badge]: https://img.shields.io/github/languages/code-size-in-bytes-badge]:
```

2.47 README.md.tpl

```
a suite of shell scripts about build and checks that
I use in some of my other repositories.
[CodeFactor-badge]: https://www.codefactor.io/repository/github/\
llyaudet/DevOrSysAdminScripts/badge
[CodeFactor-package-page]: https://www.codefactor.io/repository/\
github/llyaudet/DevOrSysAdminScripts
[CodeClimateMaintainability-badge]: https://api.codeclimate.com/v1/\
badges/b619ce83a81cc4a55e18/maintainability
[CodeClimateM13y-package-page]: https://codeclimate.com/\
github/LLyaudet/DevOrSysAdminScripts/maintainability
[Codacy-badge]: https://app.codacy.com/project/badge/Grade/\
3dd6ef85e8db4460991d1ebc404b68dd
[Codacy-package-page]: https://app.codacy.com/gh/LLyaudet/\
DevOrSysAdminScripts/dashboard?utm source=gh&utm medium=referral
&utm_content=&utm_campaign=Badge_grade
[GitHub-top-language-badge]: https://img.shields.io/github/\
languages/top/llyaudet/DevOrSysAdminScripts
[GitHub-license-badge]: https://imq.shields.io/github/license/
llyaudet/DevOrSysAdminScripts
[GitHub-code-size-in-bytes-badge]: https://img.shields.io/github/\
languages/code-size/llyaudet/DevOrSysAdminScripts
```

2.48 repository_data.txt

```
repository_name=DevOrSysAdminScripts
repository_web_url=https://github.com/LLyaudet/DevOrSysAdminScripts/
repository_git_url=git@github.com:LLyaudet/DevOrSysAdminScripts.git
abstract=Some "small" useful scripts
abstract=for enhancing development or system-administrators tasks
license=LGPLv3+
author_email=Laurent.Lyaudet@gmail.com
author_full_name=Laurent Frédéric Bernard François Lyaudet
author_last_name=Lyaudet
author_name=Laurent Lyaudet
author_name=Laurent Lyaudet
author_website=https://lyaudet.eu/laurent/
acknowledgments=Merci Dieu !
acknowledgments=Merci Père ! Merci Seigneur ! Merci Saint Esprit !
```

2.49 unicode.php

```
<?php
  /*
  This file is part of DevOrSysAdminScripts library.
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of the GNU Lesser General Public License
8 as published by the Free Software Foundation,
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  the GNU Lesser General Public License
21 along with DevOrSysAdminScripts.
22 If not, see <a href="https://www.gnu.org/licenses/">https://www.gnu.org/licenses/</a>.
  ©Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
24
  */
25
   function decimal_code_point_to_UTF8(
     $i code point in decimal notation
28
  ) {
     // var_dump($i_code_point_in_decimal_notation);
     // 0xxxxxxx ASCII
     if($i_code_point_in_decimal_notation < 128){</pre>
       return chr($i_code_point_in_decimal_notation);
     }
     $i_continuation_base_value = 128;
     // 110xxxxx 10xxxxxx
     if($i_code_point_in_decimal_notation < 256 * (2**3)){</pre>
       $i_first_byte_base_value = 192;
       $i_last_byte_significant_bits = (
         $i_code_point_in_decimal_notation % (2**6)
41
       );
       $i_first_byte_significant_bits = (int) (
```

```
43
           $i_code_point_in_decimal_notation
44
           - $i_last_byte_significant_bits
         ) / (2**6)
       );
47
       s_result = chr(
         $i_first_byte_base_value
         + $i_first_byte_significant_bits
       );
51
       s_result = chr(
         $i_continuation_base_value
         + $i_last_byte_significant_bits
       );
       return $s result;
     // 1110xxxx 10xxxxxx 10xxxxxx
     if($i_code_point_in_decimal_notation < 256 * 256){</pre>
       $i_first_byte_base_value = 224;
       $i_last_byte_significant_bits = (
         $i_code_point_in_decimal_notation % (2**6)
62
       );
       $i_first_bytes_significant_bits = (int) (
           $i_code_point_in_decimal_notation
           - $i_last_byte_significant_bits
         ) / (2**6)
       $i_other_continuation_byte_significant_bits = (
         $i_first_bytes_significant_bits % (2**6)
       );
       $i_first_byte_significant_bits = (int) (
           $i_first_bytes_significant_bits
           - $i_other_continuation_byte_significant_bits
         ) / (2**6)
       );
       s_result = chr(
         $i_first_byte_base_value
         + $i_first_byte_significant_bits
       );
       $s_result .= chr(
         $i_other_continuation_byte_significant_bits
         + $i last byte significant bits
       $s result .= chr(
         $i_continuation_base_value
```

```
+ $i_last_byte_significant_bits
       );
       return $s_result;
     // 11110xxx 10xxxxxx 10xxxxxx 10xxxxxx
     if($i_code_point_in_decimal_notation < 256 * 256 * (2**5)){</pre>
       $i_first_byte_base_value = 240;
        $arr_arr_data_per_byte_reverse = [
          ["i_bits" => 6, "i_base_value" => $i_continuation_base_value],
          ["i_bits" => 6, "i_base_value" => $i_continuation_base_value],
          ["i_bits" => 6, "i_base_value" => $i_continuation_base_value],
          ["i_bits" => 3, "i_base_value" => $i_first_byte_base_value],
100
101
       ];
       $i rest = $i code point in decimal notation;
102
       $s result = "";
103
        foreach($arr_arr_data_per_byte_reverse as $arr_data){
104
          $i_significant_bits = $i_rest % (2**$arr_data["i_bits"]);
105
          i_rest = (int) (
106
            ($i_rest - $i_significant_bits) / (2**$arr_data["i_bits"])
108
          $s_result = chr($i_significant_bits).$s_result; // .= or =.
109
110
       return $s_result;
       // TODO factoriser comme ce if, la flemme là tout de suite
112
       // (5 h 22 du matin).
113
114
     throw new Exception (
       "UTF-8 avec jusqu'à 6 octets a été abandonné il y a longtemps."
116
        ." Autre anecdote \"débile\" : MySQL a de base UTF-8 avec jusqu'à"
117
       ." 3 octets au lieu de 4 :face-palm:."
118
        ." Du coup, ça peut donner quelques \"surprises\"."
119
        ." Sinon, y'a aussi ASCII dans MySQL."
120
        ." Et comme ça joue sur la mémoire et les performances,"
121
        ." pourquoi ils n'ont pas fait ASCII, UTF-8-2, UTF-8-3, UTF-8-4 ?"
122
        .":)"
123
     );
124
125
126
127
   function hexa_code_point_to_UTF8(
129
     $s_code_point_in_hexadecimal_notation
   ) {
131
     $s_code_point_in_hexadecimal_notation = strtoupper(
        $s_code_point_in_hexadecimal_notation
133
     );
```

```
$i_code_point_in_decimal_notation = 0;
135
     \sin_0 = ord('0');
136
     \$i \text{ ord } A = \text{ord}('A');
137
     $i_digit_offset = -$i_ord_0;
     $i_letter_offset = 10 - $i_ord_A;
139
      for (
        $i = 0, $i_max = strlen($s_code_point_in_hexadecimal_notation);
141
        $i < $i_max;</pre>
       ++$i
143
     ) {
        $s_hexa_digit = $s_code_point_in_hexadecimal_notation[$i];
145
        $i_code_point_in_decimal_notation *= 16;
        if(ctype_digit($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)){
          $i_code_point_in_decimal_notation += (
154
            ord($s_hexa_digit) + $i_letter_offset
          );
156
          continue;
158
       throw new Exception ("Not an hexadecimal digit.");
159
160
     return decimal_code_point_to_UTF8(
        $i_code_point_in_decimal_notation
162
     );
163
   }
164
   /*
   ?>
167
   <?php
   require_once("./unicode.php");
   var_dump(hexa_code_point_to_UTF8("002B"));
   var_dump(hexa_code_point_to_UTF8("00E6"));
171
   var_dump(hexa_code_point_to_UTF8("1400"));
   var_dump(hexa_code_point_to_UTF8("10111"));
   // https://en.wikibooks.org/wiki/Unicode/Character_reference/2000-2FFF
   // Some invisible unicode characters that are a problem:
   // 2000-200F 2028-202F 205F 2060-206F
   $arr = [
177
     '2000', '2001', '2002', '2003', '2004', '2005', '2006', '2007',
     '2008', '2009', '200A', '200B', '200C', '200D', '200E', '200F',
179
     '2028', '2029', '202A', '202B', '202C', '202D', '202E', '202F',
```

```
'205F',
     '2060', '2061', '2062', '2063', '2064', '2065', '2066', '2067',
     '2068', '2069', '206A', '206B', '206C', '206D', '206E', '206F',
  ];
  $arr_s = [];
185
  \frac{1}{3} = [];
  arr_s3 = [];
   foreach($arr as $s_hexa){
     $s = hexa_code_point_to_UTF8($s_hexa);
     $arr_s []= $s;
     if(strlen(\$s) === 2){
       $s2 = ' \x'.bin2hex($s[0]).' \x'.bin2hex($s[1]);
193
     if(strlen(\$s) === 3){
194
       $s2 = ' \x'.bin2hex($s[0]).' \x'.bin2hex($s[1])
          .' \x'.bin2hex($s[2]);
197
     $arr_s2 [] = $s2;
     $s3 = " | sed -e 's/".$s2."/ /g'\\";
     $arr_s3 []= $s3;
     echo($s3."\n");
  }
202
  //*/
204
```

2.50 upgrade_build_and_checks.sh

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

```
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cd build_and_checks_dependencies/
./update_common_build_and_checks.sh

cd ..
/build and checks.sh
```

2.51 wget_sha512.sh

```
#!/usr/bin/env bash
2 # This file is part of DevOrSysAdminScripts library.
  # DevOrSysAdminScripts is free software:
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  # of the GNU Lesser General Public License
  # as published by the Free Software Foundation,
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  # or (at your option) any later version.
# DevOrSysAdminScripts is distributed in the hope
  # that it will be useful,
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  # MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
  # See the GNU Lesser General Public License for more details.
18 # You should have received a copy of
  # the GNU Lesser General Public License
  # along with DevOrSysAdminScripts.
  # If not, see <https://www.gnu.org/licenses/>.
  # @Copyright 2023-2024 Laurent Frédéric Bernard François Lyaudet
24
  wget_sha512(){
    # $1 file_name
    # $2 download_URL
    # $3 correct_sha512
    if [[ ! -f "$1" ]];
    then
      wget -0 "$1" "$2"
     wget sha512 var present sha512=$(sha512sum "$1" | cut -f1 -d' ')
     if [[ "$wget_sha512_var_present_sha512" != "$3" ]];
```

```
then
echo "$1 does not have correct sha512"
echo "wanted $3"
echo "found $wget_sha512_var_present_sha512"
exit
fi

1 }
```

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