Generating a Notice File from SPDX document
Version 2
SPDX-TR-2017-1

Abstract

Notice files are required to satisfy the terms of some open source licenses to reproduce the license and in some cases the copyright statements found in the original sources. Although the specific attribution terms of open source licenses and interpretation of those terms may vary, this guide can provide a framework for using SPDX to meet your organization's policies regarding license attributions. SPDX files are a superset of the information typically provided by a Notice File, and can be used to satisfy the obligations, as well as being able to be transformed into a more traditionally formatted Notice file.

Keywords

SPDX, Attribution, Notices

SPDX Technical Team

A Notice File can be generated from SPDX files in a fairly straightforward manner.   They are also referred to as Acknowledgement File, Legal Notices, License File, Attribution, Credits, Contributors, etc.   For convenience in this document, we'll use the term "Notice file".

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When you ship the sources with a binary, generally the sources themselves contain the necessary information (i.e. README, CONTRIBUTORS, LICENSE files, etc.).   However, when shipping a binary it becomes necessary to ensure that there is a Notice file available and human readable to satisfy the license terms for some licenses. This fulfills the license requirements to include copy of license, but there may be other requirements that should be reviewed (providing source, etc.).

To generate the Notice file from an existing SPDX document is fairly straightforward. A properly generated SPDX document should have the key information in it, and is a superset of the information needed. Since SPDX documents can be in either tag:value or RDFa format,   the structure for expressing the fields to pull in will be given in terms of the sections of the 2.1 SPDX specification.

It is recommended that when multiple packages are involved, all packages that are governed by the same license are grouped together.   However listing each package and the associated licenses and copyrights in the order encountered can be done too.

Template:

An example layout taken from a large project, structures the notice file as an context index of packages or binary files, followed by the actual Notice information (license and copyright information relevant to the package).   When multiple packages have the same license and copyright information they are grouped together.   For convenience here, the term packages will be used for simplicity rather than distinguishing between binary files and actual source packages.

Contents Index:
- (optional link to) Package 1
- (optional link to) Package 2
- …
- (optional link to) Package N

Note: link can be either a hyper link or a range of lines in the following file, whichever makes most sense for target.

Notices for File(s):
  Package: 2
  Package: 4

        License texts
        Copyright statements
        Additional notice info from Package 2

  Package: 1
  Package: N

        License text
        Copyright statements

  Package: 3
  Package: 5
  Package: 6

         License text

 …

Pseudo Code:

Create "Notice" file
Create "Temp" for intermediary text results.

for each 3.2 packageID being distributed:
    print in "Temp" 3.1 Package Name and 3.3 Package Version
    if 3.13 Concluded License is NOT (NONE or NOASSERTION)
            For each licenseID in spdx-license-expression in 3.13 Concluded License
                 PrintOutLicense(licenseID)
                 If RequiresCopyrights(licenseID) then PrintOutCopyrights(packageID, licenseID)
                 PrintNoticefiles(packageID, licenseID)
     else if NOASSERTION
             for each licenseID in 3.14 All License Information From FIles
                 PrintOutLicense(licenseID)
                  if RequiresCopyrights(licenseID) then PrintOutCopyrights(packageID, licenseID)
                 PrintNoticefiles(packageID, licenseID)
          else /* NONE */
            Print in "Temp" that "No license found"

if 2.1 SPDX Version is SPDX-2.0 or later then
   For any 4.2 fileID that has a 7.1 Relationship of "DESCRIBED_BY" SPDXREF-Document
      /* fileID is not already contained in some other listed packageID, but is in the

```
        SPDX file on its own  */
    print in "Temp" 4.1 File Name
    CheckLinkToPackage (4.2 File SPDX Identifier, "GENERATED_FROM")
    if 4.5 Concluded License is NOT ( NONE or NOASSERTION )
      for each licenseID in 4.5 Concluded License
        PrintOutLicense(licenseID)
        if RequiresCopyrights(licenseID) then print in "Temp"  4.8 Copyright Text
    else if NOASSERTION
        for each licenseID in 4.6 All License Information in FIle
          PrintOutLicense(licenseID)
          if RequiresCopyrights(licenseID) then print in "Temp"  4.8 Copyright Text
      else /* NONE */
        print in "Temp" that "No license found"
    print in "Temp" 4.13 File Notice
```

Process "Temp", grouping packages and files with simliar license, copyright and notice information together.   Sort by license information.

Generate a sorted index of all packages and files reported on in processed "Temp".

Print in "Notice" the sorted index of all packages and files processed.

Print in "Notice" the processed "Temp" contents.

Close "Notice" file.

CheckLinkToPackage(SPDXid, SPDXrelationship**)**
if SPDXid has a 7.1 Relationship of SPDXrelationship with a package
        /* ie DocumentRef-[idstring]:SPDXid is an Archive */
        Print in "Temp" for the SPDXid "(" 3.1 Package Name 3.3 Package Version ")"

PrintOutLicense(licenseID)
  If licenseID in SPDX license list?
        Look up licenseID on SPDX license list and print
        out https://spdx.org/licenses/<licenseID>#name followed by
        https://spdx.org/licenses/<licenseID>#licenseText
  else
        Match to from 6.1 License Identifier in SPDX document and
        print out 6.3 License Name (if exists) followed by 6.2 Extracted Text

PrintOutCopyrights(packageID, licenseID)
Print to "Temp" 3.17 Copyright Text for the packageID
For each fileID in PackageID
  If 4.5 Concluded License matches licenseID print to "Temp" 4.8 Copyright Text
  (note: there may be many duplicates here, so you may want to consolidate them)

PrintOutNotices(packageID)

For each fileID in PackageID

    if 4.1 File Name is equal to "NOTICE" then print out contents of file.

    else if 7.1 relationship type from fileID to packageID is DISTRIBUTION_ARTIFACT

        and the 4.3 File Type is text and of a reasonable size, then print out contents of file

bool **RequiresCopyrights(**licenseID)

/* If your company has an interpretation of licenses that require copyrights to be listed, this function can be used to do a lookup according to your policy   This function could just return true if you wanted to take a conservative approach if you always print copyrights. */

return TRUE