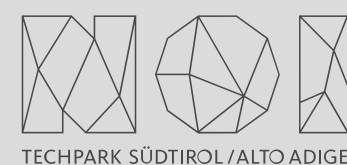


Translate FOSS licenses into code

Machine readable Open Source licenses to develop a license incompatibility calculator

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SFScon @Noi Techpark 2025

Tools and data to determine license compliance (compatibility and checklists)

- resources with license classifications
- identify use scenarios
- tools using the license resources and scenarios (outside this presentation)

Use scenarios

Tools can parse SPDX and CycloneDX, and do compatibility checks using external resources

- How you use a component (as a library, as a compiler...)
- Have you modified the component?
- How do you provide the software to your users?
- SPDX has relationships, CycloneDX a similar smaller thing

How it should work

- take as input an SPDX/CycloneDX SBoM, parse component **licenses** and **relationships** (dynamic linking, static linking, etc.)
- component relationships → required license **permissions**
- check license **permissions**: do they match the required permissions?
- cross-check permission **conditions**: are they **compatible**?
- provide a **checklist** of conditions I have to fulfill
- (optional) provide a list with **outbound license options**
- **Law is not Math**: tentative calculations, human review to spot false positives and false negatives

How it may look like

distribute unmodified source – GPL-2.0

```
perm:distribute-unmodified-uncombined-source:
  outbound_license: |
    Allow GPL-2.0-only
    Deny All
  requires: |
    cond:outbound-license
    AND cond:provide-license
    AND cond:provide-copyright-notice
    AND cond:provide-warranty-disclaimer
    AND cond:keep-copyright-notices
    AND cond:keep-warranty-disclaimer
```

distribute unmodified source – LGPL-2.1

```
perm:distribute-unmodified-uncombined-source:
  reference: Sec.1
  outbound_license: |
    Allow LGPL-2.1-only
    Allow GPL-2.0-only
    Allow GPL-3.0-only
    Deny All
  requires: |
    cond:outbound-license
    AND cond:provide-license
    AND cond:provide-copyright-notice
    AND cond:provide-warranty-disclaimer
    AND cond:keep-copyright-notices
    AND cond:keep-warranty-disclaimer
```

distribute deriv. source – Apache-2.0

```
perm:distribute-inseparable-derivative-source:
  reference: Sec.4
  outbound_license: |
    Deny GPL-2.0-only
    Allow Any
  requires: |
    cond:provide-license
    AND cond:provide-change-notices
    AND cond:keep-copyright-notices
    AND cond:keep-patent-notices
    AND cond:keep-trademark-notices
    AND cond:keep-attribution-notices
    AND (
      cond:provide-NOTICE-file-along-with
      OR cond:display-NOTICE-file
    )
```

distribute linked library – LGPL 2.1

```
perm:distribute-linked-executable:
  reference: Sec.6
  outbound_license: |
    Require (perm:modification-for-internal-use
      AND perm:reverse-engineering-for-internal-debugging)
  requires: |
    cond:outbound-license
    AND cond:provide-license
    AND cond:display-copyright-and-license-notice-lgpl
    AND (
      cond:provide-library-source-and-application-object-along-with
      OR cond:provide-lgpl-source-and-application-object-offer
      OR cond:use-dynamic-linking
    )
    AND cond:do-not-combine-with-other-libraries-not-allowing-relinking
```

Sponsors



ZERO
CORE

<https://nlnet.nl/project/LicenseCompatibilityAutomation/>

Questions?

ASK

Thank You For Your Attention

Project at:

 <https://gitlab.com/automated-foss-license-compliance/>

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