

<https://github.com/sktelecom/onot>

**onot, 이제 제법 쓸만해졌어요!**

오픈소스 고지문 생성을 어떻게 하고 계신가요?

# onot

SPDX 문서를 기반으로 고지문을 생성해주는 오픈소스 도구

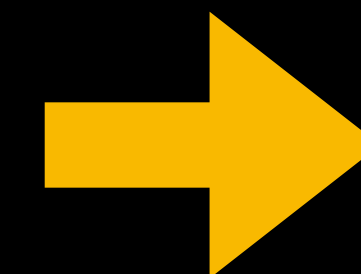
<https://github.com/sktelecom/onot>



```
$ onot --input sample/SPDXRdfExample-v2.3.xlsx --output_format html
```

# SPDX 문서

이름 상자	A	B	C	D	E
1	Package Name	SPDX Identifier	Package Version	Package FileName	Package Supplier
2	glibc	SPDXRef-Package	2.11.1	glibc-2.11.1.tar.gz	Person: Jane Doe (jane.doe@example.com)
3	Saxon	SPDXRef-Saxon	8.8	saxonB-8.8.zip	
4	zlib		1.2.8.7		
5	Gstreamer		1.1		
6	glib		2.1		
7	curl		7.54.0		
8	Activity		1.4.0		
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					



# 고지문

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Name	License	Copyright
glibc 2.11.1	LGPL-2.0-or-later	Copyright 2008-2010 John Smith
Saxon 8.8	MPL-1.0	Copyright Saxonica Ltd
zlib 1.2.8.7	Zlib	Copyright (c) 1996 L. Peter Deutsch and Jean-Loup Gailly
Gstreamer 1.1	LGPL-2.1	
glib 2.1	LGPL-2.1	
curl 7.54.0	curl	Copyright (C) 2013 - 2017, Daniel Stenberg, , et al.
Activity 1.4.0	Apache-2.0	Copyright (C) 2020 The Android Open Source Project

### Licenses

#### GNU Library General Public License v2 or later

- glibc 2.11.1

GNU LIBRARY GENERAL PUBLIC LICENSE

Version 2, June 1991

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51 Franklin St, Fifth Floor, Boston, MA 02110-1301, USA

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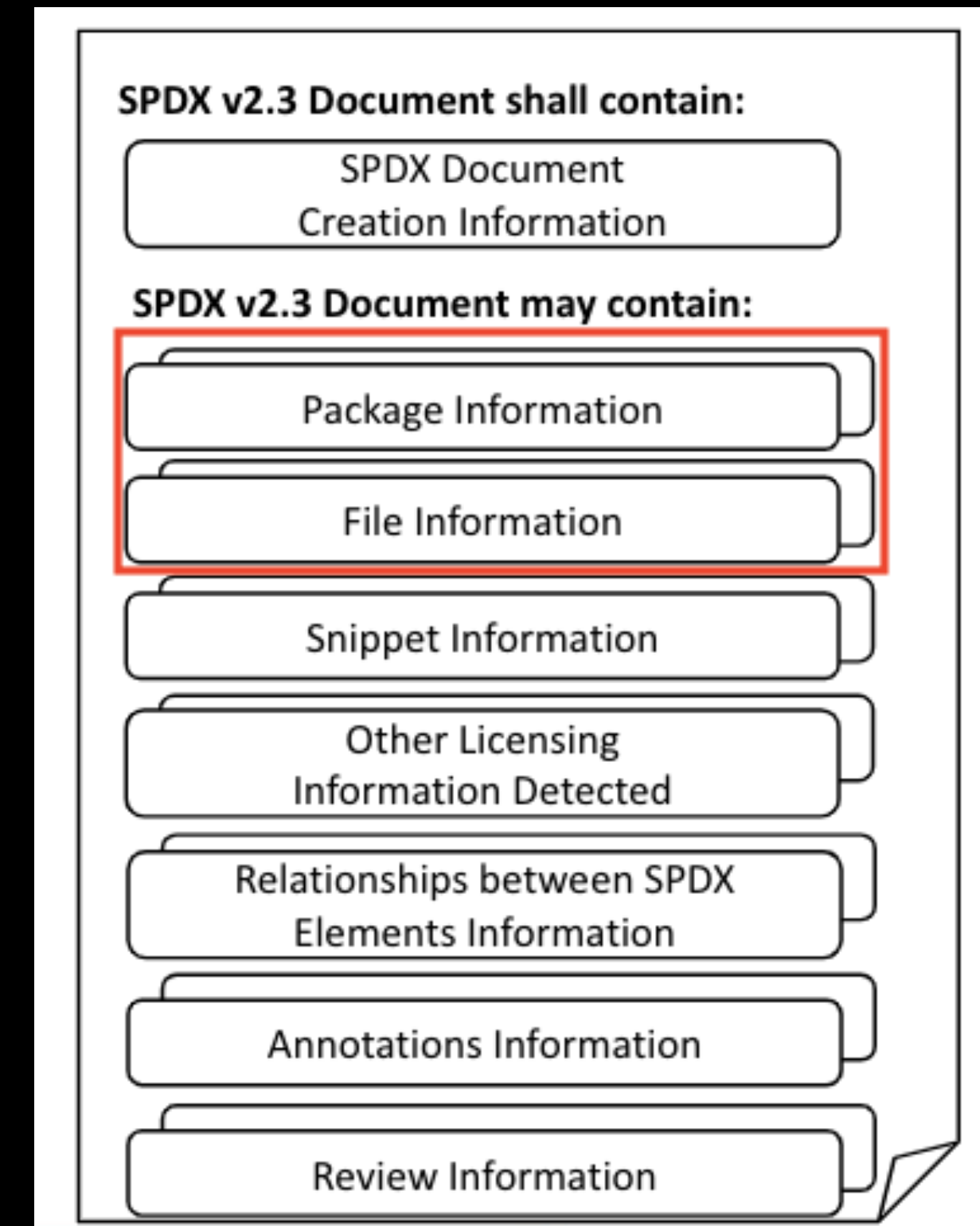
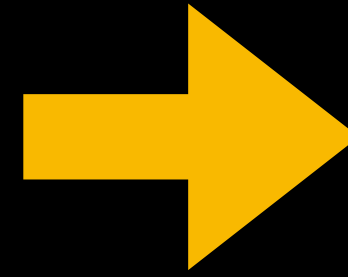
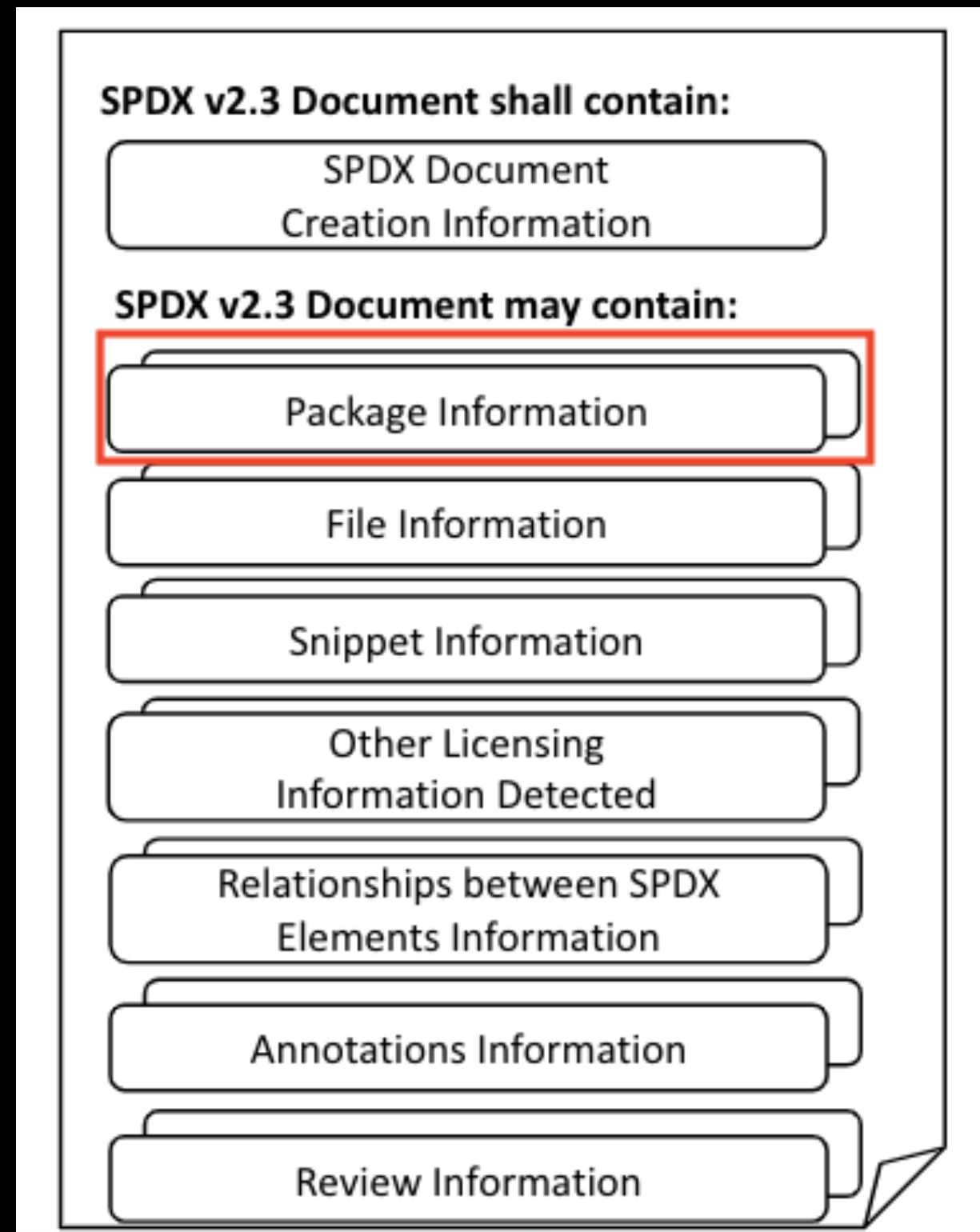
[This is the first released version of the library GPL. It is numbered 2 because it goes with version 2 of the ordinary GPL.]

Preamble

# onot 에 추가된 기능

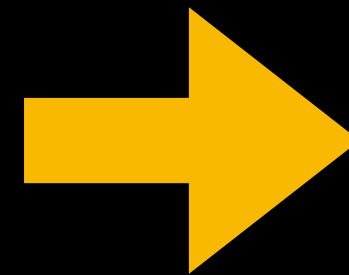
1. **SPDX > 'Per File Info' 내 오픈소스 정보 포함**
2. **Dual License 표기 처리**
3. **RDF/xml 형태 SPDX 문서 기반 oss notice 생성**
4. **소스 공개용 저장소 링크 제공**
5. **Windows GUI용 executable 지원**

# 1. SPDX > 'Per File Info' 내 오픈소스 정보 포함



# 1. SPDX > 'Per File Info' 내 오픈소스 정보 포함

File Name
./lib-source/commons-lang3-3.1-sources.jar



Package: commons-lang3

Version: 3.1

License Concluded: Apache-2.0

License Declared: Apache-2.0

CopyrightText: Copyright 2001-2011 The Apache Software Foundation

DownloadLocation: <https://commons.apache.org/proper/commons-lang>

License Concluded	License Info in File	File Copyright Text	Artifact of Homepage
Apache-2.0	Apache-2.0	Copyright 2001-2011 The Apache Software Foundation	"http://commons.apache.org/proper/commons-lang/"

# 2. Dual License 표기 처리

기존 상황

SPDX 문서

<code>./package/foo.c</code>	<code>(<a href="#">LGPL-2.0-or-later</a> OR <a href="#">LicenseRef-2</a>)</code>
------------------------------	--

생성된 고지문

<code>foo</code>	<code><a href="#">LGPL-2.0-or-later</a></code>	<code>Copyright 2008-2010 John Smith</code>
------------------	--	---



## 2. Dual License 표기 처리

1번째 케이스: AND, OR

SPDX 문서

<code>./package/foo.c</code>	<code>(<a href="#">LGPL-2.0-or-later</a> OR <a href="#">LicenseRef-2</a>)</code>
------------------------------	--

생성된 고지문

<code>foo</code>	<code><a href="#">LGPL-2.0-or-later</a> OR <a href="#">LicenseRef-2</a></code>
------------------	--

## 2. Dual License 표기 처리

2번째 케이스: WITH

GPL-2.0-or-later WITH Bison-exception-2.2

AND, OR 와 같은 파싱외에도 Bison-exception-2.2 에 대한 정보를 얻어와야합니다.

# 2. Dual License 표기 처리

## 2번째 케이스: WITH

### SPDX가 제공하는 License Exception List

spdx.org/licenses/exceptions-index.html

Version: 3.20

#### License Exceptions

Full name	Identifier
<a href="#">389 Directory Server Exception</a>	389-exception
<a href="#">Autoconf exception 2.0</a>	Autoconf-exception-2.0
<a href="#">Autoconf exception 3.0</a>	Autoconf-exception-3.0
<a href="#">Autoconf generic exception</a>	Autoconf-exception-generic
<a href="#">Bison exception 2.2</a>	Bison-exception-2.2
<a href="#">Bootloader Distribution Exception</a>	Bootloader-exception
<a href="#">Classpath exception 2.0</a>	Classpath-exception-2.0
<a href="#">CLISP exception 2.0</a>	CLISP-exception-2.0
<a href="#">DigiRule FOSS License Exception</a>	DigiRule-FOSS-exception
<a href="#">eCos exception 2.0</a>	eCos-exception-2.0
<a href="#">Fawkes Runtime Exception</a>	Fawkes-Runtime-exception
<a href="#">FLTK exception</a>	FLTK-exception
<a href="#">Font exception 2.0</a>	Font-exception-2.0
<a href="#">FreeRTOS Exception 2.0</a>	freertos-exception-2.0
<a href="#">GCC Runtime Library exception 2.0</a>	GCC-exception-2.0
<a href="#">GCC Runtime Library exception 3.1</a>	GCC-exception-3.1
<a href="#">GNAT exception</a>	GNAT-exception

spdx.org/licenses/exceptions.json

```
{
  licenseListVersion: "3.20",
  - exceptions: [
    - {
      reference: "./WxWindows-exception-3.1.json",
      isDeprecatedLicenseId: false,
      detailsUrl: "./WxWindows-exception-3.1.html",
      referenceNumber: 1,
      name: "WxWindows Library Exception 3.1",
      licenseExceptionId: "WxWindows-exception-3.1",
      - seeAlso: [
        | "http://www.opensource.org/licenses/WXwindows"
      ]
    },
    - {
      reference: "./i2p-gpl-java-exception.json",
      isDeprecatedLicenseId: false,
      detailsUrl: "./i2p-gpl-java-exception.html",
      referenceNumber: 2,
      name: "i2p GPL+Java Exception",
      licenseExceptionId: "i2p-gpl-java-exception",
      - seeAlso: [
        | "http://geti2p.net/en/get-involved/develop/licenses#java\_exception"
      ]
    },
  ],
}
```

# 2. Dual License 표기 처리

## 최종결과

License
GPL-2.0-or-later WITH Bison-exception-2.2 AND LicenseRef-3 AND LGPL-2.0-only
MIT AND GPL-2.0-only WITH Autoconf-exception-2.0
BSD-3-Clause OR MIT OR LGPL-2.1-only
LGPL-2.0-or-later AND LicenseRef-3
Apache-2.0 WITH SHL-2.1
Apache-2.0
LicenseRef-1
(BSD-3-Clause OR LGPL-2.1-or-later) AND MIT
LicenseRef-2 OR LGPL-2.0-or-later WITH GCC-exception-2.0

# 3. RDF/xml 형태 SPDX 문서 기반 oss notice 생성

JSON – a lightweight interchange format.

- [Here is an example you can view.](#)

YAML – a human friendly data serialization language for all programming languages.

- [Here is an example you can view.](#)

Tag/value -a simple text based format.

- [Here is an example you can view.](#)

RDF/xml – a Resource Description Format developed by the W3C.

- [Here is an example you can view.](#)

SPDX 문서는 xlsx 포맷 뿐만 아니라

tag/value, RDF/xml, yaml 등 다양한 포맷을 지원합니다.

# 3. RDF/xml 형태 SPDX 문서 기반 oss notice 생성

RDF/xml

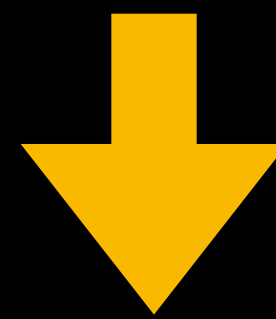
RDF 라는 구조를 xml 포맷으로 나타낸 것입니다.

# 3. RDF/xml 형태 SPDX 문서 기반 oss notice 생성

## RDF Data Model

RDF에서는 subject, predicate, object 세가지로 이루어진 triple로 자원을 기술합니다.

Saoirse Ronan was born in April 12, 1994.



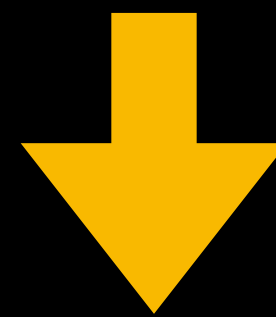
subject(주어): Saoirse Ronan

predicate(서술): was born in

object(목적어): 1994-04-12

# 3. RDF/xml 형태 SPDX 문서 기반 oss notice 생성

```
<spdx:Package rdf:about="http://spdx.org/spdxdocs/spdx-example-444504E0-4F89-41D3-9A0C-0305E82C3301#SPDXRef-fromDoap-0">
  <spdx:name>glibc</spdx:name>
  <spdx:versionInfo>2.11.1</spdx:versionInfo>
  <spdx:copyrightText>Copyright 2008-2010 John Smith</spdx:copyrightText>
  <spdx:downloadLocation>http://ftp.gnu.org/gnu/glibc/glibc-ports-2.15.tar.gz</spdx:downloadLocation>
  <spdx:licenseConcluded rdf:resource="http://spdx.org/licenses/LGPL-2.1-only"/>
  <spdx:licenseDeclared rdf:resource="http://spdx.org/licenses/LGPL-2.1-only"/>
</spdx:Package>
```



subject	predicate	object
SPDXRef-fromDoap-0	name	glibc
	versionInfo	2.11.1
	copyrightText	Copyright 2008 ~~
	downloadLocation	http://ftp.gnu.org/~
	licenseConcluded	LGPL-2.1-only
	licenseConcluded	LGPL-2.1-only

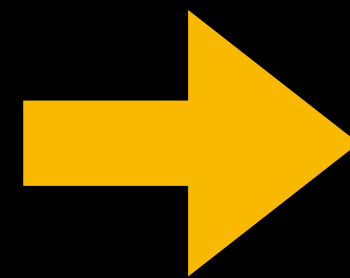


# 3. RDF/xml 형태 SPDX 문서 기반 oss notice 생성

```

<rdf:RDF xmlns:spdx="http://spdx.org/rdf/terms#" xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"
xmlns:doap="http://usefulinc.com/ns/doap#" xmlns:ptr="http://www.w3.org/2009/pointers#"
xmlns:rdfs="http://www.w3.org/2000/01/rdf-schema#"
  <spdx:ExternalSpdxElement rdf:about="http://spdx.org/spdxdocs/spdx-example-444504E0-4F89-41D3-9A0C-
0305E82C3301#DocumentRef-spdx-tool-1.2%3ASpdxRef-ToolsElement"/>
  <spdx:Snippet rdf:about="http://spdx.org/spdxdocs/spdx-example-444504E0-4F89-41D3-9A0C-0305E82C3301#SPDXRef-
Snippet">
    <spdx:name>from linux kernel</spdx:name>
    <spdx:copyrightText>Copyright 2008-2010 John Smith</spdx:copyrightText>
    <spdx:licenseComments>The concluded license was taken from package xyz, from which the snippet was copied into the
current file. The concluded license information was found in the COPYING.txt file in package xyz.
    </spdx:licenseComments>
  </spdx:snippetFromFile>
  <spdx:File rdf:about="http://spdx.org/spdxdocs/spdx-example-444504E0-4F89-41D3-9A0C-0305E82C3301#SPDXRef-
DoapSource">
    <spdx:copyrightText>Copyright 2010, 2011 Source Auditor Inc.</spdx:copyrightText>
    <spdx:fileContributor>Open Logic Inc.</spdx:fileContributor>
    <spdx:licenseInfoInFile>
      <spdx:WithExceptionOperator>
        <spdx:member>
          <spdx:ListedLicense rdf:about="http://spdx.org/licenses/Apache-2.0">
            <spdx:standardLicenseTemplate><<beginOptional>>Apache License Version 2.0, January 2004
http://www.apache.org/licenses/ <<endOptional>><<beginOptional>> TERMS AND CONDITIONS FOR USE,
REPRODUCTION, AND DISTRIBUTION <<endOptional>> <<var;name="bullet";original="1.";match="{0,20}">>
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```



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### components

Name	License	Copyright
<a href="#">Jena 3.12.0</a>	<a href="#">BSD-3-Clause OR MIT OR LGPL-2.1-only</a>	Copyright Example
<a href="#">glibc 2.11.1</a>	<a href="#">GPL-2.0-or-later WITH Bison-exception-2.2 AND LicenseRef-3 AND LGPL-2.0-only</a>	Copyright 2008-2010 John Smith
<a href="#">Saxon 8.8</a>	<a href="#">MIT AND GPL-2.0-only WITH Autoconf-exception-2.0</a>	Copyright Saxonica Ltd
<a href="#">Apache Commons Lang 1.1</a>	<a href="#">LGPL-2.0-or-later AND LicenseRef-3</a>	Copyright Example
DOAPProject	<a href="#">Apache-2.0 WITH SHL-2.1</a>	Copyright 2010, 2011 Source Auditor Inc.
foo	<a href="#">LicenseRef-2 OR LGPL-2.0-or-later WITH GCC-exception-2.0</a>	Copyright 2008-2010 John Smith
myspec	<a href="#">(BSD-3-Clause OR LGPL-2.1-or-later) AND MIT</a>	Copyright Example
commons-lang3 3.1	<a href="#">Apache-2.0</a>	Copyright 2001-2011 The Apache Software Foundation

## 4. 소스 공개용 저장소 링크 제공

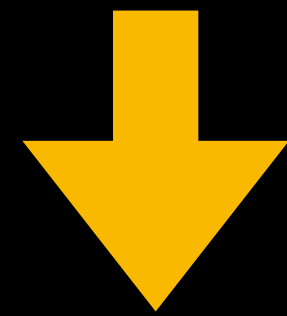
written offer 에 소스코드를 다운받을 수 있는 저장소 링크를 추가하는 이슈

하지만, SPDX 문서 표준에는 해당 정보가 포함되어있지 않습니다.

# 4. 소스 공개용 저장소 링크 제공

K
Creator
Tool: LicenseFind-1.0
Organization: ExampleCodeInspect (opensource@email.com)
Person: Jane Doe ()
SourceDownloadUrl: <a href="http://example.com">http://example.com</a>

사용자가 document info 내 creator에 정보를 기입하면  
written offer에 나타나도록 하였습니다.



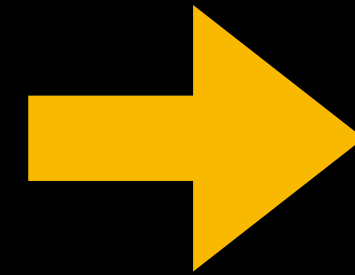
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## 5. Windows GUI용 executable 지원

CLI



CLI or GUI

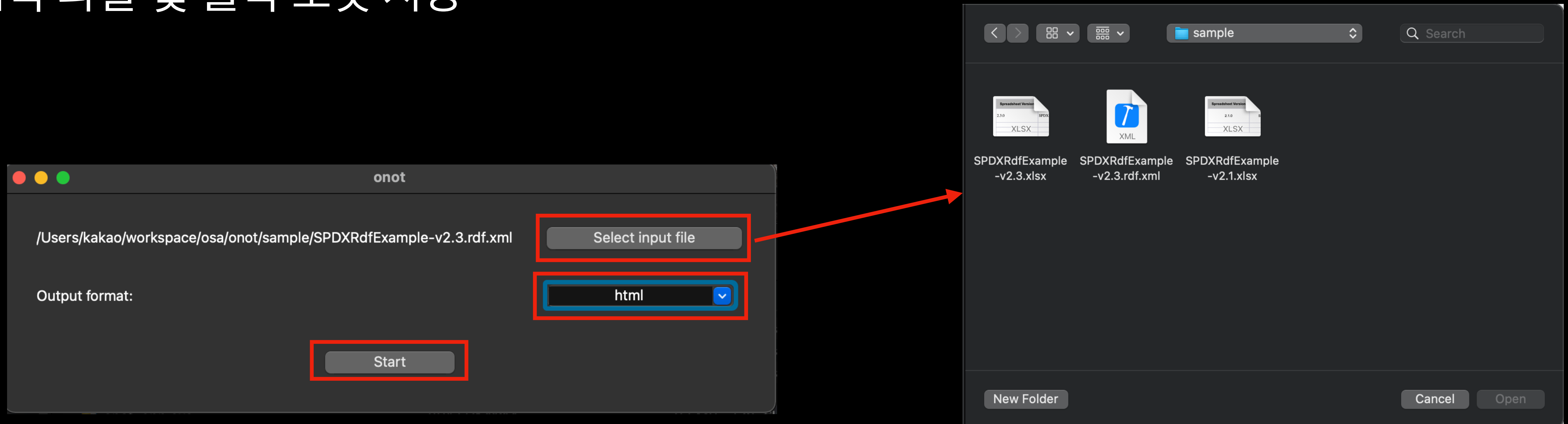
# 5. Windows GUI용 executable 지원

GUI를 구성하기 위해 크게 3단계로 나눠 화면을 구성하였습니다.

1. 입력 파일 및 출력 포맷 지정
2. 입력파일에서 정보 추출 및 고지문 생성하는 과정
3. 고지문 생성 완료

# 5. Windows GUI용 executable 지원

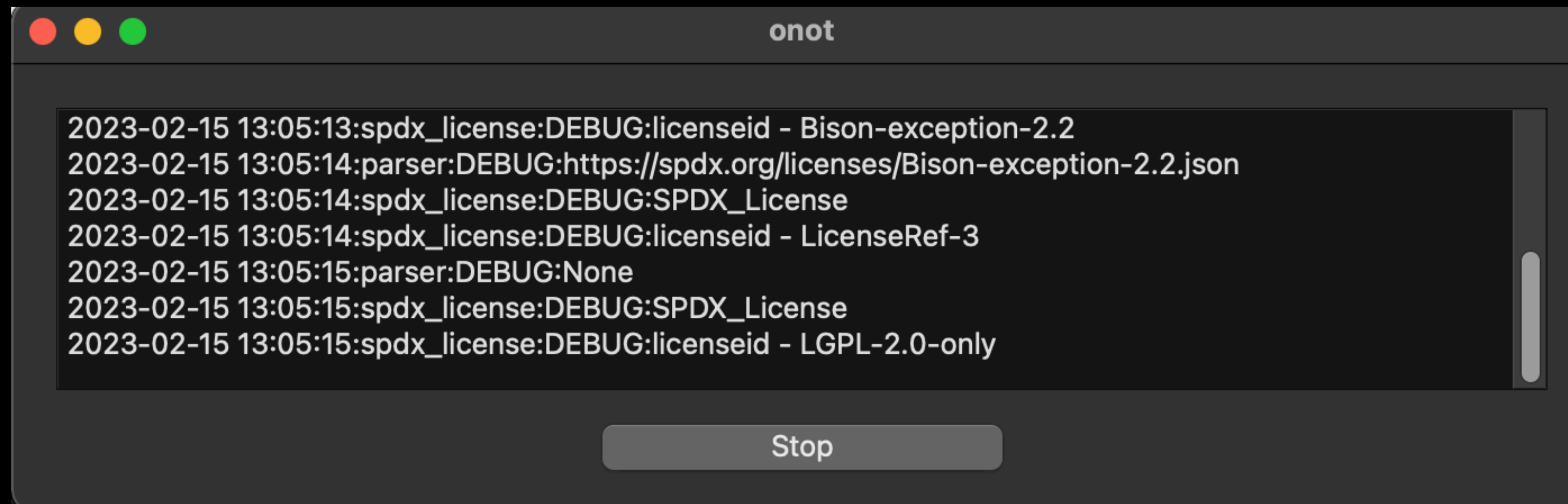
## 1. 입력 파일 및 출력 포맷 지정



1. SPDX 문서를 선택합니다.
2. 고지문의 포맷을 설정합니다.
3. Start 버튼을 눌러 고지문 생성을 시작합니다.

# 5. Windows GUI용 executable 지원

## 2. 입력파일에서 정보 추출후 고지문 생성하는 과정

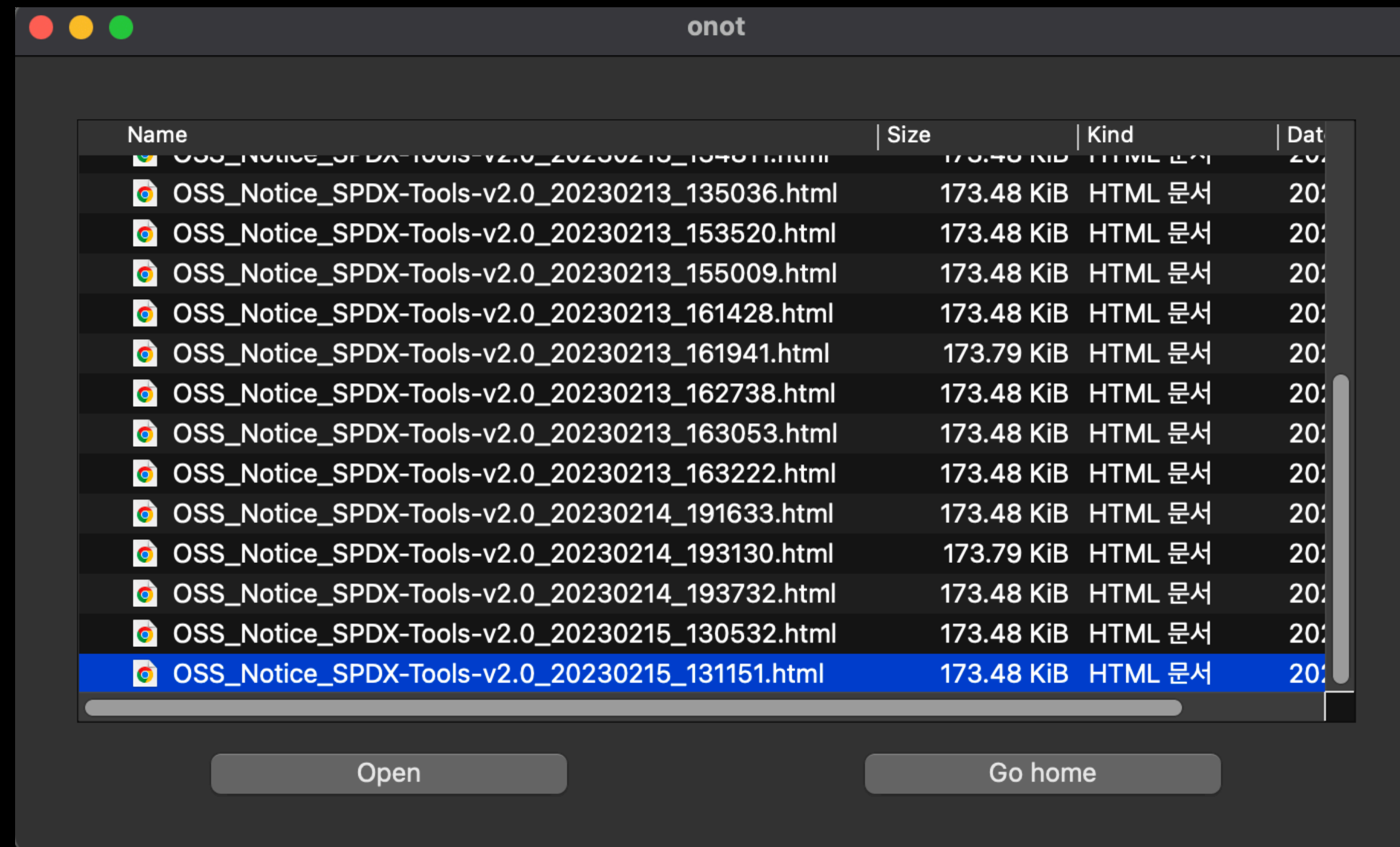


진행과정을 log 위젯에 보여줍니다.

Stop 버튼을 누르면 중단이 됩니다.

# 5. Windows GUI용 executable 지원

## 3. 고지문 생성 완료



생성된 고지문들을 표시합니다.

Open 버튼을 눌러 고지문을 열 수 있습니다.



감사합니다.