

Fossologyの現場展開(利用)における課題点の共有

2020/6/23

富士通株式会社

白石 明大

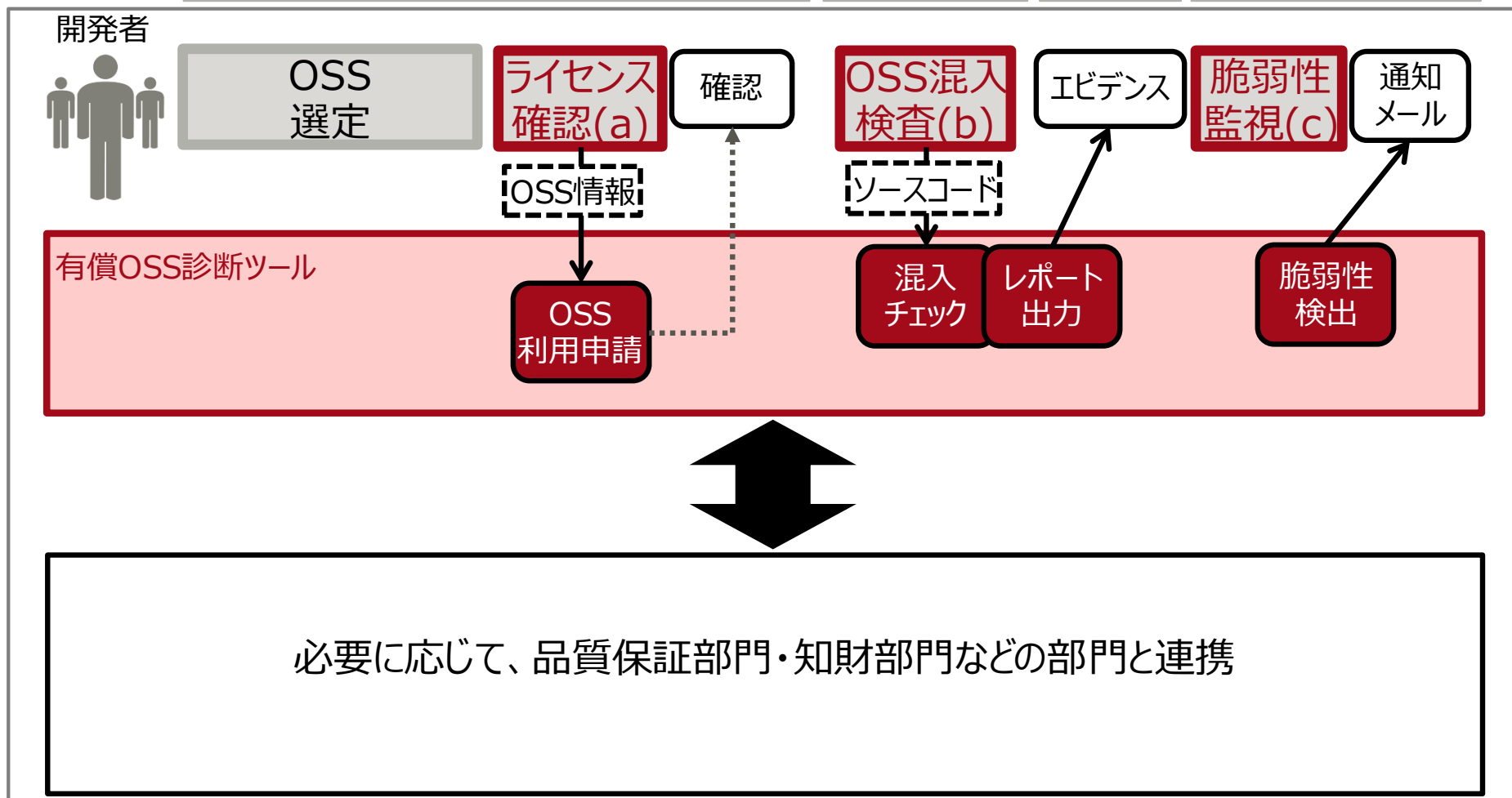


この作品は[クリエイティブ・コモンズ 表示 - 非営利 4.0 国際 ライセンス](https://creativecommons.org/licenses/by/4.0/)の下に提供されています。

- OSSコンプライアンス管理の流れ
- FOSSologyの利用にあたっての課題
 - Scan結果に対する精査負荷の高さ
 - SW360でのレポート出力
- さいごに

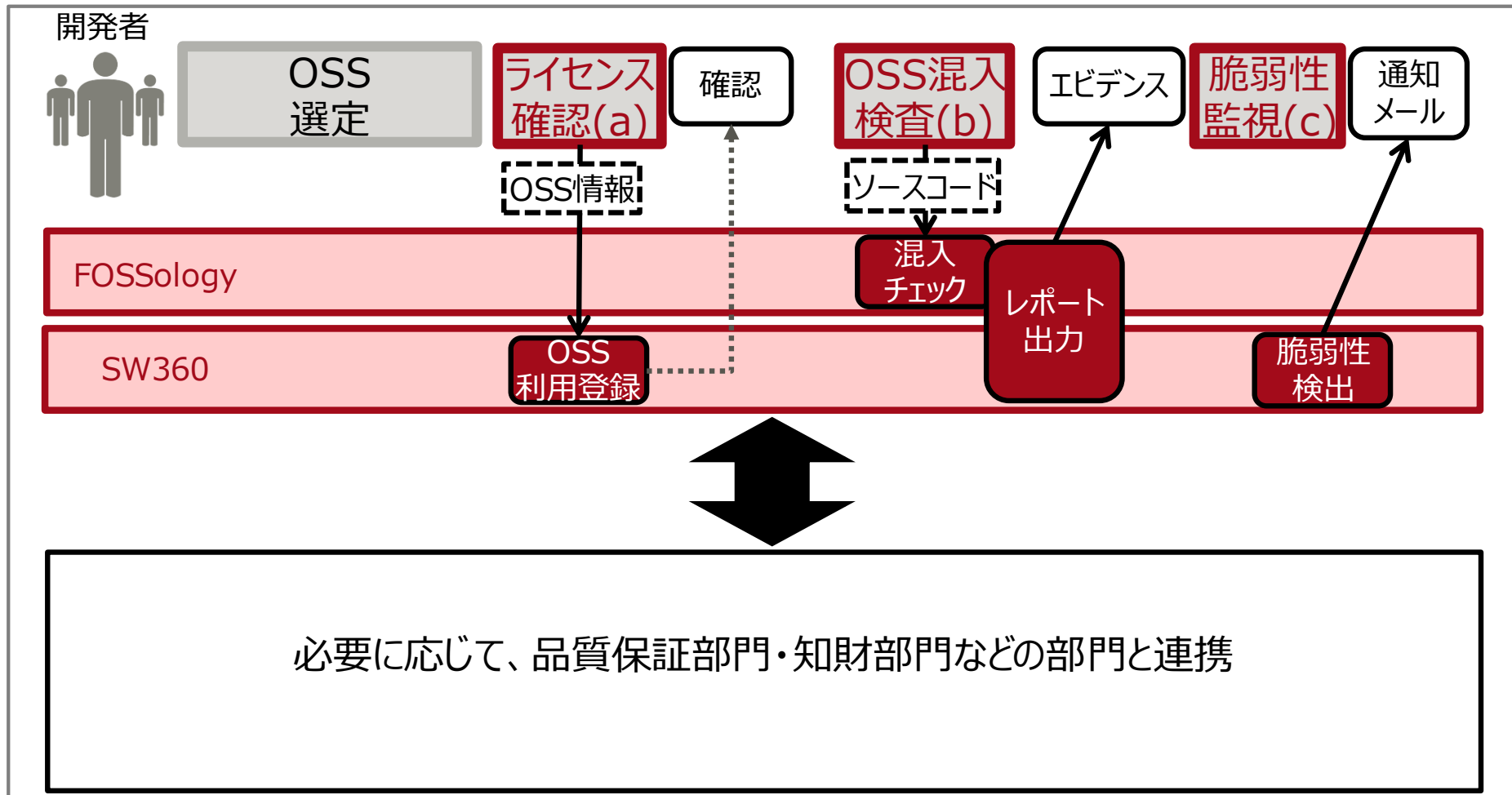
弊社でのOSS管理プロセス

■ OSS診断ツールを活用し、OSS管理プロセスの効率化を推進



弊社でのOSS管理プロセス

■ FOSSologyなどのOSSを利用した管理についても検証を実施



■ SW360

- CentOS 7.8.2009
- OpenJDK 1.8.0_252
- Apache CouchDB 1.7.2
- Apache maven 3.6.1
- Apache Thrift 0.11.0
- Liferay portal 7.2.0-ga1
- SW360 5.1.0

■ FOSSology

- Docker 19.03.11
- FOSSology 3.6.0

FOSSologyでの検出結果

■ ライセンス検出結果

検出ライセンス一覧

Scanner Count	License Count	License Name
593	0	GPL-2.0+
24	0	UnclassifiedLicense
8	0	MIT
2	0	See-URL
2	0	Same-license-as
1	0	LGPL
1	0	GPL-2.0
1	0	GPL
1	0	CC-BY-2.5
1	0	BSD
1	0	AGPL-1.0

Showing 1 to 11 of 11 licenses Page 1 of 1

Hint: Click on the license name to search for where the license is found in the file listing.

Summary

Unique licenses	11	2353 Files
Unique scanner detected licenses	12	0 Unique concluded licenses
Licenses found	635	0 Licenses concluded
Files with no detected licenses	1713	0 Concluded files with no detected licenses

Scanner details

Latest run of all available agents [Show](#)

The latest results of agent **nomos** are from revision "3.6.0".fc1b3c.

The latest results of agent **monk** are from revision "3.6.0".fc1b3c.

The agent **reportImport** has not been run on this upload.

[Schedule reportImport scan](#)

The latest results of agent **ojo** are from revision

**スキャンしたファイル/フォルダ
検出されたライセンス**

Files	Scanner Results (N: nomos, M: monk, Nk: ninka, I: reportImport, O: ojo)
.github/PULL_REQUEST_TEMPLATE.md	No_license_found [N]
app	GPL-2.0+, MIT, No_license_found
bin	No_license_found
config	GPL-2.0+, No_license_found, Same-license-as, See-URL, UnclassifiedLicense
db/migrate	GPL-2.0+, No_license_found
doc	AGPL-1.0, CC-BY-2.5, GPL, GPL-2.0, GPL-2.0+, LGPL, No_license_found
extra	GPL-2.0+, No_license_found
files/delete.me	No_license_found [N]
lib	BSD, GPL-2.0+, MIT, No_license_found
log/delete.me	No_license_found [N]
plugins/README	No_license_found [N]
public	GPL-2.0+, MIT, No_license_found, Same-license-as
test	GPL-2.0+, No_license_found, See-URL
tmp	No_license_found
.gitignore	No_license_found [N]

**ライセンス精査のステータス
精査済みのファイル数**

Edited Results	Clearing Status	Files Cleared	Actions
	●	0/0	[View] [Info] [Download] [Tag] [Edit]
	●	0/174	[Tag] [Edit] [Bulk]
	●	0/0	[Tag] [Edit] [Bulk]
	●	0/29	[Tag] [Edit] [Bulk]
	●	0/1	[Tag] [Edit] [Bulk]
	●	0/3	[Tag] [Edit] [Bulk]
	●	0/1	[Tag] [Edit] [Bulk]
	●	0/0	[View] [Info] [Download] [Tag] [Edit]
	●	0/94	[Tag] [Edit] [Bulk]
	●	0/0	[View] [Info] [Download] [Tag] [Edit]
	●	0/0	[View] [Info] [Download] [Tag] [Edit]
	●	0/8	[Tag] [Edit] [Bulk]
	●	0/330	[Tag] [Edit] [Bulk]
	●	0/0	[Tag] [Edit] [Bulk]
	●	0/0	[View] [Info] [Download] [Tag] [Edit]

FOSSologyでの検出結果

■ ライセンスを確認し、適切であれば確定操作を実施

The screenshot shows the FOSSology web interface. The top navigation bar includes links for Home, Search, Browse, Upload, Jobs, Organize, Admin, and Help. The user is logged in as 'fossy' with the group 'org1'. The main content area displays the file path 'Folder: Software Repository/ org1/ redmine-4.1.0.zip/redmine-4.1.0/app/controllers/account_controller.rb'. Below the file path, there is a 'Submit' button and three radio buttons for clearing the decision scope: 'Go through all files', 'Go through all files with licenses', and 'Go through all files with licenses and no clearing result'. A red box highlights the 'Submit' button and the radio buttons. Below the radio buttons, there is a 'Clearing decision type' section with four radio buttons: 'No license known', 'To be discussed', 'Irrelevant', and 'Identified'. A red box highlights the 'Identified' radio button. Below the radio buttons, there is a table with columns: Action, License, Source, License Text, and Acknowledgement. The table contains one entry with the license 'GPL-2.0+' and source 'nomos: #1 User confirmed agent finding'. Below the table, there is a 'Clearing History' section with a table showing the history of clearing decisions. The table has columns: Date, Username, Scope, Type, and Licenses. The table contains one entry with the date '2020-06-19', username 'fossy', scope 'local', type 'Identified', and license 'GPL-2.0+'. A red box highlights the 'Clearing History' section. The left sidebar shows the file's content, which includes a copyright notice for Jean-Philippe Lang and a class definition for AccountController. A legend at the bottom right indicates that 'license relevant text' is highlighted in the file content.

Home Search Browse Upload Jobs Organize Admin Help

Change concluded License

Version: [3.6.0], Branch: [heads/3.6.0], Commit: [#fc1b3c] 2019/09/10 09:24 UTC built @ 2019/10/25 03:03 UTC

Folder: Software Repository/ org1/ redmine-4.1.0.zip/redmine-4.1.0/app/controllers/account_controller.rb

One-Shot Copyright/Email/URL | One-Shot License | License Browser | File Browser | Conf | Info | View | Licenses | Copyright/Email/Url/Author | ECC | keyword | Bucket | Hex | Text | Formatted | Refresh

Close Cleared: 2/640

Hide Legend

frozen_string_literal: true

Redmine - project management software

Copyright (C) 2006-2019 Jean-Philippe Lang

#

This program is free software; you can redistribute it and/or

modify it under the terms of the GNU General Public License

as published by the Free Software Foundation; either version 2

of the License, or (at your option) any later version.

#

This program is distributed in the hope that it will be useful,

but WITHOUT ANY WARRANTY; without even the implied warranty of

MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the

GNU General Public License for more details.

#

You should have received a copy of the GNU General Public License

along with this program; if not, write to the Free Software

Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

```
class AccountController < ApplicationController
  helper :custom_fields
  include CustomFieldsHelper

  self.main_menu = false

  # prevents login action to be filtered by check_if_login_required application scope filter
  skip_before_action :check_if_login_required, :check_password_change

  # Overrides ApplicationController#verify_authenticity_token to disable
  # token verification on openid callbacks
  def verify_authenticity_token
    unless using_open_id?
      super
    end
  end

  # Login request and validation
  def login
    if request.post?
      authenticate_user
    else
      if User.current.logged?
        redirect_back_or_default home_url, :referer => true
      end
    end
  end
end
```

Legend:
license relevant text

Submit

☐ Go through all files

☐ Go through all files with licenses

☒ Go through all files with licenses and no clearing result

Clearing decision scope

☐ Apply decision to all future occurrences of this file

Clearing decision type

☐ No license known

☐ To be discussed

☐ Irrelevant

☒ Identified

Action	License	Source	License Text	Acknowledgement
✖ ⭐	GPL-2.0+	nomos: #1 User confirmed agent finding	Click to add	Click to add

Showing 1 to 1 of 1 entries

User Decision ... Bulk Recognition ... Clearing History ...


Date	Username	Scope	Type	Licenses
2020-06-19	fossy	local	Identified	GPL-2.0+

Showing 1 to 1 of 1 entries

FOSSologyでの検出結果

■ その他の検出

■ 著作権表示



Home Search Browse Upload Jobs Organize Admin Help

Copyright Browser

Version: [3.6.0], Branch: [heads/3.6.0], Commit: [#fc1b3c] 2019/09/10 09:24 UTC built @ 2019/10/25 03:03 UTC

logout
User: fossy
Group: org1

Folder: **Software Repository/**
redmine-4.1.0.zip[License Browser](#) | [File Browser](#) | [Copyright agent/user findings](#) | [ECC](#) | [Email/URL/Author](#) | [Keyword](#) | [Browse](#) | [License List](#) | [Search](#) • [View](#) | [Conf](#) | [Info](#) • [Refresh](#)

Show all

Agent Findings User Findings

redmine-4.1.0/

Activated statements:

Show 50 entries Search:

7

Copyright 2020 FUJITSU LIMITED

FOSSologyでの検出結果

■ その他の検出

■ メールアドレス表示

fossology Home Search Browse Upload Jobs Organize Admin Help

Email/URL/Author Browser

Version: [3.6.0], Branch: [heads/3.6.0], Commit: [#fc1b3c] 2019/09/10 09:24 UTC built @ 2019/10/25 03:03 UTC

Folder: **Software Repository/**
redmine-4.1.0.zip

License Browser | File Browser | Copyright | ECC | Email/URL/Author | Keyword | Browse | License List | Search • View | Conf | Info • Refresh

Show all

Email URL Author

Activated Email statements:

Show 50 entries

Search:


Count	Email		
297	someone@foo.bar	×	<input type="checkbox"/>
93	jsmith@somenet.foo	×	<input type="checkbox"/>
58	redmine@somenet.foo	×	<input type="checkbox"/>
49	JSmith@somenet.foo	×	<input type="checkbox"/>
26	redmine@example.net	×	<input type="checkbox"/>
24	jsmith@foo.bar	×	<input type="checkbox"/>
21	dlopper@somenet.foo	×	<input type="checkbox"/>
18	another@somenet.foo	×	<input type="checkbox"/>
16	foo@example.net	×	<input type="checkbox"/>
14	image@2x.png	×	<input type="checkbox"/>
12	jsmith@example.net	×	<input type="checkbox"/>
7	test00.test@example.com	×	<input type="checkbox"/>
7	newuser@somenet.foo	×	<input type="checkbox"/>
6	newuser@foo.bar	×	<input type="checkbox"/>
6	newmail@test.com	×	<input type="checkbox"/>
6	bar@example.net	×	<input type="checkbox"/>
5	user@somedomain.com	×	<input type="checkbox"/>
5	example1@redmine.org	×	<input type="checkbox"/>
5	87C31D42249DD0489D1A1444E3232DD7019D6183@foo.bar	×	<input type="checkbox"/>
4	test00@foo.bar	×	<input type="checkbox"/>
4	register@example.com	×	<input type="checkbox"/>
4	psmith@somenet.foo	×	<input type="checkbox"/>
4	john.doe@somenet.foo	×	<input type="checkbox"/>
4	foo@bar.com	×	<input type="checkbox"/>

redmine-4.1.0/

FOSSologyでの検出結果

■ その他の検出

■ URL表示



Home Search Browse Upload Jobs Organize Admin Help

Email/URL/Author Browser

Version: [3.6.0], Branch: [heads/3.6.0], Commit: [#fc1b3c] 2019/09/10 09:24 UTC built @ 2019/10/25 03:03 UTC

logout
User: fossy
Group: org1

Folder: **Software Repository/**
redmine-4.1.0.zip

License Browser | File Browser | Copyright | ECC | Email/URL/Author | Keyword | Browse | License List | Search | View | Conf | Info | Refresh

Show all

Email **URL** Author

Activated URL statements:

Show 50 entries

Search:

Count	URL		
197	http://foo.bar	×	<input type="checkbox"/>
104	http://www.redmine.org	×	<input type="checkbox"/>
102	http://www.w3.org/1999/xhtml">	×	<input type="checkbox"/>
100	http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">	×	<input type="checkbox"/>
100	http://www.w3.org/1999/xhtml"	×	<input type="checkbox"/>
100	http://www.redmine.org">http://www.redmine.org	×	<input type="checkbox"/>
99	http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">	×	<input type="checkbox"/>
98	https://www.redmine.org/projects/redmine/wiki/RedmineCodeHighlightingLanguages"	×	<input type="checkbox"/>
98	https://www.redmine.org/projects/redmine/wiki/RedmineCodeHighlightingLanguages	×	<input type="checkbox"/>
98	http://www.redmine.org"	×	<input type="checkbox"/>
98	http://rouge.jneen.net/"	×	<input type="checkbox"/>
50	:http://www.redmine.org	×	<input type="checkbox"/>
49	http://foo.bar)	×	<input type="checkbox"/>
49	http://daringfireball.net/projects/markdown/syntax">http://daringfireball.net/projects/markdown/syntax	×	<input type="checkbox"/>
49	:http://foo.bar	×	<input type="checkbox"/>
48	http://www.redmine.org)	×	<input type="checkbox"/>
47	http://en.wikipedia.org/wiki/Textile_%28markup_language%29">http://en.wikipedia.org/wiki/Textile_(markup_language)	×	<input type="checkbox"/>
9	http://bazaar-vcs.org/	×	<input type="checkbox"/>
7	http://openid.example.com/good_user'	×	<input type="checkbox"/>
7	http://foo.bar/image.jpg"	×	<input type="checkbox"/>
5	http://foo/%value%")	×	<input type="checkbox"/>
5	http://foo.bar/image.jpg!'	×	<input type="checkbox"/>
5	http://foo.bar">http://foo.bar	×	<input type="checkbox"/>
5	http://example.com/	×	<input type="checkbox"/>

redmine-4.1.0/

FOSSologyでの検出結果

■ ライセンス検出結果

fossology Home Search Browse Upload Jobs Organize Admin Help

License Browser

Version: [3.6.0], Branch: [heads/3.6.0], Commit: [#fc1b3c] 2019/09/10 09:24 UTC built @ 2019/10/25 03:03 UTC

Folder: Software Repository/
redmine-4.1.0.zip/redmine-4.1.0

Display 25 licenses

Scanner Count	Concluded License Count	License Name
593	0	GPL-2.0+
24	0	UnclassifiedLicense
8	0	MIT
2	0	See-URL
2	0	Same-license-as
1	0	LGPL
1	0	GPL-2.0
1	0	GPL
1	0	CC-BY-2.5
1	0	BSD
1	0	AGPL-1.0

Showing 1 to 11 of 11 licenses Page 1 of 1

Hint: Click on the license name to search for where the license is found in the file listing.

Summary

Unique licenses	11	2353 Files
Unique scanner detected licenses	12	0 Unique concluded licenses
Licenses found	635	0 Licenses concluded
Files with no detected licenses	1713	0 Concluded files with no detected licenses

Scanner details

Latest run of all available agents Show

The latest results of agent **nomos** are from revision "3.6.0".fc1b3c.

The latest results of agent **monk** are from revision "3.6.0".fc1b3c.

The agent **reportImport** has not been run on this

Display 60 files (tree view or flat)

-- filter for scan results -- -- filter for edited results --

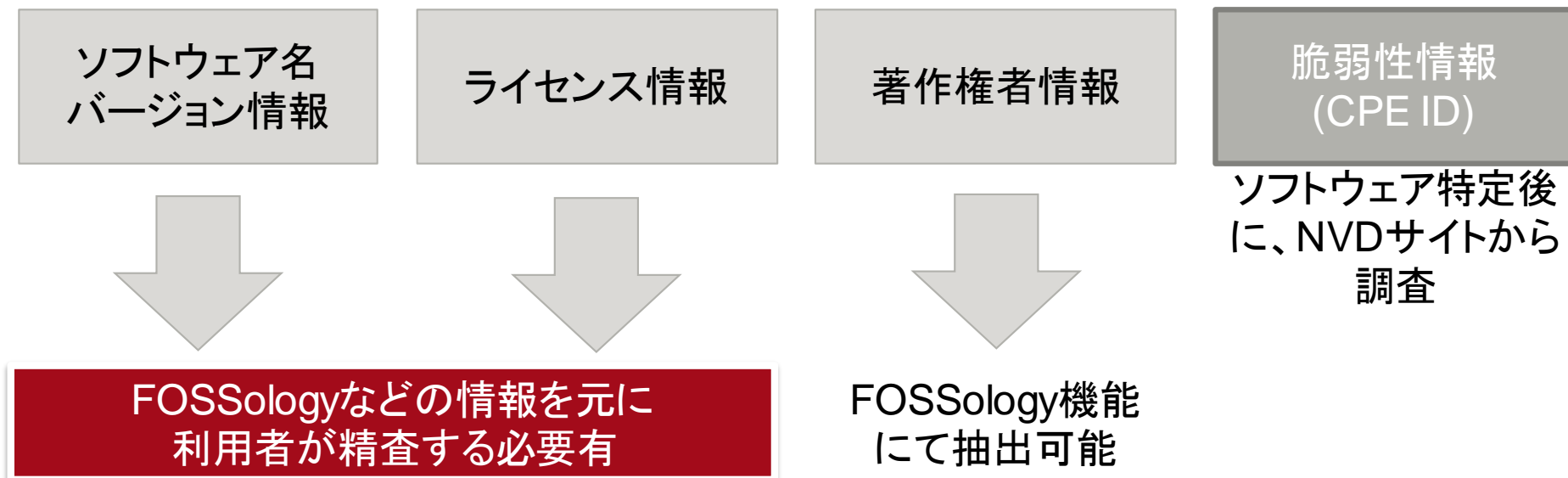
Files	Scanner Results (N: nomos, Monk, ...)	Clearing Status	Files Cleared	Actions
.github/P		●	0/0	[View][Info][Download][Tag][Edit]
app		●	0/174	[Tag][Edit][Bulk]
bin	No_license_found	●	0/0	[Tag][Edit][Bulk]
config	GPL-2.0+, No_license_found, Same-license-as, See-URL, UnclassifiedLicense	●	0/29	[Tag][Edit][Bulk]
db/migrate	GPL-2.0+, No_license_found	●	0/1	[Tag][Edit][Bulk]
doc	AGPL-1.0, CC-BY-2.5, GPL, GPL-2.0, GPL-2.0+, LGPL, No_license_found	●	0/3	[Tag][Edit][Bulk]
extra	GPL-2.0+, No_license_found	●	0/1	[Tag][Edit][Bulk]
files/delete.me	No_license_found [N]	●	0/0	[View][Info][Download][Tag][Edit]
lib	BSD, GPL-2.0+, MIT, No_license_found	●	0/94	[Tag][Edit][Bulk]
log/delete.me	No_license_found [N]	●	0/0	[View][Info][Download][Tag][Edit]
plugins/README	No_license_found [N]	●	0/0	[View][Info][Download][Tag][Edit]
public	GPL-2.0+, MIT, No_license_found, Same-license-as	●	0/8	[Tag][Edit][Bulk]
test	GPL-2.0+, No_license_found, See-URL	●	0/330	[Tag][Edit][Bulk]
		●	0/0	[Tag][Edit][Bulk]

ライセンスが見つからない・複数のライセンスが検出

結果はあくまで被疑箇所を指摘してくれるものであり、
人目での精査/そのノウハウが必要になる。

課題1: 精査負荷が大きい

- OSSコンプライアンス管理を行うにあたって以下の情報が必要となるが、人目による精査が欠かせず、その負荷が大きい



以下の様なケースでは比較的容易に精査は可能

- ・ライセンススキャナの情報からライセンス名が判定できる場合
- ・See-URLでソフトウェアページが発見された場合

■ ライセンスを確認し、適切であれば確定操作を実施

The screenshot shows the FOSSology web interface. The main content area displays the detected license for a file. The file content is highlighted in a red box, showing the following text:

```
# Redmine - project management software
# Copyright (C) 2006-2019 Jean-Philippe Lang
#
# This program is free software; you can redistribute it and/or
# modify it under the terms of the GNU General Public License
# as published by the Free Software Foundation; either version 2
# of the License, or (at your option) any later version.
#
# This program is distributed in the hope that it will be useful,
# but WITHOUT ANY WARRANTY; without even the implied warranty of
# MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
# GNU General Public License for more details.
#
# You should have received a copy of the GNU General Public License
# along with this program; if not, write to the Free Software
# Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.
```

The interface also shows a table of detected licenses:

Action	License	Source	License Text	Acknowledgement
	GPL-2.0+	nomos: #1 User confirmed agent finding	Click to add	Click to add

The table shows one entry for the GPL-2.0+ license. The interface also includes a search bar, a navigation bar, and a footer with the text "Showing 1 to 1 of 1 entries".

Legend:
license relevant text

ファイル中にライセンステキスト/ライセンス名が表示されていれば、
その記載からライセンスの判定が可能。

■ 原則、文字列検索であり以下などのケースでは特に調査が必要

- ソフトウェア名/バージョン情報はFOSSologyでは検出されない

- バイナリファイルの場合

- ・ 一部、可読部分があれば検出対象となる可能性は有り

- パッケージ管理ツール

- ・ 設定ファイルからは、ライセンス文や著作権情報に当たる記述が含まれないため検出できない。

- ライセンスが不明/複数ライセンスが検出

- ・ 不明の場合、UnclassFieldLicenseなどとして検出される

利用者が精査を行い、
ソフトウェア名/バージョン情報、ライセンス情報を特定する必要有

精査作業の例[ソフトウェアの特定]

■ ソフトウェア名/バージョン情報は検出されない

■ 「See-URL」「See-file」「See-doc.OTHER」などで検出された箇所にアクセス

The screenshot shows the Fossology web interface. At the top, there's a navigation bar with links: Home, Search, Browse, Upload, Jobs, Organize, Admin, Help. Below this is the 'Change concluded License' section. The main content area displays a search result for 'jQuery v2.1.4'. A red box highlights the 'See-URL' action in the 'Action' column of the table. The table has columns: Action, License, Source, License Text, Acknowledgement, and Comment. The row shows 'See-URL' as the action, 'jQuery v2.1.4' as the license, and 'nomos: #1 User decision' as the source. The license text is 'Click to add', and the acknowledgement and comment are also 'Click to add'.

Action	License	Source	License Text	Acknowledgement	Comment
See-URL	jQuery v2.1.4	nomos: #1 User decision	Click to add	Click to add	Click to add

■ 著作権者情報をインターネット検索

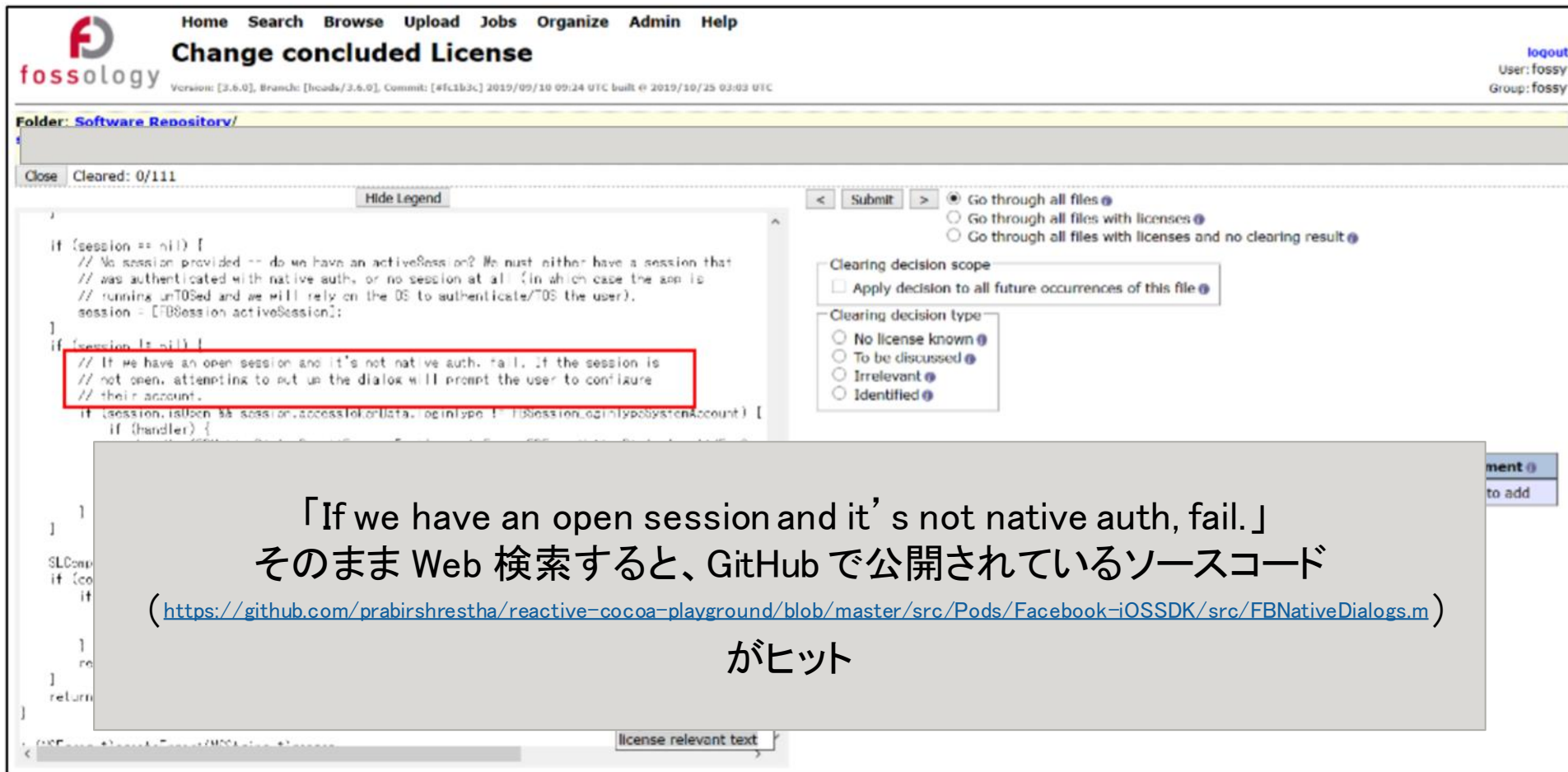
・ ヒットしたGitHubページや開発者個人ページから特定できる可能性あり。

精査作業の例[ソフトウェアの特定]

■ ソフトウェア名/バージョン情報は検出されない

■ 特徴的なコメント行をインターネット検索

- GitHubなどソースコード公開ページに行き着く可能性有



Home Search Browse Upload Jobs Organize Admin Help

fossology Change concluded License

Version: [3.6.0], Branch: [broad/3.6.0], Commit: [4fc1b3c] 2019/09/10 09:24 UTC built @ 2019/10/25 03:03 UTC

Folder: **Software Repository/**

Close Cleared: 0/111

Hide Legend

Submit

Go through all files
Go through all files with licenses
Go through all files with licenses and no clearing result

Clearing decision scope

Apply decision to all future occurrences of this file

Clearing decision type

No license known
To be discussed
Irrelevant
Identified

```
1
2
3 if (session == nil) {
4     // No session provided -- do we have an activeSession? We must either have a session that
5     // was authenticated with native auth, or no session at all (in which case the app is
6     // running onTOSed and we will rely on the OS to authenticate/TOS the user).
7     session = [FBSession activeSession];
8 }
9
10 if (session != nil) {
11     // If we have an open session and it's not native auth, fail. If the session is
12     // not open, attempting to put up the dialog will prompt the user to configure
13     // their account.
14     if (session.isOpen && session.accessTokenData.loginType != FBSessionLoginTypeSystemAccount) {
15         if (handler) {
16             [handler handleSessionOpenFailure];
17         }
18     }
19 }
20
21 SLComp
22 if (co
23 if
24
25 }
26 re
27
28 }
29 return
30 }
```

license relevant text

「If we have an open session and it's not native auth, fail.」
そのまま Web 検索すると、GitHub で公開されているソースコード
(<https://github.com/prabirshrestha/reactive-cocoa-playground/blob/master/src/Pods/Facebook-iOSSDK/src/FBNativeDialogs.m>)
がヒット

精査作業の例[ソフトウェアの特定]

■ ソフトウェア名/バージョン情報は検出されない

■ フォルダ名/ファイル名をキーワードに検索

The screenshot shows the Fossology License Browser interface. The top navigation bar includes links for Home, Search, Browse, Upload, Jobs, Organize, Admin, and Help. The main header displays the Fossology logo, version information, and a login/logout button. The interface is divided into two main sections: a license list on the left and a file list on the right.

License List (Left):

Scanner Count	Concluded License Count	License Name
91	155	MIT
58	0	See-URL
6	0	MIT-possibility
6	0	Dual-license
4	5	Apache-2.0
4	0	GPL-possibility
4	0	GPL
2	1	BSD
1	0	Apache-possibility
0	4	MS .NET Library license
0	4	GPL-2.0

Showing 1 to 11 of 11 licenses. Page 1 of 1.

Hint: Click on the license name to search for where the license is found in the file listing.

Summary:

Unique licenses	11	207 Files
Unique scanner detected licenses	10	6 Unique concluded licenses
Licenses found	176	165 Licenses concluded
Files with no detected licenses	43	4 Concluded files with no detected licenses

File List (Right):

Display 10 files (tree view or flat)

Filters: -- filter for scan results --, -- filter for edited results --, open, MarkAsIrrelevant

Files	Scanner Results (N: nomos, M: monk, Nk: ninka, I: reportImport, O: ojo)	Edited Results	Clearing Status	Files Cleared	Actions
respond.matchmedia.addListener.min.js	MIT-possibility [N]	MIT	●	1/1	[View][Info][Download][Tag][Edit]
respond.min.js	MIT-possibility [N]	MIT	●	1/1	[View][Info][Download][Tag][Edit]
sweetalert2.common.js					
sweetalert2.js					
sweetalert2.min.js					
toastr.js					
toastr.min.js					
toolTipResource.js	No_license_found [N]		●	0/0	[View][Info][Download][Tag][Edit]

Showing 61 to 68 of 68 files. Page 7 of 7.

「sweetalert2」「toastr」など、一般的でない名称のファイル名は、それ自体がソフトウェア名を表している可能性有

■ 可読部分の確認

■ Stringsコマンドで確認

```
# strings opencv_ffmpeg.dll | grep Copyright  
Copyright (c) 1992-2004 by P.J. Plauger, licensed by Dinkumware, Ltd. ALL RIGHTS  
RESERVED
```

- 著作権者や会社名などが確認できる場合がある
- この情報をもとに、調査を進めることが可能。

■ ファイル名やフォルダ名も調査のキーワードとなる

■ パッケージ配布ページなどへアクセスすることで特定

■ Nuget (packages.config) の場合

```
<?xml version="1.0" encoding="utf-8"?>
<packages>
  <package id="AutoMapper" version="3.3.1" targetFramework="net45" />
  <package id="ClosedXML" version="0.76.0" targetFramework="net45" />
  <package id="Dapper" version="1.50.2" targetFramework="net45" />
  <package id="DocumentFormat.OpenXml" version="2.5" targetFramework="net45" />
  .
  .
  .
</packages>
```

■ パッケージ名: バージョンが記述されているケースがほとんど。

■ 「AutoMapper: 3.3.1」をNugetサイトで検索

- <https://www.nuget.org/>

■ パッケージ配布ページなどへアクセスすることで特定

■ Nuget (packages.config) の場合

AutoMapper 3.3.1

A convention-based object-object mapper. AutoMapper uses a fluent configuration API to define an object-object mapping strategy. AutoMapper uses a convention-based matching algorithm to match up source to destination values. Currently, AutoMapper is geared towards model projection scenarios to flatten complex object models to DTOs and other simple objects, whose design is better suited for serialization, communication, messaging, or simply an anti-corruption layer between the domain and application layer.

ⓘ There is a newer version of this package available. See the version list below for details.

Package Manager .NET CLI PackageReference Paket CLI

```
PM> Install-Package AutoMapper -Version 3.3.1
```

Dependencies

This package has no dependencies.

Used By

Version History

Version	Downloads	Last updated
9.0.0	12,836,862	2019/08/12

Info

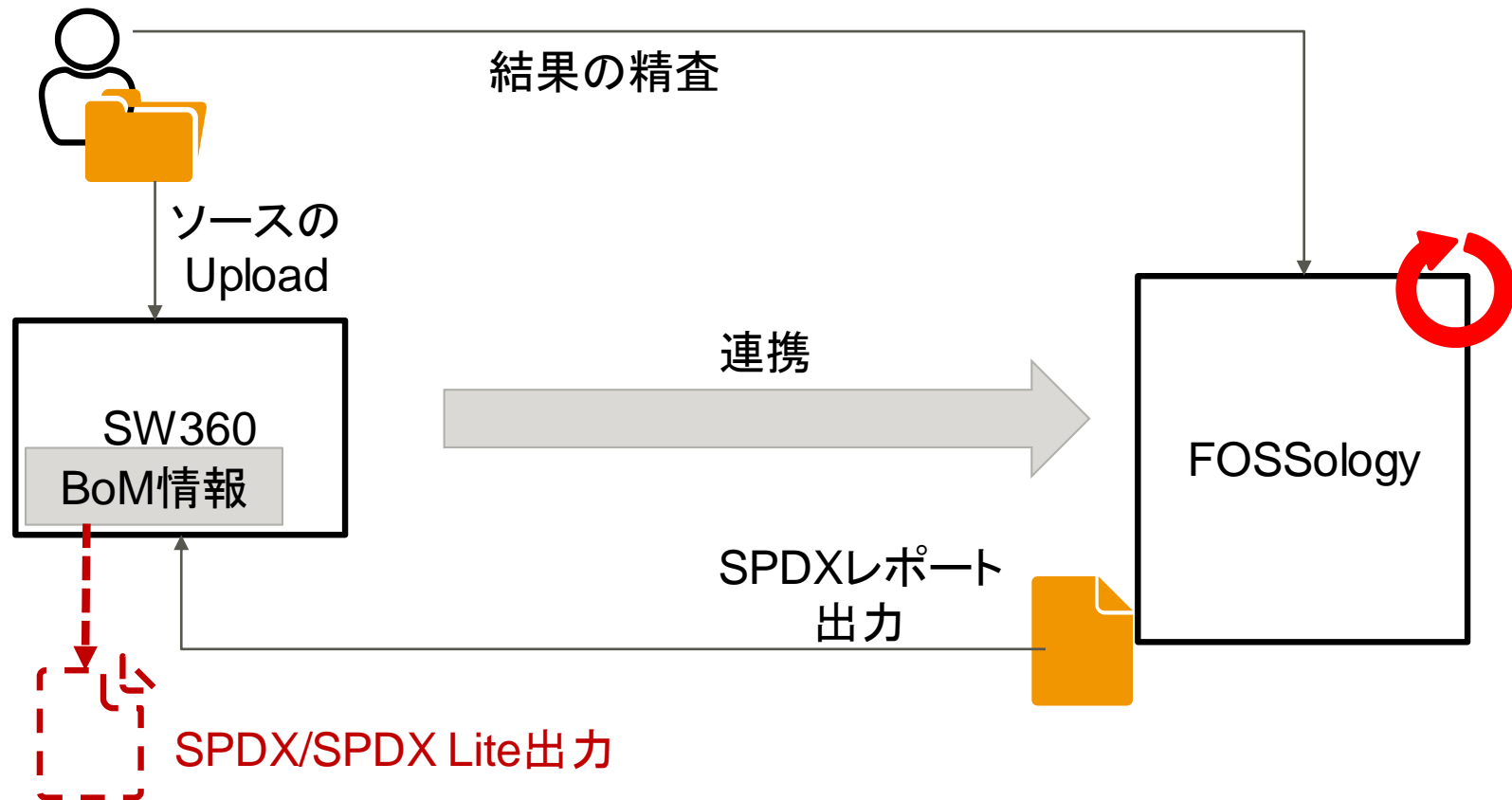
- last updated 2015/01/29
- <http://automapper.org/>
- MIT License
- Contact owners
- Report
- Download package (1.79 MB)

License info provided by Sonatype.

ライセンス情報が判明。
リンクをクリックすることで
HPやGitHubページへアクセス可能。
著作権者情報も判定できる可能性高

Feedback

■ SW360でのSPDXレポート出力



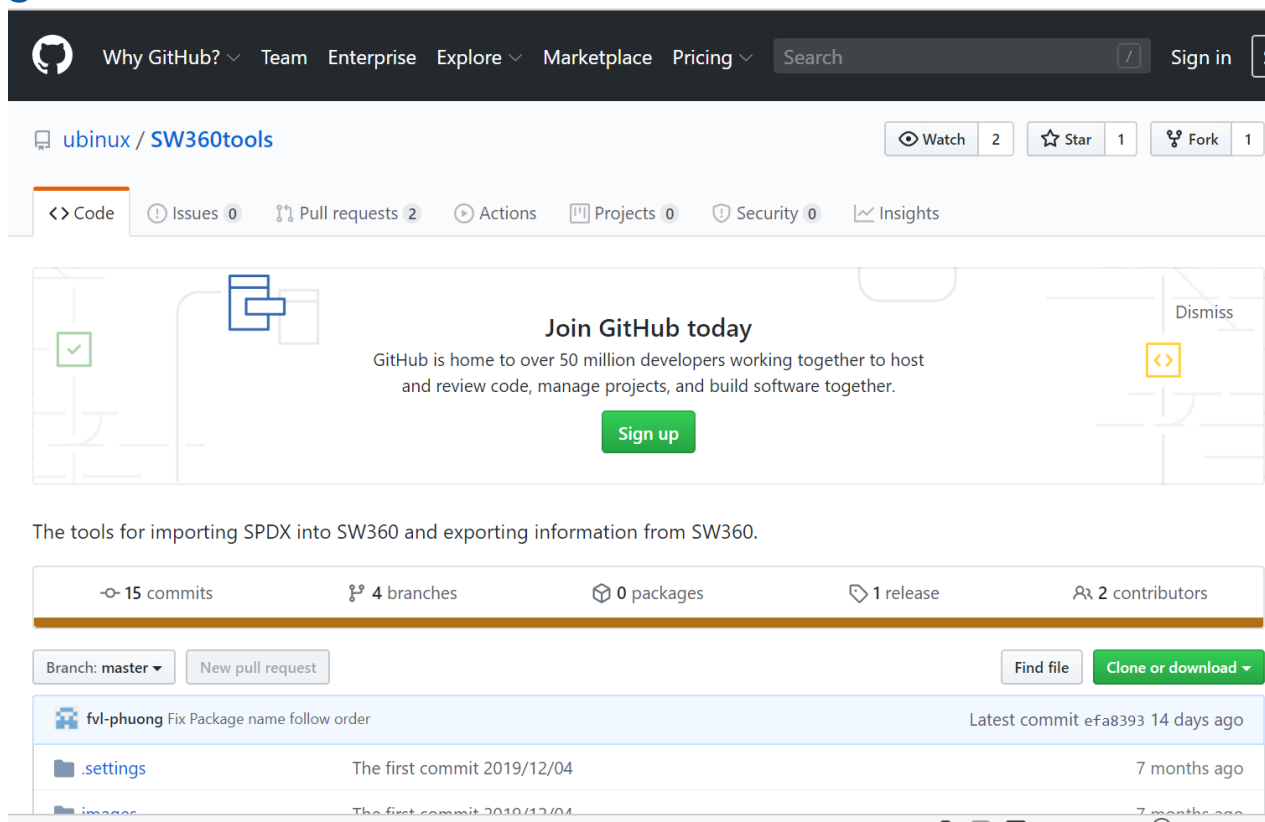
■ SW360で管理するBOM情報のSPDX出力を行い、管理したい。

- ・エビデンスとしての確保、関連部門との共有など

■ SW360でのレポート出力

- SW360toolsにて実現できそう(未検証)

<https://github.com/ubinux/SW360tools>



SW360の利用感など共有いただければ幸いです。

- 今後も継続してFOSSologyとSW360の検証を実施
- 現在の検証バージョンは一年ほど前のものであり、アップデートを予定しています。
 - FOSSology : 3.6.0 (2019/9/10 リリース)
 - SW360 : 5.1.0 (2019/10/5 リリース)
- このバージョンを利用している、比較的安定しているバージョンなど情報があれば共有いただけると幸いです。

FOSSology

■ v3.7.0-RC1

- **SPDXレポートに利用者が発見した著作権を追加**
- OJO(3.6.0から追加されたライセンス検出手法)の改善
 - ・ REST API経由での操作、自動結論 など、14件の新機能と18件のバグフィックス

■ v3.7.0

- 7件の新機能と5件のバグフィックス

■ v3.8.0-RC1

- 新しいダッシュボード(サブメニューの追加)
- 分析対象にSoftware Heritage(仏、ユネスコが企画したソフトウェアアーカイブ)追加
- 関連性のない著作権の除外
- ライセンス名の上限解除 など、27件の新機能と29件のバグフィックス

■ v3.8.0

- 5件の新機能と8件のバグフィックス

■ v3.8.1

- 1件のバグフィックスのみ

SW360

■ v6.0.0

- **FOSSologyとの連携機能改善(SSHからREST APIへの変更)**
- **データ構造の見直し(将来的な他ツール連携を見据えてより依存性の低い構造に変更)**
- プロジェクトに対するローカルカテゴリフィールドの追加
- リリースやベンダーをマージする機能の追加 など、14件の新機能と18件のバグフィックス

■ v7.0.0

- ライセンスの変更(EPL-1.0 → EPL-2.0)
- コンポーネントやリリースからベンダーを削除する機能 など8件の機能と4件のバグフィックス

■ v7.0.1

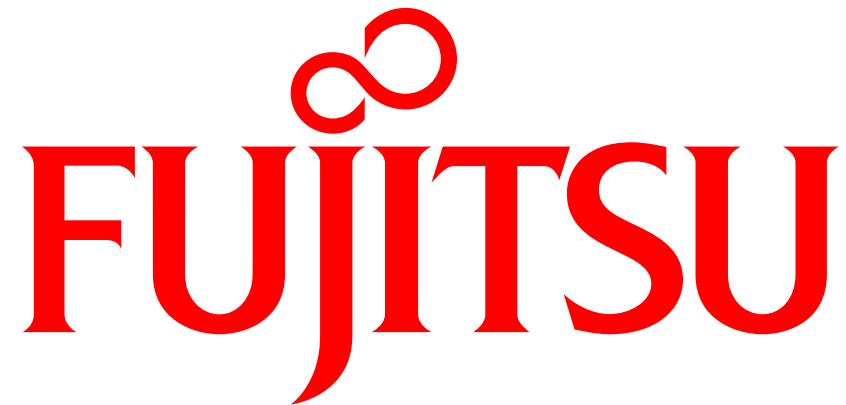
- 2件のバグフィックス

■ v8.0.0

- **SPDXファイルからプロジェクトやリリースをインポートする機能**
- ソースコードスニペットの概念を追加 など、4件の新機能と7件のバグフィックス

■ v8.0.1

- 1件のバグフィックスのみ



shaping tomorrow with you