

Runtime Infrastructure - Feature #7799

automated vulnerability scanning

09/13/2023 03:38 PM - Greg Shah

Status: WIP	Start date:
Priority: Normal	Due date:
Assignee: Tomasz Domin	% Done: 0%
Category:	Estimated time: 0.00 hour
Target version:	vendor_id: GCD
billable: No	
Description	
Related issues:	
Related to Runtime Infrastructure - Feature #6692: move FWD to Java 17	Internal Test

History

#1 - 09/13/2023 03:48 PM - Greg Shah

- File mvnrepository_snakeyaml_1.15_vulnerabilities_20230913.png added

We plan to update all of our dependencies to the latest stable levels as part of work on #6692 (Java 17). That will clear a large number of security problems. But it doesn't solve the longer term issue that we need a process to keep these up to date.

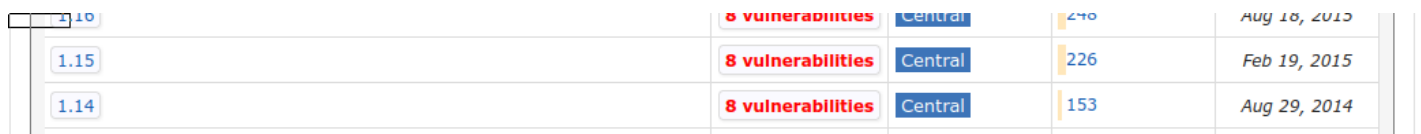
I want to implement the best practice of routinely scanning for vulnerabilities and moving to new versions of code that avoid those vulnerabilities. There are commercial services that can help with this, but they are expensive.

There are also vulnerability reports available in [Maven](#) which we can probably use to implement our own checks.

For example, from <https://mvnrepository.com/> you can search on "snakeyaml" and find this page:

<https://mvnrepository.com/artifact/org.yaml/snakeyaml>

If you scroll way down to the really old version we use (1.15) you will see this:



Version	Vulnerabilities	Repository	Count	Date
1.10	8 vulnerabilities	Central	470	Aug 10, 2015
1.15	8 vulnerabilities	Central	226	Feb 19, 2015
1.14	8 vulnerabilities	Central	153	Aug 29, 2014

The data is public. If there is an open source tool to check this, I'd like to investigate using it. If not, perhaps we can build our own using the maven API and our list of dependencies.

#2 - 09/13/2023 03:48 PM - Greg Shah

- Related to Feature #6692: move FWD to Java 17 added

#3 - 02/19/2024 07:08 AM - Tomasz Domin

- Assignee set to Tomasz Domin

- Status changed from New to WIP

- File dependency-check-report.csv added

I've implemented vulnerability checks in #6692 with org.owasp.dependencycheck plugin.

A sample report for FWD 6692a/14987 has been attached. By default only fwdAllRuntime configuration is checked.

It does not look bad, still waiting for JS libraries updates.

One or more dependencies were identified with known vulnerabilities in p2j_6692a:

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bootstrap-3.3.7-dist.zip: bootstrap.js (pkg:javascript/bootstrap@3.3.7) : CVE-2016-10735, CVE-2018-14041, CVE-2018-14042, CVE-2018-20676, CVE-2018-20677, CVE-2019-8331, Bootstrap before 4.0.0 is end-of-life and no longer maintained.
bootstrap-3.3.7-dist.zip: bootstrap.min.js (pkg:javascript/bootstrap@3.3.7) : CVE-2016-10735, CVE-2018-14041, CVE-2018-14042, CVE-2018-20676, CVE-2018-20677, CVE-2019-8331, Bootstrap before 4.0.0 is end-of-life and no longer maintained.
codegen-2.2.3.jar (pkg:maven/org.eclipse.emf/codegen@2.2.3, cpe:2.3:a:eclipse:org.eclipse.core.runtime:2.2.3:*:*:*:*:*): CVE-2023-4218
codegen-ecore-2.2.3.jar (pkg:maven/org.eclipse.emf/codegen-ecore@2.2.3, cpe:2.3:a:eclipse:org.eclipse.core.runtime:2.2.3:*:*:*:*:*): CVE-2023-4218
common-2.2.3.jar (pkg:maven/org.eclipse.emf/common@2.2.3, cpe:2.3:a:eclipse:org.eclipse.core.runtime:2.2.3:*:*:*:*:*): CVE-2023-4218
commons-httpclient-3.1.jar (pkg:maven/commons-httpclient/commons-httpclient@3.1, cpe:2.3:a:apache:commons-httpclient:3.1:*:*:*:*:*): CVE-2012-5783, CVE-2020-13956
dom4j-1.6.1.jar (pkg:maven/dom4j/dom4j@1.6.1, cpe:2.3:a:dom4j_project:dom4j:1.6.1:*:*:*:*:*): CVE-2020-10683, CVE-2018-1000632
ecore-2.2.3.jar (pkg:maven/org.eclipse.emf/ecore@2.2.3, cpe:2.3:a:eclipse:org.eclipse.core.runtime:2.2.3:*:*:*:*:*): CVE-2023-4218
ecore-change-2.2.3.jar (pkg:maven/org.eclipse.emf/ecore-change@2.2.3, cpe:2.3:a:eclipse:org.eclipse.core.runtime:2.2.3:*:*:*:*:*): CVE-2023-4218
ecore-xmi-2.2.3.jar (pkg:maven/org.eclipse.emf/ecore-xmi@2.2.3, cpe:2.3:a:eclipse:org.eclipse.core.runtime:2.2.3:*:*:*:*:*): CVE-2023-4218
fwd-h2-1.40-trunk.jar (pkg:maven/com.goldencode/fwd-h2@1.40-trunk, cpe:2.3:a:h2database:h2:1.40:*:*:*:*:*): CVE-2021-42392, CVE-2022-23221, CVE-2021-23463, CVE-2022-45868
fwd-imageio-bmp-3.1.2.jar (pkg:maven/com.twelvemonkeys.imageio/fwd-imageio-bmp@3.1.2, cpe:2.3:a:twelvemonkeys_project:twelvemonkeys:3.1.2:*:*:*:*:*): CVE-2021-23792
grenlin-shaded-3.7.0.jar/META-INF/maven/com.fasterxml.jackson.core/jackson-databind/pom.xml (pkg:maven/com.fasterxml.jackson.core/jackson-databind@2.15.2, cpe:2.3:a:fasterxml:jackson-databind:2.15.2:*:*:*:*:*), cpe:2.3:a:fasterxml:jackson-modules-java8:2.15.2:*:*:*:*:*): CVE-2023-35116
gwtbootstrap3-1.0.1.jar: bootstrap-3.4.1.min.cache.js (pkg:javascript/bootstrap@3.4.1.min.cache) : Bootstrap before 4.0.0 is end-of-life and no longer maintained.
gwtbootstrap3-1.0.1.jar: jquery-1.12.4.min.cache.js (pkg:javascript/jquery@1.12.4.min.cache) : CVE-2015-9251, CVE-2019-11358, CVE-2020-11022, CVE-2020-11023, jQuery 1.x and 2.x are End-of-Life and no longer receiving security updates
gwtbootstrap3-extras-1.0.2.jar: bootstrap-select-1.12.4.min.cache.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-ar_AR.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-ar_AR.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-bg_BG.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-bg_BG.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-cro_CRO.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-cro_CRO.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-cs_CZ.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-cs_CZ.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-da_DK.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-da_DK.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-de_DE.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-de_DE.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-en_US.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-en_US.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
```


gwtbootstrap3-extras-1.0.2.jar: defaults-vi_VN.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-zh_CN.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-zh_CN.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-zh_TW.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-zh_TW.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: jquery-ui-1.11.2.custom.min.cache.js (pkg:javascript/jquery-ui@1.11.2) : CVE-2021-41182, CVE-2021-41183, CVE-2021-41184, CVE-2022-31160
gwtbootstrap3-extras-1.0.2.jar: moment-2.9.0.min.cache.js (pkg:javascript/moment.js@2.9.0.min.cache) : CVE-2017-18214, CVE-2022-24785, CVE-2016-4055, Regular Expression Denial of Service (ReDoS)
gwtbootstrap3-extras-1.0.2.jar: typeahead.jquery-0.10.5.min.cache.js (pkg:javascript/jquery@0.10.5.min.cache) : CVE-2012-6708, CVE-2020-7656, CVE-2011-4969, jQuery 1.x and 2.x are End-of-Life and no longer receiving security updates
itext-2.1.7.jar (pkg:maven/com.lowagie/itext@2.1.7) : CVE-2017-9096
itextpdf-5.5.13.3.jar (pkg:maven/com.itextpdf/itextpdf@5.5.13.3, cpe:2.3:a:itextpdf:itext:5.5.13.3:*:*:*:*:* : CVE-2022-24196, CVE-2022-24197
ivy-2.5.1.jar (pkg:maven/org.apache.ivy/ivy@2.5.1, cpe:2.3:a:apache:ant:2.5.1:*:*:*:*:* : CVE-2022-46751
jquery-3.2.1.zip: jquery-3.2.1.js (pkg:javascript/jquery@3.2.1) : CVE-2019-11358, CVE-2020-11022, CVE-2020-11023
jquery-ui-1.12.1.custom.zip: jquery-ui.js (pkg:javascript/jquery-ui@1.12.1) : CVE-2021-41182, CVE-2021-41183, CVE-2021-41184, CVE-2022-31160
jquery-ui-1.12.1.custom.zip: jquery-ui.min.js (pkg:javascript/jquery-ui@1.12.1) : CVE-2021-41182, CVE-2021-41183, CVE-2021-41184, CVE-2022-31160
jquery-ui-1.12.1.custom.zip: jquery.js (pkg:javascript/jquery@1.12.4) : CVE-2015-9251, CVE-2019-11358, CVE-2020-11022, CVE-2020-11023, jQuery 1.x and 2.x are End-of-Life and no longer receiving security updates
log4j-1.2.17.jar (pkg:maven/log4j/log4j@1.2.17, cpe:2.3:a:apache:log4j:1.2.17:*:*:*:*:* : CVE-2019-17571, CVE-2020-9493, CVE-2022-23305, CVE-2022-23302, CVE-2022-23307, CVE-2021-4104, CVE-2023-26464
quartz-2.3.2.jar (pkg:maven/org.quartz-scheduler/quartz@2.3.2, cpe:2.3:a:softwareag:quartz:2.3.2:*:*:*:*:* : CVE-2023-39017
velocity-1.7.jar (pkg:maven/org.apache.velocity/velocity@1.7, cpe:2.3:a:apache:velocity_engine:1.7:*:*:*:*:* : CVE-2020-13936
xercesImpl-2.12.2.jar (pkg:maven/xerces/xercesImpl@2.12.2, cpe:2.3:a:apache:xerces-j:2.12.2:*:*:*:*:* : CVE-2017-10355
xsd-2.2.3.jar (pkg:maven/org.eclipse.xsd/xsd@2.2.3, cpe:2.3:a:eclipse:org.eclipse.core.runtime:2.2.3:*:*:*:*:* : CVE-2023-4218

#4 - 04/17/2024 02:04 PM - Tomasz Domin

A report for FWD 6692a/15172, there should be less vulnerabilities, but in meantime a new ones has been discovered so components need upgraded again.

apache-mime4j-core-0.8.9.jar (pkg:maven/org.apache.james/apache-mime4j-core@0.8.9) : CVE-2024-21742
bcprov-jdk18on-1.77.jar (pkg:maven/org.bouncycastle/bcprov-jdk18on@1.77, cpe:2.3:a:bouncycastle:bouncy-castle-crypto-package:1.77:*:*:*:*:*:**, cpe:2.3:a:bouncycastle:bouncy_castle_crypto_package:1.77:*:*:*:*:*:**, cpe:2.3:a:bouncycastle:bouncy_castle_for_java:1.77:*:*:*:*:*:**, cpe:2.3:a:bouncycastle:legion-of-the-bouncy-castle:1.77:*:*:*:*:*:**, cpe:2.3:a:bouncycastle:legion-of-the-bouncy-castle-java-cryptography-api:1.77:*:*:*:*:*:**) : CVE-2024-29857, CVE-2024-30171, CVE-2024-30172
bootstrap-3.4.1.jar (pkg:javascript/bootstrap@3.4.1, pkg:maven/org.webjars/bootstrap@3.4.1) : Bootstrap before 4.0.0 is end-of-life and no longer maintained.
codegen-2.2.3.jar (pkg:maven/org.eclipse.emf/codegen@2.2.3, cpe:2.3:a:eclipse:org.eclipse.core.runtime:2.2.3:*:*:*:*:**) : CVE-2023-4218
codegen-ecore-2.2.3.jar (pkg:maven/org.eclipse.emf/codegen-ecore@2.2.3, cpe:2.3:a:eclipse:org.eclipse.core.runtime:2.2.3:*:*:*:*:**) : CVE-2023-4218
common-2.2.3.jar (pkg:maven/org.eclipse.emf/common@2.2.3, cpe:2.3:a:eclipse:org.eclipse.core.runtime:2.2.3:*:*:*:*:**) : CVE-2023-4218
commons-configuration-1.10.jar (pkg:maven/commons-configuration/commons-configuration@1.10, cpe:2.3:a:apache:commons_configuration:1.10:*:*:*:*:**) : CVE-2024-29131, CVE-2024-29133
commons-configuration2-2.9.0.jar (pkg:maven/org.apache.commons/commons-configuration2@2.9.0, cpe:2.3:a:apache:commons_configuration:2.9.0:*:*:*:*:**) : CVE-2024-29131, CVE-2024-29133
commons-httpclient-3.1.jar (pkg:maven/commons-httpclient/commons-httpclient@3.1, cpe:2.3:a:apache:commons-httpclient:3.1:*:*:*:*:**) : CVE-2012-5783, CVE-2020-13956
ecore-2.2.3.jar (pkg:maven/org.eclipse.emf/ecore@2.2.3, cpe:2.3:a:eclipse:org.eclipse.core.runtime:2.2.3:*:*:*:*:**) : CVE-2023-4218
ecore-change-2.2.3.jar (pkg:maven/org.eclipse.emf/ecore-change@2.2.3, cpe:2.3:a:eclipse:org.eclipse.core.runtime:2.2.3:*:*:*:*:**) : CVE-2023-4218
ecore-xmi-2.2.3.jar (pkg:maven/org.eclipse.emf/ecore-xmi@2.2.3, cpe:2.3:a:eclipse:org.eclipse.core.runtime:2.2.3:*:*:*:*:**) : CVE-2023-4218
fwd-h2-1.45-trunk.jar (pkg:maven/com.goldendev/fwd-h2@1.45-trunk, cpe:2.3:a:h2database:h2:1.45:*:*:*:*:**) : CVE-2021-42392, CVE-2022-23221, CVE-2021-23463, CVE-2022-45868
gremlin-shaded-3.7.0.jar/META-INF/maven/com.fasterxml.jackson.core/jackson-databind/pom.xml (pkg:maven/com.fasterxml.jackson.core/jackson-databind@2.15.2, cpe:2.3:a:fasterxml:jackson-databind:2.15.2:*:*:*:*:**) : CVE-2023-35116
gwtbootstrap3-1.0.1.jar: bootstrap-3.4.1.min.cache.js (pkg:javascript/bootstrap@3.4.1.min.cache) : Bootstrap before 4.0.0 is end-of-life and no longer maintained.
gwtbootstrap3-1.0.1.jar: jquery-1.12.4.min.cache.js (pkg:javascript/jquery@1.12.4.min.cache) : CVE-2015-9251, CVE-2019-11358, CVE-2020-11022, CVE-2020-11023, jQuery 1.x and 2.x are End-of-Life and no longer receiving security updates
gwtbootstrap3-extras-1.0.2.jar: bootstrap-select-1.12.4.min.cache.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-ar_AR.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-ar_AR.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-bg_BG.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-bg_BG.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-cro_CRO.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-cro_CRO.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-cs_CZ.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-cs_CZ.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-da_DK.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-da_DK.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-de_DE.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-de_DE.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-en_US.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-en_US.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-es_CL.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-es_CL.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-et_EE.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-et_EE.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-eu.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-eu.min.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921
gwtbootstrap3-extras-1.0.2.jar: defaults-fa_IR.js (pkg:javascript/bootstrap-select@1.12.4) : CVE-2019-20921

021-41182, CVE-2021-41183, CVE-2021-41184, CVE-2022-31160
 gwtbootstrap3-extras-1.0.2.jar: moment-2.9.0.min.cache.js (pkg:javascript/moment.js@2.9.0.min.cache) : CVE-2017-18214, CVE-2022-24785, CVE-2016-4055, Regular Expression Denial of Service (ReDoS)
 gwtbootstrap3-extras-1.0.2.jar: typeahead.jquery-0.10.5.min.cache.js (pkg:javascript/jquery@0.10.5.min.cache) : CVE-2012-6708, CVE-2020-7656, CVE-2011-4969, jQuery 1.x and 2.x are End-of-Life and no longer receiving security updates
 itextpdf-5.5.6.jar (pkg:maven/com.itextpdf/itextpdf@5.5.6, cpe:2.3:a:itextpdf:itext:5.5.6:*:*:*:*:*:**) : CVE-2017-9096, CVE-2022-24196, CVE-2022-24197
 ivy-2.5.1.jar (pkg:maven/org.apache.ivy/ivy@2.5.1, cpe:2.3:a:apache:ant:2.5.1:*:*:*:*:*:**, cpe:2.3:a:apache:ivy:2.5.1:*:*:*:*:*:**) : CVE-2022-46751
 jfreechart-1.0.19.jar (pkg:maven/org.jfree/jfreechart@1.0.19, cpe:2.3:a:time_project:time:1.0.19:*:*:*:*:*:**) : CVE-2023-52070, CVE-2024-22949, CVE-2024-23076
 postgresql-42.7.1.jar (pkg:maven/org.postgresql/postgresql@42.7.1, cpe:2.3:a:postgresql:postgresql_jdbc_driver:42.7.1:*:*:*:*:*:**) : CVE-2024-1597
 quartz-2.3.2.jar (pkg:maven/org.quartz-scheduler/quartz@2.3.2, cpe:2.3:a:softwareag:quartz:2.3.2:*:*:*:*:*:**) : CVE-2023-39017
 velocity-1.7.jar (pkg:maven/org.apache.velocity/velocity@1.7, cpe:2.3:a:apache:velocity_engine:1.7:*:*:*:*:*:**) : CVE-2020-13936
 xercesImpl-2.12.2.jar (pkg:maven/xerces/xercesImpl@2.12.2, cpe:2.3:a:apache:xerces-j:2.12.2:*:*:*:*:*:**) : CVE-2017-10355
 xsd-2.2.3.jar (pkg:maven/org.eclipse.xsd/xsd@2.2.3, cpe:2.3:a:eclipse:org.eclipse.core.runtime:2.2.3:*:*:*:*:*:**) : CVE-2023-4218

Files

mvnrepository_snakeyaml_1.15_vulnerabilities_20230913.png	15 KB	09/13/2023	Greg Shah
dependency-check-report.csv	140 KB	02/19/2024	Tomasz Domin