

Tinkoff.ru

Scala Butthurt Tools

Кирилл Саксин
gh: saksmt

sbt

Добавление зависимостей

```
libraryDependencies += "org.typelevel" %% "cats-core" % catsVersion
```



Добавление зависимостей

```
libraryDependencies += "org.typelevel" %% "cats-core" % catsVersion
```

Выполнение тасок

```
sbt compile test it:test
```

sbt?

initial-definition.sbt

```
val someSetting = SettingKey[String](label = "some-setting")
someSetting := "initial value"

// hundreds lines of code...

someSetting := "computed initial value"
```

sbt?

initial-definition.sbt

```
val someSetting = SettingKey[String](label = "some-setting")
someSetting := "initial value"

// hundreds lines of code...

someSetting := "computed initial value"
```

project/somewhere.sbt

```
someSetting := "user defined value"

// hundreds lines of code...

someSetting := "more appropriate value for this case"

// more lines of code...

someSetting := "even more appropriate value"
```

initial-definition.sbt

```
val someSetting = SettingKey[String](label = "some-setting")
someSetting := "initial value"

// hundreds lines of code...

someSetting := "computed initial value"
```

project/somewhere.sbt

```
someSetting := "user defined value"

// hundreds lines of code...

someSetting := "more appropriate value for this case"

// more lines of code...

someSetting := "even more appropriate value"
```

project/somewhere-else.sbt

```
// hundreds lines of code...
someSetting := "value without concern about other file"
```



```
[warn] === Local snapshots: tried
[warn]   http://localhost:8081/content/repositories/snapshots/dev/saksmt/plugin/brokenPath_2.12_1.0/0.0.1-SNAPSHOT/brokenPath-0.0.1-SNAPSHOT.pom
[warn]   ::::::::::::::::::::
[warn]   ::          UNRESOLVED DEPENDENCIES         ::
[warn]   ::::::::::::::::::::
[warn]   :: dev.saksmt.plugin#brokenPath;0.0.1-SNAPSHOT: not found
[warn]   ::::::::::::::::::::
[warn]
[warn] Note: Some unresolved dependencies have extra attributes. Check that these dependencies exist with the
requested attributes.
[warn]       dev.saksmt.plugin:brokenPath:0.0.1-SNAPSHOT (scalaVersion=2.12, sbtVersion=1.0)
```

The screenshot shows a Maven repository interface with two main panes. The left pane displays a file tree under the 'Schemas' folder, specifically the 'brokenPath_2.12' directory. The right pane contains configuration details for this artifact, with tabs for 'Maven' and 'Artifact'. The 'Maven' tab is selected.

Maven

Group:	dev.saksmt.plugin
Artifact:	brokenPath_2.12
Version:	0.0.1-SNAPSHOT
Extension:	pom
XML:	<pre><dependency> <groupId>dev.saksmt.plugin</groupId> <artifactId>brokenPath_2.12</artifactId> <version>0.0.1-SNAPSHOT</version> <type>pom</type> </dependency></pre>

Snapshots

- dev
- saksmt
- plugin
- brokenPath_2.12
- 0.0.1-SNAPSHOT
- brokenPath_2.12-0.0.1-SNAPSHOT-javadoc.jar
- brokenPath_2.12-0.0.1-SNAPSHOT-javadoc.jar.md5
- brokenPath_2.12-0.0.1-SNAPSHOT-javadoc.jar.sha1
- brokenPath_2.12-0.0.1-SNAPSHOT-sources.jar
- brokenPath_2.12-0.0.1-SNAPSHOT-sources.jar.md5
- brokenPath_2.12-0.0.1-SNAPSHOT-sources.jar.sha1
- brokenPath_2.12-0.0.1-SNAPSHOT.jar
- brokenPath_2.12-0.0.1-SNAPSHOT.jar.md5
- brokenPath_2.12-0.0.1-SNAPSHOT.jar.sha1
- brokenPath_2.12-0.0.1-SNAPSHOT.pom

Maven Artifact

Group: dev.saksmt.plugin

Artifact: brokenPath_2.12

Version: 0.0.1-SNAPSHOT

Extension: pom

XML:

```
<dependency>
<groupId>dev.saksmt.plugin</groupId>
<artifactId>brokenPath_2.12</artifactId>
<version>0.0.1-SNAPSHOT</version>
<type>pom</type>
</dependency>
```

Snapshots

- dev
- saksmt
- plugin
- brokenPath_2.12
- brokenPom_2.12_1.0
- 0.0.1-SNAPSHOT
- brokenPom-0.0.1-SNAPSHOT-javadoc.jar
- brokenPom-0.0.1-SNAPSHOT-javadoc.jar.md5
- brokenPom-0.0.1-SNAPSHOT-javadoc.jar.sha1
- brokenPom-0.0.1-SNAPSHOT-sources.jar
- brokenPom-0.0.1-SNAPSHOT-sources.jar.md5
- brokenPom-0.0.1-SNAPSHOT-sources.jar.sha1
- brokenPom-0.0.1-SNAPSHOT.jar
- brokenPom-0.0.1-SNAPSHOT.jar.md5
- brokenPom-0.0.1-SNAPSHOT.jar.sha1
- brokenPom-0.0.1-SNAPSHOT.pom
- brokenPom-0.0.1-SNAPSHOT.pom.md5
- brokenPom-0.0.1-SNAPSHOT.pom.sha1

```
[error]           Local snapshots: bad module name found in http://localhost:8081/nexus/content/repositories/snapshots/dev/saksmt/plugin/brokenPom_2.12_1.0/0.0.1-SNAPSHOT/brokenPom-0.0.1-SNAPSHOT.pom: expected='brokenPom' found='brokenPom_2.12_1.0'
[error]           Local snapshots: bad scalaVersion found in http://localhost:8081/nexus/content/repositories/snapshots/dev/saksmt/plugin/brokenPom_2.12_1.0/0.0.1-SNAPSHOT/brokenPom-0.0.1-SNAPSHOT.pom: expected='2.12' found='null'
[error]           Local snapshots: bad sbtVersion found in http://localhost:8081/nexus/content/repositories/snapshots/dev/saksmt/plugin/brokenPom_2.12_1.0/0.0.1-SNAPSHOT/brokenPom-0.0.1-SNAPSHOT.pom: expected='1.0' found='null'
[warn]   ::::::::::::::::::::::::::::
[warn]   ::      UNRESOLVED DEPENDENCIES      ::
[warn]   ::::::::::::::::::::::::::::
[warn]   :: dev.saksmt.plugin#brokenPom;0.0.1-SNAPSHOT: java.text.ParseException: inconsistent module descriptor file found in 'http://localhost:8081/nexus/content/repositories/snapshots/dev/saksmt/plugin/brokenPom_2.12_1.0/0.0.1-SNAPSHOT/brokenPom-0.0.1-SNAPSHOT.pom': bad module name: expected='brokenPom' found='brokenPom_2.12_1.0'; bad scalaVersion found in http://localhost:8081/nexus/content/repositories/snapshots/dev/saksmt/plugin/brokenPom_2.12_1.0/0.0.1-SNAPSHOT/brokenPom-0.0.1-SNAPSHOT.pom: expected='2.12' found='null';bad sbtVersion found in http://localhost:8081/nexus/content/repositories/snapshots/dev/saksmt/plugin/brokenPom_2.12_1.0/0.0.1-SNAPSHOT/brokenPom-0.0.1-SNAPSHOT.pom: expected='1.0' found='null';
[warn]   ::::::::::::::::::::::::::::
```

```
<?xml version="1.0" encoding="UTF-8"?>
<project
    xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apac
<modelVersion>4.0.0</modelVersion>
<name>brokenPom_2.12_1.0</name>
<groupId>dev.saksmt.plugin</groupId>
<artifactId>brokenPom_2.12_1.0</artifactId>
<packaging>jar</packaging>
<description>brokenPom</description>
<version>0.0.1-SNAPSHOT</version>
<url>https://github.com/saksmt/scala-butthurt-tools</url>
<licenses>
    <license>
        <name>MIT</name>
        <url>https://spdx.org/licenses/MIT.html</url>
        <distribution>repo</distribution>
    </license>
</licenses>
<scm>
    <connection>ssh://git@github.com/saksmt/scala-butthurt-tools.git</connec
    <url>https://github.com/saksmt/scala-butthurt-tools</url>
</scm>
<developers>
    <developer>
        <id>saksmt</id>
        <name>Kirill Saksin</name>
    </developer>
</developers>
<dependencies>
    <dependency>
        <groupId>org.scala-sbt</groupId>
        <artifactId>sbt</artifactId>
        <version>1.2.8</version>
    </dependency>
</dependencies>
</project>
```

```
<?xml version="1.0" encoding="UTF-8"?>
<project
    xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apac
<modelVersion>4.0.0</modelVersion>
<name>brokenPom_2.12_1.0</name>
<groupId>dev.saksmt.plugin</groupId>
<artifactId>brokenPom_2.12_1.0</artifactId>
<packaging>jar</packaging>
<description>brokenPom</description>
<version>0.0.1-SNAPSHOT</version>
<url>https://github.com/saksmt/scala-butthurt-tools</url>
<licenses>
    <license>
        <name>MIT</name>
        <url>https://spdx.org/licenses/MIT.html</url>
        <distribution>repo</distribution>
    </license>
</licenses>
<scm>
    <connection>ssh://git@github.com/saksmt/scala-butthurt-tools.git</connec
    <url>https://github.com/saksmt/scala-butthurt-tools</url>
</scm>
<developers>
    <developer>
        <id>saksmt</id>
        <name>Kirill Saksin</name>
    </developer>
</developers>
<dependencies>
    <dependency>
        <groupId>org.scala-sbt</groupId>
        <artifactId>sbt</artifactId>
        <version>1.2.8</version>
    </dependency>
</dependencies>
</project>
```

```
<properties>
    <scalaVersion>2.12</scalaVersion>
    <sbtVersion>1.0</sbtVersion>
</properties>
```

```
<?xml version="1.0" encoding="UTF-8"?>
<project
    xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apac
<modelVersion>4.0.0</modelVersion>
<name>brokenPom_2.12_1.0</name>
<groupId>dev.saksmt.plugin</groupId>
<artifactId>brokenPom_2.12_1.0</artifactId>
<packaging>jar</packaging>
<description>brokenPom</description>
<version>0.0.1-SNAPSHOT</version>
<url>https://github.com/saksmt/scala-butthurt-tools</url>
[info] downloading http://localhost:8081/nexus/content/repositories/snapshots/dev/saksmt/plugin/brokenSbtAutoplug
gins_2.12_1.0/0.0.1-SNAPSHOT/brokenSbtAutoplugins-0.0.1-SNAPSHOT.jar ...
[info] [SUCCESSFUL ] dev.saksmt.plugin#brokenSbtAutoplugins;0.0.1-SNAPSHOT!brokenSbtAutoplugins.jar (73ms)
[info] Done updating.
[warn] There may be incompatibilities among your library dependencies; run 'evicted' to see detailed eviction wa
rnings.
/home/smt/codeopensource/scala-butthurt-tools/samples/broken-plugin/usage-in-sbt/build.sbt:1: error: not found:
  object dev
import dev.saksmt.plugin.BrokenPlugin
^
/home/smt/codeopensource/scala-butthurt-tools/samples/broken-plugin/usage-in-sbt/build.sbt:3: error: not found:
  value enablePlugin
enablePlugin(BrokenPlugin)
^
[error] Type error in expression
      <name>Kirill Saksink</name>
      </developer>
</developers>
<dependencies>
  <dependency>
    <groupId>org.scala-sbt</groupId>
    <artifactId>sbt</artifactId>
    <version>1.2.8</version>
  </dependency>
</dependencies>
</project>
```

```
<?xml version="1.0" encoding="UTF-8"?>
<project
    xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apac
<modelVersion>4.0.0</modelVersion>
<name>brokenPom_2.12_1.0</name>
<groupId>dev.saksmt.plugin</groupId>
<artifactId>brokenPom_2.12_1.0</artifactId>
<packaging>jar</packaging>
<description>brokenPom</description>
<version>0.0.1-SNAPSHOT</version>
<url>https://github.com/saksmt/scala-butthurt-to
[info] downloading http://localhost:8081/nexus/cont
gins_2.12_1.0/0.0.1-SNAPSHOT/brokenSbtAutoplugin...
[info] [SUCCESSFUL ] dev.saksmt.n...
[info] Done updating.
[warn] There may be incompatibilities among your library dependencies; run 'evicted' to see detailed eviction wa
rnings.
[info] downloading http://localhost:8081/nexus/content/repositories/snapshots/dev/saksmt/plugin/brokenSbtAutoplugin...
[info] [SUCCESSFUL ] dev.saksmt.plugin#brokenSbtAutoplugins-0.0.1-SNAPSHOT.jar ...
[info] Done updating.
[warn] There may be incompatibilities among your library dependencies; run 'evicted' to see detailed eviction wa
rnings.
^/home/smt/codeopensource/scala-butthurt-tools/samples/broken-plugin/usage-in-sbt/build.sbt: error: not found:
[error] object dev
[error]   import dev.saksmt.plugin.BrokenPlugin
[error]   ^
[error] /home/smt/codeopensource/scala-butthurt-tools/samples/broken-plugin/usage-in-sbt/build.sbt:3: error: not found:
[error]   value enablePlugin
[error]   ^
[error]   enablePlugin(BrokenPlugin)
[error]   ^
[error]   ^ Type error in expression
[error]   <sbtVersion>1.0</sbtVersion>
[error]   </properties>
[error]   <dependency>
[error]     <groupId>org.scala-sbt</groupId>
[error]     <artifactId>sbt</artifactId>
[error]     <version>1.2.8</version>
[error]   </dependency>
[error] </dependencies>
</project>
```

```
<?xml version="1.0" encoding="UTF-8"?>
<project
    xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/pom-4.0.0.xsd">
    <modelVersion>4.0.0</modelVersion>
    <groupId>com.sksamuel.sbt</groupId>
    <artifactId>brokenSbtAutoplugins</artifactId>
    <version>2.12_1.0</version>
    <dependencies>
        <dependency>
            <groupId>org.scala-sbt</groupId>
            <artifactId>sbt</artifactId>
            <version>1.2.8</version>
        </dependency>
    </dependencies>
</project>
```

```
<?xml version="1.0" encoding="UTF-8"?>
<project
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>com.sksamuel.scratches.m2</groupId>
  <artifactId>brokenSbtAutoplugins</artifactId>
  <version>0.0.1-SNAPSHOT</version>
  <name>brokenSbtAutoplugins</name>
  <description>A Scala SBT plugin that breaks SBT's dependency resolution by adding broken dependencies</description>
  <url>https://github.com/sksamuel/brokenSbtAutoplugins</url>
  <licenses>
    <license>
      <name>The MIT License</name>
      <url>http://www.opensource.org/licenses/mit-license.php</url>
      <distribution>repo</distribution>
    </license>
  </licenses>
  <developers>
    <developer>
      <name>Samuel Williams</name>
      <email>sksamuel@comcast.net</email>
      <url>http://sksamuel.com</url>
    </developer>
  </developers>
  <scm>
    <connection>scm:git:git://github.com/sksamuel/brokenSbtAutoplugins.git</connection>
    <developerConnection>scm:git:git://github.com/sksamuel/brokenSbtAutoplugins.git</developerConnection>
    <url>http://github.com/sksamuel/brokenSbtAutoplugins</url>
  </scm>
  <issueManagement>
    <system>GitHub</system>
    <url>https://github.com/sksamuel/brokenSbtAutoplugins/issues</url>
  </issueManagement>
  <dependencies>
    <dependency>
      <groupId>com.sksamuel.scratches.m2</groupId>
      <artifactId>brokenSbtAutoplugins</artifactId>
      <version>0.0.1-SNAPSHOT</version>
      <scope>test</scope>
    </dependency>
    <dependency>
      <groupId>com.sksamuel.scratches.m2</groupId>
      <artifactId>brokenSbtAutoplugins</artifactId>
      <version>0.0.1-SNAPSHOT</version>
      <scope>compile</scope>
    </dependency>
  </dependencies>
  <build>
    <plugins>
      <plugin>
        <groupId>com.sksamuel.scratches.m2</groupId>
        <artifactId>brokenSbtAutoplugins</artifactId>
        <version>0.0.1-SNAPSHOT</version>
        <configuration>
          <enablePlugin>true</enablePlugin>
        </configuration>
        <dependencies>
          <dependency>
            <groupId>com.sksamuel.scratches.m2</groupId>
            <artifactId>brokenSbtAutoplugins</artifactId>
            <version>0.0.1-SNAPSHOT</version>
            <scope>test</scope>
          </dependency>
        </dependencies>
      </plugin>
    </plugins>
  </build>
  <properties>
    <scala.version>2.12.10</scala.version>
    <java.version>11</java.version>
  </properties>

```

```
<?xml version="1.0" encoding="UTF-8"?>
<project
  xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <version>2.12_1.0</version>
  <name>saksmt</name>
  <url>http://localhost:8081/nexus/content/repositories/snapshots/dev/saksmt/plugin/brokenSbtAutoplugins_2.12_1.0/0.0.1-SNAPSHOT/brokenSbtAutoplugin.jar</url>
  <dependencies>
    <dependency>
      <groupId>dev.saksmt.plugin</groupId>
      <artifactId>brokenSbtAutoplugin</artifactId>
      <version>0.0.1-SNAPSHOT</version>
      <scope>compile</scope>
    </dependency>
  </dependencies>
  <build>
    <plugins>
      <plugin>
        <groupId>dev.saksmt.plugin</groupId>
        <artifactId>brokenSbtAutoplugin</artifactId>
        <version>0.0.1-SNAPSHOT</version>
        <configuration>
          <enablePlugin>
            <plugin>
              <groupId>dev.saksmt.plugin</groupId>
              <artifactId>brokenSbtAutoplugin</artifactId>
              <version>0.0.1-SNAPSHOT</version>
            </plugin>
          </enablePlugin>
        </configuration>
      </plugin>
    </plugins>
  </build>
  <repositories>
    <repository>
      <id>local</id>
      <url>http://localhost:8081/nexus/content/repositories/local</url>
      <releases>
        <updatePolicy>always</updatePolicy>
      </releases>
      <snapshots>
        <updatePolicy>always</updatePolicy>
      </snapshots>
    </repository>
  </repositories>
  <pluginRepositories>
    <pluginRepository>
      <id>nexus</id>
      <url>http://localhost:8081/nexus/content/repositories/plugins</url>
      <releases>
        <updatePolicy>always</updatePolicy>
      </releases>
      <snapshots>
        <updatePolicy>always</updatePolicy>
      </snapshots>
    </pluginRepository>
  </pluginRepositories>
</project>
```



versi
properties>

```
$ sbt testOnly "**TrueSpec"
[info] Loading settings for project global-plugins from idea.sbt .
.
[info] Loading global plugins from /home/smt/.sbt/1.0/plugins
[info] Loading settings for project usage-in-sbt-build from plugin
s.sbt ...
[info] Loading project definition from /home/smt/code.opensource/s
cala-butthurt-tools/samples/broken-plugin/usage-in-sbt/project
[info] Loading settings for project usage-in-sbt from build.sbt ..
.
[info] Set current project to usage-in-sbt (in build file:/home/sm
t/codeopensource-scala-butthurt-tools/samples/broken-plugin/usag
e-in-sbt/)
[info] Passed: Total 0, Failed 0, Errors 0, Passed 0
[info] No tests to run for Test / testOnly
[success] Total time: 0 s, completed 19.02.2019 16:20:15
[error] Expected symbol
[error] Not a valid command: **
[error] **TrueSpec
```

```
$ sbt testOnly "**TrueSpec"
[info] Loading settings for project global-plugins from idea.sbt .
.
[info] Loading global plugins from /home/smt/.sbt/1.0/plugins
[info] Loading settings for project usage-in-sbt-build from plugin
s.sbt ...
[info] Loading project definition from /home/smt/code.opensource/s
cala-butthurt-tools/samples/broken-plugin/usage-in-sbt/project
[info] Loading settings for project usage-in-sbt from build.sbt ..
.
[info] Set current project to usage-in-sbt (in build file:/home/sm
t/codeopensource-scala-butthurt-tools/samples/broken-plugin/usag
e-in-sbt/)
[info] Passed: Total 0, Failed 0, Errors 0, Passed 0
[info] No tests to run for Test / testOnly
[success] Total time: 0 s, completed 19.02.2019 16:20:15
[error] Expected symbol
[error] Not a valid command: **
[error] **TrueSpec
```

```
sbt:usage-in-sbt> compile test
[error] Expected whitespace character
[error] Expected '/'
[error] compile test
[error] ^
```



sbt





```
import mill._, mill.scalalib._

trait Common extends ScalaModule {
  def scalaVersion = "2.12.8"
  def organization = "dev.saksmt.mill_sample"

  override def scalacOptions: Target[Seq[String]] = Seq(
    "-Ypartial-unification",
    "-unchecked",
    "-feature",
    "-Ywarn-value-discard"
  )

  def build() = T.command {
    compile()
    test.test()()
  }
}

object test extends super.Tests {
  override def ivyDeps = Agg(ivy"org.scalatest::scalatest:3.0.1")

  def testFrameworks: Target[Seq[String]] = Seq("org.scalatest.tools.Framework")
}

object core extends Common
object api extends Common {
  override def moduleDeps = Seq(core)
}

def build() = T.command {
  core.build()()
  api.build()()
}
```

```
$ mill show api.test.ivyDeps
[1/1] show
[
  {
    "dep": {
      "module": {
        "organization": "org.scalatest",
        "name": "scalatest",
        "attributes": {
          ...
        },
        "version": "3.0.1",
        "configuration": "default(compile)",
        "exclusions": [
          ...
        ],
        "attributes": {
          "type": "",
          "classifier": ""
        },
        "optional": false,
        "transitive": true
      },
      "cross": {
        "$type": "mill.scalalib.CrossVersion.Binary",
        "platformed": false
      },
      "force": false
    }
  ]
]
```

```
$ mill insepect build
Cannot resolve insepect. Did you mean inspect?
$ mill inspect build
[1/1] inspect
build(build.sc:31)
```

Inputs:

```
core.compile
core.test.forkArgs
core.test.forkEnv
core.test.testFrameworks
core.test.testFrameworks
core.test.runClasspath
core.test.runClasspath
core.test.compile
core.test.forkWorkingDir
api.compile
api.test.forkArgs
api.test.forkEnv
api.test.testFrameworks
api.test.testFrameworks
api.test.runClasspath
api.test.runClasspath
api.test.compile
api.test.forkWorkingDir
```


buildCommons/common.sc

```
import mill._, mill.scalalib._

trait Common extends ScalaModule {
  def scalaVersion = "2.12.8"
  def organization = "dev.saksmt.mill_sample"

  override def scalacOptions: Target[Seq[String]] = Seq(
    "-Ypartial-unification",
    "-unchecked",
    "-feature",
    "-Ywarn-value-discard"
  )

  def build() = T.command {
    compile()
    test.test()()
  }

  object test extends super.Tests {
    override def ivyDeps = Agg(ivy"org.scalatest::scalatest:3.0.1")

    def testFrameworks: Target[Seq[String]] = Seq("org.scalatest.tools.Framework")
  }
}
```

buildModules/api.sc

```
import $file.^.buildCommons.common
import $file.coreModule

object api extends common.Common {
    override def moduleDeps = Seq(coreModule.core)
}
```

buildModules/core.sc

```
import $file.^.buildCommons.common

object core extends common.Common
```

build.sc

```
import mill._

import $file.buildModules.coreModule
import $file.buildModules.apiModule

def build() = T.command {
    coreModule.core.build()()
    apiModule.api.build()()
}
```





```
import mill._, mill.scalalib._

case class MyCustomDataType()

object reallyNaive extends ScalaModule {
    def scalaVersion = "2.12.8"
    def taskWithMyCustomDataType = T(MyCustomDataType())
}
```

```
import mill._, mill.scalalib._

case class MyCustomDataType()

object reallyNaive extends ScalaModule {
    def scalaVersion = "2.12.8"
    def taskWithMyCustomDataType = T(MyCustomDataType())
}
```

```
$ mill reallyNaive.taskWithMyCustomDataType
Compiling /home/smt/code/opensource/scala-butthurt-tools/samples/mill/missing-codec/build.sc
build.sc:7: could not find implicit value for parameter rw: upickle.default.ReadWriter[build.this.MyCustomDataTy
pe]
  def taskWithMyCustomDataType = T(MyCustomDataType())
                           ^
build.sc:7: `T.command` definitions must have 1 parameter list
  def taskWithMyCustomDataType = T(MyCustomDataType())
   ^
Compilation Failed
```

```
import mill._, mill.scalalib._

object naive extends ScalaModule {
  def scalaVersion = "2.12.8"

  def myCustomTask = T {
    "hello"
  }

  def myTaskF(str: String) = T.task { str + "!" }

  def myCustomTaskWithDependencies = T {
    myTaskF(myCustomTask())
  }
}
```

```
$ mill naive.myCustomTaskWithDependencies
Compiling /home/smt/code/opensource/scala-butthurt-tools/samples/mill/mill-applicatives/build.sc
build.sc:15: Target#apply() can only be used with a T{...} block
  myTaskF(myCustomTask())()
               ^
Compilation Failed
```



```
def myCustomTask : Task[String] = Task.pure( value = "hello")
def myTaskF : String => Task[String] = (str: String) => Task.pure(str + "!")
def myCustomTaskWithDependencies : Task[String] = myCustomTask.flatMap(myTaskF)
```

```
import mill._, mill.scalalib._

class Sample(scV: String) extends ScalaModule {
  def scalaVersion: Target[String] = scV

  def build() = T.command { Thread.sleep( millis = 5000 ) }
}

object sample extends Cross[Sample]( cases = "2.11.12", "2.12.8")
```

```
import mill._, mill.scalalib._

class Sample(scV: String) extends ScalaModule {
  def scalaVersion: Target[String] = scV

  def build() = T.command { Thread.sleep( millis = 5000 ) }
}

object sample extends Cross[Sample]( cases = "2.11.12", "2.12.8")
```

```
$ time mill ___.build
[2/2] sample[2.12.8].build
mill ___.build 0,27s user 0,06s system 3% cpu 10,17s total
```

```
import mill._, mill.scalalib._

class Sample(scV: String) extends ScalaModule {
  def scalaVersion: Target[String] = scV

  def build() = T.command { Thread.sleep( millis = 5000 ) }
}

object sample extends Cross[Sample]( cases = "2.11.12", "2.12.8")
```

```
$ time mill _._.build
[2/2] sample[2.12.8].build
mill _._.build 0,27s user 0,06s system 3% cpu 10,170 total
```

```
$ time (mill '_[2.11.12].build'; mill '_[2.12.8].build')
[1/1] sample[2.11.12].build
[1/1] sample[2.12.8].build
( mill '_[2.11.12].build'; mill '_[2.12.8].build' ) 0,56s user 0,08s system 6% cpu 10,377 total
```

Видишь документацию? Нет. И я не вижу





Oron Port @soronpo

How do I use mill with a different scala organization? Specifically I want to use Typelevel Scala.

I tried

```
object foo extends ScalaModule{
  def scalaOrganization = "org.typelevel"
  def scalaVersion = "2.12.4-bin-typelevel-4"
}
```

and I get

```
Compiling compiler interface...
1 targets failed
foo.compile java.util.NoSuchElementException: None.get
  scala.None$.get(Option.scala:366)
  scala.None$.get(Option.scala:364)
  mill.scalalib.ZincWorkerModule.$anonfun$worker$5(ZincWorkerModule.scala:62)
  mill.scalalib.worker.ZincWorkerImpl.compileZincBridgeIfNeeded(ZincWorkerImpl.scala:84)
  mill.scalalib.worker.ZincWorkerImpl.withCompilers(ZincWorkerImpl.scala:224)
  mill.scalalib.worker.ZincWorkerImpl.compileMixed0(ZincWorkerImpl.scala:187)
  mill.scalalib.worker.ZincWorkerImpl.compileMixed(ZincWorkerImpl.scala:159)
  mill.scalalib.ScalaModule.$anonfun$compile$2(ScalaModule.scala:126)
  mill.define.ApplyerGenerated.$anonfun$zipMap$9(ApplicativeGenerated.scala:21)
  mill.define.Task$MappedDest.evaluate(Task.scala:337)
```



Li Haoyi @lihaoyi

no idea, build Mill with a `println` and see why it's misbehaving?



Oron Port @soronpo

OK, will do

I'll open an issue in the meanwhile.



Oron Port @soronpo

[lihaoyi/mill#527](#) this is unfortunate. Any workaround to get the dependency libraries automatically imported to IntelliJ project?



Li Haoyi @lihaoyi

fix it?



Oron Port @soronpo

I'd love to if I find the time. Currently I'm considering the move to mill from sbt, but the extra cost to make things work seems higher than remain with the broken concept of sbt that works.



Li Haoyi @lihaoyi

stay with SBT then



Oron Port @soronpo

Jan 29 17:51

[lihaoyi/mill#527](#) this is unfortunate. Any workaround to get the dependency libraries automatically imported to IntelliJ project?



Li Haoyi @lihaoyi
fix it?

Jan 29 18:12



Oron Port @soronpo

Jan 29 18:16

I'd love to if I find the time. Currently I'm considering the move to mill from sbt, but the extra cost to make things work seems higher than remain with the broken concept of sbt that works.



Li Haoyi @lihaoyi
stay with SBT then

Jan 29 18:40

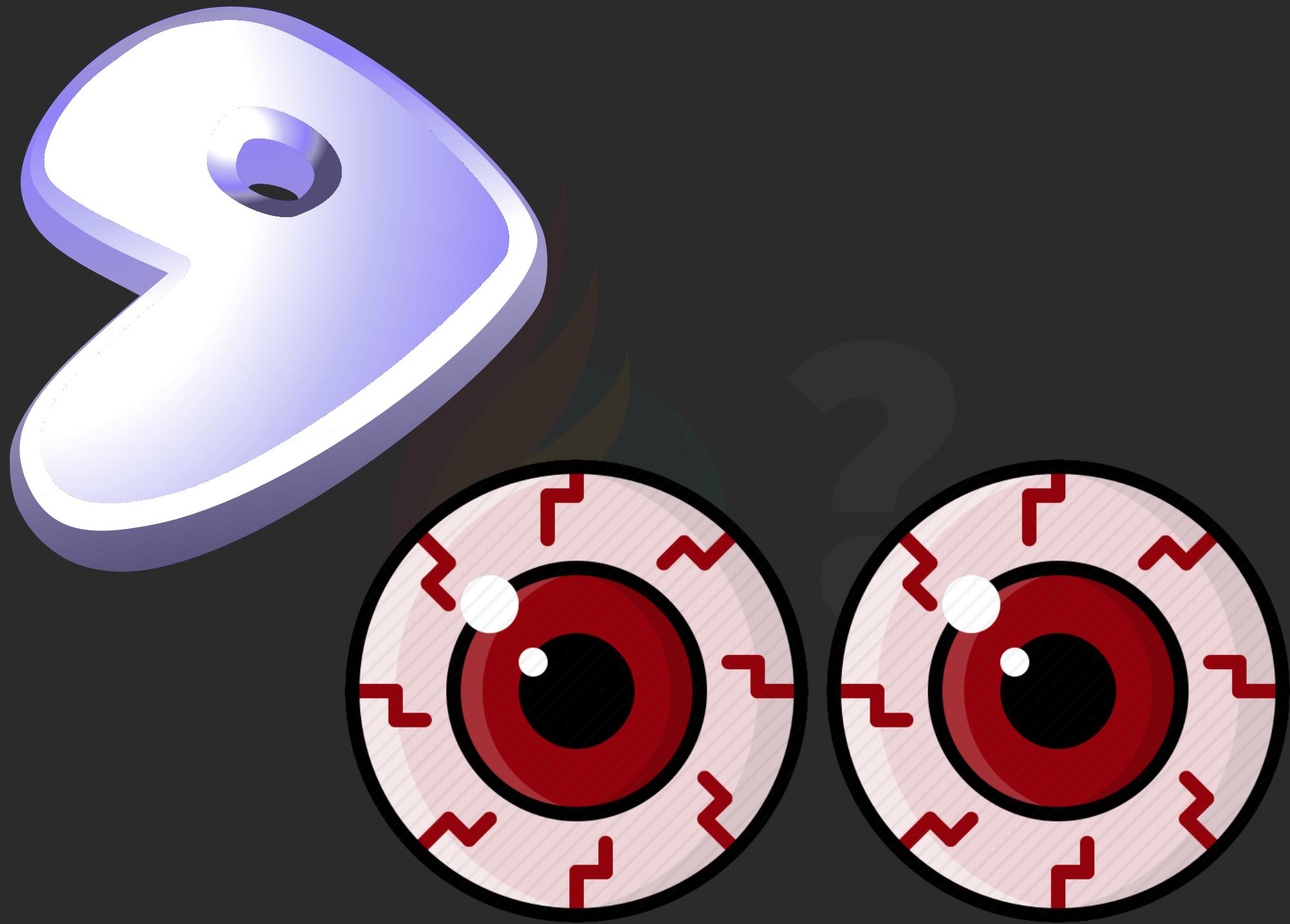




```
java.lang.NoSuchMethodError: cats.implicitly$.catsSyntaxFlatten(Ljava/lang/Object;Lcats/FlatMap;)Lcats/syntax/FlattenOps;
  at org.http4s.MessageOps$class.as(MessageOps.scala:91)
  at org.http4s.Request.as(Message.scala:144)
  at MyWebServer$$anonfun$1.applyOrElse(MyWebServer.scala:57)
  at MyWebServer$$anonfun$1.applyOrElse(MyWebServer.scala:51)
  at org.http4s.package$AuthedService$$anonfun$apply$3.apply(package.scala:77)
  at org.http4s.package$AuthedService$$anonfun$apply$3.apply(package.scala:77)
  at cats.data.Kleisli.apply(Kleisli.scala:71)
  at org.http4s.server.middleware.authentication.package$$anonfun$challenged$1$$anonfun$apply$1.apply(package.scala:14)
  at org.http4s.server.middleware.authentication.package$$anonfun$challenged$1$$anonfun$apply$1.apply(package.scala:12)
  at fs2.Task$$anonfun$flatMap$1$$anonfun$1.apply(Task.scala:40)
  at fs2.Task$$anonfun$flatMap$1$$anonfun$1.apply(Task.scala:40)
  at fs2.util.Attempt$.apply(Attempt.scala:12)
  at fs2.Task$$anonfun$flatMap$1.apply(Task.scala:40)
  at fs2.Task$$anonfun$flatMap$1.apply(Task.scala:38)
  at scala.Function1$$anonfun$andThen$1.apply(Function1.scala:52)
  at scala.Function1$$anonfun$andThen$1.apply(Function1.scala:52)
  at fs2.internal.Future$$anonfun$flatMap$1.apply(Future.scala:17)
  at fs2.internal.Future$$anonfun$flatMap$1.apply(Future.scala:17)
  at fs2.internal.Future.step(Future.scala:53)
  at fs2.internal.Future.listen(Future.scala:30)
  at fs2.internal.Future.runAsync(Future.scala:69)
  at fs2.Task.unsafeRunAsync(Task.scala:100)
  at org.http4s.server.blaze.Http1ServerStage$$anonfun$runRequest$1.apply$mcV$sp(Http1ServerStage.scala:109)
  at fs2.Strategy$$anon$3$$anon$4.run(Strategy.scala:54)
  at scala.concurrent.impl.ExecutionContextImpl$AdaptedForkJoinTask.exec(ExecutionContextImpl.scala:121)
  at scala.concurrent.forkjoin.ForkJoinTask.doExec(ForkJoinTask.java:260)
  at scala.concurrent.forkjoin.ForkJoinPool$WorkQueue.runTask(ForkJoinPool.java:1339)
  at scala.concurrent.forkjoin.ForkJoinPool.runWorker(ForkJoinPool.java:1979)
  at scala.concurrent.forkjoin.ForkJoinWorkerThread.run(ForkJoinWorkerThread.java:107)
```









application
schema
dependency
repository
dynamic
sources
layer
import
plugin
project
linking
.scala
library
git
module
shared
compiler
sources
linking
library
git
module
dependency
repository
schema
application
shared
compiler
sources
linking
.scala
library
git
module
dependency
repository
schema
application



Вопросы?

