Logging events

Apache logging services

The Apache Logging Services Project creates and maintains open-source software related to the logging of application behavior and released at no charge to the public.

http://logging.apache.org

- Apache log4j
- Apache log4php
- Apache chainsaw
- Apache log4net
- Apache log4cxx

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Apache log4j

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Apache chainsaw

Apache log4cxx

DR TOMASZ ORZECHOWSKI

How to use

http://logging.apache.org

log4j availability

Available:

* http://logging.apache.org/log4j/1.2
* http://logging.apache.org/log4j/2.x (still in beta)

Download:

* http://archive.apache.org/dist/logging/log4j

log4j main components

Log4j includes three main components:

* **loggers** - are responsible for capturing logging information;
* **appenders** - are responsible for publishing logging information to different destinations;
* **layouts** - are responsible for formatting logging information.

log4j levels and methods

LEVEL	
FATAL	Designates very severe error events that will presumably lead the application to abort.
ERROR	Designates error events that might still allow the application to continue running.
WARN	Designates potentially harmful situations.
INFO	Designates informational messages that highlight the progress of the application at coarse-grained level.
DEBUG	Designates fine-grained informational events that are most useful to debug an application.
TRACE	Designates finer-grained informational events than the DEBUG.

log4j levels and methods

LEVEL	
ALL	*All levels including custom levels.*
OFF	*Intended to turn off logging*

log4j levels and methods

green – the method will be effective in the event log **red** – the method will be ignored

	fatal()	error()	warn()	info()	debug()	trace()
FATAL						
ERROR						
WARN						
INFO						
DEBUG						
TRACE						

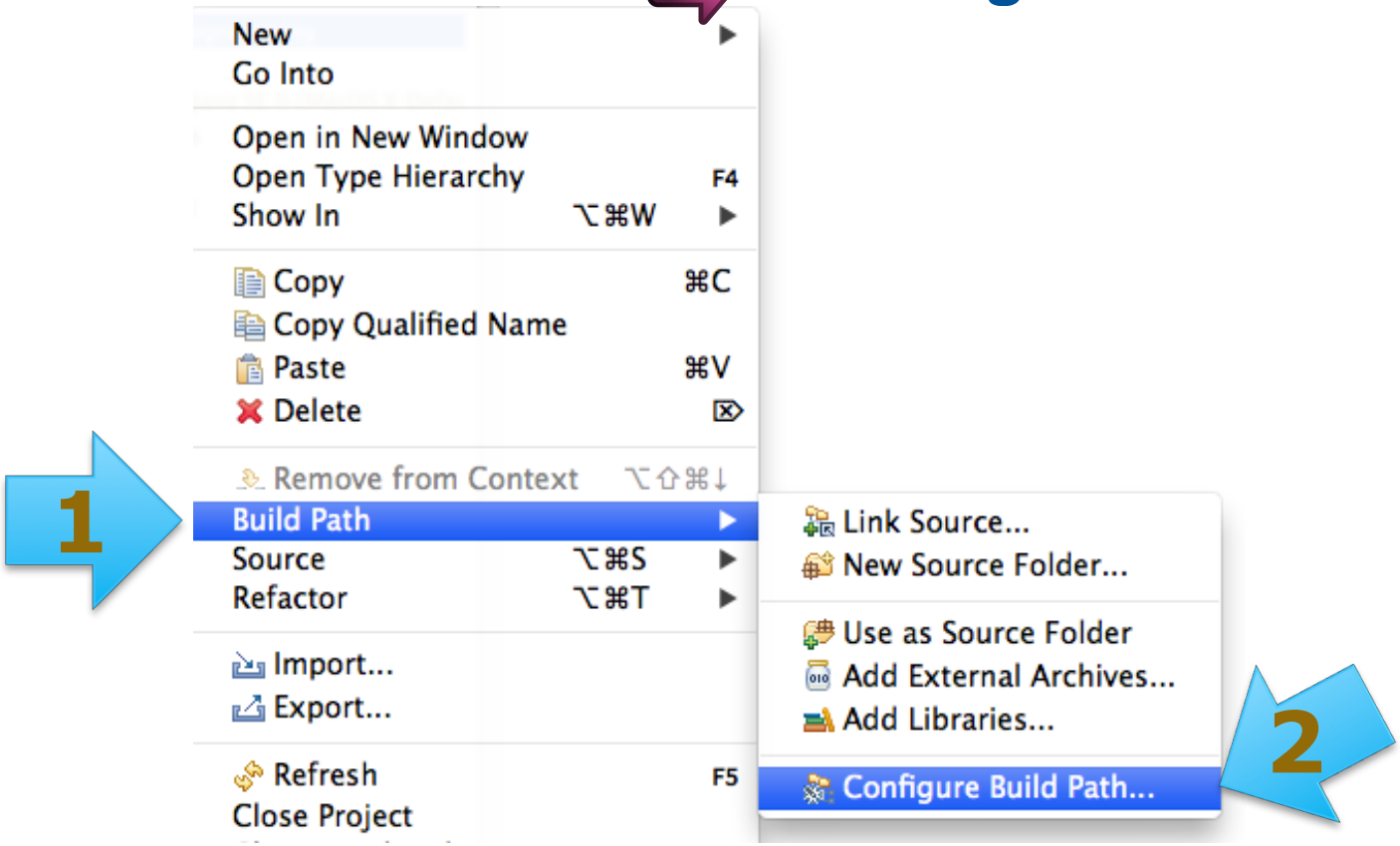
	fatal()	error()	warn()	info()	debug()	trace()
OFF						
ALL						

How to use log4j in Eclipse

Tomasz Orzechowski, PhD

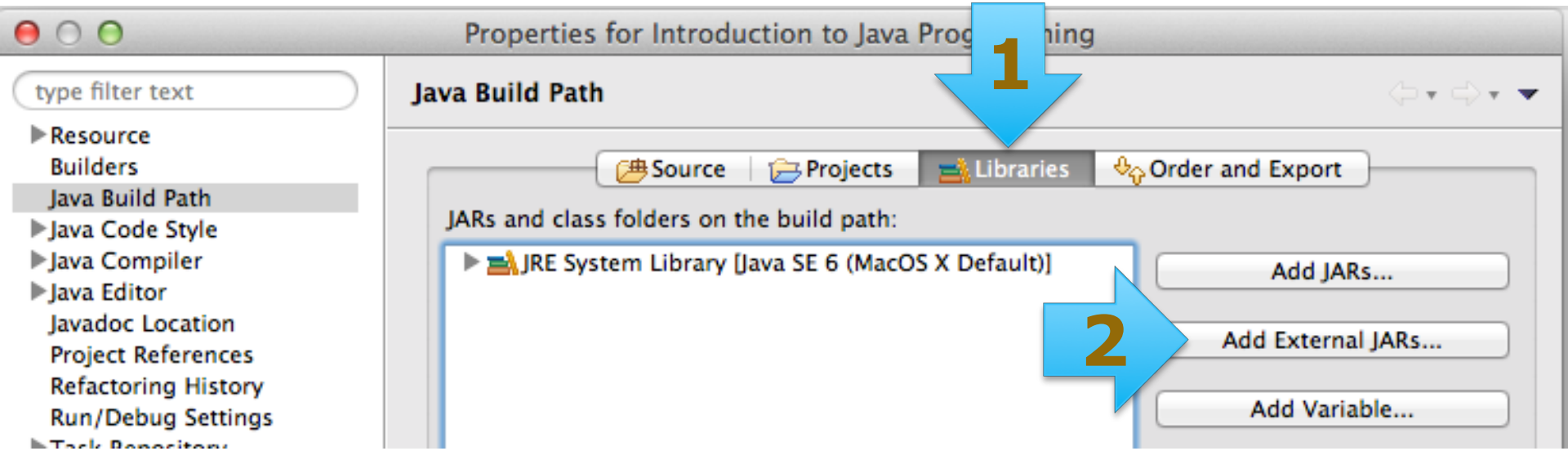
Eclipse configuration

1. Choose the java package and Ctrl + **click** on the package name.
2. Choose **Build Path** ➡ **Configure Build Path…**



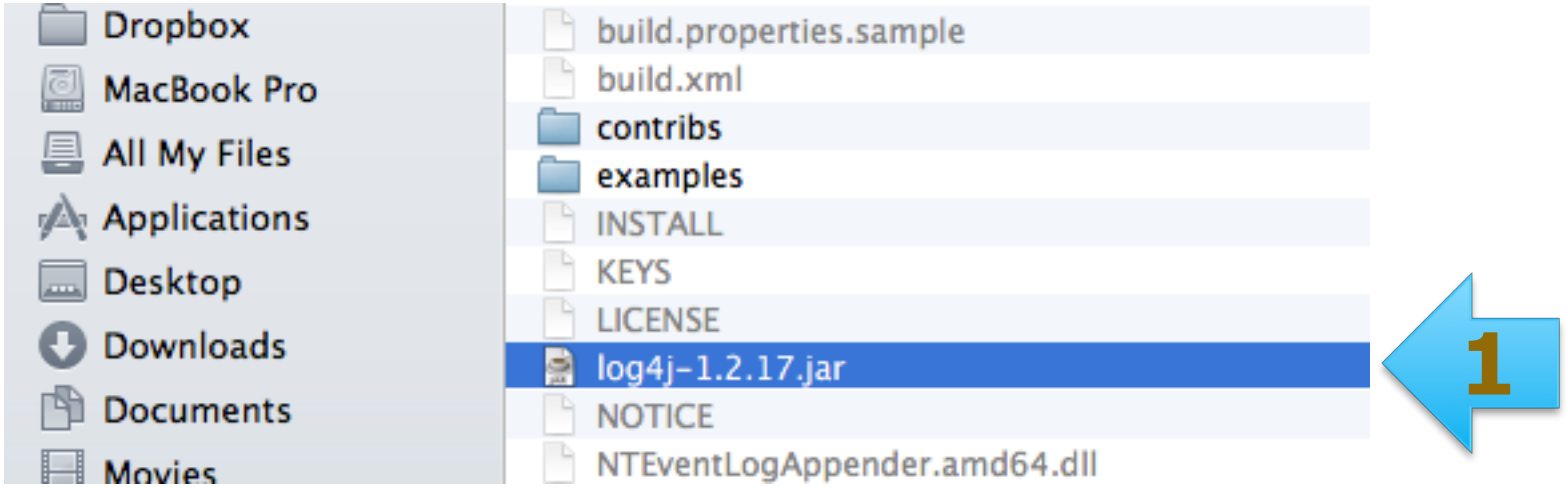
Eclipse configuration

3. Choose **Libraries** tab **(1)** and press **Add External JARs** button **(2)**.



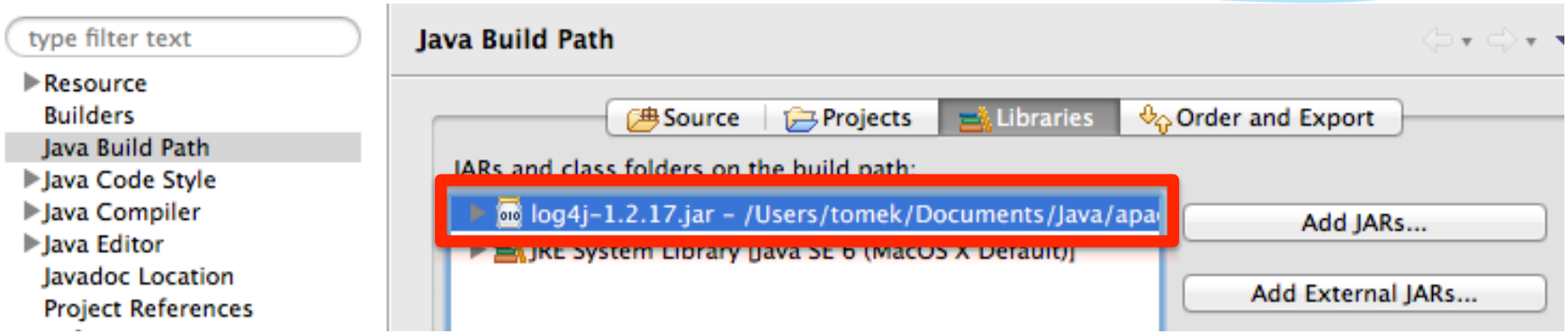
Eclipse configuration

4. Choose the **log4j-1.2.17.jar** file.



Eclipse configuration

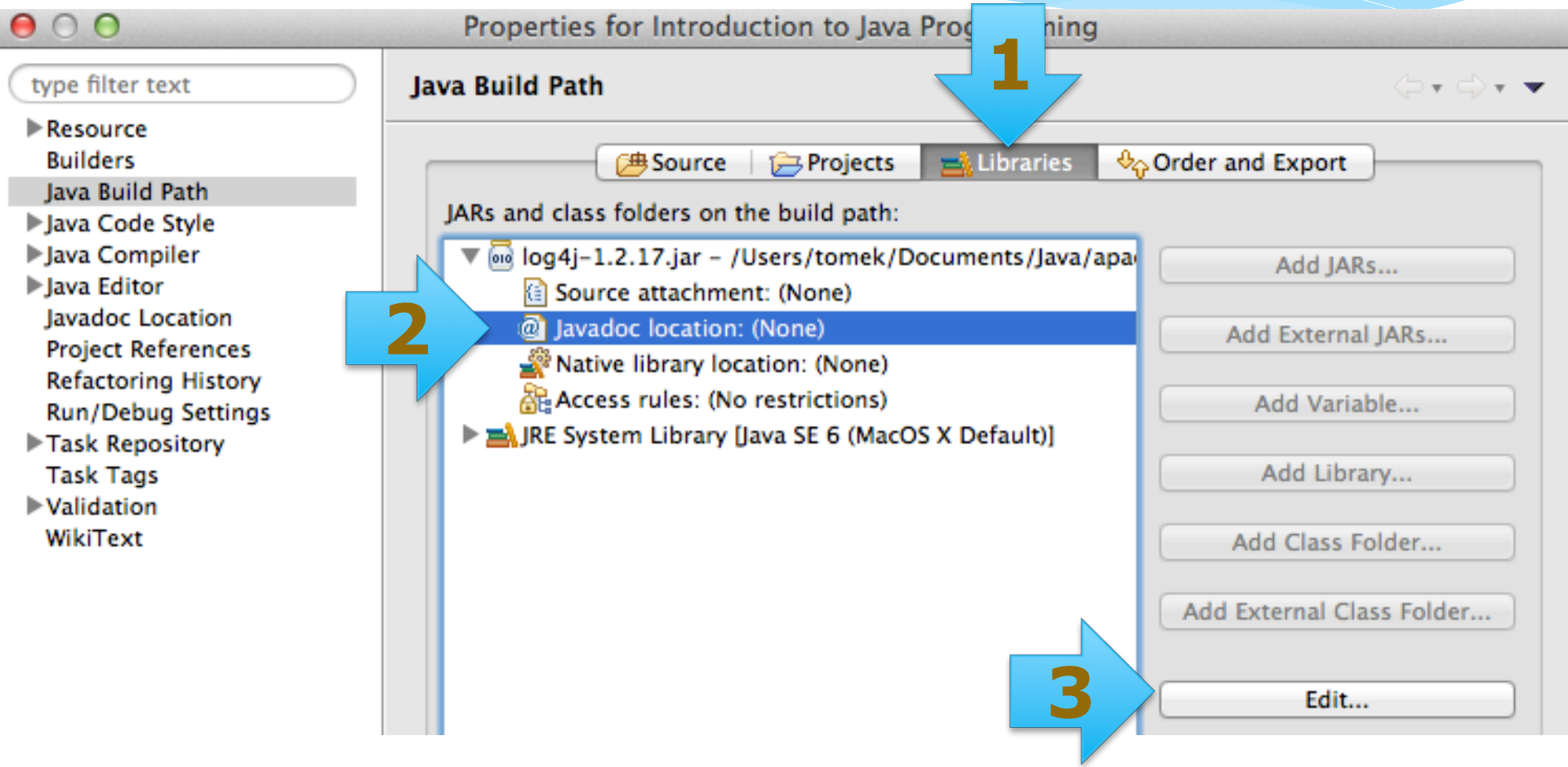
5. You will see the reference to the **log4j-1.2.17.jar** file in the Java Build Path window.



6. You will also see the **log4j-1.2.17.jar** file in the Package Explorer window.

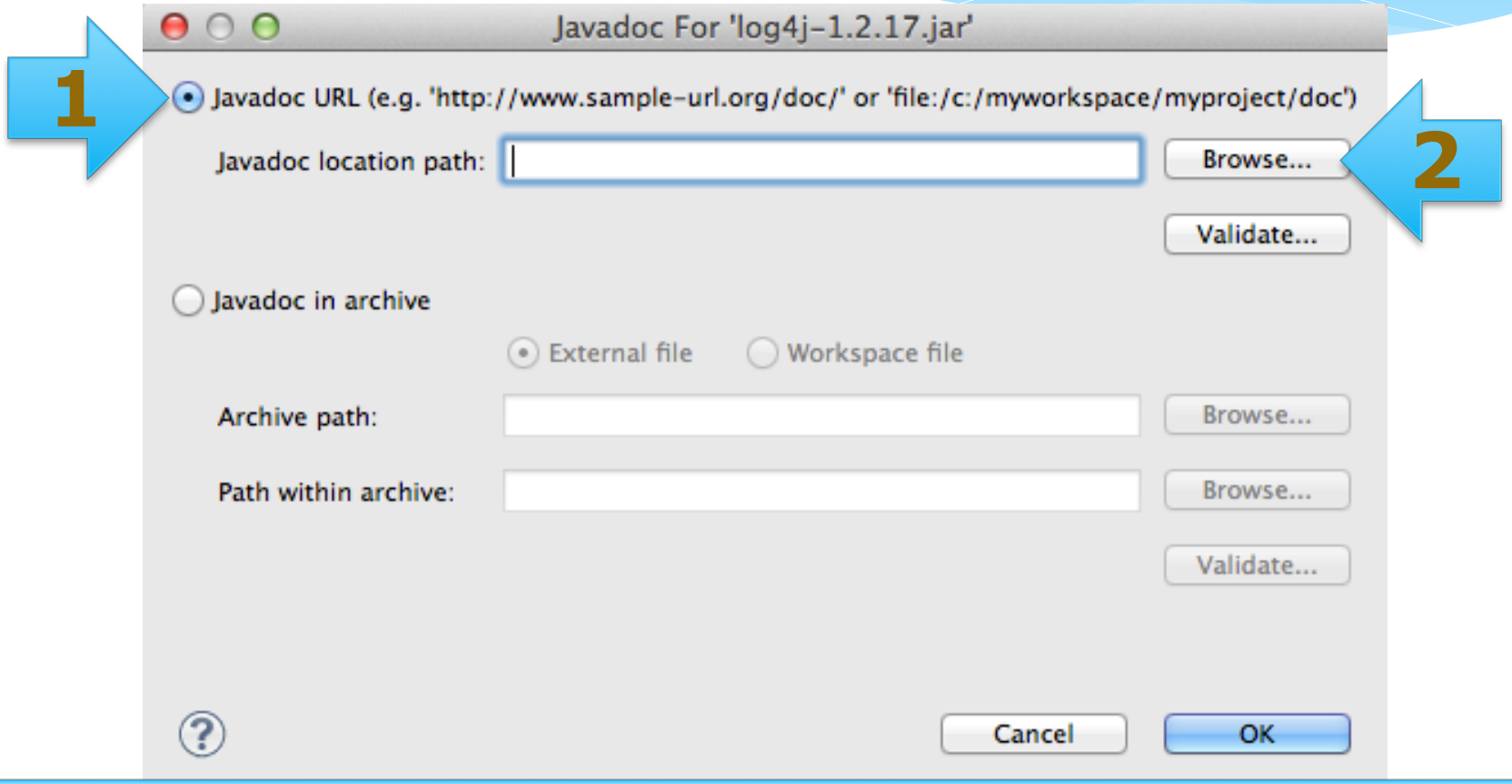
Eclipse configuration

7. In **Libraries** (1) tab choose the **Javadoc location** (2) and then press **Edit...** button (3).



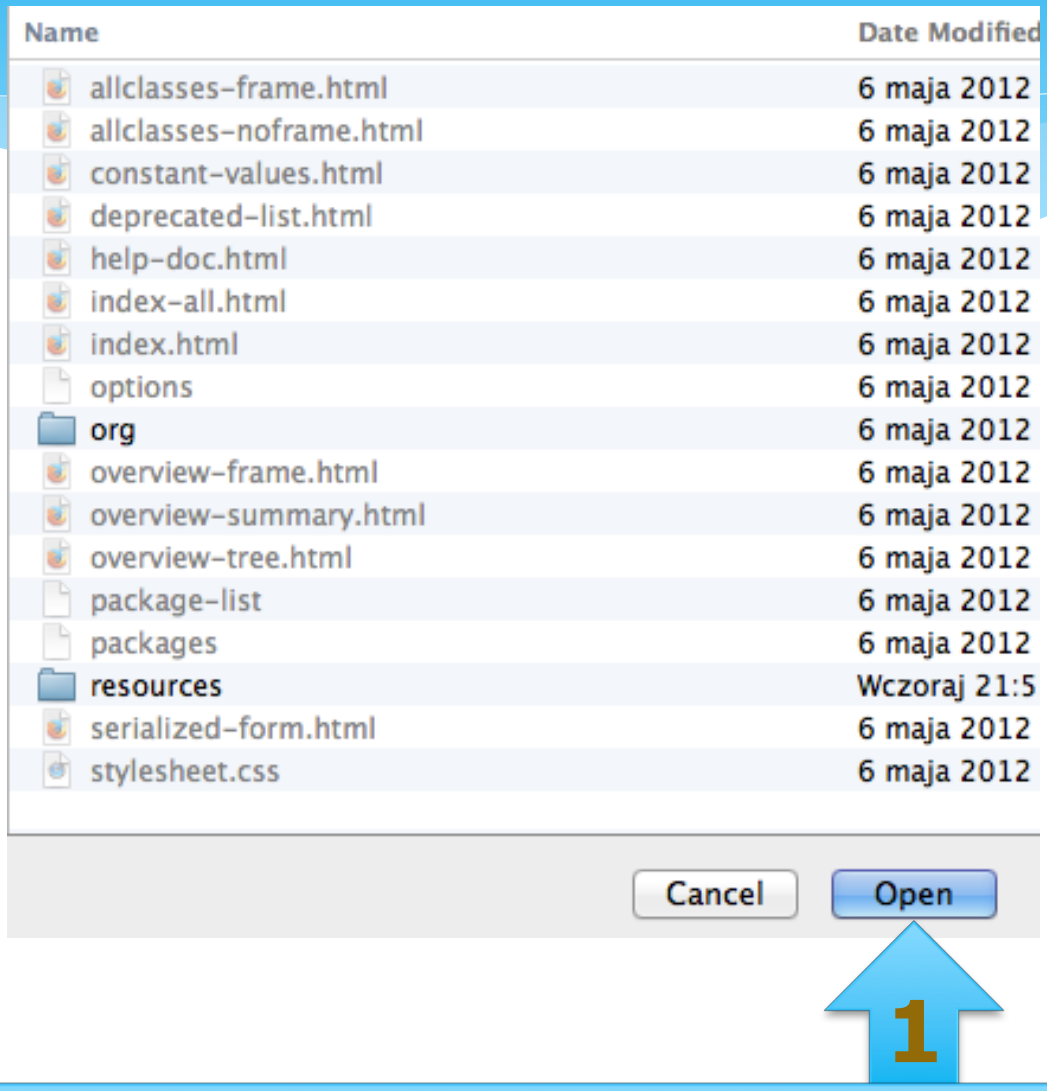
Eclipse configuration

8. Choose the **Javadoc URL** (1) and press **Browse...** button (2).



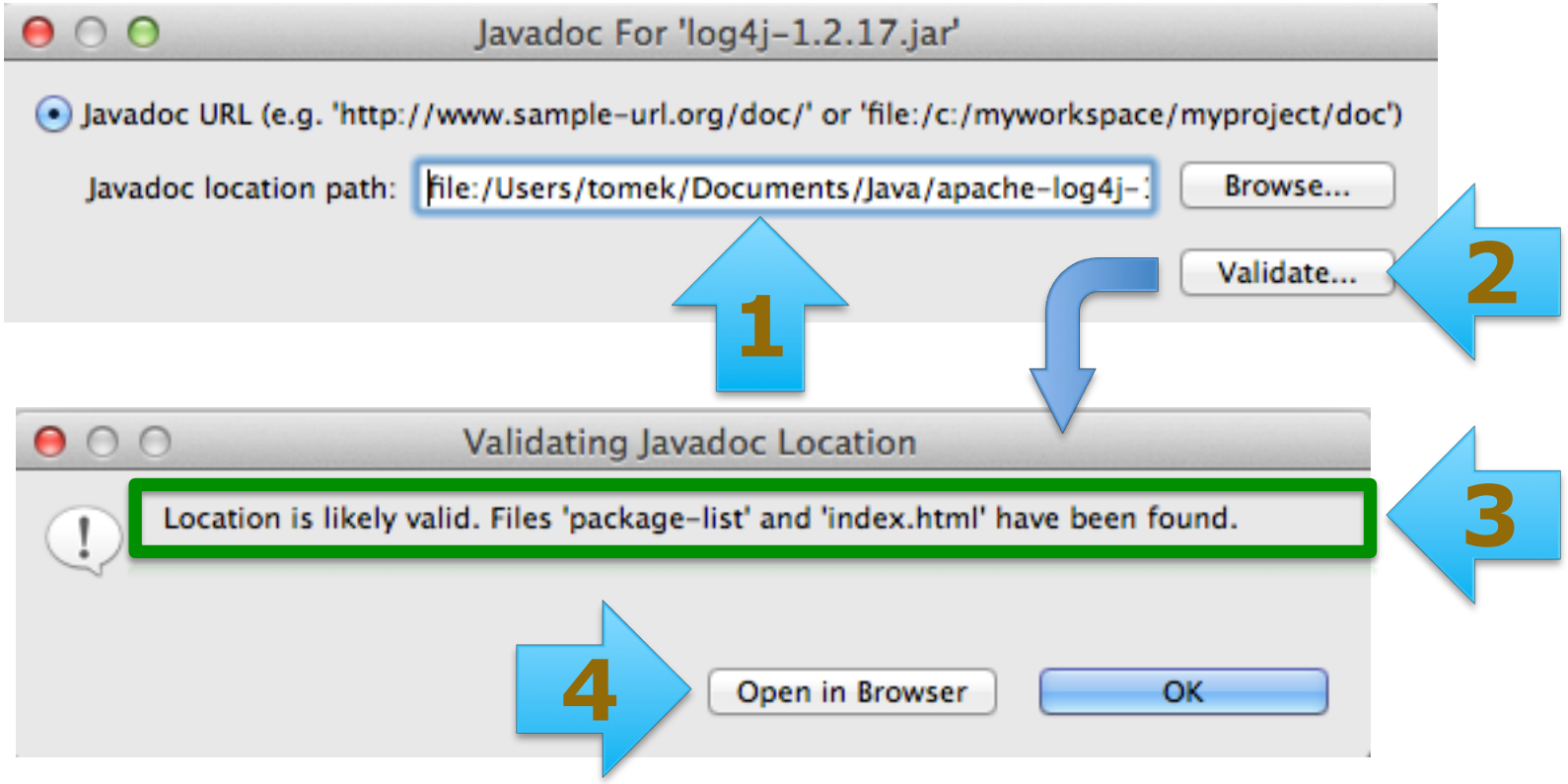
Eclipse configuration

9. Go to **site** subdirectory and then to **apidocs** subdirectory, and press **Open** button (1)



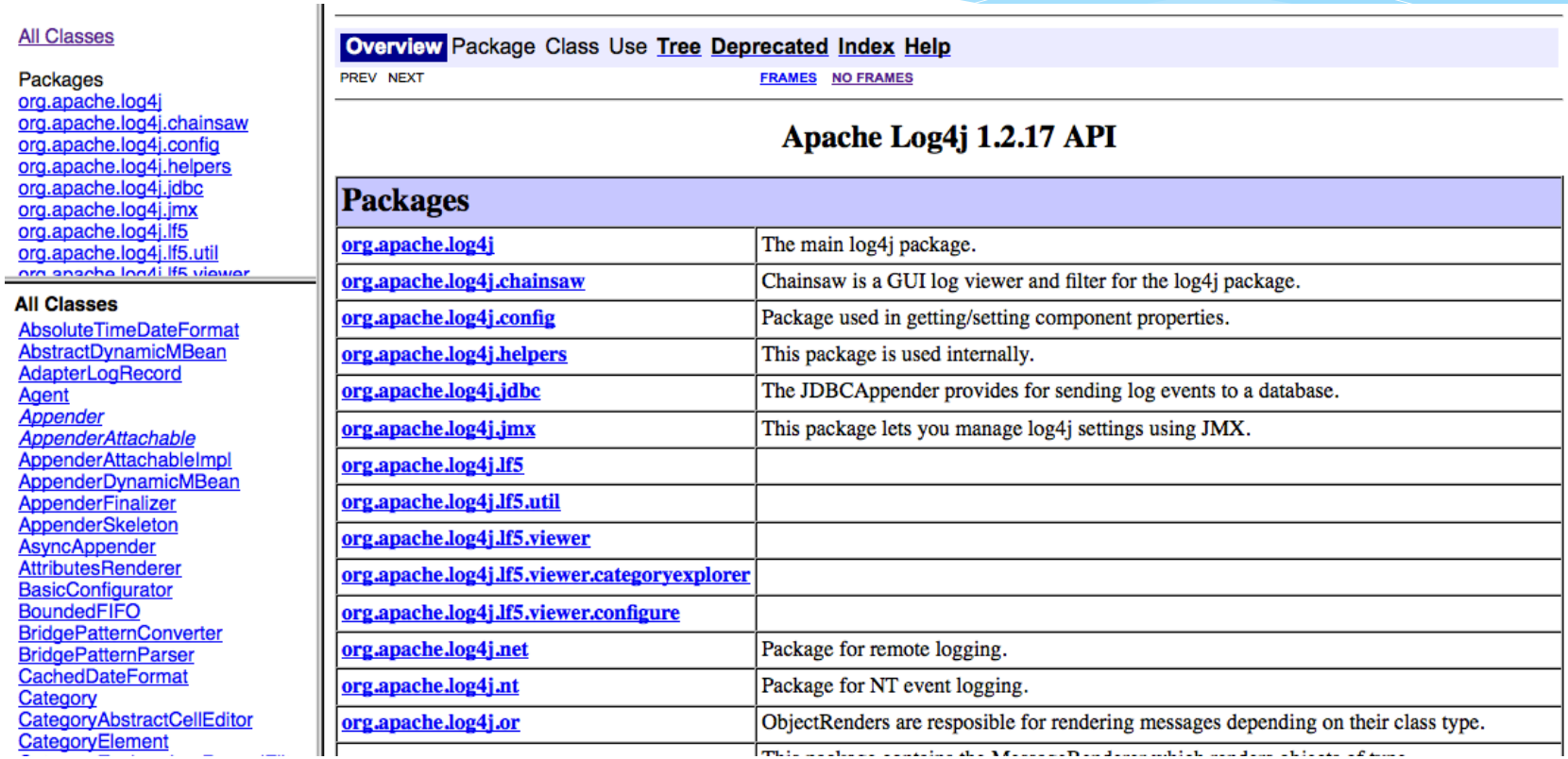
Eclipse configuration

10. You will see the filled form (1). To check if the link is valid press **Validate...** button (2) and then press **Open in Browser** button (3) to see the **log4j API** local web page.



Eclipse configuration

11. You should see the main **Apache log4j API** page, if everything went correctly.



All Classes

Packages
org.apache.log4j
org.apache.log4j.chainsaw
org.apache.log4j.config
org.apache.log4j.helpers
org.apache.log4j.jdbc
org.apache.log4j.jmx
org.apache.log4j.lf5
org.apache.log4j.lf5.util

All Classes
AbsoluteTimeDateFormat
AbstractDynamicMBean
AdapterLogRecord
Agent
Appender
AppenderAttachable
AppenderAttachableImpl
AppenderDynamicMBean
AppenderFinalizer
AppenderSkeleton
AsyncAppender
AttributesRenderer
BasicConfigurator
BoundedFIFO
BridgePatternConverter
BridgePatternParser
CachedDateFormat
Category
CategoryAbstractCellEditor
CategoryElement

Overview Package Class Use Tree Deprecated Index Help

PREV NEXT FRAMES NO FRAMES

Apache Log4j 1.2.17 API

Packages	
org.apache.log4j	The main log4j package.
org.apache.log4j.chainsaw	Chainsaw is a GUI log viewer and filter for the log4j package.
org.apache.log4j.config	Package used in getting/setting component properties.
org.apache.log4j.helpers	This package is used internally.
org.apache.log4j.jdbc	The JDBCAppender provides for sending log events to a database.
org.apache.log4j.jmx	This package lets you manage log4j settings using JMX.
org.apache.log4j.lf5	
org.apache.log4j.lf5.util	
org.apache.log4j.lf5.viewer	
org.apache.log4j.lf5.viewer.categoryexplorer	
org.apache.log4j.lf5.viewer.configure	
org.apache.log4j.net	Package for remote logging.
org.apache.log4j.nt	Package for NT event logging.
org.apache.log4j.or	ObjectRenders are resposible for rendering messages depending on their class type.

Eclipse configuration

12. Go back to **Libraries** tab (1), you can see that **Javadoc** is set and now you can set **Source attachments** (2).