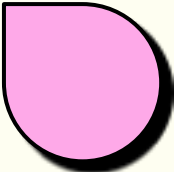


oo

Intro





main

elasticsearch / server / src / main / java / org / elasticsearch / rest / action / search / RestSearchAction.java

↑ T

Code

Blame



Raw



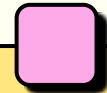
```
56     public class RestSearchAction extends BaseRestHandler {
81         public List<Route> routes() {
82             return List.of(
83                 new Route(GET, "/_search"),
84                 new Route(POST, "/_search"),
85                 new Route(GET, "/{index}/_search"),
86                 new Route(POST, "/{index}/_search")
87             );
88         }
89
90         @Override
91         public Set<String> supportedCapabilities() {
92             return SearchCapabilities.CAPABILITIES;
93         }
94
95         @Override
96         public RestChannelConsumer prepareRequest(final RestRequest request, final NodeClient client) throws IOException {
97             if (client.threadPool() != null && client.threadPool().getThreadContext() != null) {
98                 client.threadPool().getThreadContext().setErrorTraceTransportHeader(request);
99             }
100             SearchRequest searchRequest = new SearchRequest();
101             // access the BwC param, but just drop it
```

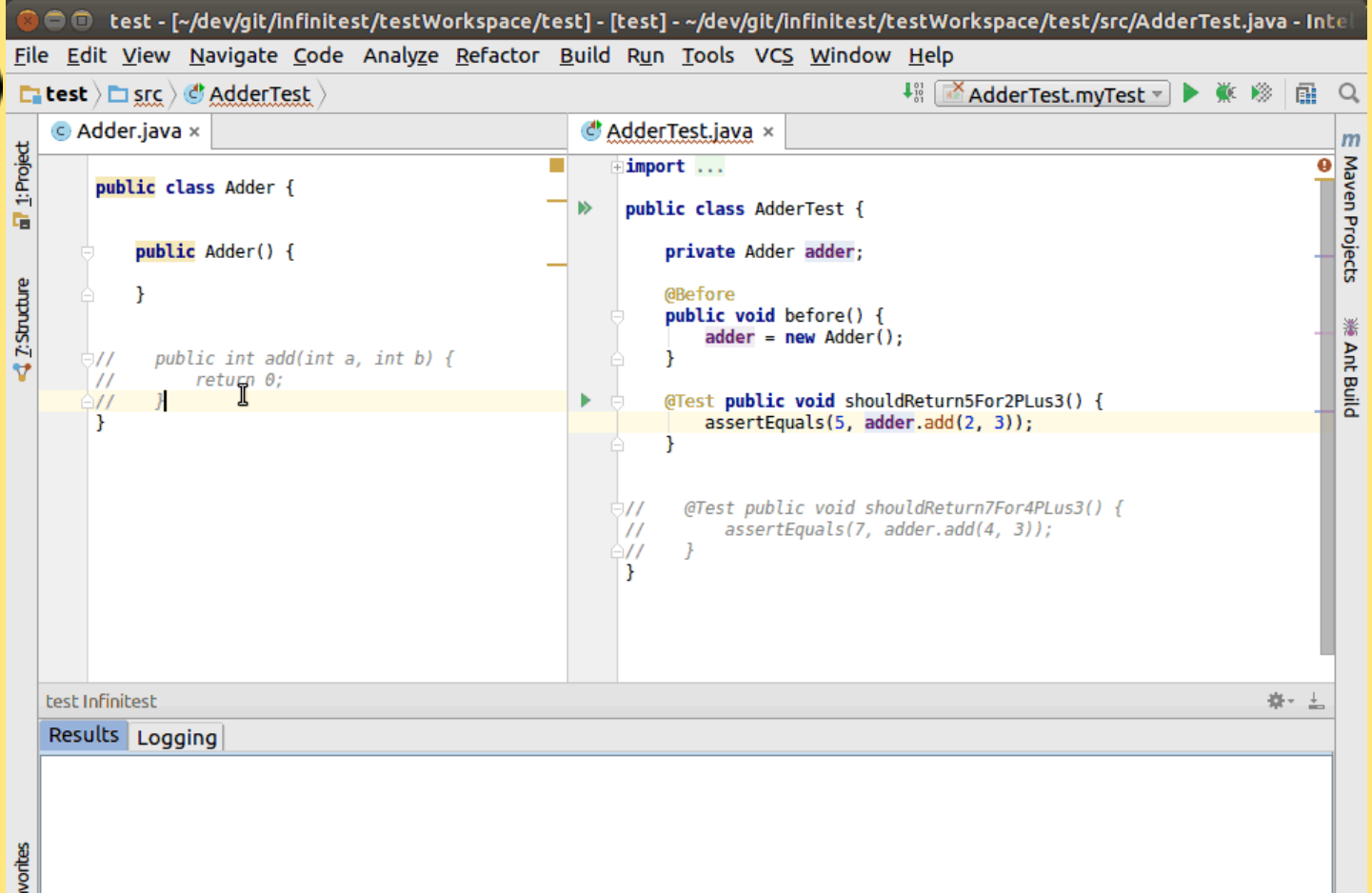
```

    >>
743 9417 public IndexWriter(Directory d, In
744 9417     conf.setIndexWriter(this); // pr
745 9416     config = conf;
746 9416     directory = d;
747 9416     analyzer = config.getAnalyzer();
748 9416     infoStream = config.getInfoStrea
749 9416     mergeScheduler = config.getMerge
750 9416     codec = config.getCodec();
751
752 9416     bufferedUpdatesStream = new Buff
753 9416     poolReaders = config.getReaderPo
754
755 9416     writeLock = directory.makeLock(W
756
757 9414     if (!writeLock.obtain(config.get
758 0         throw new LockObtainFailedExce
759
760 9414     boolean success = false;
761 9414     try {
762 9414         OpenMode mode = config.getOpen
763 9414         boolean create;
764 9414         if (mode == OpenMode.CREATE) {
765 1963             create = true;
766 7451         } else if (mode == OpenMode.AP
767 802             create = false;
768         } else {

```

Test coverage





<https://plugins.jetbrains.com/plugin/3146-infinetest>

Run RandomizedTest x



✓	✓	RandomizedTest	47 ms
✓	✓	randomIntegerWithSeed03	23 ms
⊘	⊘	ignoreIfUseless20	5 ms
✓	✓	randomInteger02	1 ms
✓	✓	random00	1 ms
✓	✓	stopOrIdentifyYourThreads30	1 ms
✓	✓	randomLocale10	9 ms
>	✓	randomIntegerWithRange04	6 ms
✓	✓	randomWithSeed01	1 ms

Rerun Automatically

Actions

All workflows

Con... for .asciidoc chang...

Doc... ment

Docs... ks

docs-build

docs-cleanup

updatecli-compose

Validate Gradle Wrapper

Management

Caches

Deployments

Attestations

Runners

Usage metrics

Performance metrics

Validate Gradle Wrapper #59459: Commit 65e2c3f pushed by davidkyle	8.19	2 weeks ago 27s
Remove index refresh block ITs (replaced by ITs i... Validate Gradle Wrapper #59458: Commit 650ce32 pushed by benchaplin	main	2 weeks ago 27s
Mute org.elasticsearch.index.mapper.vectors.De... Validate Gradle Wrapper #59457: Commit 0b0f4f8 pushed by elasticsearchmachine	main	2 weeks ago 24s
Mute org.elasticsearch.index.mapper.vectors.De... Validate Gradle Wrapper #59456: Commit 6af55c2 pushed by elasticsearchmachine	main	2 weeks ago 1m 1s
[ES QL] Implement new syntax for RERANK and ... Validate Gradle Wrapper #59455: Commit d56a476 pushed by afoucret	main	2 weeks ago 36s
Add test Validate Gradle Wrapper #59454: Commit 9e75c14 pushed by felixbarny	metrics_prototype	2 weeks ago 29s
Upgrade MinIO (& work around bug) (#132178) Validate Gradle Wrapper #59453: Commit 3a285cf pushed by elasticsearchmachine	8.18	2 weeks ago 28s



Push code to production

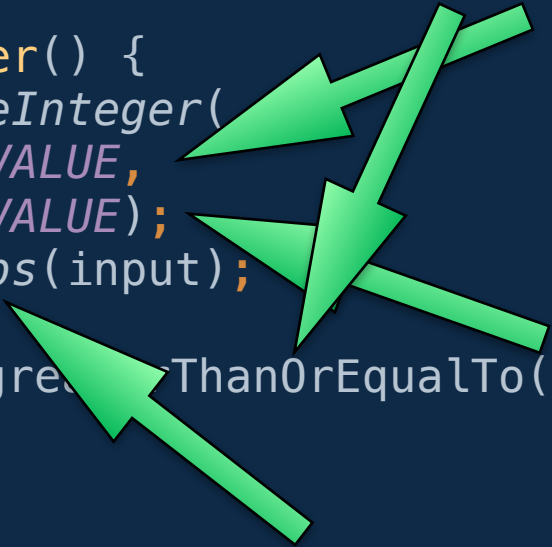
- June 4th 1996
- Original footage from ESA

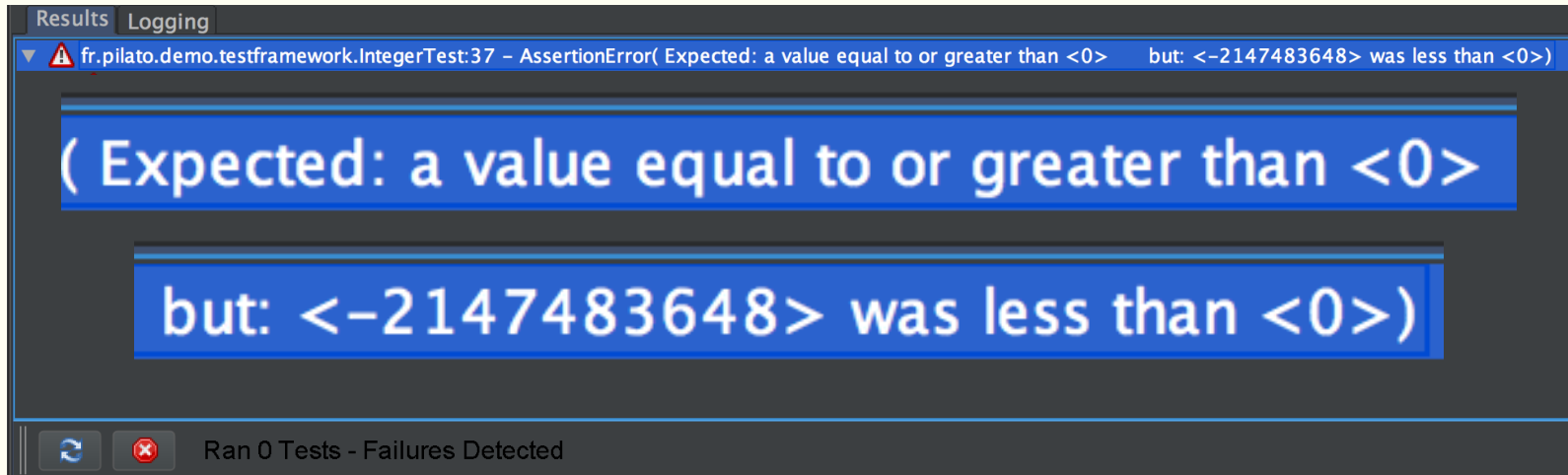


https://www.esa.int/ESA_Multimedia/Videos/1996/06/Ariane_501_recording_launch_pad_before_and_at_launch

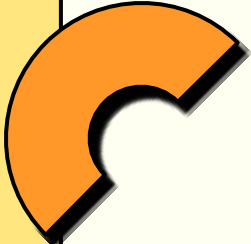
```
public static int generateInteger(int min, int max) {  
    return ThreadLocalRandom.current().nextInt(min, max);  
}
```

```
@Test  
public void testInteger() {  
    int input = generateInteger(  
        Integer.MIN_VALUE,  
        Integer.MAX_VALUE);  
    int output = Math.abs(input);  
    assertThat(output, greaterThanOrEqualTo(0));  
}
```



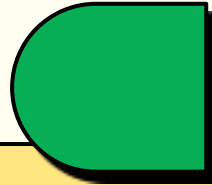


```
int output = Math.abs(input);  
assertThat(output, greaterThanOrEqualTo(0));
```



Randomized Testing

Gotta Catch 'em all!



About Me



David Pilato

Developer | Evangelist



[linkedin.com/in/dadoonet/](https://www.linkedin.com/in/dadoonet/)

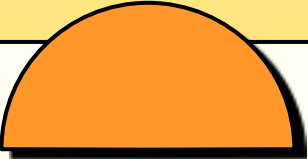


[@dadoonet](https://twitter.com/dadoonet)



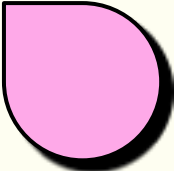
<https://david.pilato.fr/>





01

The bug



FScrawler

You know, for files!



github.com/dadoonet/fscrawler/

	Update Pull Requests files #525: Pull request <u>#2059</u> synchronize by dadoonet	assertj	3 months ago 1m 22s	...
✓	Switch to AssertJ CodeQL #1388: Pull request <u>#2059</u> synchronize by dadoonet	assertj	3 months ago 5m 6s	...
✗	Switch to AssertJ Build Pull Requests #1195: Pull request <u>#2059</u> synchronize by dadoonet	assertj	3 months ago 3m 58s	...
✓	Switch to AssertJ CodeQL #1387: Pull request <u>#2059</u> synchronize by dadoonet	assertj	3 months ago 4m 53s	...
✓	Switch to AssertJ Update Pull Requests files #524: Pull request <u>#2059</u> synchronize by dadoonet	assertj	3 months ago 1m 12s	...
✓	Switch to AssertJ Update Pull Requests files #523: Pull request <u>#2059</u> synchronize by dadoonet	assertj	3 months ago 1m 10s	...
✓	Switch to AssertJ	assertj	3 months ago	...

https://github.com/dadoonet/fscrawler/actions/runs/14357866984/job/40251514398#step:4:296

Summary

Jobs

build

unit

build-docker

it

it-es7

it-es6

it-cloud

it-serverless

Run details

Usage

Workflow file

unit

failed 3 weeks ago in 38s

Search logs

Explain error

Run all the unit tests

30s

340

Error:

341

Error:

To see the full stack trace of the errors, re-run Maven with the -e switch.

342

Error:

Re-run Maven using the -X switch to enable full debug logging.

343

Error:

344

Error:

For more information about the errors and possible solutions, please read the following articles:

345

Error:

[Help 1] <http://cwiki.apache.org/confluence/display/MAVEN/MojoExecutionException>

346

Error:

347

Error:

After correcting the problems, you can resume the build with the command

348

Error:

mvn <args> -rf :fscrawler-settings

349

Error:

Process completed with exit code 1.

>

Post Set up JDK 21

1s

>

Post Run actions/checkout@v4

0s

>

Complete job

0s

Throwable #1: `java.lang.NullPointerException`: Cannot invoke
"`Elasticsearch.setIndex(String)`" because the return value of
"`FsSettings.getElasticsearch()`" is `null`

Throwable #1: `java.lang.NullPointerException`: Cannot invoke "`Elasticsearch.setIndex(String)`" because the return value of "`FsSettings.getElasticsearch()`" is `null`

```
@Test
public void settingsValidation() {
    FsSettings settings = FsSettingsLoader.load();
    settings.getElasticsearch().setIndex(getCurrentTestName());

    // ...
}
```

```
@Test
public void settingsValidation() {
    FsSettings settings = FsSettingsLoader.load();
    settings.getElasticsearch().setIndex(getCurrentTestName());

    // ...
}
```



REPRODUCE WITH:

mvn integration-test -Dtests.locale=az

Throwable #1: java.lang.NullPointerException: Cannot invoke "Elasticsearch.setIndex(String)" because the return value of "FsSettings.getElasticsearch()" is null

It depends!





It depends!

@Test

```
public void settingsValidationFr() {  
    Locale.setDefault(new Locale.Builder().setLanguageTag("fr").build());  
    FsSettings settings = FsSettingsLoader.load();  
    settings.getElasticsearch().setIndex(getCurrentTestName());  
  
    // ...  
}
```

@Test

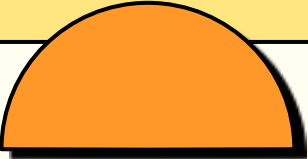
```
public void settingsValidationAz() {  
    Locale.setDefault(new Locale.Builder().setLanguageTag("az").build());  
    FsSettings settings = FsSettingsLoader.load();  
    settings.getElasticsearch().setIndex(getCurrentTestName());  
  
    // ...  
}
```

@Test

```
public void settingsValidationEn() {  
    Locale.setDefault(new Locale.Builder().setLanguageTag("en").build());  
    FsSettings settings = FsSettingsLoader.load();  
    settings.getElasticsearch().setIndex(getCurrentTestName());  
}
```

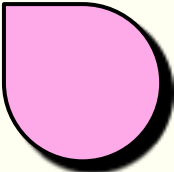
Randomized Testing





02

Installation



Installation (pom.xml - Java)

```
<dependency>  
  <groupId>com.carrotsearch.randomizedtesting</groupId>  
  <artifactId>randomizedtesting-runner</artifactId>  
  <version>2.8.3</version>  
  <scope>test</scope>  
</dependency>
```

Deactivate the default test plugin

```
<plugin>
  <groupId>org.apache.maven.plugins</groupId>
  <artifactId>maven-surefire-plugin</artifactId>
  <version>2.19</version>
  <executions>
    <execution>
      <id>default-test</id>
      <phase>none</phase>
    </execution>
  </executions>
</plugin>
```

Activate the randomized testing plugin

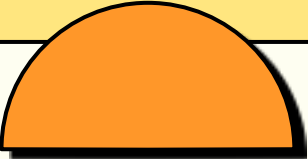
```
<plugin>  
  <groupId>com.carrotsearch.randomizedtesting</groupId>  
  <artifactId>junit4-maven-plugin</artifactId>  
  <version>2.8.3</version>  
  
  ...  
</plugin>
```

Configure the randomized testing plugin

```
...  
<executions>  
  <execution>  
    <id>unit-tests</id>  
    <phase>test</phase>  
    <goals>  
      <goal>junit4</goal>  
    </goals>  
  </execution>  
</executions>
```

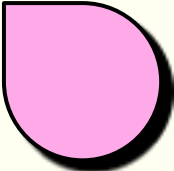

Configure the randomized testing plugin

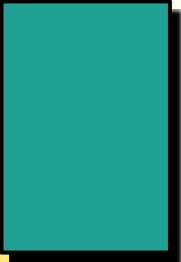
```
...  
<configuration>  
  <heartbeat>10</heartbeat>  
  <jvmOutputAction>pipe,ignore</jvmOutputAction>  
  <leaveTemporary>true</leaveTemporary>  
  <ifNoTests>warn</ifNoTests>  
  <listeners>  
    <report-text showThrowable="true" showStackTraces="true" showOutput="always"  
      showStatusOk="true" showStatusError="true"  
      showStatusFailure="true" showStatusIgnored="true"  
      showSuiteSummary="true" />  
  </listeners>  
  
  <systemProperties combine.children="append">  
    <arg.common>arg.common</arg.common>  
  </systemProperties>  
</configuration>  
...
```



03

Usage



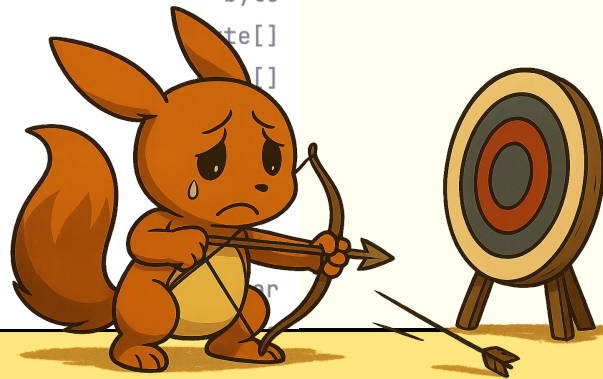


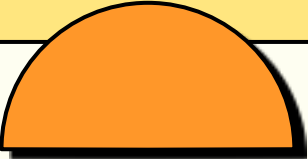
@Test new *

```
public void testCreateClusterAndIndex() {  
    int numberOfNodes = randomIntBetween(1, 20);  
    int numberOfShards = randomIntBetween(1, 30);  
    int numberOfReplicas = randomIntBetween(0, numberOfNodes - 1);  
    String indexName = randomAsciiAlphanumOfLength(randomIntBetween(5, 20));  
  
    // Create a cluster with the specified number of nodes  
    startCluster(numberOfNodes);  
  
    // Create an index with the specified number of shards and replicas  
    createIndex(indexName, numberOfShards, numberOfReplicas);  
  
    // Run tests here  
    // ...  
}
```



 <code>randomIntBetween(int min, int max)</code>	<code>int</code>
 <code>randomInt()</code>	<code>int</code>
 <code>randomInt(int max)</code>	<code>int</code>
 <code>randomAsciiAlphanumOfLength(int codeUnits)</code>	<code>String</code>
 <code>randomLongBetween(long min, long max)</code>	<code>long</code>
 <code>randomLong()</code>	<code>long</code>
 <code>randomLong(long max)</code>	<code>long</code>
 <code>randomBoolean()</code>	<code>boolean</code>
 <code>randomAsciiLettersOfLengthBetween(int minLetters, int maxLetters)</code>	<code>String</code>
 <code>randomAsciiLettersOfLength(int codeUnits)</code>	<code>String</code>
 <code>randomLocale()</code>	<code>Locale</code>
 <code>randomTimeZone()</code>	<code>TimeZone</code>
 <code>randomAsciiAlphanumOfLengthBetween(int minCodeUnits, int maxCodeUnits)</code>	<code>String</code>
 <code>randomByte()</code>	<code>byte</code>
 <code>randomBytesOfLength(int length)</code>	<code>byte[]</code>
 <code>randomBytesOfLength(int minLength, int maxLength)</code>	<code>byte[]</code>
 <code>randomDouble()</code>	<code>double</code>
 <code>randomFloat()</code>	<code>float</code>
 <code>randomFrom(int[] array)</code>	<code>int</code>
 <code>randomFrom(byte[] array)</code>	<code>byte</code>
 <code>randomFrom(char[] array)</code>	<code>char</code>
 <code>randomFrom(long[] array)</code>	<code>long</code>

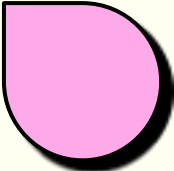




04

Random

Spoiler: it's not really random



Seed





```
@Test
public void testSeed() {
    Random generator = new Random();
    int num = generator.nextInt();
    assertThat(num).isEqualTo(1553932502);
}
```



```
@Test
public void testSeed() {
    Random generator = new Random(12345L);
    int num = generator.nextInt();
    assertThat(num).isEqualTo(1553932502);
}
```




```
...  
<configuration>  
  <heartbeat>10</heartbeat>  
  <jvmOutputAction>pipe,ignore</jvmOutputAction>  
  <leaveTemporary>true</leaveTemporary>  
  <ifNoTests>warn</ifNoTests>  
  <listeners>  
    <report-text showThrowable="true" showStackTraces="true" showOutput="always"  
      showStatusOk="true" showStatusError="true"  
      showStatusFailure="true" showStatusIgnored="true"  
      showSuiteSummary="true" />  
  </listeners>  
  <seed>${tests.seed}</seed>  
  <systemProperties combine.children="append">  
    <arg.common>arg.common</arg.common>  
  </systemProperties>  
</configuration>  
...
```



REPRODUCE WITH:

```
mvn integration-test -Dtests.seed=489581FE40712E4A  
# -Dtests.locale=az -Dtests.timezone=Asia/Ashkhabad
```



REPRODUCE WITH:

```
mvn integration-test -Dtests.seed=489581FE40712E4A  
# -Dtests.locale=az -Dtests.timezone=Asia/Ashkhabad
```

```
@Test  
@Seed("489581FE40712E4A")  
public void settingsValidationForLocaleAz() {  
    // ...  
}
```

```

@Test @Repeat(iterations = 10)
public void repeatMe() {
    Locale locale = randomLocale();
    DateTimeFormatter dateTimeFormatter =
        DateTimeFormatter.ofLocalizedDate(FormatStyle.FULL).withLocale(locale);
    String format = dateTimeFormatter.format(LocalDate.now());
    System.out.println("date is [" + format + "] with locale [" +
        locale.toLanguageTag() + "]);
}

```



Run RandomTest.repeatMe



Stopped. 10 of 21 tests passed - 1s 443ms

repeatMe

OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:ABE85B69E20B2515]}	1s 443ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:1FBEE795D6C9EE39]}	1s 66ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:91577149870DA6F2]}	52ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:A0B9DAACEBF3FDD8]}	31ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:EC785F014AFB3D60]}	35ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:7D828C5E37477060]}	18ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:435CE8D825776066]}	18ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:DFEF72A20663F4C8]}	9ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:ED4397CC71A8E392]}	56ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:3AC8C17615FFD4C0]}	91ms
OK RandomTest.repeatMe { seed=[BDFFFF96C4FD53B5:3AC8C17615FFD4C0]}	67ms

/Library/Java/JavaVirtualMachines/jdk1.8.0_60.jdk/Contents/Home/bin/java ...

```

date is [2016. ožujka 11] with locale [hr]
date is [viernes 11 de marzo de 2016] with locale [es-CU]
date is [viernes 11 de marzo de 2016] with locale [es-US]
date is [11. mars 2016] with locale [no-NO]
date is [piątek, 11 marca 2016] with locale [pl]
date is [11 2016 مآرس] with locale [ar-QA]
date is [Petek, 11. marec 2016] with locale [sl-SI]
date is [11 2016 مآرس] with locale [ar-BH]
date is [viernes 11 de marzo de 2016] with locale [es-CO]
date is [piątek, 11 marca 2016] with locale [pl]

```

Process finished with exit code 0

```
<properties>
  <tests.locale>random</tests.locale>
</properties>
```

```
<configuration>
  ...
  <systemProperties combine.children="append">
    <arg.common>arg.common</arg.common>
    <tests.locale>${tests.locale}</tests.locale>
  </systemProperties>
</configuration>
```

```
private static final Locale savedLocale = Locale.getDefault();
```

```
@BeforeClass
```

```
public static void setLocale() {  
    String testLocale = System.getProperty("tests.locale", "random");  
    Locale locale = testLocale.equals("random") ? randomLocale() :  
        new Locale.Builder().setLanguageTag(testLocale).build();  
    Locale.setDefault(locale);  
}
```

```
@AfterClass
```

```
public static void resetLocale() {  
    Locale.setDefault(savedLocale);  
}
```

```
@Test
public void withLocale() {
    DateTimeFormatter dateTimeFormatter =
        DateTimeFormatter.ofLocalizedDate(FormatStyle.FULL);
    String format = dateTimeFormatter.format(LocalDate.now());
    System.out.println("locale = " + Locale.getDefault().toLanguageTag());
    System.out.println("format = " + format);
}
```

RUN 1

```
locale = es-PR
format = miércoles 9 de marzo de 2016
```

RUN 2

```
locale = tr-TR
format = 09 Mart 2016 Çarşamba
```

```
mvn test -Dtests.locale=fr-FR
```

```
1> locale = fr-FR
```

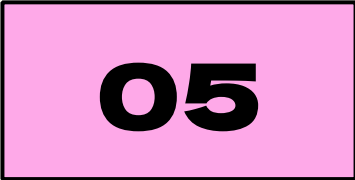
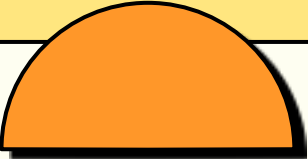
```
1> format = mercredi 9 mars 2016
```



```
@Test
public void sometimes() {
    int bulkSize = randomIntBetween(500, 1000);

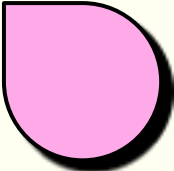
    for (int i = 0; i < bulkSize; i++) {
        addDocument("english_" + i, generatePerson());
        if (frequently()) {
            addDocument("french_" + i, generatePerson());
        }

        if (rarely()) {
            // Shutdown Node 1
            shutdownNode(1);
        }
    }
}
```



05

But also



```
@Test
public void ignoreIfUseless() {
    boolean b = randomBoolean();

    assertThat(b).isTrue();
}
```

```
@Test
public void ignoreIfUseless() {
    boolean b = randomBoolean();

    assumeTrue(b);
    assertThat(b).isTrue();
}
```

✖ RandomizedTest (fr.pilato.talk.randomizedtestin 7 ms

✖ randomIntegerWithRange04

○ ignoreIfUseless20

7 ms

✖ 1 test ignored 1 test total, 7 ms

Process finished with exit code 0

(119) 🪄 Starting test [ignoreIfUseless20]

(121) ➡ boolean is [false]

org.junit.AssumptionViolatedException: got: <false>, expected: is <true>

at __randomizedtesting.SeedInfo.seed([4A11AC3E62F994E2:6EC40FDC8D80D775]:0)

at org.junit.Assume.assumeThat(Assume.java:106)

at org.junit.Assume.assumeTrue(Assume.java:50)

at com.carrotsearch.randomizedtesting.RandomizedTest.assumeTrue(RandomizedTest.java:715)

```
@Test
public void ignoreIfUseless() {
    boolean b = randomBoolean();

    assumeTrue(b);
    assertThat(b).isTrue();
}
```

✓ X RandomizedTest (fr.pilato.talk.randomizedtesting) 26 ms 1 test passed 1 test total, 26 ms

✓ ignoreIfUseless20
X randomIntegerWithRange04

26 ms

/Users/david/.sdkman/candidates/java/21.0.2-open/bin/java ...

(57) 🌐 Starting test suite with Locale [ks-IN]

(119) 🎲 Starting test [ignoreIfUseless20]

(121) ➡ boolean is [true]

Process finished with exit code 0

Do less during the day

```
@Test @Nightly
public void longRunningTest() {
    int bulkSize = randomIntBetween(500, 1000);

    for (int i = 0; i < bulkSize; i++) {
        try {
            Thread.sleep(Math.abs(between(100, 10000)));
        } catch (InterruptedException e) {
            assumeNoException(e);
        }
    }
}
```

```
$ mvn test
```

```
IGNOR/A 0.00s | RandomTest.longRunningTest
> Assumption #1: 'nightly' test group is disabled (@Nightly(value=))
```

Do more during the night

```
<systemProperties combine.children="append">  
  <arg.common>arg.common</arg.common>  
  <tests.nightly>${tests.nightly}</tests.nightly>  
</systemProperties>
```

```
$ mvn test -Dtests.nightly=true
```

```
Started J0 PID(26908@MacBook-Pro-4.local).
```

```
Suite: fr.pilato.demo.testframework.RandomTest
```

```
HEARTBEAT J0 PID(26908@MacBook-Pro-4.local): 2016-03-10T18:04:19, stalled for 11.5s at:  
RandomTest.longRunningTest
```

```
HEARTBEAT J0 PID(26908@MacBook-Pro-4.local): 2016-03-10T18:04:29, stalled for 21.5s at:  
RandomTest.longRunningTest
```

```
HEARTBEAT J0 PID(26908@MacBook-Pro-4.local): 2016-03-10T18:04:39, stalled for 31.5s at:  
RandomTest.longRunningTest
```

```
HEARTBEAT J0 PID(26908@MacBook-Pro-4.local): 2016-03-10T18:04:49, stalled for 41.5s at:  
RandomTest.longRunningTest
```

```
OK          50.9s | RandomTest.longRunningTest
```

Do more during the night but stay reasonable

```
@Test @Nightly @Timeout(millis = 10000)
public void longRunningTest() {
    // ...
}
```

```
$ mvn test -Dtests.nightly=true
```

```
ERROR    10.0s | RandomTest.longRunningTest <<<
> Throwable #1: java.lang.Exception: Test timeout exceeded (>= 10000 msec).
>    at __randomizedtesting.SeedInfo.seed([F4FC818C113EF9C6:A3FC90C16C6643D6]:0)
```


ZOMBIE THREADS

```
@RunWith(RandomizedRunner.class)
```

```
public class RandomTest {  
    @Test  
    public void stopYourThreads() {  
        new Thread(() -> {  
            public void run() {  
                while (true) {  
                    try { Thread.sleep(1000L); } catch (InterruptedException e) { } }  
                } }, "zombie").start();  
        }  
    }  
}
```



ZOMBIE THREADS

```
@RunWith(RandomizedRunner.class)
```

```
public class RandomTest {  
    @Test  
    public void stopYourThreads() {  
        new Thread(() -> {  
            public void run() {  
                while (true) {  
                    try { Thread.sleep(1000L); } catch (InterruptedException e) { } }  
                } }, "zombie").start();  
        }  
    }  
}
```



```
com.carrotsearch.randomizedtesting.ThreadLeakError: 1 thread leaked from SUITE scope at  
fr.pilato.demo.testframework.RandomTest:
```

```
1) Thread[id=12, name=zombie, state=TIMED_WAITING, group=TGRP-RandomTest]  
    at java.lang.Thread.sleep(Native Method)  
    at fr.pilato.demo.testframework.RandomTest$1.run(RandomTest.java:180)  
    at java.lang.Thread.run(Thread.java:745)
```

```
at __randomizedtesting.SeedInfo.seed([1CD01D6C55CD93C0]:0)
```

ZOMBIE THREADS

```
@RunWith(RandomizedRunner.class)
@ThreadLeakFilters(filters = { FriendlyZombieFilter.class })
public class RandomTest {
    @Test
    public void identifyYourThreads() {
        new Thread(() -> {
            public void run() {
                while (true) {
                    try { Thread.sleep(1000L); } catch (InterruptedException e) { } }
                } }, "friendly-zombie").start();
    }
}

public class FriendlyZombieFilter implements ThreadFilter {
    public boolean reject(Thread t) {
        return "friendly-zombie".equals(t.getName());
    }
}
```



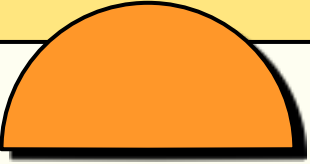
Random execution order

✓ RandomizedTest (fr.pilato.talk.randomizedtest) 48 ms

- ✓ randomWithSeed01 25 ms
- ✓ randomIntegerWithSeed03 1 ms
- ✓ stopOrIdentifyYourThreads30 2 ms
- ✓ randomLocale10 9 ms
- ✓ random00 2 ms
- ✓ ignoreIfUseless20 2 ms
- ✓ randomInteger02 1 ms
- ✓ randomIntegerWithRange04 6 ms
 - ✓ RandomizedTest.randomIntegerWithRange 2 ms
 - ✓ RandomizedTest.randomIntegerWithRange 2 ms
 - ✓ RandomizedTest.randomIntegerWithRange 1 ms
 - ✓ RandomizedTest.randomIntegerWithRange 1 ms
 - ✓ RandomizedTest.randomIntegerWithRange 0 ms

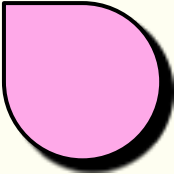
✓ RandomizedTest (fr.pilato.talk.randomizedtest) 41 ms

- ✓ stopOrIdentifyYourThreads30 3 ms
- ✓ randomIntegerWithRange04 26 ms
 - ✓ RandomizedTest.randomIntegerWithRange 22 ms
 - ✓ RandomizedTest.randomIntegerWithRange 1 ms
 - ✓ RandomizedTest.randomIntegerWithRange 1 ms
 - ✓ RandomizedTest.randomIntegerWithRange 1 ms
 - ✓ RandomizedTest.randomIntegerWithRange 1 ms
- ✓ ignoreIfUseless20 2 ms
- ✓ randomWithSeed01 1 ms
- ✓ randomIntegerWithSeed03 0 ms
- ✓ random00 0 ms
- ✓ randomInteger02 1 ms
- ✓ randomLocale10 8 ms



06

Back to the bug



```
@Test
public void settingsValidation() {
    FsSettings settings = FsSettingsLoader.load();
    settings.getElasticsearch().setIndex(getCurrentTestName());

    // ...
}
```



<https://github.com/gestalt-config/gestalt/issues/242>

```
@Test
public void testLocaleAz() throws Exception {
    Locale.setDefault(new Locale.Builder().setLanguageTag("az").build());
    Gestalt gestalt = new GestaltBuilder()
        .addSource(MapConfigSourceBuilder.builder()
            .addCustomConfig("elasticsearch.index", "foo")
            .build())
        .build();
    gestalt.loadConfigs();
    assertThat(gestalt.getConfigOptional("elasticsearch", Elasticsearch.class)).isPresent();
}

@Test
public void testLocaleFr() throws Exception {
    Locale.setDefault(new Locale.Builder().setLanguageTag("fr").build());
    Gestalt gestalt = new GestaltBuilder()
        .addSource(MapConfigSourceBuilder.builder()
            .addCustomConfig("elasticsearch.index", "foo")
            .build())
        .build();
    gestalt.loadConfigs();
    assertThat(gestalt.getConfigOptional("elasticsearch", Elasticsearch.class)).isPresent();
}
```

https://github.com/gestalt-config/gestalt/issues/242



credmond-git on Apr 11 · edited by credmond-git

Edits ▾ Collaborator ⋮

I found the root cause of the issue.

Gestalt uses the following pattern to tokenize a path.

```
pattern: ^((?<name>[\w .,+=\~;:"'`~!@#$$%^&*()\<>]+)(?<array>\[[(?<index>\d*)\])?)?$
```

When presented with the word: 'flushinterval'

the following doesn't find a match in the PathLexer: `Matcher matcher = pathPattern.matcher(word);`

It seems to work in every other Locale, but Az?

I need to look into why this is happening, and how to fix it.



credmond-git mentioned this on Apr 11

[fix: specify the root locale when using toLower. #243](#)

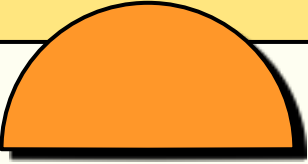


credmond-git on Apr 11

I also made a fix so we can support different languages Unicode characters for object field names. [#244](#)

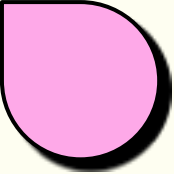



```
@Test(expected = NullPointerException.class)
@Seed("489581FE40712E4A")
public void testGestalt242() throws Exception {
    FsSettings settings = FsSettingsLoader.load();
    // This is supposed to fail because of:
    // https://github.com/gestalt-config/gestalt/issues/242
    settings.getElasticsearch().setIndex(getCurrentTestName());
    fail("The Gestalt project probably fixed issue 242");
}
```



07

Limitations







Thanks!

Do you have any questions?

David Pilato



 [linkedin.com/in/dadoonet/](https://www.linkedin.com/in/dadoonet/)



Slides

<https://speaker.pilato.fr/6Dylt6>



Testμ 2025

BY LAMBDATEST