Lombok

Version: db71f39c271f1f8124fac96daa68d8b012fbf390

Parents:

0de56b76e6e9ba738232a3eb6c66c16df7346c82 17972d59fa7e2eec6b73ba5da8234f5fa7ac2536

Merge base:

6c1993659cd53f601520209771d116cb94e9b825

lombok/src/core/lombok/eclipse/HandlerLibrary.java

Chunk 1: (concatenarion/import declaration)

```
import lombok.core.AnnotationValues.AnnotationValueDecodeFail;
<<<<<< HEAD
import lombok.core.configuration.ConfigurationKeysLoader;
======
import lombok.core.BooleanFieldAugment;
>>>>>> 17972d59fa7e2eec6b73ba5da8234f5fa7ac2536
import lombok.core.HandlerPriority;
```

```
import lombok.core.AnnotationValues.AnnotationValueDecodeFail;
import lombok.core.configuration.ConfigurationKeysLoader;
import lombok.core.BooleanFieldAugment;
import lombok.core.HandlerPriority;
```

lombok/src/core/lombok/eclipse/handlers/EclipseHandlerUtil.java

Chunk 2: (combination/import declaration)

```
import lombok.core.AnnotationValues.AnnotationValue;
<<<<<< HEAD
======
import lombok.core.BooleanFieldAugment;
import lombok.core.ReferenceFieldAugment;
import lombok.core.TransformationsUtil;
>>>>>> 17972d59fa7e2eec6b73ba5da8234f5fa7ac2536
import lombok.core.TypeResolver;
```

```
import lombok.core.AnnotationValues.AnnotationValue;
import lombok.core.BooleanFieldAugment;
import lombok.core.ReferenceFieldAugment;
import lombok.core.TypeResolver;
```

lombok/src/core/lombok/javac/HandlerLibrary.java

Chunk 3: (combination/import declaration)

```
import lombok.core.TypeResolver;
<<<<<< HEAD</pre>
```

```
import lombok.core.AnnotationValues.AnnotationValueDecodeFail;
import lombok.core.configuration.ConfigurationKeysLoader;
======
>>>>>> 17972d59fa7e2eec6b73ba5da8234f5fa7ac2536
import lombok.javac.handlers.JavacHandlerUtil;
```

```
import lombok.core.TypeResolver;
import lombok.core.configuration.ConfigurationKeysLoader;
import lombok.javac.handlers.JavacHandlerUtil;
```

lombok/src/core/lombok/javac/handlers/JavacHandlerUtil.java

Chunk42: (combination/import declaration)

```
import lombok.core.AnnotationValues.AnnotationValue;
<<<<<< HEAD
import lombok.core.handlers.HandlerUtil;
======
import lombok.core.ReferenceFieldAugment;
import lombok.core.TransformationsUtil;
>>>>>> 17972d59fa7e2eec6b73ba5da8234f5fa7ac2536
import lombok.core.TypeResolver;
```

```
import lombok.core.AnnotationValues.AnnotationValue;
import lombok.core.ReferenceFieldAugment;
import lombok.core.TypeResolver;
```

Version: f956ba1e337699206052a016da65f4f02ac6825b

Parents:

e5574133363c8b718329e07a73bf161416485da5 fbab1ca77cb8306843e26c5bad91186b34563282

Merge base:

7d51842ca381c491d5dfb44bc76b0cea345e7170

Chunk 5: (new code/method invocation, variable)

Chunk 6: (new code/method signature)

Chunk 7: (combination/method invocation)

```
handleFlagUsage(annotationNode,

ConfigurationKeys.LOG_COMMONS_FLAG_USAGE, "@apachecommons.CommonsLog",

ConfigurationKeys.LOG_ANY_FLAG_USAGE, "any @Log");

processAnnotation(LoggingFramework.COMMONS, annotation, source,

annotationNode);
======

processAnnotation(LoggingFramework.COMMONS, annotation, source,

annotationNode, annotation.getInstance().topic());
>>>>>> fbablca77cb8306843e26c5bad91186b34563282
}
```

chunk 8:(combination/method invocation)

src/core/lombok/extern/apachecommons/CommonsLog.java

Chunk 9: (version 2/ annotation element, commentary)

```
public @interface CommonsLog {
    /**
        * Sets the category of the constructed Logger. By default, it will use the type
where the annotation is placed.
        */
        String topic() default "";
}
```

src/core/lombok/extern/java/Log.java

Chunk 10: (version 2/ annotation element, commentary)

```
public @interface Log {
    /**
        * Sets the category of the constructed Logger. By default, it will use the type
where the annotation is placed.
        */
        String topic() default "";
}
```

src/core/lombok/extern/log4j/Log4j.java

Chunk 11: (version 2/ annotation element, commentary)

lombok/src/core/lombok/extern/log4j/Log4j2.java

Chunk 12: (version 2/ annotation element, commentary)

lombok/src/core/lombok/javac/handlers/HandleLog.java

chunk 13: (version 1/ if statement)

Chunk 14: (new code/method incocation)

Chunk 15: (new code/method incocation)

```
private static boolean createField(LoggingFramework framework, JavacNode typeNode,
JCFieldAccess loggingType, JCTree source, String logFieldName, boolean useStatic, String
loggerTopic) {
          JavacTreeMaker maker = typeNode.getTreeMaker();
```

Chunk 16: (combination/method incocation)

```
@Override
                                                   public
                                                                                    void
handle (AnnotationValues<lombok.extern.apachecommons.CommonsLog> annotation, JCAnnotation
ast, JavacNode annotationNode) {
handleFlagUsage(annotationNode,
ConfigurationKeys.LOG COMMONS FLAG USAGE,
                                                             "@apachecommons.CommonsLog",
ConfigurationKeys.LOG ANY FLAG USAGE, "any @Log");
                     processAnnotation(LoggingFramework.COMMONS,
                                                                             annotation,
annotationNode):
======
                     processAnnotation(LoggingFramework.COMMONS,
                                                                             annotation,
annotationNode, annotation.getInstance().topic());
>>>>> fbab1ca77cb8306843e26c5bad91186b34563282
             }
```

Chunk 17: (combination/method incocation)

```
handleFlagUsage(annotationNode, ConfigurationKeys.LOG_JUL_FLAG_USAGE,

"@java.Log", ConfigurationKeys.LOG_ANY_FLAG_USAGE, "any @Log");

processAnnotation(LoggingFramework.JUL, annotation, annotationNode);

======

processAnnotation(LoggingFramework.JUL, annotation, annotationNode, annotation.getInstance().topic());
>>>>>> fbablca77cb8306843e26c5bad91186b34563282
}
```

Chunk 18: (combination/method incocation)

Chunk 19: (combination/method incocation)

Chunk 20: (combination/method incocation)

Chunk 21: (combination/method incocation)

}

Version: 78b2d6919e35887940f9f11b6ae1731245739b83

Parents:

5deb185591904d275cb06eea85c0d739587fc738 83b7e77b0cce6cd5993b17f36164271accdd281c

Merge base:

deed98be16e5099af52d951fc611f86a82a42858

lombok/src/delombok/lombok/delombok/DelombokApp.java

Chunk 22: (combination/annotation, commentary, method invocation, variable)

```
}

// The jar file is used for the lifetime of the classLoader, therefore the
lifetime of delombok.

// Since we only read from it, not closing it should not be a problem.

@SuppressWarnings({"resource", "all"}) final JarFile toolsJarFile = new
JarFile(toolsJar);

ClassLoader loader = new ClassLoader() {
```

Version: 86a635876dd75c4f3a61593491fa2ce53f8444b8

Parents:

7ee868659f4ff3cb286b676d649e8c57e9248d87 72b55dccb18f38b8aefd0ac8e7c2e8bd2dd5c057

Merge base:

deed98be16e5099af52d951fc611f86a82a42858

lombok/src/core/lombok/core/Version.java

Chunk 23: (version 2/commentary, variable)

```
private static final String VERSION = "0.12.1";

<<<<<< HEAD
    private static final String RELEASE_NAME = "Edgy Guinea Pig";

// private static final String RELEASE_NAME = "Angry Butterfly";

======
    private static final String RELEASE_NAME = "Angry Butterfly";

>>>>>>> 72b55dccb18f38b8aefd0ac8e7c2e8bd2dd5c057

private Version() {
```

```
private static final String VERSION = "0.12.1";
private static final String RELEASE_NAME = "Edgy Guinea Pig";
private Version() {
```

lombok/src/core/lombok/javac/handlers/HandleConstructor.java

Chunk 24: (Version 1/method invocation, variable)

```
List<JCAnnotation> nullables = findAnnotations(fieldNode,
TransformationsUtil.NULLABLE_PATTERN);

JCVariableDecl param = maker.VarDef(maker.Modifiers(Flags.FINAL |
Flags.PARAMETER, nonNulls.appendList(nullables)), fieldName, field.vartype, null);
params.append(param);
```

Chunk 25: (Version 1/method invocation, variable)

```
List<JCAnnotation> nullables = findAnnotations(fieldNode,
TransformationsUtil.NULLABLE_PATTERN);
<>>>> HEAD

JCVariableDecl param = maker.VarDef(maker.Modifiers(Flags.FINAL |
Flags.PARAMETER, nonNulls.appendList(nullables)), field.name, pType, null);
========
```

List<JCAnnotation> nullables = findAnnotations(fieldNode,
TransformationsUtil.NULLABLE_PATTERN);

JCVariableDecl param = maker.VarDef(maker.Modifiers(Flags.FINAL |
Flags.PARAMETER, nonNulls.appendList(nullables)), fieldName, pType, null);

params.append(param);

Version: 45697b50816df79475a8bb69dc89ff68747fbfe6

Parents:

4c03e3d220900431085897878d4888bf530b31ec deed98be16e5099af52d951fc611f86a82a42858

Merge base:

620616bf8a73ea78863a5507aff631799b3a7a2e

lombok/src/core/lombok/javac/handlers/JavacHandlerUtil.java

Chunk 26: (new code/method invocation, return statement, variable)

```
JCExpression
                                              chainDots(variable,
                                                                       "java",
                                                                                    "lang",
                                npe
"NullPointerException");
<<<<< HEAD
              JCTree exception = maker.NewClass(null, List.<JCExpression>nil(), npe,
List.<JCExpression>of(maker.Literal(fieldName.toString())), null);
              JCStatement throwStatement = maker.Throw(exception);
              return maker.If(Javac.makeBinary(maker, CTC EQUAL, maker.Ident(fieldName),
Javac.makeLiteral(maker, CTC BOT, null)), throwStatement, null);
              JCTree exception = treeMaker.NewClass(null, List.<JCExpression>nil(), npe,
List.<JCExpression>of(treeMaker.Literal(fieldName.toString())), null);
              JCStatement throwStatement = treeMaker.Throw(exception);
              JCBlock throwBlock = treeMaker.Block(0, List.of(throwStatement));
              return treeMaker.If(treeMaker.Binary(CTC EQUAL, treeMaker.Ident(fieldName),
treeMaker.Literal(CTC BOT, null)), throwBlock, null);
>>>>> deed98be16e5099af52d951fc611f86a82a42858
       }
```

```
JCExpression npe = chainDots(variable, "java", "lang",
"NullPointerException");
    JCTree exception = maker.NewClass(null, List.<JCExpression>nil(), npe,
List.<JCExpression>of(maker.Literal(fieldName.toString())), null);
    JCStatement throwStatement = maker.Throw(exception);
    JCBlock throwBlock = maker.Block(0, List.of(throwStatement));
    return maker.If(Javac.makeBinary(maker, CTC_EQUAL, maker.Ident(fieldName),
Javac.makeLiteral(maker, CTC_BOT, null)), throwBlock, null);
}
```

lombok/src/utils/lombok/javac/CommentCatcher.java

Chunk 27: (new code/if statement, method invocation)

```
Class<?>
                                                         parserFactory
Class.forName("lombok.javac.java6.CommentCollectingParserFactory");
<<<<< HEAD
                             parserFactory.getMethod("setInCompiler", JavaCompiler.class,
Context.class, Map.class).invoke(null, compiler, context, commentsMap);
                     }
                           else
                                    if
                                           (JavaCompiler.version().startsWith("1.7")
JavaCompiler.version().startsWith("1.8")) {
                             Class<?>
                                                         parserFactory
Class.forName("lombok.javac.java7.CommentCollectingParserFactory");
                             parserFactory.getMethod("setInCompiler", JavaCompiler.class,
Context.class, Map.class).invoke(null, compiler, context, commentsMap);
                      } else {
                             throw new IllegalStateException("No comments parser for
compiler version " + JavaCompiler.version());
```

lombok/src/utils/lombok/javac/Javac.java

Chunk 28: (new code/import declaration)

```
package lombok.javac;
<<<<< HEAD
import java.lang.reflect.Method;
import java.util.Objects;
import java.util.regex.Pattern;
import com.sun.tools.javac.main.JavaCompiler;
import com.sun.tools.javac.tree.JCTree.JCBinary;
import java.lang.reflect.Field;
import java.lang.reflect.InvocationTargetException;
import java.lang.reflect.Method;
import java.lang.reflect.Modifier;
import java.util.regex.Matcher;
import java.util.regex.Pattern;
import com.sun.tools.javac.code.TypeTags;
import com.sun.tools.javac.main.JavaCompiler;
import com.sun.tools.javac.tree.JCTree;
import com.sun.tools.javac.tree.JCTree.JCClassDecl;
>>>>> deed98be16e5099af52d951fc611f86a82a42858
import com.sun.tools.javac.tree.JCTree.JCExpression;
```

```
package lombok.javac;
import java.lang.reflect.Field;
import java.lang.reflect.InvocationTargetException;
import java.lang.reflect.Method;
import java.lang.reflect.Modifier;
import java.util.concurrent.ConcurrentHashMap;
import java.util.concurrent.ConcurrentMap;
import java.util.concurrent.atomic.AtomicInteger;
import java.util.regex.Matcher;
import java.util.regex.Pattern;
```

```
import javax.lang.model.type.NoType;
import javax.lang.model.type.TypeKind;
import javax.lang.model.type.TypeVisitor;

import lombok.Lombok;

import com.sun.tools.javac.code.Type;
import com.sun.tools.javac.main.JavaCompiler;
import com.sun.tools.javac.tree.JCTree;
import com.sun.tools.javac.tree.JCTree.JCBinary;
import com.sun.tools.javac.tree.JCTree.JCClassDecl;
import com.sun.tools.javac.tree.JCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCCTree.JCC
```

Chunk 29: (combination/import declaration)

```
import com.sun.tools.javac.tree.JCTree.JCLiteral;
import com.sun.tools.javac.tree.JCTree.JCModifiers;
import com.sun.tools.javac.tree.JCTree.JCPrimitiveTypeTree;
import com.sun.tools.javac.tree.JCTree.JCTypeParameter;
import com.sun.tools.javac.tree.JCTree.JCUnary;
import com.sun.tools.javac.tree.TreeMaker;
import com.sun.tools.javac.util.List;
import com.sun.tools.javac.util.Name;
//**
```

Chunk 30: (new code/method declaration, static block, variable)

```
<<<<< HEAD
       public static JCLiteral makeLiteral(TreeMaker maker, Object ctc, Object argument) {
              try {
                      Method createLiteral;
                      if (JavaCompiler.version().startsWith("1.8")) {
                             createLiteral
                                               -
                                                       TreeMaker.class.getMethod("Literal",
Class.forName("com.sun.tools.javac.code.TypeTag"), Object.class);
                      } else {
                                                       TreeMaker.class.getMethod("Literal",
                             createLiteral
Integer.TYPE, Object.class);
                      }
                      return (JCLiteral) createLiteral.invoke(maker, ctc, argument);
               } catch (NoSuchMethodException e) {
                      throw new RuntimeException(e);
               } catch (IllegalAccessException e) {
                      throw new RuntimeException(e);
```

```
} catch (Exception e) {
                      if (e instanceof RuntimeException) throw (RuntimeException) e;
                      throw new RuntimeException(e);
       public static JCUnary makeUnary(TreeMaker maker, Object ctc, JCExpression argument)
               try {
                      Method createUnary;
                      if (JavaCompiler.version().startsWith("1.8")) {
                             createUnary
                                                        TreeMaker.class.getMethod("Unary",
Class.forName("com.sun.tools.javac.code.TypeTag"), JCExpression.class);
                     } else {
                             createUnary = TreeMaker.class.getMethod("Unary", Integer.TYPE,
JCExpression.class);
                      return (JCUnary) createUnary.invoke(maker, ctc, argument);
               } catch (NoSuchMethodException e) {
                      throw new RuntimeException(e);
               } catch (IllegalAccessException e) {
                     throw new RuntimeException(e);
               } catch (Exception e) {
                      if (e instanceof RuntimeException) throw (RuntimeException) e;
                      throw new RuntimeException(e);
               }
       public static JCBinary makeBinary(TreeMaker maker, Object ctc, JCExpression
rhsArgument, JCExpression lhsArgument) {
              try {
                      Method createUnary;
                      if (JavaCompiler.version().startsWith("1.8")) {
                             createUnary =
                                                       TreeMaker.class.getMethod("Binary",
Class.forName("com.sun.tools.javac.code.TypeTag"), JCExpression.class, JCExpression.class);
                     } else {
                                                       TreeMaker.class.getMethod("Binary",
                             createUnary
                                               -
Integer.TYPE, JCExpression.class, JCExpression.class);
                     return (JCBinary) createUnary.invoke(maker, ctc, rhsArgument,
lhsArgument);
               } catch (NoSuchMethodException e) {
                     throw new RuntimeException(e);
               } catch (IllegalAccessException e) {
                     throw new RuntimeException(e);
               } catch (Exception e) {
                     if (e instanceof RuntimeException) throw (RuntimeException) e;
                      throw new RuntimeException(e);
               }
       private static final Field JCTREE TAG;
       private static final Method JCTREE GETTAG;
       static {
               Field f = null;
                      f = JCTree.class.getDeclaredField("tag");
               } catch (NoSuchFieldException e) {}
               JCTREE TAG = f;
```

```
Method m = null;
                      m = JCTree.class.getDeclaredMethod("getTag");
               } catch (NoSuchMethodException e) {}
               JCTREE GETTAG = m;
       public static int getTag(JCTree node) {
              if (JCTREE GETTAG != null) {
                      try {
                             return (Integer) JCTREE GETTAG.invoke(node);
                      } catch (Exception e) {}
               try {
                      return (Integer) JCTREE TAG.get(node);
               } catch (Exception e) {
                     throw new IllegalStateException("Can't get node tag");
       private static Method method;
       public static JCClassDecl ClassDef(TreeMaker maker, JCModifiers mods, Name name,
List<JCTypeParameter> typarams, JCExpression extending, List<JCExpression> implementing,
List<JCTree> defs) {
              if (method == null) try {
                                             TreeMaker.class.getDeclaredMethod("ClassDef",
                     method
JCModifiers.class, Name.class, List.class, JCExpression.class, List.class, List.class);
               } catch (NoSuchMethodException ignore) {}
              if (method == null) try {
                     method
                                             TreeMaker.class.getDeclaredMethod("ClassDef",
JCModifiers.class, Name.class, List.class, JCTree.class, List.class, List.class);
               } catch (NoSuchMethodException ignore) {}
              if (method == null) throw new IllegalStateException("Lombok bug #20130617-
1310: ClassDef doesn't look like anything we thought it would look like.");
              if (!Modifier.isPublic(method.getModifiers()) && !method.isAccessible()) {
                     method.setAccessible(true);
               }
               try {
                      return (JCClassDecl) method.invoke(maker, mods, name, typarams,
extending, implementing, defs);
              } catch (InvocationTargetException e) {
                      throw sneakyThrow(e.getCause());
               } catch (IllegalAccessException e) {
                     throw sneakyThrow(e.getCause());
       private static RuntimeException sneakyThrow(Throwable t) {
              if (t == null) throw new NullPointerException("t");
              Javac.<RuntimeException>sneakyThrow0(t);
              return null;
       }
       @SuppressWarnings("unchecked")
       private static <T extends Throwable> void sneakyThrow0(Throwable t) throws T {
              throw (T)t;
>>>>> deed98be16e5099af52d951fc611f86a82a42858
```

```
public static JCLiteral makeLiteral(TreeMaker maker, Object ctc, Object argument) {
                      return (JCLiteral) createLiteral.invoke(maker, ctc, argument);
               } catch (IllegalAccessException e) {
                      throw Lombok.sneakyThrow(e);
               } catch (InvocationTargetException e) {
                      throw Lombok.sneakyThrow(e.getCause());
       public static JCUnary makeUnary(TreeMaker maker, Object ctc, JCExpression argument)
               try {
                      return (JCUnary) createUnary.invoke(maker, ctc, argument);
               } catch (IllegalAccessException e) {
                      throw Lombok.sneakyThrow(e);
               } catch (InvocationTargetException e) {
                      throw Lombok.sneakyThrow(e.getCause());
               }
       public static JCBinary makeBinary(TreeMaker maker, Object ctc, JCExpression
lhsArgument, JCExpression rhsArgument) {
              try {
                      return (JCBinary) createBinary.invoke(maker, ctc, lhsArgument,
rhsArgument);
               } catch (IllegalAccessException e) {
                      throw Lombok.sneakyThrow(e);
               } catch (InvocationTargetException e) {
                      throw Lombok.sneakyThrow(e.getCause());
       private static final Class<?> JC VOID TYPE, JC NO TYPE;
       static {
              Class<?> c = null;
                      c = Class.forName("com.sun.tools.javac.code.Type$JCVoidType");
               } catch (Exception ignore) {}
              JC VOID TYPE = c;
              c = null;
              try {
                      c = Class.forName("com.sun.tools.javac.code.Type$JCNoType");
               } catch (Exception ignore) {}
              JC_NO_TYPE = c;
       public static Type createVoidType(TreeMaker maker, Object tag) {
              if (Javac.getJavaCompilerVersion() < 8) {</pre>
                      return new JCNoType(((Integer) tag).intValue());
               } else {
                      try {
                              if (compareCTC(tag, CTC VOID)) {
                                     return (Type) JC VOID TYPE.newInstance();
                              } else {
                                     return (Type) JC NO TYPE.newInstance();
```

```
} catch (IllegalAccessException e) {
                             throw Lombok.sneakyThrow(e);
                      } catch (InstantiationException e) {
                             throw Lombok.sneakyThrow(e);
               }
       private static class JCNoType extends Type implements NoType {
              public JCNoType(int tag) {
                    super(tag, null);
               @Override
              public TypeKind getKind() {
                      if (Javac.compareCTC(tag, CTC_VOID)) return TypeKind.VOID;
                      if (Javac.compareCTC(tag, CTC NONE)) return TypeKind.NONE;
                      throw new AssertionError("Unexpected tag: " + tag);
               @Override
              public <R, P> R accept(TypeVisitor<R, P> v, P p) {
                    return v.visitNoType(this, p);
                                                      JCTREE_TAG,
                                                                        JCLITERAL_TYPETAG,
                                 final
       private
                   static
                                           Field
JCPRIMITIVETYPETREE TYPETAG;
       private static final Method JCTREE_GETTAG;
       static {
              Field f = null;
               try {
                      f = JCTree.class.getDeclaredField("tag");
               } catch (NoSuchFieldException e) {}
              JCTREE TAG = f;
               f = null;
               try {
                      f = JCLiteral.class.getDeclaredField("typetag");
               } catch (NoSuchFieldException e) {}
              JCLITERAL TYPETAG = f;
              f = null;
                      f = JCPrimitiveTypeTree.class.getDeclaredField("typetag");
               } catch (NoSuchFieldException e) {}
               JCPRIMITIVETYPETREE TYPETAG = f;
              Method m = null;
                      m = JCTree.class.getDeclaredMethod("getTag");
               } catch (NoSuchMethodException e) {}
               JCTREE GETTAG = m;
       public static Object getTag(JCTree node) {
               if (JCTREE GETTAG != null) {
                      try {
                              return JCTREE GETTAG.invoke(node);
                      } catch (Exception e) {}
               try {
```

```
return JCTREE TAG.get(node);
               } catch (Exception e) {
                      throw new IllegalStateException("Can't get node tag");
       public static Object getTypeTag(JCLiteral node) {
              try {
                      return JCLITERAL TYPETAG.get(node);
               } catch (Exception e) {
                     throw new IllegalStateException("Can't get JCLiteral typetag");
       public static Object getTypeTag(JCPrimitiveTypeTree node) {
              trv {
                      return JCPRIMITIVETYPETREE TYPETAG.get(node);
               } catch (Exception e) {
                      throw new IllegalStateException("Can't get JCPrimitiveTypeTree
typetag");
       private static Method classDef;
       public static JCClassDecl ClassDef(TreeMaker maker, JCModifiers mods, Name name,
List<JCTypeParameter> typarams, JCExpression extending, List<JCExpression> implementing,
List<JCTree> defs) {
              if (classDef == null) try {
                                              TreeMaker.class.getDeclaredMethod("ClassDef",
                      classDef
JCModifiers.class, Name.class, List.class, JCExpression.class, List.class, List.class);
               } catch (NoSuchMethodException ignore) {}
               if (classDef == null) try {
                                              TreeMaker.class.getDeclaredMethod("ClassDef",
                      classDef
JCModifiers.class, Name.class, List.class, JCTree.class, List.class, List.class);
               } catch (NoSuchMethodException ignore) {}
               if (classDef == null) throw new IllegalStateException("Lombok bug #20130617-
1310: ClassDef doesn't look like anything we thought it would look like.");
               if (!Modifier.isPublic(classDef.getModifiers()) && !classDef.isAccessible())
                      classDef.setAccessible(true);
               }
               try {
                      return (JCClassDecl) classDef.invoke(maker, mods, name, typarams,
extending, implementing, defs);
               } catch (InvocationTargetException e) {
                      throw sneakyThrow(e.getCause());
               } catch (IllegalAccessException e) {
                     throw sneakyThrow(e.getCause());
       private static RuntimeException sneakyThrow(Throwable t) {
               if (t == null) throw new NullPointerException("t");
              Javac.<RuntimeException>sneakyThrow0(t);
              return null;
       @SuppressWarnings("unchecked")
       private static <T extends Throwable> void sneakyThrow0(Throwable t) throws T {
```

```
throw (T)t;
}
}
```

Version: 87f763a94c87b03da269d110c44e7e750ddf5211

Parents:

eb4cbcd8bbd7bf7784aa229e9b6c5fe0670fa7a5 34055fcdff786c9b809ce1a08c1c9218968ebc7d

Merge base:

1865bd7309b9d1dc743f83ccdbd7204fb0939ecd

lombok/src/core/lombok/javac/handlers/JavacHandlerUtil.java

Chunk 31: (concatenation/import declaration)

```
import com.sun.tools.javac.tree.JCTree.JCStatement;
<<<<<< HEAD
import com.sun.tools.javac.tree.JCTree.JCTypeParameter;
======
import com.sun.tools.javac.tree.JCTree.JCTypeApply;
>>>>>> 34055fcdff786c9b809ce1a08c1c9218968ebc7d
import com.sun.tools.javac.tree.JCTree.JCVariableDecl;
```

```
import com.sun.tools.javac.tree.JCTree.JCStatement;
import com.sun.tools.javac.tree.JCTree.JCTypeParameter;
import com.sun.tools.javac.tree.JCTree.JCTypeApply;
import com.sun.tools.javac.tree.JCTree.JCVariableDecl;
```

Version: 19466a5413d0c451b89d0d70a8ba8f5fe0fc98aa

Parents:

e98d226cfb9a4b76b12e38e8ac590fb6c6ebbacc a264677ffcbd929acef5f6fde4915f4c3117b052

Merge base:

4689d2a9bf79f592690a71e7ad7d25cb38b2344b

lombok/src/core/lombok/javac/handlers/JavacHandlerUtil.java

Chunk 32: (version 2/import declaration)

```
import lombok.Getter;
<<<<<< HEAD
import lombok.core.AnnotationValues;
import lombok.core.TransformationsUtil;
import lombok.core.TypeResolver;
======
>>>>>> a264677ffcbd929acef5f6fde4915f4c3117b052
import lombok.core.AST.Kind;
```

```
import lombok.Getter;
import lombok.core.AST.Kind;
```

Chunk 33: (new code/import declaration)

```
import lombok.core.AnnotationValues.AnnotationValue;
import lombok.core.TransformationsUtil;
import lombok.core.TypeResolver;
import lombok.experimental.Accessors;
import lombok.javac.Javac;
```

Version: a514af4dcdd87cdae64e87b9d8a8d1a489a8e474

Parents:

aa5d3b8bb2cb2bf068f4b4728a9e765968c673d4 0c927175af39f2b8d66d25b735ee0e5249107286

Merge base:

6ca2a91d6bb7054328a845771af0a4e618002f14

lombok/src/core/lombok/eclipse/handlers/HandleGetter.java

Chunk 34: (combination/for statement, switch statement)

```
int modifier = toEclipseModifier(level) | (field.modifiers &
ClassFileConstants.AccStatic);

for (String altName : toAllGetterNames(fieldNode, isBoolean)) {
        switch (methodExists(altName, fieldNode, false, 0)) {
        case EXISTS_BY_LOMBOK:
```

lombok/src/core/lombok/eclipse/handlers/HandleSetter.java

Chunk 35: (combination/for statement, switch statement)

lombok/src/core/lombok/javac/handlers/HandleGetter.java

Chunk 36: (combination/for statement, if statement, switch statement)

lombok/src/core/lombok/javac/handlers/HandleSetter.java

Chunk 37: (combination/for statement, if statement, switch statement)

```
for (String altName : toAllSetterNames(fieldNode)) {
    switch (methodExists(altName, fieldNode, false, 1)) {
    case EXISTS_BY_LOMBOK:
```

Version: 3796efe82e73fe60a15c0fd1a827dd417dfbcb57

Parents:

302761816eb1e58c77cedb73040ed2967208d1fa bf354e3b5ced16913726afc8247b1dd0321c9d62

Merge base:

6c9b3d54de988665b64a0114cac5c20059e4af2a

lombok/src/eclipseAgent/lombok/eclipse/agent/EclipsePatcher.java

Chunk 38: (version 2/commentary, method invocation)

```
private static void patchExtractInterface(ScriptManager sm) {
<<<<< HEAD
               /* Fix sourceEnding for generated nodes to avoid null pointer */
               sm.addScript(ScriptBuilder.wrapMethodCall()
                              .target(new
MethodTarget("org.eclipse.jdt.internal.compiler.SourceElementNotifier",
"notifySourceElementRequestor",
                                                                                     "void",
"org.eclipse.jdt.internal.compiler.ast.AbstractMethodDeclaration",
"org.eclipse.jdt.internal.compiler.ast.TypeDeclaration",
"org.eclipse.jdt.internal.compiler.ast.ImportReference"))
                             .methodToWrap(new
Hook("org.eclipse.jdt.internal.compiler.util.HashtableOfObjectToInt",
                                                                        "get",
                                                                                     "int".
"java.lang.Object"))
                                                    Hook ("lombok.eclipse.agent.PatchFixes",
                              .wrapMethod(new
"getSourceEndFixed", "int", "int", "org.eclipse.jdt.internal.compiler.ast.ASTNode"))
                             .requestExtra(StackRequest.PARAM1)
                              .transplant().build());
              /\star Make sure the generated source element is found instead of the annotation
* /
               sm.addScript(ScriptBuilder.wrapMethodCall()
               .target(new
MethodTarget("org.eclipse.jdt.internal.corext.refactoring.structure.ExtractInterfaceProcesso
r", "createMethodDeclaration", "void",
       "org.eclipse.jdt.internal.corext.refactoring.structure.CompilationUnitRewrite",
                              "org.eclipse.jdt.core.dom.rewrite.ASTRewrite",
                              "org.eclipse.jdt.core.dom.AbstractTypeDeclaration",
                              "org.eclipse.jdt.core.dom.MethodDeclaration"
                      .methodToWrap(new Hook("org.eclipse.jface.text.IDocument",
"java.lang.String", "int", "int"))
                      .wrapMethod(new
                                                    Hook("lombok.eclipse.agent.PatchFixes",
                                         "java.lang.String",
"getRealMethodDeclarationSource",
                                                                       "java.lang.String",
"org.eclipse.jdt.core.dom.MethodDeclaration"))
                      .requestExtra(StackRequest.PARAM4)
                      .build());
>>>>> bf354e3b5ced16913726afc8247b1dd0321c9d62
               /* get real generated node in stead of a random one generated by the
annotation */
```

```
private static void patchExtractInterface(ScriptManager sm) {
    /* Fix sourceEnding for generated nodes to avoid null pointer */
    sm.addScript(ScriptBuilder.wrapMethodCall()
```

```
.target(new
MethodTarget("org.eclipse.jdt.internal.compiler.SourceElementNotifier",
"notifySourceElementRequestor",
                                                                                     "void",
"org.eclipse.jdt.internal.compiler.ast.AbstractMethodDeclaration",
"org.eclipse.jdt.internal.compiler.ast.TypeDeclaration",
"org.eclipse.jdt.internal.compiler.ast.ImportReference"))
                             .methodToWrap(new
Hook("org.eclipse.jdt.internal.compiler.util.HashtableOfObjectToInt",
                                                                          "get",
                                                                                      "int",
"java.lang.Object"))
                              .wrapMethod(new
                                                    Hook("lombok.eclipse.agent.PatchFixes",
"getSourceEndFixed", "int", "int", "org.eclipse.jdt.internal.compiler.ast.ASTNode"))
                              .requestExtra(StackRequest.PARAM1)
                              .transplant().build());
               /* Make sure the generated source element is found instead of the annotation
               sm.addScript(ScriptBuilder.wrapMethodCall()
               .target(new
MethodTarget("org.eclipse.jdt.internal.corext.refactoring.structure.ExtractInterfaceProcesso
r", "createMethodDeclaration", "void",
       "org.eclipse.jdt.internal.corext.refactoring.structure.CompilationUnitRewrite",
                              "org.eclipse.jdt.core.dom.rewrite.ASTRewrite",
                              "org.eclipse.jdt.core.dom.AbstractTypeDeclaration",
                              "org.eclipse.jdt.core.dom.MethodDeclaration"
                      .methodToWrap(new Hook("org.eclipse.jface.text.IDocument",
                                                                                   "get",
"java.lang.String", "int", "int"))
                                                    Hook("lombok.eclipse.agent.PatchFixes",
                      .wrapMethod(new
"getRealMethodDeclarationSource",
                                           "java.lang.String",
                                                                       "java.lang.String",
"org.eclipse.jdt.core.dom.MethodDeclaration"))
                      .requestExtra(StackRequest.PARAM4)
                      .build());
               /* get real generated node in stead of a random one generated by the
annotation */
```

Chunk 39: (version 2/commentary)

```
.build());

/* Do not add @Override's for generated methods */
sm.addScript(ScriptBuilder.exitEarly()
```

Chunk 40: (version 2/commentary, method invocation)

```
.build());

<<<<< HEAD

======

/* Do not add comments for generated methods */
sm.addScript(ScriptBuilder.exitEarly()
```

```
.target(new

MethodTarget("org.eclipse.jdt.internal.corext.refactoring.structure.ExtractInterfaceProcesso
r", "createMethodComment"))

.decisionMethod(new Hook("lombok.eclipse.agent.PatchFixes",
"isGenerated", "boolean", "org.eclipse.jdt.core.dom.ASTNode"))

.request(StackRequest.PARAM2)

.build());

>>>>> bf354e3b5ced16913726afc8247b1dd0321c9d62
}
```

lombok/src/eclipseAgent/lombok/eclipse/agent/PatchFixes.java

chunk 41: (version 2/import declaration)

```
import org.eclipse.jdt.core.IMethod;
<<<<<< HEAD
import org.eclipse.jdt.core.JavaModelException;
import org.eclipse.jdt.core.dom.AbstractTypeDeclaration;
======
import org.eclipse.jdt.core.IType;
import org.eclipse.jdt.core.JavaModelException;
>>>>>> bf354e3b5ced16913726afc8247b1dd0321c9d62
import org.eclipse.jdt.core.dom.MethodDeclaration;
```

```
import org.eclipse.jdt.core.IMethod;
import org.eclipse.jdt.core.IType;
import org.eclipse.jdt.core.JavaModelException;
import org.eclipse.jdt.core.dom.MethodDeclaration;
```

Chunk 42: (version 2/commentary, for statement, if statement, method signature, variable, while statement)

```
String methodName = sourceMethod.getElementName();
                      for (Object type : cuUnit.types()) {
                             org.eclipse.jdt.core.dom.AbstractTypeDeclaration
typeDeclaration = (AbstractTypeDeclaration) type;
                             if ((typeDeclaration.getName()+".java").equals(typeName)) {
                                     for
                                            (Object
                                                                   declaration
typeDeclaration.bodyDeclarations()) {
                                            i f
                                                        (declaration
                                                                               instanceof
org.eclipse.jdt.core.dom.MethodDeclaration) {
       org.eclipse.jdt.core.dom.MethodDeclaration
                                                           methodDeclaration
(org.eclipse.jdt.core.dom.MethodDeclaration) declaration;
(methodDeclaration.getName().toString().equals(methodName)) {
                                                          return methodDeclaration;
                                                   }
       public
                           static
                                                 org.eclipse.jdt.core.dom.MethodDeclaration
getRealMethodDeclarationNode(org.eclipse.jdt.core.IMethod
org.eclipse.jdt.core.dom.CompilationUnit cuUnit) throws JavaModelException {
              MethodDeclaration
                                                 methodDeclarationNode
ASTNodeSearchUtil.getMethodDeclarationNode(sourceMethod, cuUnit);
              if (isGenerated(methodDeclarationNode)) {
                      IType declaringType = sourceMethod.getDeclaringType();
                      Stack<IType> typeStack = new Stack<IType>();
                      while (declaringType != null) {
                             typeStack.push(declaringType);
                             declaringType = declaringType.getDeclaringType();
                      IType rootType = typeStack.pop();
                      org.eclipse.jdt.core.dom.AbstractTypeDeclaration typeDeclaration =
findTypeDeclaration(rootType, cuUnit.types());
                      while (!typeStack.isEmpty() && typeDeclaration != null) {
                                                      findTypeDeclaration(typeStack.pop(),
                             typeDeclaration =
typeDeclaration.bodyDeclarations());
                      if (typeStack.isEmpty() && typeDeclaration != null) {
                             String methodName = sourceMethod.getElementName();
                             for (Object declaration : typeDeclaration.bodyDeclarations())
                                     i f
                                                     (declaration
                                                                                 instanceof
org.eclipse.jdt.core.dom.MethodDeclaration) {
                                            org.eclipse.jdt.core.dom.MethodDeclaration
methodDeclaration = (org.eclipse.jdt.core.dom.MethodDeclaration) declaration;
(methodDeclaration.getName().toString().equals(methodName)) {
                                                   return methodDeclaration;
>>>>> bf354e3b5ced16913726afc8247b1dd0321c9d62
```

```
IType declaringType = sourceMethod.getDeclaringType();
                    Stack<IType> typeStack = new Stack<IType>();
                    while (declaringType != null) {
                           typeStack.push(declaringType);
                           declaringType = declaringType.getDeclaringType();
                    IType rootType = typeStack.pop();
                    findTypeDeclaration(rootType, cuUnit.types());
                    while (!typeStack.isEmpty() && typeDeclaration != null) {
                           typeDeclaration = findTypeDeclaration(typeStack.pop(),
typeDeclaration.bodyDeclarations());
                    }
                    if (typeStack.isEmpty() && typeDeclaration != null) {
                           String methodName = sourceMethod.getElementName();
                           for (Object declaration : typeDeclaration.bodyDeclarations())
                                                 (declaration
                                                                           instanceof
org.eclipse.jdt.core.dom.MethodDeclaration) {
                                         org.eclipse.jdt.core.dom.MethodDeclaration
methodDeclaration = (org.eclipse.jdt.core.dom.MethodDeclaration) declaration;
(methodDeclaration.getName().toString().equals(methodName)) {
                                               return methodDeclaration;
```

Chunk 43: (version 2/method declaration)

```
<<<<< HEAD
                 static
                                      org.eclipse.jdt.core.dom.AbstractTypeDeclaration
findTypeDeclaration(IType searchType, List<?> nodes) {
             for (Object object : nodes) {
                   if
                                              (object
                                                                            instanceof
org.eclipse.jdt.core.dom.AbstractTypeDeclaration) {
                           org.eclipse.jdt.core.dom.AbstractTypeDeclaration
typeDeclaration = (org.eclipse.jdt.core.dom.AbstractTypeDeclaration) object;
(typeDeclaration.getName().toString().equals(searchType.getElementName()))
                                 return typeDeclaration;
             return null:
>>>>> bf354e3b5ced16913726afc8247b1dd0321c9d62
      public static int getSourceEndFixed(int
                                                                          sourceEnd,
org.eclipse.jdt.internal.compiler.ast.ASTNode node) throws Exception {
```

Version: a5c7d134c168f6f9e9ab6203cb54b1030057c790

Parents:

aaf3101393d4f87ea8e256ba35a5b5374e6a0161 4e831b05ec08399795d27c343b6324b5b6de3443

Merge base:

ef820d8d5ab76c6db8335201da3c7ab9de7cb56a

lombok/src/eclipseAgent/lombok/eclipse/agent/PatchFixes.java

Chunk 44: (version 1/commentary, method declaration)

```
<<<<< HEAD
       /* Very practical implementation, but works for getter and setter even with type
parameters */
      public static java.lang.String getRealMethodDeclarationSource(java.lang.String
original, org.eclipse.jdt.core.dom.MethodDeclaration declaration) {
              if(isGenerated(declaration)) {
                     String returnType = declaration.getReturnType2().toString();
                     String params = "";
                     for (Object object : declaration.parameters()) {
                            org.eclipse.jdt.core.dom.ASTNode
((org.eclipse.jdt.core.dom.ASTNode)object);
                           params += ","+parameter.toString();
                     }
                     return
                                           returnType
"+declaration.getName().getFullyQualifiedName()+"("+(params.isEmpty()
params.substring(1))+");";
             }
              return original;
      public
                     static
                                           getSourceEndFixed(int
                                   int
                                                                             sourceEnd.
org.eclipse.jdt.internal.compiler.ast.ASTNode node) throws Exception {
              if (sourceEnd == -1) {
                     org.eclipse.jdt.internal.compiler.ast.ASTNode
(org.eclipse.jdt.internal.compiler.ast.ASTNode)node.getClass().getField("$generatedBy").get(
node);
                     if (object != null) {
                           return object.sourceEnd;
              return sourceEnd;
>>>>> 4e831b05ec08399795d27c343b6324b5b6de3443
       public static int fixRetrieveStartingCatchPosition(int original, int start) {
```

```
/* Very practical implementation, but works for getter and setter even with type parameters */
public static java.lang.String getRealMethodDeclarationSource(java.lang.String original, org.eclipse.jdt.core.dom.MethodDeclaration declaration) {
    if(isGenerated(declaration)) {
```

```
String returnType = declaration.getReturnType2().toString();
                     String params = "";
                     for (Object object : declaration.parameters()) {
                           org.eclipse.jdt.core.dom.ASTNode
((org.eclipse.jdt.core.dom.ASTNode)object);
                        params += ","+parameter.toString();
                    return
                                         returnType
"+declaration.getName().getFullyQualifiedName()+"("+(params.isEmpty()
params.substring(1))+");";
            }
             return original;
      public
                   static int getSourceEndFixed(int sourceEnd,
org.eclipse.jdt.internal.compiler.ast.ASTNode node) throws Exception {
             if (sourceEnd == -1) {
                    org.eclipse.jdt.internal.compiler.ast.ASTNode
                                                                      object
(org.eclipse.jdt.internal.compiler.ast.ASTNode)node.getClass().getField("$generatedBy").get(
node);
                    if (object != null) {
                           return object.sourceEnd;
             return sourceEnd;
       public static int fixRetrieveStartingCatchPosition(int original, int start) {
```

Version: aaf3101393d4f87ea8e256ba35a5b5374e6a0161

Parents:

6d6a191c67827b626c67ddfbce071c17be58723b 53ce4f61788ab62263d9e267b947303973d11a7f

Merge base:

ef820d8d5ab76c6db8335201da3c7ab9de7cb56a

lombok/src/eclipseAgent/lombok/eclipse/agent/PatchFixes.java

Chunk 45: (version 2/commentary, method declaration)

```
<<<<< HEAD
      /* Very practical implementation, but works for getter and setter even with type
parameters */
      public static java.lang.String getRealMethodDeclarationSource(java.lang.String
original, org.eclipse.jdt.core.dom.MethodDeclaration declaration) {
              if(isGenerated(declaration)) {
                     String returnType = declaration.getReturnType2().toString();
                     String params = "";
                     for (Object object : declaration.parameters()) {
                            org.eclipse.jdt.core.dom.ASTNode
((org.eclipse.jdt.core.dom.ASTNode)object);
                           params += ","+parameter.toString();
                     }
                     return
                                          returnType
"+declaration.getName().getFullyQualifiedName()+"("+(params.isEmpty()
params.substring(1))+");";
             }
              return original;
       public
                                   int
                                           getSourceEndFixed(int
                     static
                                                                             sourceEnd,
org.eclipse.jdt.internal.compiler.ast.ASTNode node) throws Exception {
             if (sourceEnd == -1) {
                     org.eclipse.jdt.internal.compiler.ast.ASTNode
                                                                        object
(org.eclipse.jdt.internal.compiler.ast.ASTNode)node.getClass().getField("$generatedBy").get(
node);
                     if (object != null) {
                            return object.sourceEnd;
              return sourceEnd;
>>>>> 53ce4f61788ab62263d9e267b947303973d11a7f
       public static int fixRetrieveStartingCatchPosition(int original, int start) {
```

```
/* Very practical implementation, but works for getter and setter even with type parameters */
    public static java.lang.String getRealMethodDeclarationSource(java.lang.String original, org.eclipse.jdt.core.dom.MethodDeclaration declaration) {
        if(isGenerated(declaration)) {
```

```
String returnType = declaration.getReturnType2().toString();
                     String params = "";
                     for (Object object : declaration.parameters()) {
                           org.eclipse.jdt.core.dom.ASTNode
((org.eclipse.jdt.core.dom.ASTNode)object);
                        params += ","+parameter.toString();
                    return
                                         returnType
"+declaration.getName().getFullyQualifiedName()+"("+(params.isEmpty()
params.substring(1))+");";
            }
             return original;
      public
                   static int getSourceEndFixed(int sourceEnd,
org.eclipse.jdt.internal.compiler.ast.ASTNode node) throws Exception {
             if (sourceEnd == -1) {
                    org.eclipse.jdt.internal.compiler.ast.ASTNode
                                                                      object
(org.eclipse.jdt.internal.compiler.ast.ASTNode)node.getClass().getField("$generatedBy").get(
node);
                    if (object != null) {
                           return object.sourceEnd;
             return sourceEnd;
       public static int fixRetrieveStartingCatchPosition(int original, int start) {
```

Version: dc92425f85d2f2dd187b688ff6d218d3c8e657b6

Parents:

1cdd42ac10c128765d3ff642d808c00eab6a1782 5cc928f471f3875f141ab1ee737cfe2613e9cdd6

Merge base:

9433db4ecdf1a525541581a73161ababee0c352c

lombok/src/eclipseAgent/lombok/eclipse/agent/EclipsePatcher.java

Chunk 46: (version 1/method declaration)

```
<<<<< HEAD
                      private static void patchDisableLombokForCodeFormatterAndCleanup(ScriptManager sm) {
                                            sm.addScript(ScriptBuilder.setSymbolDuringMethodCall()
                                                                                         .target(new
MethodTarget("org.eclipse.jdt.internal.formatter.DefaultCodeFormatter",
"formatCompilationUnit"))
                                                                                         .callToWrap(new
Hook("org.eclipse.jdt.internal.core.util.CodeSnippetParsingUtil", "parseCompilationUnit",
"org.eclipse.jdt.internal.compiler.ast.CompilationUnitDeclaration",
                                                                                                                                                                                                                                                       "char[]",
"java.util.Map", "boolean"))
                                                                                         .symbol("lombok.disable")
                                                                                         .build());
                                             sm.addScript(ScriptBuilder.exitEarly()
                                                                  .target(new
{\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt SControlStatementFinder} \\ {\tt ControlStatementFinder} \\ {\tt ControlStatementsFix} \\ {\tt ControlStatemen
r", "visit", "boolean", "org.eclipse.jdt.core.dom.DoStatement"))
                                                                   .target(new
MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix$ControlStatementFinde
r", "visit", "boolean", "org.eclipse.jdt.core.dom.EnhancedForStatement"))
                                                                  .target(new
MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix$ControlStatementFinde
r", "visit", "boolean", "orq.eclipse.jdt.core.dom.ForStatement"))
                                                                  .target(new
MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix$ControlStatementFinde
r", "visit", "boolean", "org.eclipse.jdt.core.dom.IfStatement"))
                                                                   .target(new
MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix$ControlStatementFinde
r", "visit", "boolean", "org.eclipse.jdt.core.dom.WhileStatement"))
                                                                   .decisionMethod(new
                                                                                                                                                          Hook ("lombok.eclipse.agent.PatchFixes",
"isGenerated", "boolean", "org.eclipse.jdt.core.dom.Statement"))
                                                                   .request(StackRequest.PARAM1)
                                                                   .valueMethod(new
                                                                                                                                                            Hook ("lombok.eclipse.agent.PatchFixes",
"isGenerated", "boolean", "org.eclipse.jdt.core.dom.Statement"))
                                                                  .build());
                      private static void patchListRewriteHandleGeneratedMethods(ScriptManager sm) {
                                            sm.addScript(ScriptBuilder.replaceMethodCall()
                                                                                         .target (new
\texttt{MethodTarget("org.eclipse.jdt.internal.core.dom.rewrite.ASTRewriteAnalyzer\$ListRewriter", and the term of the 
"rewriteList"))
                                                                                         .methodToReplace(new
Hook("org.eclipse.jdt.internal.core.dom.rewrite.RewriteEvent",
                                                                                                                                                                                                                                        "getChildren",
"org.eclipse.jdt.internal.core.dom.rewrite.RewriteEvent[]"))
```

```
private static void patchDisableLombokForCodeFormatterAndCleanup(ScriptManager sm) {
                                                         sm.addScript(ScriptBuilder.setSymbolDuringMethodCall()
                                                                                                                      .target(new
MethodTarget("org.eclipse.jdt.internal.formatter.DefaultCodeFormatter",
"formatCompilationUnit"))
                                                                                                                    .callToWrap(new
Hook("org.eclipse.jdt.internal.core.util.CodeSnippetParsingUtil", "parseCompilationUnit",
"org.eclipse.jdt.internal.compiler.ast.CompilationUnitDeclaration",
                                                                                                                                                                                                                                                                                                                                    "char[]",
"java.util.Map", "boolean"))
                                                                                                                    .symbol("lombok.disable")
                                                                                                                     .build());
                                                           sm.addScript(ScriptBuilder.exitEarly()
                                                                                       .target(new
{\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt SControlStatementFinder} \\ {\tt ControlStatementFinder} \\ {\tt ControlStatementsFix} \\ {\tt ControlStatementsFinder} \\ {\tt ControlStatementsF
r", "visit", "boolean", "org.eclipse.jdt.core.dom.DoStatement"))
                                                                                        .target(new
{\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt SControlStatementFinder} \\ {\tt ControlStatementFinder} \\ {\tt ControlStatementsFix} \\ {\tt ControlStatemen
r", "visit", "boolean", "org.eclipse.jdt.core.dom.EnhancedForStatement"))
                                                                                         .target(new
MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix$ControlStatementFinde
r", "visit", "boolean", "org.eclipse.jdt.core.dom.ForStatement"))
                                                                                        .target(new
MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix$ControlStatementFinde
r", "visit", "boolean", "orq.eclipse.jdt.core.dom.IfStatement"))
                                                                                         .target(new
{\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt SControlStatementFindelloop} \\ {\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStat
r", "visit", "boolean", "org.eclipse.jdt.core.dom.WhileStatement"))
                                                                                         .decisionMethod(new
                                                                                                                                                                                                               Hook("lombok.eclipse.agent.PatchFixes",
"isGenerated", "boolean", "org.eclipse.jdt.core.dom.Statement"))
                                                                                        .request(StackRequest.PARAM1)
                                                                                                                                                                                                               Hook("lombok.eclipse.agent.PatchFixes",
                                                                                         .valueMethod(new
"isGenerated", "boolean", "org.eclipse.jdt.core.dom.Statement"))
                                                                                        .build());
                             private static void patchListRewriteHandleGeneratedMethods(ScriptManager sm) {
                                                           sm.addScript(ScriptBuilder.replaceMethodCall()
                                                                                                                      .target(new
MethodTarget("org.eclipse.jdt.internal.core.dom.rewrite.ASTRewriteAnalyzer$ListRewriter",
"rewriteList"))
                                                                                                                     .methodToReplace(new
Hook("org.eclipse.jdt.internal.core.dom.rewrite.RewriteEvent",
                                                                                                                                                                                                                                                                                                                "getChildren",
"orq.eclipse.jdt.internal.core.dom.rewrite.RewriteEvent[]"))
                                                                                                                    .replacementMethod(new Hook("lombok.eclipse.agent.PatchFixes",
"listRewriteHandleGeneratedMethods",
```

Version: 1cdd42ac10c128765d3ff642d808c00eab6a1782

Parents:

f3253a73c29c393bb572e05c992afa22b4de4748 b43cd3509311e25b64a559cd7dd02d11a45d9f0e

Merge base:

9433db4ecdf1a525541581a73161ababee0c352c

lombok/src/eclipseAgent/lombok/eclipse/agent/EclipsePatcher.java

Chunk 47: (concatenation/method invocation)

```
patchFixSourceTypeConverter(sm);
    patchDisableLombokForCodeFormatterAndCleanup(sm);
    patchListRewriteHandleGeneratedMethods(sm);
} else {
```

Chunk 48: (concatenation/method declaration)

```
<<<<< HEAD
                                                    private static void patchDisableLombokForCodeFormatterAndCleanup(ScriptManager sm) {
                                                                                                         sm.addScript(ScriptBuilder.setSymbolDuringMethodCall()
                                                                                                                                                                                                                     .target(new
 MethodTarget("org.eclipse.jdt.internal.formatter.DefaultCodeFormatter",
 "formatCompilationUnit"))
                                                                                                                                                                                                                     .callToWrap(new
 Hook("org.eclipse.jdt.internal.core.util.CodeSnippetParsingUtil", "parseCompilationUnit",
  "org.eclipse.jdt.internal.compiler.ast.CompilationUnitDeclaration",
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "char[]",
 "java.util.Map", "boolean"))
                                                                                                                                                                                                                      .symbol("lombok.disable")
                                                                                                                                                                                                                     .build());
                                                                                                            sm.addScript(ScriptBuilder.exitEarly()
                                                                                                                                                                .target(new
{\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt SControlStatementFinder} \\ {\tt ControlStatementFinder} \\ {\tt ControlStatementsFix} \\ {\tt ControlStatemen
r", "visit", "boolean", "org.eclipse.jdt.core.dom.DoStatement"))
                                                                                                                                                                 .target(new
{\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt SControlStatementFinder} \\ {\tt ControlStatementFinder} \\ {\tt ControlStatementsFix} \\ {\tt ControlStatemen
r", "visit", "boolean", "org.eclipse.jdt.core.dom.EnhancedForStatement"))
                                                                                                                                                                 .target(new
{\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt SControlStatementFinder} \\ {\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatemen
r", "visit", "boolean", "org.eclipse.jdt.core.dom.ForStatement"))
                                                                                                                                                                .target(new
MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix$ControlStatementFinde
r", "visit", "boolean", "orq.eclipse.jdt.core.dom.IfStatement"))
                                                                                                                                                                .target(new
{\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt SControlStatementFinder} \\ {\tt ControlStatementFinder} \\ {\tt ControlStatementsFix} \\ {\tt ControlStatemen
  r", "visit", "boolean", "org.eclipse.jdt.core.dom.WhileStatement"))
```

```
.decisionMethod(new
                                                    Hook("lombok.eclipse.agent.PatchFixes",
"isGenerated", "boolean", "org.eclipse.jdt.core.dom.Statement"))
                      .request(StackRequest.PARAM1)
                      .valueMethod(new
                                                     Hook ("lombok.eclipse.agent.PatchFixes",
"isGenerated", "boolean", "org.eclipse.jdt.core.dom.Statement"))
                      .build());
       }
======
      private static void patchListRewriteHandleGeneratedMethods(ScriptManager sm) {
              sm.addScript(ScriptBuilder.replaceMethodCall()
                              .target(new
MethodTarget("org.eclipse.jdt.internal.core.dom.rewrite.ASTRewriteAnalyzer$ListRewriter",
"rewriteList"))
                             .methodToReplace(new
Hook("org.eclipse.jdt.internal.core.dom.rewrite.RewriteEvent",
                                                                              "getChildren",
"org.eclipse.jdt.internal.core.dom.rewrite.RewriteEvent[]"))
                             .replacementMethod(new Hook("lombok.eclipse.agent.PatchFixes",
"listRewriteHandleGeneratedMethods",
"org.eclipse.jdt.internal.core.dom.rewrite.RewriteEvent[]",
"org.eclipse.jdt.internal.core.dom.rewrite.RewriteEvent"))
                              .build());
>>>>> b43cd3509311e25b64a559cd7dd02d11a45d9f0e
       private static void patchDomAstReparseIssues(ScriptManager sm) {
```

```
private static void patchDisableLombokForCodeFormatterAndCleanup(ScriptManager sm) {
                                                                             sm.addScript(ScriptBuilder.setSymbolDuringMethodCall()
                                                                                                                                                       .target(new
MethodTarget("org.eclipse.jdt.internal.formatter.DefaultCodeFormatter",
"formatCompilationUnit"))
                                                                                                                                                       .callToWrap(new
Hook ("org.eclipse.jdt.internal.core.util.CodeSnippetParsingUtil", "parseCompilationUnit",
  "org.eclipse.jdt.internal.compiler.ast.CompilationUnitDeclaration",
                                                                                                                                                                                                                                                                                                                                                                                                                                   "char[]",
 "java.util.Map", "boolean"))
                                                                                                                                                       .symbol("lombok.disable")
                                                                                                                                                        .build());
                                                                             sm.addScript(ScriptBuilder.exitEarly()
                                                                                                                  .target(new
{\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt SControlStatementFindelloop} \\ {\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStatementsFix.ControlStat
r", "visit", "boolean", "org.eclipse.jdt.core.dom.DoStatement"))
                                                                                                                   .target(new
{\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt SControlStatementFinder} \\ {\tt ControlStatementFinder} \\ {\tt ControlStatementsFix} \\ {\tt ControlStatementsFinder} \\ {\tt ControlStatementsF
r", "visit", "boolean", "org.eclipse.jdt.core.dom.EnhancedForStatement"))
                                                                                                                   .target(new
MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix$ControlStatementFinde
r", "visit", "boolean", "org.eclipse.jdt.core.dom.ForStatement"))
                                                                                                                   .target(new
{\tt MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix} \\ {\tt SControlStatementFinder} \\ {\tt ControlStatementFinder} \\ {\tt ControlStatementsFix} \\ {\tt ControlStatementsFix} \\ {\tt ControlStatementsFinder} \\ {\tt ControlStatementsFind
r", "visit", "boolean", "org.eclipse.jdt.core.dom.IfStatement"))
                                                                                                                  .target(new
MethodTarget("org.eclipse.jdt.internal.corext.fix.ControlStatementsFix$ControlStatementFinde
r", "visit", "boolean", "orq.eclipse.jdt.core.dom.WhileStatement"))
                                                                                                                 .decisionMethod(new Hook("lombok.eclipse.agent.PatchFixes",
"isGenerated", "boolean", "org.eclipse.jdt.core.dom.Statement"))
                                                                                                                 .request(StackRequest.PARAM1)
```

```
.valueMethod(new
                                                                                                                                                                                Hook("lombok.eclipse.agent.PatchFixes",
 "isGenerated", "boolean", "org.eclipse.jdt.core.dom.Statement"))
                                                                          .build());
                         private static void patchListRewriteHandleGeneratedMethods(ScriptManager sm) {
                                                 sm.addScript(ScriptBuilder.replaceMethodCall()
                                                                                                    .target(new
\texttt{MethodTarget("org.eclipse.jdt.internal.core.dom.rewrite.ASTRewriteAnalyzer\$ListRewriter", and the statement of the statem
"rewriteList"))
                                                                                                    .methodToReplace(new
Hook("org.eclipse.jdt.internal.core.dom.rewrite.RewriteEvent",
                                                                                                                                                                                                                                                                     "getChildren",
"org.eclipse.jdt.internal.core.dom.rewrite.RewriteEvent[]"))
                                                                                                   .replacementMethod(new Hook("lombok.eclipse.agent.PatchFixes",
"listRewriteHandleGeneratedMethods",
 "org.eclipse.jdt.internal.core.dom.rewrite.RewriteEvent[]",
 "org.eclipse.jdt.internal.core.dom.rewrite.RewriteEvent"))
                                                                                                    .build());
                         private static void patchDomAstReparseIssues(ScriptManager sm) {
```

Version: ddf54dcfaea71e50ae32b45785b8624b9137843b

Parents:

1c323332493148f0aaa936e668e1b0da5d09c8be eae3e45ae7dd965cc642d7f03b833574e974fc1b

Merge base:

c8774389e7cb73e494267af3a87f70c7497b220a

lombok/src/core/lombok/javac/handlers/HandleGetter.java

Chunk 49: (concatenation/commentary, method declaration, method invocation, static block, variable)

```
<<<<< HEAD
      private List<JCStatement> createSimpleGetterBody(TreeMaker treeMaker, JavacNode
              return List.List.JCStatement>of(treeMaker.Return(createFieldAccessor(treeMaker,
field, FieldAccess.ALWAYS FIELD)));
       private static final String AR = "java.util.concurrent.atomic.AtomicReference";
       private static final List<JCExpression> NIL EXPRESSION = List.nil();
       private static final java.util.Map<Integer, String> TYPE MAP;
       static {
              Map<Integer, String> m = new HashMap<Integer, String>();
              m.put(TypeTags.INT, "java.lang.Integer");
              m.put(TypeTags.DOUBLE, "java.lang.Double");
              m.put(TypeTags.FLOAT, "java.lang.Float");
              m.put(TypeTags.SHORT, "java.lang.Short");
              m.put(TypeTags.BYTE, "java.lang.Byte");
              m.put(TypeTags.LONG, "java.lang.Long");
              m.put(TypeTags.BOOLEAN, "java.lang.Boolean");
              m.put(TypeTags.CHAR, "java.lang.Character");
              TYPE_MAP = Collections.unmodifiableMap(m);
       private List<JCStatement> createLazyGetterBody(TreeMaker maker, JavacNode fieldNode)
              java.util.concurrent.atomic.AtomicReference<ValueType> value
this.fieldName.get();
              if (value == null) {
                      synchronized (this.fieldName) {
                             value = this.fieldName.get();
                             if (value == null) {
                                     value
                                                                                         new
java.util.concurrent.atomic.AtomicReference<ValueType>(new ValueType());
                                     this.fieldName.set(value);
                             }
              return value.get();
              List<JCStatement> statements = List.nil();
```

```
JCVariableDecl field = (JCVariableDecl) fieldNode.get();
              field.type = null;
              if (field.vartype instanceof JCPrimitiveTypeTree) {
                     String
TYPE_MAP.get(((JCPrimitiveTypeTree)field.vartype).typetag);
                     if (boxed != null) {
                             field.vartype = chainDotsString(maker, fieldNode, boxed);
              Name valueName = fieldNode.toName("value");
                    java.util.concurrent.atomic.AtomicReference<ValueType>
                                                                              value
this.fieldName.get(); */ {
                     JCTypeApply valueVarType = maker.TypeApply(chainDotsString(maker,
fieldNode, AR), List.of(copyType(maker, field)));
                     statements = statements.append(maker.VarDef(maker.Modifiers(0),
             valueVarType, callGet(fieldNode, createFieldAccessor(maker, fieldNode,
valueName,
FieldAccess.ALWAYS FIELD))));
              /* if (value == null) { */ {
                     JCSynchronized synchronizedStatement;
                      /* synchronized (this.fieldName) { */ {
                             List<JCStatement> synchronizedStatements = List.nil();
                             /* value = this.fieldName.get(); */ {
                                    JCExpressionStatement
                                                                    newAssign
maker.Exec (maker.Assign (maker.Ident (valueName),
                                                                       callGet(fieldNode,
createFieldAccessor(maker, fieldNode, FieldAccess.ALWAYS_FIELD))));
                                   synchronizedStatements
synchronizedStatements.append(newAssign);
                             /* if (value == null) { */ {
                                    List<JCStatement> innerIfStatements = List.nil();
                                                 value
java.util.concurrent.atomic.AtomicReference<ValueType>(new ValueType());*/ {
                                           JCTypeApply valueVarType
maker.TypeApply(chainDotsString(maker, fieldNode, AR), List.of(copyType(maker, field)));
                                           JCNewClass newInstance = maker.NewClass(null,
NIL EXPRESSION, valueVarType, List.<JCExpression>of(field.init), null);
                                           JCStatement
                                                                  statement
maker.Exec(maker.Assign(maker.Ident(valueName), newInstance));
                                           innerIfStatements
innerIfStatements.append(statement);
                                    /* this.fieldName.set(value); */ {
                                           JCStatement statement = callSet(fieldNode,
createFieldAccessor(maker, fieldNode, FieldAccess.ALWAYS FIELD), maker.Ident(valueName));
                                           innerIfStatements
innerIfStatements.append(statement);
                                                isNull
                                    JCBinary
                                                            = maker.Binary(JCTree.EQ,
maker.Ident(valueName), maker.Literal(TypeTags.BOT, null));
                                    JCIf ifStatement = maker.If(isNull, maker.Block(0,
innerIfStatements), null);
                                    synchronizedStatements
synchronizedStatements.append(ifStatement);
```

```
synchronizedStatement
maker.Synchronized(createFieldAccessor(maker, fieldNode, FieldAccess.ALWAYS FIELD),
maker.Block(0, synchronizedStatements));
                     JCBinary isNull = maker.Binary(JCTree.EQ, maker.Ident(valueName),
maker.Literal(TypeTags.BOT, null));
                                            =
                     JCIf ifStatement
                                                   maker.If(isNull,
                                                                       maker.Block(0,
List.<JCStatement>of(synchronizedStatement)), null);
                    statements = statements.append(ifStatement);
              /* return value.get(); */
                                      statements.append(maker.Return(callGet(fieldNode,
              statements =
maker.Ident(valueName))));
              // update the field type and init last
                   private
java.util.concurrent.atomic.AtomicReference<java.util.concurrent.atomic.AtomicReference<Valu
                            fieldName
java.util.concurrent.atomic.AtomicReference<java.util.concurrent.atomic.AtomicReference<Valu
eType>>(); */ {
                    field.vartype = maker.TypeApply(chainDotsString(maker, fieldNode,
      List.<JCExpression>of(maker.TypeApply(chainDotsString(maker, fieldNode, AR),
List.of(copyType(maker, field))));
                    field.init = maker.NewClass(null, NIL_EXPRESSION, copyType(maker,
field), NIL EXPRESSION, null);
             }
             return statements:
       private JCMethodInvocation callGet(JavacNode source, JCExpression receiver) {
              TreeMaker maker = source.getTreeMaker();
              return maker.Apply(NIL EXPRESSION,
                                                                maker.Select(receiver,
source.toName("get")), NIL EXPRESSION);
      private JCStatement callSet(JavacNode source, JCExpression receiver, JCExpression
value) {
             TreeMaker maker = source.getTreeMaker();
             return maker.Exec (maker.Apply (NIL EXPRESSION, maker.Select (receiver,
source.toName("set")), List.<JCExpression>of(value)));
       private JCExpression copyType(TreeMaker treeMaker, JCVariableDecl fieldNode) {
             return fieldNode.type != null ? treeMaker.Type(fieldNode.type) :
fieldNode.vartype;
      @Override public boolean isResolutionBased() {
             return false;
>>>>> eae3e45ae7dd965cc642d7f03b833574e974fc1b
       }
```

```
private List<JCStatement> createSimpleGetterBody(TreeMaker treeMaker, JavacNode
field) {
```

```
return List.<JCStatement>of(treeMaker.Return(createFieldAccessor(treeMaker,
field, FieldAccess.ALWAYS FIELD)));
       private static final String AR = "java.util.concurrent.atomic.AtomicReference";
       private static final List<JCExpression> NIL EXPRESSION = List.nil();
       private static final java.util.Map<Integer, String> TYPE MAP;
       static {
              Map<Integer, String> m = new HashMap<Integer, String>();
              m.put(TypeTags.INT, "java.lang.Integer");
              m.put(TypeTags.DOUBLE, "java.lang.Double");
              m.put(TypeTags.FLOAT, "java.lang.Float");
              m.put(TypeTags.SHORT, "java.lang.Short");
              m.put(TypeTags.BYTE, "java.lang.Byte");
              m.put(TypeTags.LONG, "java.lang.Long");
              m.put(TypeTags.BOOLEAN, "java.lang.Boolean");
              m.put(TypeTags.CHAR, "java.lang.Character");
              TYPE MAP = Collections.unmodifiableMap(m);
       private List<JCStatement> createLazyGetterBody(TreeMaker maker, JavacNode fieldNode)
              java.util.concurrent.atomic.AtomicReference<ValueType>
                                                                           value
this.fieldName.get();
              if (value == null) {
                      synchronized (this.fieldName) {
                             value = this.fieldName.get();
                             if (value == null) {
                                    value
                                                                                        new
java.util.concurrent.atomic.AtomicReference<ValueType>(new ValueType());
                                    this.fieldName.set(value);
              return value.get();
              List<JCStatement> statements = List.nil();
              JCVariableDecl field = (JCVariableDecl) fieldNode.get();
              field.type = null;
              if (field.vartype instanceof JCPrimitiveTypeTree) {
                      String
TYPE MAP.get(((JCPrimitiveTypeTree)field.vartype).typetag);
                      if (boxed != null) {
                             field.vartype = chainDotsString(maker, fieldNode, boxed);
                      }
               }
              Name valueName = fieldNode.toName("value");
                     java.util.concurrent.atomic.AtomicReference<ValueType>
                                                                                value
this.fieldName.get();*/ {
                      JCTypeApply valueVarType = maker.TypeApply(chainDotsString(maker,
fieldNode, AR), List.of(copyType(maker, field)));
                      statements = statements.append(maker.VarDef(maker.Modifiers(0),
            valueVarType, callGet(fieldNode, createFieldAccessor(maker,
valueName,
FieldAccess.ALWAYS FIELD))));
              }
```

```
/* if (value == null) { */ {
                     JCSynchronized synchronizedStatement;
                     /* synchronized (this.fieldName) { */ {
                             List<JCStatement> synchronizedStatements = List.nil();
                             /* value = this.fieldName.get(); */ {
                                    JCExpressionStatement
                                                                  newAssign
maker. Exec (maker. Assign (maker. Ident (valueName),
                                                                      callGet(fieldNode,
createFieldAccessor(maker, fieldNode, FieldAccess.ALWAYS_FIELD))));
                                   synchronizedStatements
synchronizedStatements.append(newAssign);
                             /* if (value == null) { */ {
                                   List<JCStatement> innerIfStatements = List.nil();
                                                  value =
                                                                                     new
java.util.concurrent.atomic.AtomicReference<ValueType>(new ValueType());*/ {
                                           JCTypeApply valueVarType
maker.TypeApply(chainDotsString(maker, fieldNode, AR), List.of(copyType(maker, field)));
                                           JCNewClass newInstance = maker.NewClass(null,
NIL EXPRESSION, valueVarType, List.<JCExpression>of(field.init), null);
                                           JCStatement
                                                                  statement
maker.Exec(maker.Assign(maker.Ident(valueName), newInstance));
                                           innerIfStatements
innerIfStatements.append(statement);
                                    /* this.fieldName.set(value); */ {
                                          JCStatement statement = callSet(fieldNode,
createFieldAccessor(maker, fieldNode, FieldAccess.ALWAYS_FIELD), maker.Ident(valueName));
                                           innerIfStatements
innerIfStatements.append(statement);
                                    JCBinary
                                                isNull
                                                          =
                                                                 maker.Binary(JCTree.EQ,
maker.Ident(valueName), maker.Literal(TypeTags.BOT, null));
                                   JCIf ifStatement = maker.If(isNull, maker.Block(0,
innerIfStatements), null);
                                   synchronizedStatements
synchronizedStatements.append(ifStatement);
                             synchronizedStatement
maker.Synchronized(createFieldAccessor(maker, fieldNode, FieldAccess.ALWAYS FIELD),
maker.Block(0, synchronizedStatements));
                     }
                     JCBinary isNull = maker.Binary(JCTree.EQ, maker.Ident(valueName),
maker.Literal(TypeTags.BOT, null));
                     JCIf
                                                    maker.If(isNull,
                                                                         maker.Block(0,
                             ifStatement
List.<JCStatement>of(synchronizedStatement)), null);
                    statements = statements.append(ifStatement);
              /* return value.get(); */
                                      statements.append(maker.Return(callGet(fieldNode,
              statements
maker.Ident(valueName))));
              // update the field type and init last
java.util.concurrent.atomic.AtomicReference<java.util.concurrent.atomic.AtomicReference<Valu
eType>
                            fieldName
```

```
java.util.concurrent.atomic.AtomicReference<java.util.concurrent.atomic.AtomicReference<Valu
eType>>(); */ {
                    field.vartype = maker.TypeApply(chainDotsString(maker, fieldNode,
      List.<JCExpression>of(maker.TypeApply(chainDotsString(maker, fieldNode, AR),
List.of(copyType(maker, field))));
                    field.init = maker.NewClass(null, NIL EXPRESSION, copyType(maker,
field), NIL EXPRESSION, null);
             }
             return statements;
       private JCMethodInvocation callGet(JavacNode source, JCExpression receiver) {
             TreeMaker maker = source.getTreeMaker();
             return maker.Apply(NIL EXPRESSION, maker.Select(receiver,
source.toName("get")), NIL_EXPRESSION);
      private JCStatement callSet(JavacNode source, JCExpression receiver, JCExpression
value) {
             TreeMaker maker = source.getTreeMaker();
             return maker.Exec(maker.Apply(NIL EXPRESSION, maker.Select(receiver,
source.toName("set")), List.<JCExpression>of(value)));
      private JCExpression copyType(TreeMaker treeMaker, JCVariableDecl fieldNode) {
            return fieldNode.type != null ? treeMaker.Type(fieldNode.type) :
fieldNode.vartype;
      }
       @Override public boolean isResolutionBased() {
            return false;
```

Version: 3d4b27d6d288ecb418a2a1a09ed43cae90ec548e

Parents:

fe7f0db2fce7b4c80853b9aed100908ff1f55f40 57de0c3f6636181541a7712e8d506828420c13d1

Merge base:

98d8a9f63b3183005174abb7691a1692347b9a2e

lombok/eclipse/handlers/EclipseHandlerUtil.java

Chunk 50: (concatenation/method declaration, variable)

```
<<<<< HEAD
       private static final Annotation[] EMPTY ANNOTATION ARRAY = new Annotation[0];
       static Annotation[] getAndRemoveAnnotationParameter(Annotation annotation, String
annotationName) {
              List<Annotation> result = new ArrayList<Annotation>();
              if (annotation instanceof NormalAnnotation) {
                      NormalAnnotation normalAnnotation = (NormalAnnotation) annotation;
                      MemberValuePair[]
                                                       memberValuePairs
normalAnnotation.memberValuePairs;
                     List<MemberValuePair> pairs = new ArrayList<MemberValuePair>();
                      if (memberValuePairs != null) for (MemberValuePair memberValuePair :
memberValuePairs) {
                             if (annotationName.equals(new String(memberValuePair.name))) {
                                     Expression value = memberValuePair.value;
                                     if (value instanceof ArrayInitializer) {
                                            ArrayInitializer array = (ArrayInitializer)
value;
                                            for(Expression expression : array.expressions)
                                                    if (expression instanceof Annotation) {
       result.add((Annotation)expression);
                                                    }
                                     else if (value instanceof Annotation) {
                                            result.add((Annotation)value);
                                     continue;
                             pairs.add(memberValuePair);
                      if (!result.isEmpty()) {
                             normalAnnotation.memberValuePairs = pairs.isEmpty() ? null :
pairs.toArray(new MemberValuePair[0]);
                             return result.toArray(EMPTY ANNOTATION ARRAY);
              return EMPTY ANNOTATION ARRAY;
```

```
static NameReference createNameReference(String name, Annotation source) {
    int pS = source.sourceStart, pE = source.sourceEnd;
    long p = (long)pS << 32 | pE;

    char[][] nameTokens = fromQualifiedName(name);
    long[] pos = new long[nameTokens.length];
    Arrays.fill(pos, p);

    QualifiedNameReference nameReference = new QualifiedNameReference(nameTokens, pos, pS, pE);

    rameReference.statementEnd = pE;

    Eclipse.setGeneratedBy(nameReference, source);
    return nameReference;
}
>>>>>> 57de0c3f6636181541a7712e8d506828420c13d1
}
```

```
private static final Annotation[] EMPTY ANNOTATION ARRAY = new Annotation[0];
       static Annotation[] getAndRemoveAnnotationParameter(Annotation annotation, String
annotationName) {
              List<Annotation> result = new ArrayList<Annotation>();
              if (annotation instanceof NormalAnnotation) {
                      NormalAnnotation normalAnnotation = (NormalAnnotation) annotation;
                                                      memberValuePairs
                      MemberValuePair[]
normalAnnotation.memberValuePairs;
                     List<MemberValuePair> pairs = new ArrayList<MemberValuePair>();
                      if (memberValuePairs != null) for (MemberValuePair memberValuePair :
memberValuePairs) {
                             if (annotationName.equals(new String(memberValuePair.name))) {
                                     Expression value = memberValuePair.value;
                                     if (value instanceof ArrayInitializer) {
                                            ArrayInitializer array = (ArrayInitializer)
value;
                                            for(Expression expression : array.expressions)
                                                    if (expression instanceof Annotation) {
       result.add((Annotation)expression);
                                            }
                                     else if (value instanceof Annotation) {
                                           result.add((Annotation)value);
                                     continue;
                             pairs.add(memberValuePair);
                      if (!result.isEmpty()) {
                             normalAnnotation.memberValuePairs = pairs.isEmpty() ? null :
pairs.toArray(new MemberValuePair[0]);
                             return result.toArray(EMPTY ANNOTATION ARRAY);
               return EMPTY ANNOTATION ARRAY;
```

```
static NameReference createNameReference(String name, Annotation source) {
   int pS = source.sourceStart, pE = source.sourceEnd;
   long p = (long)pS << 32 | pE;

   char[][] nameTokens = fromQualifiedName(name);
   long[] pos = new long[nameTokens.length];
   Arrays.fill(pos, p);

   QualifiedNameReference nameReference = new QualifiedNameReference(nameTokens, pos, pS, pE);

   pos, pS, pE);

   Eclipse.setGeneratedBy(nameReference, source);
   return nameReference;
}
</pre>
```

Version: c88ae3af7432513987eafaf13c178baa77cb0667

Parents:

0951ea38fe11189cdc4c2778fdad9e9e3ad6a6ae 16f992c5adea8ed8ad183d27c247901d61b0635d

Merge base:

98d8a9f63b3183005174abb7691a1692347b9a2e

lombok/javac/handlers/HandleCleanup.java

Chunk 51: (version 2/commentary)

```
/*
<<<<< HEAD

* Copyright © 2009-2010 Reinier Zwitserloot and Roel Spilker.

======

* Copyright © 2009-2010 Reinier Zwitserloot, Roel Spilker and Robbert Jan Grootjans.

>>>>>> 16f992c5adea8ed8ad183d27c247901d61b0635d

*
```

Version: 4e152f2f1485f904feb45ae614236d4aa4b6edc9

Parents:

0221e460b2e648b142284c6c462d5798f33a3ff7 fe0da3f53f1e88b704e21463cc5fea3d998e394a

Merge base:

2bdc1210d7a26df8b69563f0de22524398ba9bfd

lombok/src/lombok/eclipse/handlers/HandleData.java

Chunk 52: (combination/if statement, method invocation, variable)

```
long fieldPos = (((long)field.sourceStart) << 32) | field.sourceEnd;</pre>
<<<<< HEAD
                     args.add(new Argument(field.name, fieldPos, copyType(field.type),
Modifier FINAL)):
                     Argument argument = new Argument(field.name,
copyType(field.type), 0);
                     Annotation[] nonNulls = findAnnotations(field, NON NULL PATTERN);
                     Annotation[] nullables = findAnnotations(field, NULLABLE PATTERN);
                     if (nonNulls.length != 0) nullChecks.add(generateNullCheck(field));
                     Annotation[] copiedAnnotations
                                                               copyAnnotations(nonNulls,
nullables);
                         (copiedAnnotations.length != 0) argument.annotations
copiedAnnotations;
                     args.add(argument);
>>>>> fe0da3f53f1e88b704e21463cc5fea3d998e394a
```

```
long fieldPos = (((long)field.sourceStart) << 32) | field.sourceEnd;
Argument argument = new Argument(field.name, fieldPos,
copyType(field.type), Modifier.FINAL);
Annotation[] nonNulls = findAnnotations(field, NON_NULL_PATTERN);
Annotation[] nullables = findAnnotations(field, NULLABLE_PATTERN);
if (nonNulls.length != 0) nullChecks.add(generateNullCheck(field));
Annotation[] copiedAnnotations = copyAnnotations(nonNulls,
nullables);
if (copiedAnnotations.length != 0) argument.annotations =
copiedAnnotations;
args.add(argument);
}</pre>
```

Chunk 53: (combination/if statement, method invocation, variable)

```
assigns.add(new SingleNameReference(field.name, fieldPos));

</---

Argument argument = new Argument(field.name, fieldPos, copyType(field.type),

CopyType(field.type), 0);

Annotation[] copiedAnnotations = copyAnnotations(
findAnnotations(field, NULLABLE_PATTERN));
if (copiedAnnotations.length != 0) argument.annotations = copiedAnnotations;
```

```
args.add(new Argument(field.name, fieldPos, copyType(field.type),
0));
>>>>>> fe0da3f53f1e88b704e21463cc5fea3d998e394a
}
```

lombok/src/lombok/eclipse/handlers/HandleEqualsAndHashCode.java

Chunk 54: (version 1/if statement, method invocation)

lombok/src/lombok/eclipse/handlers/HandleSetter.java

Chunk 55: (version 1/method invocation, variable)

```
method.annotations = null;
```

```
Argument param = new Argument(field.name, pos, copyType(field.type),
Modifier.FINAL);
method.arguments = new Argument[] { param };
```

lombok/src/lombok/javac/handlers/HandleData.java

Chunk 56: (combination/method invocation, variable)

```
JCVariableDecl field = (JCVariableDecl) fieldNode.get();
<<<<< HEAD
                     JCVariableDecl param = maker.VarDef(maker.Modifiers(Flags.FINAL),
field.name, field.vartype, null);
                     List<JCAnnotation>
                                          nonNulls
                                                             findAnnotations(fieldNode,
                                                       =
NON NULL PATTERN);
                    List<JCAnnotation>
                                                              findAnnotations(fieldNode,
                                          nullables
NULLABLE PATTERN);
                                      param
                     JCVariableDecl
                                                         maker.VarDef(maker.Modifiers(0,
nonNulls.appendList(nullables)), field.name, field.vartype, null);
>>>>> fe0da3f53f1e88b704e21463cc5fea3d998e394a
                   params = params.append(param);
```

Chunk 57: (version 2/method invocation, variable)

```
} else pType = field.vartype;
<<<<< HEAD
                     JCVariableDecl param = maker.VarDef(maker.Modifiers(Flags.FINAL),
field.name, pType, null);
                     List<JCAnnotation>
                                                            findAnnotations(fieldNode,
                                          nonNulls
                                                       =
NON NULL PATTERN);
                                                            findAnnotations(fieldNode,
                    List<JCAnnotation>
                                         nullables
NULLABLE PATTERN);
                                      param
                     JCVariableDecl
                                                         maker.VarDef(maker.Modifiers(0,
nonNulls.appendList(nullables)), field.name, pType, null);
>>>>> fe0da3f53f1e88b704e21463cc5fea3d998e394a
                     params = params.append(param);
```

```
} else pType = field.vartype;
List<JCAnnotation> nonNulls = findAnnotations(fieldNode,

NON_NULL_PATTERN);
List<JCAnnotation> nullables = findAnnotations(fieldNode,

NULLABLE_PATTERN);
JCVariableDecl param = maker.VarDef(maker.Modifiers(Flags.FINAL,

nonNulls.appendList(nullables)), field.name, pType, null);
params = params.append(param);
```

lombok/src/lombok/javac/handlers/HandleEqualsAndHashCode.java

Chunk 58: (version 1/ if statement, method invocation)

lombok/src/lombok/javac/handlers/HandleSetter.java

Chunk 59: (new code/method invocation, variable)

```
Name methodName = field.toName(toSetterName(fieldDecl));

<<<<< HEAD

JCVariableDecl param = treeMaker.VarDef(treeMaker.Modifiers(Flags.FINAL),

fieldDecl.name, fieldDecl.vartype, null);

======

JCVariableDecl param = treeMaker.VarDef(treeMaker.Modifiers(0,

nonNulls.appendList(nullables)), fieldDecl.name, fieldDecl.vartype, null);

>>>>>> fe0da3f53f1e88b704e21463cc5fea3d998e394a

JCExpression methodType = treeMaker.Type(field.getSymbolTable().voidType);
```