DataUtilities.java

```
1      /* ===========================================================
2       * JFreeChart : a free chart library for the Java(tm) platform
3       * ===========================================================
4       *
5       * (C) Copyright 2000-2013, by Object Refinery Limited and Contributors.
6       *
7       * Project Info:  http://www.jfree.org/jfreechart/index.html
8       *
9       * This library is free software; you can redistribute it and/or modify it
10      * under the terms of the GNU Lesser General Public License as published by
11      * the Free Software Foundation; either version 2.1 of the License, or
12      * (at your option) any later version.
13      *
14      * This library is distributed in the hope that it will be useful, but
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20      * License along with this library; if not, write to the Free Software
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22      * USA.
23      *
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25      * Other names may be trademarks of their respective owners.]
26      *
27      * ------------------
28      * DataUtilities.java
29      * ------------------
30      * (C) Copyright 2003-2013, by Object Refinery Limited and contributors.
31      *
32      * Original Author:  David Gilbert (for Object Refinery Limited);
33      * Contributor(s):   Peter Kolb (patch 2511330);
34      *
35      * Changes
36      * -------
37      * 05-Mar-2003 : Version 1 (DG);
38      * 03-Mar-2005 : Moved createNumberArray() and createNumberArray2D() methods
39      *               from the DatasetUtilities class (DG);
40      * 17-May-2005 : Added calculateColumnTotal() and calculateRowTotal()
41      *               methods (DG);
42      * 28-Jan-2009 : Added equal(double[][], double[][]) method (DG);
43      * 28-Jan-2009 : Added clone(double[][]) method (DG);
44      * 04-Feb-2009 : Added calculateColumnTotal/RowTotal variants (PK);
45      * 03-Jul-2013 : Use ParamChecks (DG);
46      *
47      */
48
49      package org.jfree.data;
```

```
50
51     import java.util.Arrays;
52     import org.jfree.chart.util.ParamChecks;
53     import org.jfree.data.general.DatasetUtilities;
54
55     /**
56      * Utility methods for use with some of the data classes (but not the datasets,
57      * see {@link DatasetUtilities}).
58      */
59     public abstract class DataUtilities {
60
61         /**
62          * Tests two arrays for equality.  To be considered equal, the arrays must
63          * have exactly the same dimensions, and the values in each array must also
64          * match (two values that qre both NaN or both INF are considered equal
65          * in this test).
66          *
67          * @param a  the first array (<code>null</code> permitted).
68          * @param b  the second array (<code>null</code> permitted).
69          *
70          * @return A boolean.
71          *
72          * @since 1.0.13
73          */
74         public static boolean equal(double[][] a, double[][] b) {
75
76    4        if (a == null) {
77    19           return (b == null);
78             }
79    4        if (b == null) {
80    7           return false;  // already know 'a' isn't null
81             }
82    8        if (a.length!=b.length) {
83    7           return false;
84             }
85    19       for (int i = 0; i < a.length; i++) {
86    19           if (!Arrays.equals(a[i], b[i])) {
87    7               return false;
88             }
89         }
90    8        return true;
91         }
92
93         /**
94          * Returns a clone of the specified array.
95          *
96          * @param source  the source array (<code>null</code> not permitted).
97          *
98          * @return A clone of the array.
99          *
100         * @since 1.0.13
101         */
102        public static double[][] clone(double[][] source) {
```

```
103 1          ParamChecks.nullNotPermitted(source, "source");
104            double[][] clone = new double[source.length][];
105 19         for (int i = 0; i < source.length; i++) {
106 9              if (source[i] != null) {
107 5                  double[] row = new double[source[i].length];
108 21                 System.arraycopy(source[i], 0, row, 0, source[i].length);
109 5                  clone[i] = row;
110                }
111            }
112 2          return clone;
113        }
114
115        /**
116         * Returns the total of the values in one column of the supplied data
117         * table.
118         *
119         * @param data  the table of values (<code>null</code> not permitted).
120         * @param column  the column index (zero-based).
121         *
122         * @return The total of the values in the specified column.
123         */
124        public static double calculateColumnTotal(Values2D data, int column) {
125 1          ParamChecks.nullNotPermitted(data, "data");
126 5          double total = 0.0;
127 1          int rowCount = data.getRowCount();
128 25         for (int r = 0; r < rowCount; r++) {
129 11             Number n = data.getValue(r, column);
130 4              if (n != null) {
131 13                 total += n.doubleValue();
132                }
133            }
134 7          return total;
135        }
136
137        /**
138         * Returns the total of the values in one column of the supplied data
139         * table by taking only the row numbers in the array into account.
140         *
141         * @param data  the table of values (<code>null</code> not permitted).
142         * @param column  the column index (zero-based).
143         * @param validRows the array with valid rows (zero-based).
144         *
145         * @return The total of the valid values in the specified column.
146         *
147         * @since 1.0.13
148         */
149        public static double calculateColumnTotal(Values2D data, int column,
150                int[] validRows) {
151 1          ParamChecks.nullNotPermitted(data, "data");
152 5          double total = 0.0;
153 1          int rowCount = data.getRowCount();
154 20         for (int v = 0; v < validRows.length; v++) {
155 10             int row = validRows[v];
```

```
156 19            if (row < rowCount) {
157 11                Number n = data.getValue(row, column);
158 4                 if (n != null) {
159 13                    total += n.doubleValue();
160                   }
161               }
162           }
163 7         return total;
164       }
165
166       /**
167        * Returns the total of the values in one row of the supplied data
168        * table.
169        *
170        * @param data  the table of values (<code>null</code> not permitted).
171        * @param row  the row index (zero-based).
172        *
173        * @return The total of the values in the specified row.
174        */
175       public static double calculateRowTotal(Values2D data, int row) {
176 1         ParamChecks.nullNotPermitted(data, "data");
177 5         double total = 0.0;
178 1         int columnCount = data.getColumnCount();
179 25        for (int c = 0; c < columnCount; c++) {
180 11            Number n = data.getValue(row, c);
181 4             if (n != null) {
182 13                total += n.doubleValue();
183               }
184           }
185 7         return total;
186       }
187
188       /**
189        * Returns the total of the values in one row of the supplied data
190        * table by taking only the column numbers in the array into account.
191        *
192        * @param data  the table of values (<code>null</code> not permitted).
193        * @param row  the row index (zero-based).
194        * @param validCols the array with valid cols (zero-based).
195        *
196        * @return The total of the valid values in the specified row.
197        *
198        * @since 1.0.13
199        */
200       public static double calculateRowTotal(Values2D data, int row,
201                   int[] validCols) {
202 1         ParamChecks.nullNotPermitted(data, "data");
203 5         double total = 0.0;
204 1         int colCount = data.getColumnCount();
205 20        for (int v = 0; v < validCols.length; v++) {
206 10            int col = validCols[v];
207 19            if (col < colCount) {
208 11                Number n = data.getValue(row, col);
```

```
209 4              if (n != null) {
210 13                 total += n.doubleValue();
211              }
212            }
213          }
214 7      return total;
215    }
216
217    /**
218     * Constructs an array of <code>Number</code> objects from an array of
219     * <code>double</code> primitives.
220     *
221     * @param data  the data (<code>null</code> not permitted).
222     *
223     * @return An array of <code>Double</code>.
224     */
225    public static Number[] createNumberArray(double[] data) {
226 1      ParamChecks.nullNotPermitted(data, "data");
227        Number[] result = new Number[data.length];
228 19     for (int i = 0; i < data.length; i++) {
229 16         result[i] = new Double(data[i]);
230        }
231 2      return result;
232    }
233
234    /**
235     * Constructs an array of arrays of <code>Number</code> objects from a
236     * corresponding structure containing <code>double</code> primitives.
237     *
238     * @param data  the data (<code>null</code> not permitted).
239     *
240     * @return An array of <code>Double</code>.
241     */
242    public static Number[][] createNumberArray2D(double[][] data) {
243 1      ParamChecks.nullNotPermitted(data, "data");
244        int l1 = data.length;
245 5      Number[][] result = new Number[l1][];
246 25     for (int i = 0; i < l1; i++) {
247 11         result[i] = createNumberArray(data[i]);
248        }
249 2      return result;
250    }
251
252    /**
253     * Returns a {@link KeyedValues} instance that contains the cumulative
254     * percentage values for the data in another {@link KeyedValues} instance.
255     * <p>
256     * The percentages are values between 0.0 and 1.0 (where 1.0 = 100%).
257     *
258     * @param data  the data (<code>null</code> not permitted).
259     *
260     * @return The cumulative percentages.
261     */
```

```
262        public static KeyedValues getCumulativePercentages(KeyedValues data) {
263 1          ParamChecks.nullNotPermitted(data, "data");
264 1          DefaultKeyedValues result = new DefaultKeyedValues();
265 5          double total = 0.0;
266 20         for (int i = 0; i < data.getItemCount(); i++) {
267 6             Number v = data.getValue(i);
268 4             if (v != null) {
269 13                total = total + v.doubleValue();
270            }
271        }
272 5          double runningTotal = 0.0;
273 20         for (int i = 0; i < data.getItemCount(); i++) {
274 6             Number v = data.getValue(i);
275 4             if (v != null) {
276 13                runningTotal = runningTotal + v.doubleValue();
277            }
278 25            result.addValue(data.getKey(i), new Double(runningTotal / total));
279        }
280 2          return result;
281    }
282
283  }
```

Mutations

76
1. negated conditional → KILLED
2. removed conditional - replaced equality check with false → KILLED
3. removed conditional - replaced equality check with true → KILLED
4. not equal to equal → KILLED

77
1. replaced boolean return with false for org/jfree/data/DataUtilities::equal → KILLED
2. replaced boolean return with true for org/jfree/data/DataUtilities::equal → KILLED
3. Substituted 1 with 0 → KILLED
4. Substituted 0 with 1 → KILLED
5. negated conditional → KILLED
6. removed conditional - replaced equality check with false → KILLED
7. removed conditional - replaced equality check with true → KILLED
8. replaced return of integer sized value with (x == 0 ? 1 : 0) → KILLED
9. replaced return of integer sized value with (x == 0 ? 1 : 0) → KILLED
10. Substituted 0 with 1 → KILLED
11. Substituted 1 with 0 → KILLED
12. Substituted 1 with -1 → SURVIVED
13. Substituted 0 with -1 → KILLED
14. Substituted 1 with -1 → SURVIVED
15. Substituted 1 with 2 → KILLED
16. Substituted 0 with 1 → KILLED
17. Substituted 1 with 0 → KILLED
18. Substituted 0 with -1 → KILLED
19. not equal to equal → KILLED

79
1. negated conditional → KILLED
2. removed conditional - replaced equality check with false → KILLED
3. removed conditional - replaced equality check with true → KILLED
4. not equal to equal → KILLED

80
1. replaced boolean return with true for org/jfree/data/DataUtilities::equal → KILLED
2. Substituted 0 with 1 → KILLED
3. replaced return of integer sized value with (x == 0 ? 1 : 0) → KILLED
4. Substituted 0 with 1 → KILLED

5. Substituted 0 with -1 → KILLED
6. Substituted 0 with 1 → KILLED
7. Substituted 0 with -1 → KILLED

82
1. negated conditional → KILLED
2. removed conditional - replaced equality check with false → KILLED
3. removed conditional - replaced equality check with true → KILLED
4. equal to less than → KILLED
5. equal to less or equal → KILLED
6. equal to greater than → KILLED
7. equal to greater or equal → SURVIVED
8. equal to not equal → KILLED

83
1. replaced boolean return with true for org/jfree/data/DataUtilities::equal → KILLED
2. Substituted 0 with 1 → KILLED
3. replaced return of integer sized value with (x == 0 ? 1 : 0) → KILLED
4. Substituted 0 with 1 → KILLED
5. Substituted 0 with -1 → KILLED
6. Substituted 0 with 1 → KILLED
7. Substituted 0 with -1 → KILLED

85
1. changed conditional boundary → KILLED
2. Substituted 0 with 1 → SURVIVED
3. negated conditional → KILLED
4. removed conditional - replaced comparison check with false → KILLED
5. removed conditional - replaced comparison check with true → KILLED
6. Negated integer local variable number 2 → KILLED
7. Substituted 0 with 1 → SURVIVED
8. Substituted 0 with -1 → KILLED
9. Substituted 0 with 1 → SURVIVED
10. Substituted 0 with -1 → KILLED
11. Less than to less or equal → KILLED
12. Less than to greater than → KILLED
13. Less than to greater or equal → KILLED
14. Less than to equal → KILLED
15. Less than to not equal → SURVIVED
16. Incremented (a++) integer local variable number 2 → SURVIVED
17. Decremented (a--) integer local variable number 2 → KILLED
18. Incremented (++a) integer local variable number 2 → SURVIVED
19. Decremented (--a) integer local variable number 2 → KILLED

86
1. negated conditional → KILLED
2. removed call to java/util/Arrays::equals → KILLED
3. removed conditional - replaced equality check with false → KILLED
4. removed conditional - replaced equality check with true → KILLED
5. Negated integer local variable number 2 → KILLED
6. Negated integer local variable number 2 → KILLED
7. not equal to less than → KILLED
8. not equal to less or equal → KILLED
9. not equal to greater than → SURVIVED
10. not equal to greater or equal → KILLED
11. not equal to equal → KILLED
12. Incremented (a++) integer local variable number 2 → KILLED
13. Incremented (a++) integer local variable number 2 → KILLED
14. Decremented (a--) integer local variable number 2 → KILLED
15. Decremented (a--) integer local variable number 2 → TIMED_OUT
16. Incremented (++a) integer local variable number 2 → SURVIVED
17. Incremented (++a) integer local variable number 2 → KILLED
18. Decremented (--a) integer local variable number 2 → KILLED
19. Decremented (--a) integer local variable number 2 → KILLED

87
1. replaced boolean return with true for org/jfree/data/DataUtilities::equal → KILLED
2. Substituted 0 with 1 → KILLED
3. replaced return of integer sized value with (x == 0 ? 1 : 0) → KILLED
4. Substituted 0 with 1 → KILLED
5. Substituted 0 with -1 → KILLED
6. Substituted 0 with 1 → KILLED
7. Substituted 0 with -1 → KILLED

90   1. replaced boolean return with false for org/jfree/data/DataUtilities::equal →
KILLED
2. Substituted 1 with 0 → KILLED
3. replaced return of integer sized value with (x == 0 ? 1 : 0) → KILLED
4. Substituted 1 with 0 → KILLED
5. Substituted 1 with -1 → SURVIVED
6. Substituted 1 with -1 → SURVIVED
7. Substituted 1 with 2 → KILLED
8. Substituted 1 with 0 → KILLED

103   1. removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted → KILLED

     1. changed conditional boundary → KILLED
2. Substituted 0 with 1 → KILLED
3. negated conditional → KILLED
4. removed conditional - replaced comparison check with false → KILLED
5. removed conditional - replaced comparison check with true → KILLED
6. Negated integer local variable number 2 → KILLED
7. Substituted 0 with 1 → KILLED
8. Substituted 0 with -1 → KILLED
9. Substituted 0 with 1 → KILLED

105   10. Substituted 0 with -1 → KILLED
11. Less than to less or equal → KILLED
12. Less than to greater than → KILLED
13. Less than to greater or equal → KILLED
14. Less than to equal → KILLED
15. Less than to not equal → SURVIVED
16. Incremented (a++) integer local variable number 2 → KILLED
17. Decremented (a--) integer local variable number 2 → KILLED
18. Incremented (++a) integer local variable number 2 → KILLED
19. Decremented (--a) integer local variable number 2 → KILLED

     1. negated conditional → KILLED
2. removed conditional - replaced equality check with false → KILLED
3. removed conditional - replaced equality check with true → KILLED
4. Negated integer local variable number 2 → KILLED

106   5. equal to not equal → KILLED
6. Incremented (a++) integer local variable number 2 → KILLED
7. Decremented (a--) integer local variable number 2 → KILLED
8. Incremented (++a) integer local variable number 2 → KILLED
9. Decremented (--a) integer local variable number 2 → KILLED

     1. Negated integer local variable number 2 → KILLED
2. Incremented (a++) integer local variable number 2 → KILLED

107   3. Decremented (a--) integer local variable number 2 → KILLED
4. Incremented (++a) integer local variable number 2 → KILLED
5. Decremented (--a) integer local variable number 2 → KILLED

     1. Substituted 0 with 1 → KILLED
2. Substituted 0 with 1 → KILLED
3. removed call to java/lang/System::arraycopy → KILLED
4. Negated integer local variable number 2 → KILLED
5. Negated integer local variable number 2 → KILLED
6. Substituted 0 with 1 → KILLED
7. Substituted 0 with 1 → KILLED
8. Substituted 0 with -1 → KILLED
9. Substituted 0 with -1 → KILLED
10. Substituted 0 with 1 → KILLED

108   11. Substituted 0 with 1 → KILLED
12. Substituted 0 with -1 → KILLED
13. Substituted 0 with -1 → KILLED
14. Incremented (a++) integer local variable number 2 → KILLED
15. Incremented (a++) integer local variable number 2 → KILLED
16. Decremented (a--) integer local variable number 2 → KILLED
17. Decremented (a--) integer local variable number 2 → KILLED
18. Incremented (++a) integer local variable number 2 → KILLED
19. Incremented (++a) integer local variable number 2 → KILLED
20. Decremented (--a) integer local variable number 2 → KILLED
21. Decremented (--a) integer local variable number 2 → KILLED

109   1. Negated integer local variable number 2 → KILLED

<table>
<tr><td></td><td>2. Incremented (a++) integer local variable number 2 → KILLED
3. Decremented (a--) integer local variable number 2 → TIMED_OUT
4. Incremented (++a) integer local variable number 2 → KILLED
5. Decremented (--a) integer local variable number 2 → KILLED</td></tr>
<tr><td>112</td><td>1. replaced return value with null for org/jfree/data/DataUtilities::clone → KILLED
2. mutated return of Object value for org/jfree/data/DataUtilities::clone to (if (x != null) null else throw new RuntimeException) → KILLED</td></tr>
<tr><td>125</td><td>1. removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted → KILLED</td></tr>
<tr><td>126</td><td>1. Substituted 0.0 with 1.0 → KILLED
2. Substituted 0.0 with 1.0 → KILLED
3. Substituted 0.0 with -1.0 → KILLED
4. Substituted 0.0 with 1.0 → KILLED
5. Substituted 0.0 with -1.0 → KILLED</td></tr>
<tr><td>127</td><td>1. removed call to org/jfree/data/Values2D::getRowCount → KILLED</td></tr>
<tr><td>128</td><td>1. changed conditional boundary → KILLED
2. Changed increment from 1 to -1 → KILLED
3. Substituted 0 with 1 → KILLED
4. negated conditional → KILLED
5. removed conditional - replaced comparison check with false → KILLED
6. removed conditional - replaced comparison check with true → KILLED
7. Negated integer local variable number 5 → KILLED
8. Negated integer local variable number 4 → KILLED
9. Substituted 0 with 1 → KILLED
10. Substituted 0 with -1 → KILLED
11. Substituted 0 with 1 → KILLED
12. Substituted 0 with -1 → KILLED
13. Less than to less or equal → KILLED
14. Less than to greater than → KILLED
15. Less than to greater or equal → KILLED
16. Less than to equal → KILLED
17. Less than to not equal → SURVIVED
18. Incremented (a++) integer local variable number 5 → KILLED
19. Incremented (a++) integer local variable number 4 → KILLED
20. Decremented (a--) integer local variable number 5 → KILLED
21. Decremented (a--) integer local variable number 4 → KILLED
22. Incremented (++a) integer local variable number 5 → KILLED
23. Incremented (++a) integer local variable number 4 → KILLED
24. Decremented (--a) integer local variable number 5 → KILLED
25. Decremented (--a) integer local variable number 4 → KILLED</td></tr>
<tr><td>129</td><td>1. removed call to org/jfree/data/Values2D::getValue → KILLED
2. Negated integer local variable number 5 → KILLED
3. Negated integer local variable number 1 → KILLED
4. Incremented (a++) integer local variable number 5 → KILLED
5. Incremented (a++) integer local variable number 1 → KILLED
6. Decremented (a--) integer local variable number 5 → KILLED
7. Decremented (a--) integer local variable number 1 → KILLED
8. Incremented (++a) integer local variable number 5 → KILLED
9. Incremented (++a) integer local variable number 1 → KILLED
10. Decremented (--a) integer local variable number 5 → KILLED
11. Decremented (--a) integer local variable number 1 → KILLED</td></tr>
<tr><td>130</td><td>1. negated conditional → KILLED
2. removed conditional - replaced equality check with false → KILLED
3. removed conditional - replaced equality check with true → KILLED
4. equal to not equal → KILLED</td></tr>
<tr><td>131</td><td>1. Replaced double addition with subtraction → KILLED
2. removed call to java/lang/Number::doubleValue → KILLED
3. Negated double local variable number 2 → KILLED
4. Replaced double operation with first member → KILLED
5. Replaced double operation by second member → KILLED
6. Replaced double addition with subtraction → KILLED
7. Replaced double addition with multiplication → KILLED
8. Replaced double addition with division → KILLED
9. Replaced double addition with modulus → KILLED
10. Incremented (a++) double local variable number 2 → SURVIVED</td></tr>
</table>

11. Decremented (a--) double local variable number 2 → SURVIVED
12. Incremented (++a) double local variable number 2 → KILLED
13. Decremented (--a) double local variable number 2 → KILLED

134
1. replaced double return with 0.0d for org/jfree/data/DataUtilities::calculateColumnTotal → KILLED
2. replaced return of double value with -(x + 1) for org/jfree/data/DataUtilities::calculateColumnTotal → KILLED
3. Negated double local variable number 2 → KILLED
4. Incremented (a++) double local variable number 2 → SURVIVED
5. Decremented (a--) double local variable number 2 → SURVIVED
6. Incremented (++a) double local variable number 2 → KILLED
7. Decremented (--a) double local variable number 2 → KILLED

151
1. removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted → SURVIVED

152
1. Substituted 0.0 with 1.0 → KILLED
2. Substituted 0.0 with 1.0 → KILLED
3. Substituted 0.0 with -1.0 → KILLED
4. Substituted 0.0 with 1.0 → KILLED
5. Substituted 0.0 with -1.0 → KILLED

153
1. removed call to org/jfree/data/Values2D::getRowCount → KILLED

154
1. changed conditional boundary → KILLED
2. Changed increment from 1 to -1 → KILLED
3. Substituted 0 with 1 → KILLED
4. negated conditional → KILLED
5. removed conditional - replaced comparison check with false → KILLED
6. removed conditional - replaced comparison check with true → KILLED
7. Negated integer local variable number 6 → KILLED
8. Substituted 0 with 1 → KILLED
9. Substituted 0 with -1 → KILLED
10. Substituted 0 with 1 → KILLED
11. Substituted 0 with -1 → KILLED
12. Less than to less or equal → KILLED
13. Less than to greater than → KILLED
14. Less than to greater or equal → KILLED
15. Less than to equal → KILLED
16. Less than to not equal → SURVIVED
17. Incremented (a++) integer local variable number 6 → KILLED
18. Decremented (a--) integer local variable number 6 → KILLED
19. Incremented (++a) integer local variable number 6 → KILLED
20. Decremented (--a) integer local variable number 6 → KILLED

155
1. Negated integer local variable number 6 → KILLED
2. Negated integer array field → KILLED
3. Incremented (a++) integer local variable number 6 → KILLED
4. Incremented (a++) integer array field → SURVIVED
5. Decremented (a--) integer local variable number 6 → KILLED
6. Decremented (a--) integer array field → SURVIVED
7. Incremented (++a) integer local variable number 6 → KILLED
8. Incremented (++a) integer array field → KILLED
9. Decremented (--a) integer local variable number 6 → KILLED
10. Decremented (--a) integer array field → KILLED

156
1. changed conditional boundary → KILLED
2. negated conditional → KILLED
3. removed conditional - replaced comparison check with false → KILLED
4. removed conditional - replaced comparison check with true → KILLED
5. Negated integer local variable number 7 → KILLED
6. Negated integer local variable number 5 → KILLED
7. greater or equal to less than → KILLED
8. greater or equal to less or equal → KILLED
9. greater or equal to greater than → KILLED
10. greater or equal to equal → SURVIVED
11. greater or equal to not equal → KILLED
12. Incremented (a++) integer local variable number 7 → KILLED
13. Incremented (a++) integer local variable number 5 → KILLED
14. Decremented (a--) integer local variable number 7 → KILLED
15. Decremented (a--) integer local variable number 5 → SURVIVED

```
      16. Incremented (++a) integer local variable number 7 → KILLED
      17. Incremented (++a) integer local variable number 5 → KILLED
      18. Decremented (--a) integer local variable number 7 → KILLED
      19. Decremented (--a) integer local variable number 5 → KILLED
      1. removed call to org/jfree/data/Values2D::getValue → KILLED
      2. Negated integer local variable number 7 → KILLED
      3. Negated integer local variable number 1 → SURVIVED
      4. Incremented (a++) integer local variable number 7 → SURVIVED
      5. Incremented (a++) integer local variable number 1 → KILLED
157   6. Decremented (a--) integer local variable number 7 → SURVIVED
      7. Decremented (a--) integer local variable number 1 → KILLED
      8. Incremented (++a) integer local variable number 7 → KILLED
      9. Incremented (++a) integer local variable number 1 → KILLED
      10. Decremented (--a) integer local variable number 7 → KILLED
      11. Decremented (--a) integer local variable number 1 → KILLED

      1. negated conditional → KILLED
      2. removed conditional - replaced equality check with false → KILLED
158   3. removed conditional - replaced equality check with true → KILLED
      4. equal to not equal → KILLED

      1. Replaced double addition with subtraction → KILLED
      2. removed call to java/lang/Number::doubleValue → KILLED
      3. Negated double local variable number 3 → KILLED
      4. Replaced double operation with first member → KILLED
      5. Replaced double operation by second member → KILLED
      6. Replaced double addition with subtraction → KILLED
159   7. Replaced double addition with multiplication → KILLED
      8. Replaced double addition with division → KILLED
      9. Replaced double addition with modulus → KILLED
      10. Incremented (a++) double local variable number 3 → SURVIVED
      11. Decremented (a--) double local variable number 3 → SURVIVED
      12. Incremented (++a) double local variable number 3 → KILLED
      13. Decremented (--a) double local variable number 3 → KILLED

      1. replaced double return with 0.0d for
      org/jfree/data/DataUtilities::calculateColumnTotal → KILLED
      2. replaced return of double value with -(x + 1) for
      org/jfree/data/DataUtilities::calculateColumnTotal → KILLED
163   3. Negated double local variable number 3 → KILLED
      4. Incremented (a++) double local variable number 3 → SURVIVED
      5. Decremented (a--) double local variable number 3 → SURVIVED
      6. Incremented (++a) double local variable number 3 → KILLED
      7. Decremented (--a) double local variable number 3 → KILLED
176   1. removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted → KILLED
      1. Substituted 0.0 with 1.0 → KILLED
      2. Substituted 0.0 with 1.0 → KILLED
177   3. Substituted 0.0 with -1.0 → KILLED
      4. Substituted 0.0 with 1.0 → KILLED
      5. Substituted 0.0 with -1.0 → KILLED
178   1. removed call to org/jfree/data/Values2D::getColumnCount → KILLED
179   1. changed conditional boundary → KILLED
      2. Changed increment from 1 to -1 → KILLED
      3. Substituted 0 with 1 → KILLED
      4. negated conditional → KILLED
      5. removed conditional - replaced comparison check with false → KILLED
      6. removed conditional - replaced comparison check with true → KILLED
      7. Negated integer local variable number 5 → KILLED
      8. Negated integer local variable number 4 → KILLED
      9. Substituted 0 with 1 → KILLED
      10. Substituted 0 with -1 → KILLED
      11. Substituted 0 with 1 → KILLED
      12. Substituted 0 with -1 → KILLED
      13. Less than to less or equal → KILLED
      14. Less than to greater than → KILLED
      15. Less than to greater or equal → KILLED
      16. Less than to equal → KILLED
      17. Less than to not equal → SURVIVED
```

18. Incremented (a++) integer local variable number 5 → KILLED
19. Incremented (a++) integer local variable number 4 → KILLED
20. Decremented (a--) integer local variable number 5 → KILLED
21. Decremented (a--) integer local variable number 4 → KILLED
22. Incremented (++a) integer local variable number 5 → KILLED
23. Incremented (++a) integer local variable number 4 → KILLED
24. Decremented (--a) integer local variable number 5 → KILLED
25. Decremented (--a) integer local variable number 4 → KILLED

180
1. removed call to org/jfree/data/Values2D::getValue → KILLED
2. Negated integer local variable number 1 → KILLED
3. Negated integer local variable number 5 → KILLED
4. Incremented (a++) integer local variable number 1 → KILLED
5. Incremented (a++) integer local variable number 5 → KILLED
6. Decremented (a--) integer local variable number 1 → KILLED
7. Decremented (a--) integer local variable number 5 → KILLED
8. Incremented (++a) integer local variable number 1 → KILLED
9. Incremented (++a) integer local variable number 5 → KILLED
10. Decremented (--a) integer local variable number 1 → KILLED
11. Decremented (--a) integer local variable number 5 → KILLED

181
1. negated conditional → KILLED
2. removed conditional - replaced equality check with false → KILLED
3. removed conditional - replaced equality check with true → KILLED
4. equal to not equal → KILLED

182
1. Replaced double addition with subtraction → KILLED
2. removed call to java/lang/Number::doubleValue → KILLED
3. Negated double local variable number 2 → KILLED
4. Replaced double operation with first member → KILLED
5. Replaced double operation by second member → KILLED
6. Replaced double addition with subtraction → KILLED
7. Replaced double addition with multiplication → KILLED
8. Replaced double addition with division → KILLED
9. Replaced double addition with modulus → KILLED
10. Incremented (a++) double local variable number 2 → SURVIVED
11. Decremented (a--) double local variable number 2 → SURVIVED
12. Incremented (++a) double local variable number 2 → KILLED
13. Decremented (--a) double local variable number 2 → KILLED

185
1. replaced double return with 0.0d for
org/jfree/data/DataUtilities::calculateRowTotal → KILLED
2. replaced return of double value with -(x + 1) for
org/jfree/data/DataUtilities::calculateRowTotal → KILLED
3. Negated double local variable number 2 → KILLED
4. Incremented (a++) double local variable number 2 → SURVIVED
5. Decremented (a--) double local variable number 2 → SURVIVED
6. Incremented (++a) double local variable number 2 → KILLED
7. Decremented (--a) double local variable number 2 → KILLED

202
1. removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted →
SURVIVED

203
1. Substituted 0.0 with 1.0 → KILLED
2. Substituted 0.0 with 1.0 → KILLED
3. Substituted 0.0 with -1.0 → KILLED
4. Substituted 0.0 with 1.0 → KILLED
5. Substituted 0.0 with -1.0 → KILLED

204
1. removed call to org/jfree/data/Values2D::getColumnCount → KILLED

205
1. changed conditional boundary → KILLED
2. Changed increment from 1 to -1 → KILLED
3. Substituted 0 with 1 → KILLED
4. negated conditional → KILLED
5. removed conditional - replaced comparison check with false → KILLED
6. removed conditional - replaced comparison check with true → KILLED
7. Negated integer local variable number 6 → KILLED
8. Substituted 0 with 1 → KILLED
9. Substituted 0 with -1 → KILLED
10. Substituted 0 with 1 → KILLED
11. Substituted 0 with -1 → KILLED
12. Less than to less or equal → KILLED

```
          13. Less than to greater than → KILLED
          14. Less than to greater or equal → KILLED
          15. Less than to equal → KILLED
          16. Less than to not equal → SURVIVED
          17. Incremented (a++) integer local variable number 6 → KILLED
          18. Decremented (a--) integer local variable number 6 → KILLED
          19. Incremented (++a) integer local variable number 6 → KILLED
          20. Decremented (--a) integer local variable number 6 → KILLED
          1. Negated integer local variable number 6 → KILLED
          2. Negated integer array field → KILLED
          3. Incremented (a++) integer local variable number 6 → KILLED
          4. Incremented (a++) integer array field → SURVIVED
   206    5. Decremented (a--) integer local variable number 6 → KILLED
          6. Decremented (a--) integer array field → SURVIVED
          7. Incremented (++a) integer local variable number 6 → KILLED
          8. Incremented (++a) integer array field → KILLED
          9. Decremented (--a) integer local variable number 6 → KILLED
          10. Decremented (--a) integer array field → KILLED
          1. changed conditional boundary → KILLED
          2. negated conditional → KILLED
          3. removed conditional - replaced comparison check with false → KILLED
          4. removed conditional - replaced comparison check with true → KILLED
          5. Negated integer local variable number 7 → KILLED
          6. Negated integer local variable number 5 → KILLED
          7. greater or equal to less than → KILLED
          8. greater or equal to less or equal → KILLED
          9. greater or equal to greater than → KILLED
   207    10. greater or equal to equal → SURVIVED
          11. greater or equal to not equal → KILLED
          12. Incremented (a++) integer local variable number 7 → KILLED
          13. Incremented (a++) integer local variable number 5 → KILLED
          14. Decremented (a--) integer local variable number 7 → KILLED
          15. Decremented (a--) integer local variable number 5 → SURVIVED
          16. Incremented (++a) integer local variable number 7 → KILLED
          17. Incremented (++a) integer local variable number 5 → KILLED
          18. Decremented (--a) integer local variable number 7 → KILLED
          19. Decremented (--a) integer local variable number 5 → KILLED
          1. removed call to org/jfree/data/Values2D::getValue → KILLED
          2. Negated integer local variable number 1 → SURVIVED
          3. Negated integer local variable number 7 → KILLED
          4. Incremented (a++) integer local variable number 1 → KILLED
          5. Incremented (a++) integer local variable number 7 → SURVIVED
   208    6. Decremented (a--) integer local variable number 1 → KILLED
          7. Decremented (a--) integer local variable number 7 → SURVIVED
          8. Incremented (++a) integer local variable number 1 → KILLED
          9. Incremented (++a) integer local variable number 7 → KILLED
          10. Decremented (--a) integer local variable number 1 → KILLED
          11. Decremented (--a) integer local variable number 7 → KILLED
          1. negated conditional → KILLED
          2. removed conditional - replaced equality check with false → KILLED
   209    3. removed conditional - replaced equality check with true → KILLED
          4. equal to not equal → KILLED
          1. Replaced double addition with subtraction → KILLED
          2. removed call to java/lang/Number::doubleValue → KILLED
          3. Negated double local variable number 3 → KILLED
          4. Replaced double operation with first member → KILLED
          5. Replaced double operation by second member → KILLED
          6. Replaced double addition with subtraction → KILLED
   210    7. Replaced double addition with multiplication → KILLED
          8. Replaced double addition with division → KILLED
          9. Replaced double addition with modulus → KILLED
          10. Incremented (a++) double local variable number 3 → SURVIVED
          11. Decremented (a--) double local variable number 3 → SURVIVED
          12. Incremented (++a) double local variable number 3 → KILLED
          13. Decremented (--a) double local variable number 3 → KILLED
```

214　1. replaced double return with 0.0d for
org/jfree/data/DataUtilities::calculateRowTotal → KILLED
2. replaced return of double value with -(x + 1) for
org/jfree/data/DataUtilities::calculateRowTotal → KILLED
3. Negated double local variable number 3 → KILLED
4. Incremented (a++) double local variable number 3 → SURVIVED
5. Decremented (a--) double local variable number 3 → SURVIVED
6. Incremented (++a) double local variable number 3 → KILLED
7. Decremented (--a) double local variable number 3 → KILLED
226　1. removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted → KILLED
1. changed conditional boundary → KILLED
2. Substituted 0 with 1 → KILLED
3. negated conditional → KILLED
4. removed conditional - replaced comparison check with false → KILLED
5. removed conditional - replaced comparison check with true → KILLED
6. Negated integer local variable number 2 → KILLED
7. Substituted 0 with 1 → KILLED
8. Substituted 0 with -1 → KILLED
9. Substituted 0 with 1 → KILLED
228　10. Substituted 0 with -1 → KILLED
11. Less than to less or equal → KILLED
12. Less than to greater than → KILLED
13. Less than to greater or equal → KILLED
14. Less than to equal → KILLED
15. Less than to not equal → SURVIVED
16. Incremented (a++) integer local variable number 2 → KILLED
17. Decremented (a--) integer local variable number 2 → KILLED
18. Incremented (++a) integer local variable number 2 → KILLED
19. Decremented (--a) integer local variable number 2 → KILLED
1. removed call to java/lang/Double::<init> → KILLED
2. Negated integer local variable number 2 → KILLED
3. Negated integer local variable number 2 → KILLED
4. Negated double array field → KILLED
5. Incremented (a++) integer local variable number 2 → KILLED
6. Incremented (a++) integer local variable number 2 → KILLED
7. Incremented (a++) double array field → SURVIVED
229　8. Decremented (a--) integer local variable number 2 → KILLED
9. Decremented (a--) integer local variable number 2 → TIMED_OUT
10. Decremented (a--) double array field → SURVIVED
11. Incremented (++a) integer local variable number 2 → KILLED
12. Incremented (++a) integer local variable number 2 → KILLED
13. Incremented (++a) double array field → KILLED
14. Decremented (--a) integer local variable number 2 → KILLED
15. Decremented (--a) integer local variable number 2 → KILLED
16. Decremented (--a) double array field → KILLED
1. replaced return value with null for
org/jfree/data/DataUtilities::createNumberArray → KILLED
231　2. mutated return of Object value for
org/jfree/data/DataUtilities::createNumberArray to (if (x != null) null else
throw new RuntimeException) → KILLED
243　1. removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted → KILLED
1. Negated integer local variable number 1 → KILLED
2. Incremented (a++) integer local variable number 1 → KILLED
245　3. Decremented (a--) integer local variable number 1 → KILLED
4. Incremented (++a) integer local variable number 1 → KILLED
5. Decremented (--a) integer local variable number 1 → KILLED
246　1. changed conditional boundary → KILLED
2. Changed increment from 1 to -1 → KILLED
3. Substituted 0 with 1 → KILLED
4. negated conditional → KILLED
5. removed conditional - replaced comparison check with false → KILLED
6. removed conditional - replaced comparison check with true → KILLED
7. Negated integer local variable number 3 → KILLED
8. Negated integer local variable number 1 → KILLED
9. Substituted 0 with 1 → KILLED

10. Substituted 0 with -1 → KILLED
11. Substituted 0 with 1 → KILLED
12. Substituted 0 with -1 → KILLED
13. Less than to less or equal → KILLED
14. Less than to greater than → KILLED
15. Less than to greater or equal → KILLED
16. Less than to equal → KILLED
17. Less than to not equal → SURVIVED
18. Incremented (a++) integer local variable number 3 → KILLED
19. Incremented (a++) integer local variable number 1 → KILLED
20. Decremented (a--) integer local variable number 3 → KILLED
21. Decremented (a--) integer local variable number 1 → KILLED
22. Incremented (++a) integer local variable number 3 → KILLED
23. Incremented (++a) integer local variable number 1 → KILLED
24. Decremented (--a) integer local variable number 3 → KILLED
25. Decremented (--a) integer local variable number 1 → KILLED

247
1. removed call to org/jfree/data/DataUtilities::createNumberArray → KILLED
2. Negated integer local variable number 3 → KILLED
3. Negated integer local variable number 3 → KILLED
4. Incremented (a++) integer local variable number 3 → KILLED
5. Incremented (a++) integer local variable number 3 → KILLED
6. Decremented (a--) integer local variable number 3 → KILLED
7. Decremented (a--) integer local variable number 3 → TIMED_OUT
8. Incremented (++a) integer local variable number 3 → KILLED
9. Incremented (++a) integer local variable number 3 → KILLED
10. Decremented (--a) integer local variable number 3 → KILLED
11. Decremented (--a) integer local variable number 3 → KILLED

249
1. replaced return value with null for
org/jfree/data/DataUtilities::createNumberArray2D → KILLED
2. mutated return of Object value for
org/jfree/data/DataUtilities::createNumberArray2D to (if (x != null) null else
throw new RuntimeException) → KILLED

263
1. removed call to org/jfree/chart/util/ParamChecks::nullNotPermitted → KILLED

264
1. removed call to org/jfree/data/DefaultKeyedValues::<init> → KILLED

265
1. Substituted 0.0 with 1.0 → KILLED
2. Substituted 0.0 with 1.0 → KILLED
3. Substituted 0.0 with -1.0 → KILLED
4. Substituted 0.0 with 1.0 → KILLED
5. Substituted 0.0 with -1.0 → KILLED

266
1. changed conditional boundary → KILLED
2. Substituted 0 with 1 → KILLED
3. negated conditional → KILLED
4. removed call to org/jfree/data/KeyedValues::getItemCount → KILLED
5. removed conditional - replaced comparison check with false → KILLED
6. removed conditional - replaced comparison check with true → KILLED
7. Negated integer local variable number 4 → KILLED
8. Substituted 0 with 1 → KILLED
9. Substituted 0 with -1 → KILLED
10. Substituted 0 with 1 → KILLED
11. Substituted 0 with -1 → KILLED
12. Less than to less or equal → KILLED
13. Less than to greater than → KILLED
14. Less than to greater or equal → KILLED
15. Less than to equal → KILLED
16. Less than to not equal → SURVIVED
17. Incremented (a++) integer local variable number 4 → KILLED
18. Decremented (a--) integer local variable number 4 → KILLED
19. Incremented (++a) integer local variable number 4 → KILLED
20. Decremented (--a) integer local variable number 4 → KILLED

267
1. removed call to org/jfree/data/KeyedValues::getValue → KILLED
2. Negated integer local variable number 4 → KILLED
3. Incremented (a++) integer local variable number 4 → KILLED
4. Decremented (a--) integer local variable number 4 → TIMED_OUT
5. Incremented (++a) integer local variable number 4 → KILLED
6. Decremented (--a) integer local variable number 4 → KILLED

268
1. negated conditional → KILLED
2. removed conditional - replaced equality check with false → KILLED
3. removed conditional - replaced equality check with true → KILLED
4. equal to not equal → KILLED

269
1. Replaced double addition with subtraction → KILLED
2. removed call to java/lang/Number::doubleValue → KILLED
3. Negated double local variable number 2 → KILLED
4. Replaced double operation with first member → KILLED
5. Replaced double operation by second member → KILLED
6. Replaced double addition with subtraction → KILLED
7. Replaced double addition with multiplication → KILLED
8. Replaced double addition with division → KILLED
9. Replaced double addition with modulus → KILLED
10. Incremented (a++) double local variable number 2 → SURVIVED
11. Decremented (a--) double local variable number 2 → SURVIVED
12. Incremented (++a) double local variable number 2 → KILLED
13. Decremented (--a) double local variable number 2 → KILLED

272
1. Substituted 0.0 with 1.0 → KILLED
2. Substituted 0.0 with 1.0 → KILLED
3. Substituted 0.0 with -1.0 → KILLED
4. Substituted 0.0 with 1.0 → KILLED
5. Substituted 0.0 with -1.0 → KILLED

273
1. changed conditional boundary → KILLED
2. Substituted 0 with 1 → KILLED
3. negated conditional → KILLED
4. removed call to org/jfree/data/KeyedValues::getItemCount → KILLED
5. removed conditional - replaced comparison check with false → KILLED
6. removed conditional - replaced comparison check with true → KILLED
7. Negated integer local variable number 8 → KILLED
8. Substituted 0 with 1 → KILLED
9. Substituted 0 with -1 → KILLED
10. Substituted 0 with 1 → KILLED
11. Substituted 0 with -1 → KILLED
12. Less than to less or equal → KILLED
13. Less than to greater than → KILLED
14. Less than to greater or equal → KILLED
15. Less than to equal → KILLED
16. Less than to not equal → SURVIVED
17. Incremented (a++) integer local variable number 6 → KILLED
18. Decremented (a--) integer local variable number 6 → KILLED
19. Incremented (++a) integer local variable number 8 → KILLED
20. Decremented (--a) integer local variable number 8 → KILLED

274
1. removed call to org/jfree/data/KeyedValues::getValue → KILLED
2. Negated integer local variable number 8 → KILLED
3. Incremented (a++) integer local variable number 6 → KILLED
4. Decremented (a--) integer local variable number 6 → KILLED
5. Incremented (++a) integer local variable number 8 → KILLED
6. Decremented (--a) integer local variable number 8 → KILLED

275
1. negated conditional → KILLED
2. removed conditional - replaced equality check with false → KILLED
3. removed conditional - replaced equality check with true → KILLED
4. equal to not equal → KILLED

276
1. Replaced double addition with subtraction → KILLED
2. removed call to java/lang/Number::doubleValue → KILLED
3. Negated double local variable number 6 → KILLED
4. Replaced double operation with first member → KILLED
5. Replaced double operation by second member → KILLED
6. Replaced double addition with subtraction → KILLED
7. Replaced double addition with multiplication → KILLED
8. Replaced double addition with division → KILLED
9. Replaced double addition with modulus → KILLED
10. Incremented (a++) double local variable number 4 → SURVIVED
11. Decremented (a--) double local variable number 4 → SURVIVED
12. Incremented (++a) double local variable number 6 → KILLED
13. Decremented (--a) double local variable number 6 → KILLED

278
  1. removed call to java/lang/Double::<init> → KILLED
  2. Replaced double division with multiplication → KILLED
  3. removed call to org/jfree/data/KeyedValues::getKey → KILLED
  4. removed call to org/jfree/data/DefaultKeyedValues::addValue → KILLED
  5. Negated integer local variable number 8 → KILLED
  6. Negated double local variable number 6 → KILLED
  7. Negated double local variable number 2 → KILLED
  8. Replaced double operation with first member → KILLED
  9. Replaced double operation by second member → KILLED
  10. Replaced double division with multiplication → KILLED
  11. Replaced double division with modulus → KILLED
  12. Replaced double division with addition → KILLED
  13. Replaced double division with subtraction → KILLED
  14. Incremented (a++) integer local variable number 6 → KILLED
  15. Incremented (a++) double local variable number 4 → KILLED
  16. Incremented (a++) double local variable number 2 → KILLED
  17. Decremented (a--) integer local variable number 6 → KILLED
  18. Decremented (a--) double local variable number 4 → KILLED
  19. Decremented (a--) double local variable number 2 → KILLED
  20. Incremented (++a) integer local variable number 8 → KILLED
  21. Incremented (++a) double local variable number 6 → KILLED
  22. Incremented (++a) double local variable number 2 → KILLED
  23. Decremented (--a) integer local variable number 8 → KILLED
  24. Decremented (--a) double local variable number 6 → KILLED
  25. Decremented (--a) double local variable number 2 → KILLED

280
  1. replaced return value with null for
  org/jfree/data/DataUtilities::getCumulativePercentages → KILLED
  2. mutated return of Object value for
  org/jfree/data/DataUtilities::getCumulativePercentages to (if (x != null) null
  else throw new RuntimeException) → KILLED

Active mutators

- ABS_MUTATOR
- AOD_1_MUTATOR
- AOD_2_MUTATOR
- AOR_1_MUTATOR
- AOR_2_MUTATOR
- AOR_3_MUTATOR
- AOR_4_MUTATOR
- ARGUMENT_PROPAGATION_MUTATOR
- BOOLEAN_FALSE_RETURN
- BOOLEAN_TRUE_RETURN
- CONDITIONALS_BOUNDARY_MUTATOR
- CONSTRUCTOR_CALL_MUTATOR
- CRCR_1_MUTATOR
- CRCR_2_MUTATOR
- CRCR_3_MUTATOR
- CRCR_4_MUTATOR
- CRCR_5_MUTATOR
- CRCR_6_MUTATOR
- EMPTY_RETURN_VALUES
- EXPERIMENTAL_BIGINTEGER_MUTATOR
- EXPERIMENTAL_MEMBER_VARIABLE_MUTATOR
- EXPERIMENTAL_REMOVE_SWITCH_MUTATOR_[0-99]
- EXPERIMENTAL_SWITCH_MUTATOR
- INCREMENTS_MUTATOR
- INLINE_CONSTANT_MUTATOR
- INVERT_NEGS_MUTATOR
- MATH_MUTATOR
- NAKED_RECEIVER
- NEGATE_CONDITIONALS_MUTATOR
- NON_VOID_METHOD_CALL_MUTATOR
- NULL_RETURN_VALUES
- OBBN_1_MUTATOR

- OBBN_2_MUTATOR
- OBBN_3_MUTATOR
- PRIMITIVE_RETURN_VALS_MUTATOR
- REMOVE_CONDITIONALS_EQUAL_ELSE_MUTATOR
- REMOVE_CONDITIONALS_EQUAL_IF_MUTATOR
- REMOVE_CONDITIONALS_ORDER_ELSE_MUTATOR
- REMOVE_CONDITIONALS_ORDER_IF_MUTATOR
- REMOVE_INCREMENTS_MUTATOR
- RETURN_VALS_MUTATOR
- ROR_1_MUTATOR
- ROR_2_MUTATOR
- ROR_3_MUTATOR
- ROR_4_MUTATOR
- ROR_5_MUTATOR
- UOI_1_MUTATOR
- UOI_2_MUTATOR
- UOI_3_MUTATOR
- UOI_4_MUTATOR
- VOID_METHOD_CALL_MUTATOR

Tests examined

- org.jfree.data.test.DataUtilitiesTest (311 ms)

Report generated by [PIT](#) 1.4.11