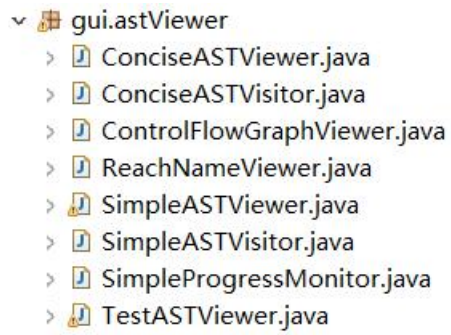


首先为



运行 TestASTViewer.java

出现 GUI 界面后，点击文件。选择定值到达分析，选定一个.java 文件，右图就可以出现结果。



| 抽象语法树 | 控制流图 | 定值到达分析图 |
|--|------|-------------|
| [101:3] msg | ~~ | [95:26] ~~ |
| [End:100:2] msg | ~~ | [95:26] ~~ |
| [End:95:1] msg | ~~ | [95:26] ~~ |
| Before write execution point 13 nodes! | | |
| [Start:105:1] condition | ~~ | [105:26] ~~ |
| [Start:105:1] msg | ~~ | [105:45] ~~ |
| [106:6] condition | ~~ | [105:26] ~~ |
| [106:6] msg | ~~ | [105:45] ~~ |
| [107:7] condition | ~~ | [105:26] ~~ |
| [107:7] msg | ~~ | [105:45] ~~ |
| [108:4] condition | ~~ | [105:26] ~~ |
| [108:4] msg | ~~ | [105:45] ~~ |
| [109:4] condition | ~~ | [105:26] ~~ |
| [109:4] msg | ~~ | [105:45] ~~ |
| [End:107:3] condition | ~~ | [105:26] ~~ |
| [End:107:3] msg | ~~ | [105:45] ~~ |
| [End:106:2] condition | ~~ | [105:26] ~~ |
| [End:106:2] msg | ~~ | [105:45] ~~ |
| [112:6] condition | ~~ | [105:26] ~~ |
| [112:6] msg | ~~ | [105:45] ~~ |
| [113:7] condition | ~~ | [105:26] ~~ |
| [113:7] msg | ~~ | [105:45] ~~ |
| [114:4] condition | ~~ | [105:26] ~~ |
| [114:4] msg | ~~ | [105:45] ~~ |
| [End:113:3] condition | ~~ | [105:26] ~~ |
| [End:113:3] msg | ~~ | [105:45] ~~ |
| [End:112:2] condition | ~~ | [105:26] ~~ |
| [End:112:2] msg | ~~ | [105:45] ~~ |
| [End:105:1] condition | ~~ | [105:26] ~~ |
| [End:105:1] msg | ~~ | [105:45] ~~ |
| Before write execution point 6 nodes! | | |
| [Start:119:1] condition | ~~ | [119:30] ~~ |
| [Start:119:1] msg | ~~ | [119:49] ~~ |
| [120:6] condition | ~~ | [119:30] ~~ |
| [120:6] msg | ~~ | [119:49] ~~ |
| [120:17] condition | ~~ | [119:30] ~~ |
| [120:17] msg | ~~ | [119:49] ~~ |
| [End:120:2] condition | ~~ | [119:30] ~~ |
| [End:120:2] msg | ~~ | [119:49] ~~ |
| [AbnormalEnd:119:1] condition | ~~ | [119:30] ~~ |
| [AbnormalEnd:119:1] msg | ~~ | [119:49] ~~ |

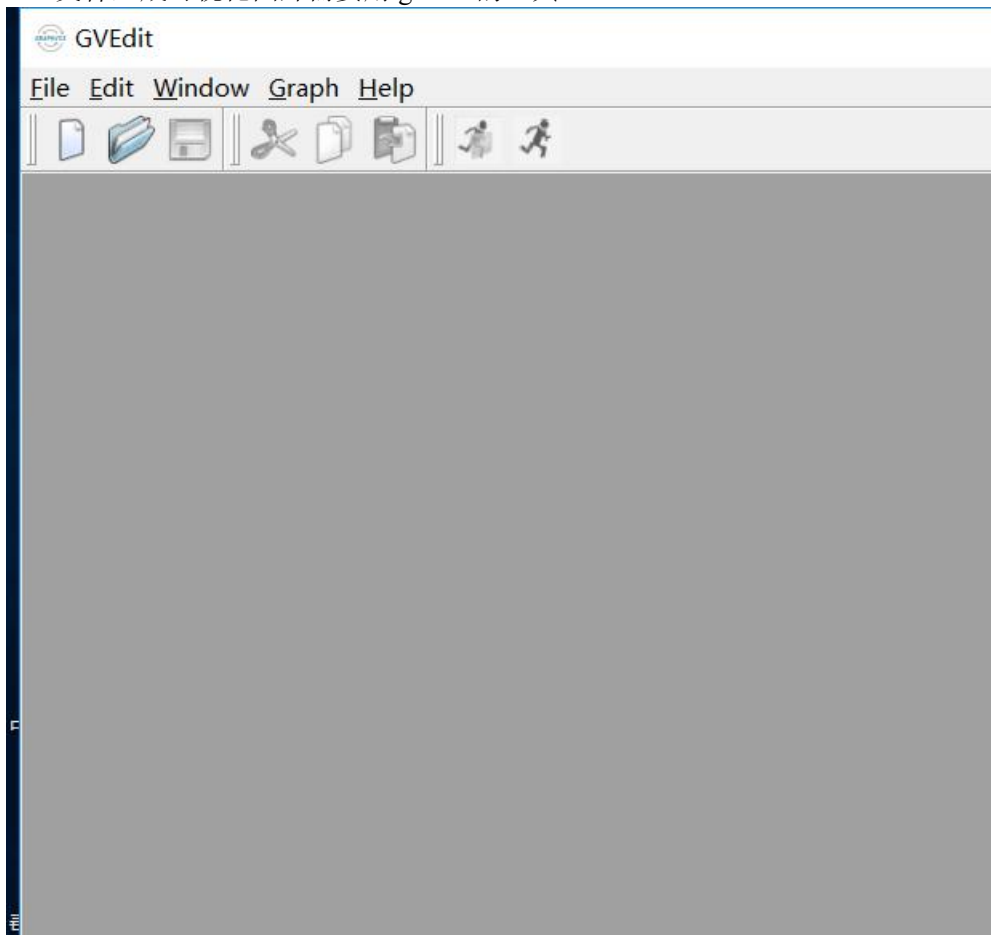
运行完毕定值到达分析后，生成的.dot 文件会存放在这个路径中。

```

> public DemoMenuCreator(Container place, JFrame topLevelFrame) {
>     >> this.place = place;
>     >> this.topLevelFrame = topLevelFrame;
>     >> fileOpener = new FileChooserAndOpener(topLevelFrame);
>     >> try {
>         >> >> OutputStream os = new FileOutputStream("C:\\Java\\test2.dot");
>         >> >> output = new PrintWriter(os);
>         >> } catch (Exception ex) {
>         >>     ex.printStackTrace();
>         >> }
>     }
> }
> // 创建用于端口的组件

```

.dot 文件生成可视化图片需要用 gvedit 的工具。



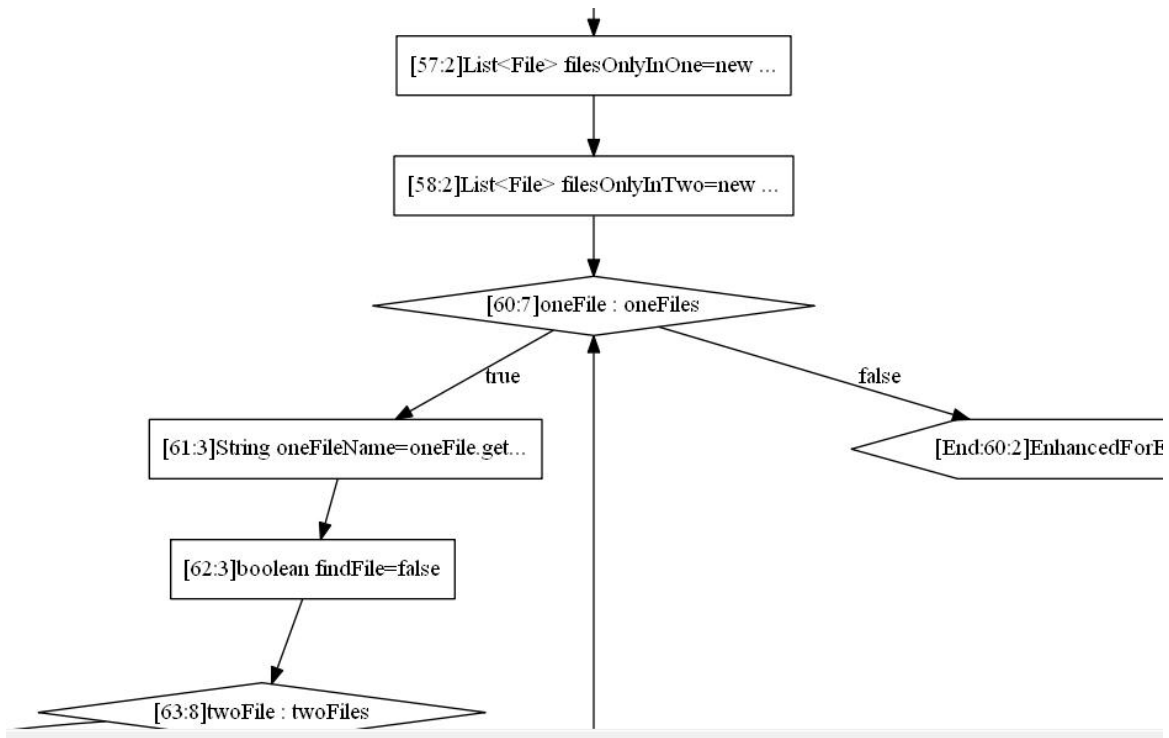
点击 file 选择文件打开。(改后缀转换为.gv)

```
test2.gv
digraph compareDirectories_52_1_SystemVersionComparator_java {
    compareDirectories_START[label = "[Start:52:1]compareDirectories_START", shape = octagon]
    node53_2[label = "[53:2]List<File> oneFiles=getAllJava...", shape = box]
    node54_2[label = "[54:2]List<File> twoFiles=getAllJava...", shape = box]
    node56_2[label = "[56:2]List<FilePair> differentFiles=...", shape = box]
    node57_2[label = "[57:2]List<File> filesOnlyInOne=new ...", shape = box]
    node58_2[label = "[58:2]List<File> filesOnlyInTwo=new ...", shape = box]
    node60_7[label = "[60:7]oneFile : oneFiles", shape = diamond]
    node61_3[label = "[61:3]String oneFileName=oneFile.get...", shape = box]
    node62_3[label = "[62:3]boolean findFile=false", shape = box]
    node63_8[label = "[63:8]twoFile : twoFiles", shape = diamond]
    node64_4[label = "[64:4]String twoFileName=twoFile.get...", shape = box]
    node65_8[label = "[65:8]oneFileName.equals(twoFileName...", shape = diamond]
    node66_5[label = "[66:5]findFile=true", shape = box]
    node67_5[label = "[67:5]out.println(' Compare [' + oneF...", shape = box]
    node68_9[label = "[68:9]compareSourceFiles(oneFile,two...", shape = diamond]
    node69_6[label = "[69:6]differentFiles.add(new FilePai...", shape = box]
    nodeEnd_68_5[label = "[End:68:5]IfEnd", shape = hexagon]
    node71_5[label = "[71:5]break ", shape = box]
    nodeEnd_65_4[label = "[End:65:4]IfEnd", shape = hexagon]
    nodeEnd_63_3[label = "[End:63:3]EnhancedForEnd", shape = hexagon]
    node75_7[label = "[75:7]!findFile", shape = diamond]
    node76_4[label = "[76:4]out.println(' Can not find file...", shape = box]
    node77_4[label = "[77:4]out.println()", shape = box]
    node79_4[label = "[79:4]filesOnlyInOne.add(oneFile)", shape = box]
    nodeEnd_75_3[label = "[End:75:3]IfEnd", shape = hexagon]
    nodeEnd_60_2[label = "[End:60:2]EnhancedForEnd", shape = hexagon]
    node83_7[label = "[83:7]twoFile : twoFiles", shape = diamond]
    node84_3[label = "[84:3]String twoFileName=twoFile.get...", shape = box]
    node85_3[label = "[85:3]boolean findFile=false", shape = box]
    node86_8[label = "[86:8]oneFile : oneFiles", shape = diamond]
    node87_4[label = "[87:4]String oneFileName=oneFile.get...", shape = box]
```

然后点击这个按钮就会生成分析图。(layout)



分析图如下:



注意:

Layout 不出来的时候要删除一些文字。这里去删除[36:2]和[37:2]所在的行。真正解析的是 digraph
setStart 25 1 Debug java

```

digraph setStart_25_1_Debug_java {
    setStart_START->node26_6
    node26_6->node27_3[label = "true"]
    node27_3->node28_3
    node28_3->nodeEnd_26_2
    node26_6->nodeEnd_26_2[label = "false"]
    nodeEnd_26_2->node30_2
    node30_2->node31_2
    node31_2->node32_6
    node32_6->node32_33[label = "true"]
    node32_33->nodeEnd_32_2
    node32_6->nodeEnd_32_2[label = "false"]
    nodeEnd_32_2->setStart_END
}

```

```

[36:2]    millis    System.currentTimeMillis() - startTime [36:7]    [36:16]
[37:2]    millis    System.currentTimeMillis() - startTime [36:7]    [36:16]

```