Amandroid

BREW - Source & Sink Selector (/Users/xinyu/malware/BREW/data/data.ser)

File   Edit   Help

Search:

ID	Testcase	Statement	Source	Sink	Combine with IDs (e.g. "1, 2")
0	0: .../Aliasing/FlowSensitivity1.apk	android.support.v7.app.ActionBarActivity: void <init>()			
1	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity$A: void <init>(de.ecspride.MainActivity)			
2	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: java.lang.Object getSystemService(java.lang.String)			
3	0: .../Aliasing/FlowSensitivity1.apk	android.telephony.TelephonyManager: java.lang.String getDeviceId()	✓		
4	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity$A: void <init>(de.ecspride.MainActivity)			
5	0: .../Aliasing/FlowSensitivity1.apk	android.telephony.SmsManager: android.telephony.SmsManager getDefault()			
6	0: .../Aliasing/FlowSensitivity1.apk	android.telephony.SmsManager: void sendTextMessage(java.lang.String,jav...		✓	
7	0: .../Aliasing/FlowSensitivity1.apk	android.support.v7.app.ActionBarActivity: void onCreate(android.os.Bundle)			
8	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: void setContentView(int)			
9	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: void aliasFlowTest()			
10	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: android.support.v4.app.FragmentManager getSup...			
11	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.FragmentManager: android.support.v4.app.Fragmen...			
12	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity$PlaceholderFragment: void <init>()			
13	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.FragmentTransaction: android.support.v4.app.Frag...			
14	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.FragmentTransaction: int commit()			
15	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: android.view.MenuInflater getMenuInflater()			
16	0: .../Aliasing/FlowSensitivity1.apk	android.view.MenuInflater: void inflate(int,android.view.Menu)			
17	0: .../Aliasing/FlowSensitivity1.apk	android.view.MenuItem: int getItemId()			
18	0: .../Aliasing/FlowSensitivity1.apk	android.support.v7.app.ActionBarActivity: boolean onOptionsItemSelected(a...			
19	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.Fragment: void <init>()			
20	0: .../Aliasing/FlowSensitivity1.apk	android.view.LayoutInflater: android.view.View inflate(int,android.view.View...			
21	1: ...hmark/apks/Aliasing/Merge1.apk	android.support.v7.app.ActionBarActivity: void <init>()			
22	1: ...hmark/apks/Aliasing/Merge1.apk	de.ecspride.MainActivity: java.lang.Object getSystemService(java.lang.String)			
23	1: ...hmark/apks/Aliasing/Merge1.apk	android.telephony.TelephonyManager: java.lang.String getDeviceId()	✓		

▼ Statistics

Testcases: 190   Sources: 0   Positive cases: 162   True Positive: 76   Precision: 0.854
                  Sinks: 0   Negative cases: 42   False Positive: 13   Recall: 0.469
                                                       True Negative: 29   F-Measure: 0.606
                                                       False Negative: 86

▶ Information

DroidSafe

BREW - Source & Sink Selector (/Users/xinyu/malware/BREW/data/data.ser)

File   Edit   Help

Search:

ID	Testcase	Statement	Source	Sink	Combine with IDs (e.g. "1, 2")
0	0: .../Aliasing/FlowSensitivity1.apk	android.support.v7.app.ActionBarActivity: void <init>()			
1	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity$A: void <init>(de.ecspride.MainActivity)			
2	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: java.lang.Object getSystemService(java.lang.String)			
3	0: .../Aliasing/FlowSensitivity1.apk	android.telephony.TelephonyManager: java.lang.String getDeviceId()	✓		
4	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity$A: void <init>(de.ecspride.MainActivity)			
5	0: .../Aliasing/FlowSensitivity1.apk	android.telephony.SmsManager: android.telephony.SmsManager getDefault()			
6	0: .../Aliasing/FlowSensitivity1.apk	android.telephony.SmsManager: void sendTextMessage(java.lang.String,jav...		✓	
7	0: .../Aliasing/FlowSensitivity1.apk	android.support.v7.app.ActionBarActivity: void onCreate(android.os.Bundle)			
8	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: void setContentView(int)			
9	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: void aliasFlowTest()			
10	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: android.support.v4.app.FragmentManager getSup...			
11	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.FragmentManager: android.support.v4.app.Fragmen...			
12	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity$PlaceholderFragment: void <init>()			
13	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.FragmentTransaction: android.support.v4.app.Frag...			
14	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.FragmentTransaction: int commit()			
15	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: android.view.MenuInflater getMenuInflater()			
16	0: .../Aliasing/FlowSensitivity1.apk	android.view.MenuInflater: void inflate(int,android.view.Menu)			
17	0: .../Aliasing/FlowSensitivity1.apk	android.view.MenuItem: int getItemId()			
18	0: .../Aliasing/FlowSensitivity1.apk	android.support.v7.app.ActionBarActivity: boolean onOptionsItemSelected(a...			
19	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.Fragment: void <init>()			
20	0: .../Aliasing/FlowSensitivity1.apk	android.view.LayoutInflater: android.view.View inflate(int,android.view.View...			
21	1: ...hmark/apks/Aliasing/Merge1.apk	android.support.v7.app.ActionBarActivity: void <init>()			
22	1: ...hmark/apks/Aliasing/Merge1.apk	de.ecspride.MainActivity: java.lang.Object getSystemService(java.lang.String)			
23	1: ...hmark/apks/Aliasing/Merge1.apk	android.telephony.TelephonyManager: java.lang.String getDeviceId()	✓		

▼ Statistics

Testcases: 380   Sources: 0   Positive cases: 324   True Positive: 152   Precision: 0.869
                  Sinks: 0   Negative cases: 84   False Positive: 23   Recall: 0.469
                                                       True Negative: 61   F-Measure: 0.609
                                                       False Negative: 172

▶ Information

FlowDroid

File   Edit   Help

Search:

ID	Testcase	Statement	Source	Sink	Combine with IDs (e.g. "1, 2")
0	0: .../Aliasing/FlowSensitivity1.apk	android.support.v7.app.ActionBarActivity: void <init>()			
1	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity$A: void <init>(de.ecspride.MainActivity)			
2	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: java.lang.Object getSystemService(java.lang.String)			
3	0: .../Aliasing/FlowSensitivity1.apk	android.telephony.TelephonyManager: java.lang.String getDeviceId()	✓		
4	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity$A: void <init>(de.ecspride.MainActivity)			
5	0: .../Aliasing/FlowSensitivity1.apk	android.telephony.SmsManager: android.telephony.SmsManager getDefault()			
6	0: .../Aliasing/FlowSensitivity1.apk	android.telephony.SmsManager: void sendTextMessage(java.lang.String,jav...		✓	
7	0: .../Aliasing/FlowSensitivity1.apk	android.support.v7.app.ActionBarActivity: void onCreate(android.os.Bundle)			
8	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: void setContentView(int)			
9	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: void aliasFlowTest()			
10	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: android.support.v4.app.FragmentManager getSup...			
11	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.FragmentManager: android.support.v4.app.Fragmen...			
12	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity$PlaceholderFragment: void <init>()			
13	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.FragmentTransaction: android.support.v4.app.Frag...			
14	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.FragmentTransaction: int commit()			
15	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: android.view.MenuInflater getMenuInflater()			
16	0: .../Aliasing/FlowSensitivity1.apk	android.view.MenuInflater: void inflate(int,android.view.Menu)			
17	0: .../Aliasing/FlowSensitivity1.apk	android.view.MenuItem: int getItemId()			
18	0: .../Aliasing/FlowSensitivity1.apk	android.support.v7.app.ActionBarActivity: boolean onOptionsItemSelected(a...			
19	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.Fragment: void <init>()			
20	0: .../Aliasing/FlowSensitivity1.apk	android.view.LayoutInflater: android.view.View inflate(int,android.view.View...			
21	1: ...hmark/apks/Aliasing/Merge1.apk	android.support.v7.app.ActionBarActivity: void <init>()			
22	1: ...hmark/apks/Aliasing/Merge1.apk	de.ecspride.MainActivity: java.lang.Object getSystemService(java.lang.String)			
23	1: ...hmark/apks/Aliasing/Merge1.apk	android.telephony.TelephonyManager: java.lang.String getDeviceId()	✓		

▼ Statistics

Testcases: 570   Sources: 0   Positive cases: 486   True Positive: 240   Precision: 0.87
                  Sinks: 0   Negative cases: 126   False Positive: 36   Recall: 0.494
                                                       True Negative: 90   F-Measure: 0.63
                                                       False Negative: 246

▶ Information

IccTA

File   Edit   Help

Search:

ID	Testcase	Statement	Source	Sink	Combine with IDs (e.g. "1, 2")
0	0: .../Aliasing/FlowSensitivity1.apk	android.support.v7.app.ActionBarActivity: void <init>()			
1	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity$A: void <init>(de.ecspride.MainActivity)			
2	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: java.lang.Object getSystemService(java.lang.String)			
3	0: .../Aliasing/FlowSensitivity1.apk	android.telephony.TelephonyManager: java.lang.String getDeviceId()	✓		
4	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity$A: void <init>(de.ecspride.MainActivity)			
5	0: .../Aliasing/FlowSensitivity1.apk	android.telephony.SmsManager: android.telephony.SmsManager getDefault()			
6	0: .../Aliasing/FlowSensitivity1.apk	android.telephony.SmsManager: void sendTextMessage(java.lang.String,jav...		✓	
7	0: .../Aliasing/FlowSensitivity1.apk	android.support.v7.app.ActionBarActivity: void onCreate(android.os.Bundle)			
8	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: void setContentView(int)			
9	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: void aliasFlowTest()			
10	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: android.support.v4.app.FragmentManager getSup...			
11	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.FragmentManager: android.support.v4.app.Fragmen...			
12	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity$PlaceholderFragment: void <init>()			
13	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.FragmentTransaction: android.support.v4.app.Frag...			
14	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.FragmentTransaction: int commit()			
15	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: android.view.MenuInflater getMenuInflater()			
16	0: .../Aliasing/FlowSensitivity1.apk	android.view.MenuInflater: void inflate(int,android.view.Menu)			
17	0: .../Aliasing/FlowSensitivity1.apk	android.view.MenuItem: int getItemId()			
18	0: .../Aliasing/FlowSensitivity1.apk	android.support.v7.app.ActionBarActivity: boolean onOptionsItemSelected(a...			
19	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.Fragment: void <init>()			
20	0: .../Aliasing/FlowSensitivity1.apk	android.view.LayoutInflater: android.view.View inflate(int,android.view.View...			
21	1: ...hmark/apks/Aliasing/Merge1.apk	android.support.v7.app.ActionBarActivity: void <init>()			
22	1: ...hmark/apks/Aliasing/Merge1.apk	de.ecspride.MainActivity: java.lang.Object getSystemService(java.lang.String)			
23	1: ...hmark/apks/Aliasing/Merge1.apk	android.telephony.TelephonyManager: java.lang.String getDeviceId()	✓		

▼ Statistics

Testcases: 760   Sources: 0   Positive cases: 648   True Positive: 329   Precision: 0.861
                  Sinks: 0   Negative cases: 168   False Positive: 53   Recall: 0.508
                                                       True Negative: 115   F-Measure: 0.639
                                                       False Negative: 319

▶ Information

DIALDroid

BREW – Source & Sink Selector (/Users/xinyu/malware/BREW/data/data.ser)

File   Edit   Help

Search:

ID	Testcase	Statement	Source	Sink	Combine with IDs (e.g. "1, 2")
0	0: .../Aliasing/FlowSensitivity1.apk	android.support.v7.app.ActionBarActivity: void <init>()			
1	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity$A: void <init>(de.ecspride.MainActivity)			
2	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: java.lang.Object getSystemService(java.lang.String)			
3	0: .../Aliasing/FlowSensitivity1.apk	android.telephony.TelephonyManager: java.lang.String getDeviceId()	✓		
4	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity$A: void <init>(de.ecspride.MainActivity)			
5	0: .../Aliasing/FlowSensitivity1.apk	android.telephony.SmsManager: android.telephony.SmsManager getDefault()			
6	0: .../Aliasing/FlowSensitivity1.apk	android.telephony.SmsManager: void sendTextMessage(java.lang.String,jav...		✓	
7	0: .../Aliasing/FlowSensitivity1.apk	android.support.v7.app.ActionBarActivity: void onCreate(android.os.Bundle)			
8	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: void setContentView(int)			
9	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: void aliasFlowTest()			
10	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: android.support.v4.app.FragmentManager getSup...			
11	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.FragmentManager: android.support.v4.app.Fragmen...			
12	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity$PlaceholderFragment: void <init>()			
13	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.FragmentTransaction: android.support.v4.app.Frag...			
14	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.FragmentTransaction: int commit()			
15	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: android.view.MenuInflater getMenuInflater()			
16	0: .../Aliasing/FlowSensitivity1.apk	android.view.MenuInflater: void inflate(int,android.view.Menu)			
17	0: .../Aliasing/FlowSensitivity1.apk	android.view.MenuItem: int getItemId()			
18	0: .../Aliasing/FlowSensitivity1.apk	android.support.v7.app.ActionBarActivity: boolean onOptionsItemSelected(a...			
19	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.Fragment: void <init>()			
20	0: .../Aliasing/FlowSensitivity1.apk	android.view.LayoutInflater: android.view.View inflate(int,android.view.View...			
21	1: ...hmark/apks/Aliasing/Merge1.apk	android.support.v7.app.ActionBarActivity: void <init>()			
22	1: ...hmark/apks/Aliasing/Merge1.apk	de.ecspride.MainActivity: java.lang.Object getSystemService(java.lang.String)			
23	1: ...hmark/apks/Aliasing/Merge1.apk	android.telephony.TelephonyManager: java.lang.String getDeviceId()	✓		

▼ Statistics

Testcases: 190	Sources: 0	Positive cases: 162	True Positive: 12	Precision: 1.0
	Sinks: 0	Negative cases: 42	False Positive: 0	Recall: 0.074
			True Negative: 42	F-Measure: 0.138
			False Negative: 150	

▶ Information

DidFail

BREW – Source & Sink Selector (/Users/xinyu/malware/BREW/data/data.ser)

File   Edit   Help

Search:

ID	Testcase	Statement	Source	Sink	Combine with IDs (e.g. "1, 2")
0	0: .../Aliasing/FlowSensitivity1.apk	android.support.v7.app.ActionBarActivity: void <init>()			
1	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity$A: void <init>(de.ecspride.MainActivity)			
2	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: java.lang.Object getSystemService(java.lang.String)			
3	0: .../Aliasing/FlowSensitivity1.apk	android.telephony.TelephonyManager: java.lang.String getDeviceId()	✓		
4	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity$A: void <init>(de.ecspride.MainActivity)			
5	0: .../Aliasing/FlowSensitivity1.apk	android.telephony.SmsManager: android.telephony.SmsManager getDefault()			
6	0: .../Aliasing/FlowSensitivity1.apk	android.telephony.SmsManager: void sendTextMessage(java.lang.String,jav...		✓	
7	0: .../Aliasing/FlowSensitivity1.apk	android.support.v7.app.ActionBarActivity: void onCreate(android.os.Bundle)			
8	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: void setContentView(int)			
9	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: void aliasFlowTest()			
10	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: android.support.v4.app.FragmentManager getSup...			
11	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.FragmentManager: android.support.v4.app.Fragmen...			
12	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity$PlaceholderFragment: void <init>()			
13	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.FragmentTransaction: android.support.v4.app.Frag...			
14	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.FragmentTransaction: int commit()			
15	0: .../Aliasing/FlowSensitivity1.apk	de.ecspride.MainActivity: android.view.MenuInflater getMenuInflater()			
16	0: .../Aliasing/FlowSensitivity1.apk	android.view.MenuInflater: void inflate(int,android.view.Menu)			
17	0: .../Aliasing/FlowSensitivity1.apk	android.view.MenuItem: int getItemId()			
18	0: .../Aliasing/FlowSensitivity1.apk	android.support.v7.app.ActionBarActivity: boolean onOptionsItemSelected(a...			
19	0: .../Aliasing/FlowSensitivity1.apk	android.support.v4.app.Fragment: void <init>()			
20	0: .../Aliasing/FlowSensitivity1.apk	android.view.LayoutInflater: android.view.View inflate(int,android.view.View...			
21	1: ...hmark/apks/Aliasing/Merge1.apk	android.support.v7.app.ActionBarActivity: void <init>()			
22	1: ...hmark/apks/Aliasing/Merge1.apk	de.ecspride.MainActivity: java.lang.Object getSystemService(java.lang.String)			
23	1: ...hmark/apks/Aliasing/Merge1.apk	android.telephony.TelephonyManager: java.lang.String getDeviceId()	✓		

▼ Statistics

Testcases: 190	Sources: 0	Positive cases: 162	True Positive: 50	Precision: 0.769
	Sinks: 0	Negative cases: 42	False Positive: 15	Recall: 0.309
			True Negative: 27	F-Measure: 0.441
			False Negative: 112	

▶ Information

File   Edit   Help

Search:

ID	Testcase	Statement	Source	Sink	Combine with IDs (e.g. "1, 2")
2952	186: ...bleCode/SimpleUnreachable1.apk	droidbench.sit.fraunhofer.de.simpleunreachable1.MainActivity: java.lang.Obj...	☐	☐	
2953	186: ...bleCode/SimpleUnreachable1.apk	android.telephony.TelephonyManager: java.lang.String getDeviceId()	☑	☐	
2954	186: ...bleCode/SimpleUnreachable1.apk	android.util.Log: int d(java.lang.String,java.lang.String)	☐	☑	
2955	187: ...chableCode/UnreachableBoth.apk	android.app.Activity: void onCreate(android.os.Bundle)	☐	☐	
2956	187: ...chableCode/UnreachableBoth.apk	edu.wayne.cs.MainActivity: void setContentView(int)	☐	☐	
2957	187: ...chableCode/UnreachableBoth.apk	java.util.Random: void <init>()	☐	☐	
2958	187: ...chableCode/UnreachableBoth.apk	java.util.Random: int nextInt(int)	☐	☐	
2959	187: ...chableCode/UnreachableBoth.apk	edu.wayne.cs.MainActivity: java.lang.Object getSystemService(java.lang.Stri...	☐	☐	
2960	187: ...chableCode/UnreachableBoth.apk	android.telephony.TelephonyManager: java.lang.String getDeviceId()	☑	☐	
2961	187: ...chableCode/UnreachableBoth.apk	android.util.Log: int d(java.lang.String,java.lang.String)	☐	☑	
2962	188: ...hableCode/UnreachableSink1.apk	android.app.Activity: void onCreate(android.os.Bundle)	☐	☐	
2963	188: ...hableCode/UnreachableSink1.apk	edu.wayne.cs.MainActivity: void setContentView(int)	☐	☐	
2964	188: ...hableCode/UnreachableSink1.apk	edu.wayne.cs.MainActivity: java.lang.Object getSystemService(java.lang.Stri...	☐	☐	
2965	188: ...hableCode/UnreachableSink1.apk	android.telephony.TelephonyManager: java.lang.String getDeviceId()	☑	☐	
2966	188: ...hableCode/UnreachableSink1.apk	java.util.Random: void <init>()	☐	☐	
2967	188: ...hableCode/UnreachableSink1.apk	java.util.Random: int nextInt(int)	☐	☐	
2968	188: ...hableCode/UnreachableSink1.apk	android.util.Log: int d(java.lang.String,java.lang.String)	☐	☑	
2969	189: ...bleCode/UnreachableSource1.apk	android.app.Activity: void onCreate(android.os.Bundle)	☐	☐	
2970	189: ...bleCode/UnreachableSource1.apk	edu.wayne.cs.MainActivity: void setContentView(int)	☐	☐	
2971	189: ...bleCode/UnreachableSource1.apk	java.util.Random: void <init>()	☐	☐	
2972	189: ...bleCode/UnreachableSource1.apk	java.util.Random: int nextInt(int)	☐	☐	
2973	189: ...bleCode/UnreachableSource1.apk	edu.wayne.cs.MainActivity: java.lang.Object getSystemService(java.lang.Stri...	☐	☐	
2974	189: ...bleCode/UnreachableSource1.apk	android.telephony.TelephonyManager: java.lang.String getDeviceId()	☑	☐	
2975	189: ...bleCode/UnreachableSource1.apk	android.util.Log: int d(java.lang.String,java.lang.String)	☐	☑	

▼ Statistics

Testcases: 190	Sources: 0	Positive cases: 162	True Positive: 50	Precision: 0.769
	Sinks: 0	Negative cases: 42	False Positive: 15	Recall: 0.309
			True Negative: 27	F-Measure: 0.441
			False Negative: 112	

▶ Information

1. Download the latest version of BREW (here) and unzip it.

2. Make flushMemory.sh and killpid.sh, located in BREW directory, executeable:

cd /path/to/BREW

chmod u+x flushMemory.sh killpid.sh

3. Download a ReproDroid benchmark:

e.g. the refined benchmark version of DroidBench
3.0: https://uni-paderborn.sciebo.de/s/ZmlRvtzI6pVYHVP/download?path=%2Fbenchmarks&files=DroidBench30.zip

4. Choose the tool for which you want to load the benchmark (for this example we assume it is Amandroid).

5. Copy %benchmark%/results/Amandroid/data to %BREW%/data

6. Extract both downloaded archives: Let us assume %BREW% and %benchmark% refer to the respective extracted archives.

7.Start BREW with codes:

```
cd /path/to/BREW

java -jar BREW-1.1.1.jar -config config_amandroid.xml -d detailed.

Configurations files:
config_toolset1.xml (for Amandroid, DroidSafe, FlowDroid and IccTA)
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<config>
        <androidPlatforms>/path/to/Android/platforms</androidPlatforms>
        <maxMemory>4</maxMemory>
        <tools>
                <tool name="Tool1" version="1">
                        <priority>1</priority>
                        <path>/not/important</path>
                        <run>/also/not/important</run>
                        <result>/guess/what</result>
                        <questions>IntraAppFlows</questions>
                        <instances>0</instances>
                        <memoryPerInstance>2</memoryPerInstance>
                </tool>
        </tools>
        <preprocessors>
                <tool name="Tool2" version="1">
                        <priority>1</priority>
                        <path>/not/important</path>
                        <run>/also/not/important</run>
                        <result>/guess/what</result>
                        <questions>COMBINE</questions>
                        <instances>0</instances>
                        <memoryPerInstance>2</memoryPerInstance>
                </tool>
        </preprocessors>
</config>
config_toolset2.xml (for DIALDroid and DidFail)
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<config>
        <androidPlatforms>/path/to/Android/platforms</androidPlatforms>
        <maxMemory>4</maxMemory>
        <tools>
                <tool name="Tool1" version="1">
                        <priority>1</priority>
                        <path>/not/important</path>
                        <run>/also/not/important</run>
                        <result>/guess/what</result>
                        <questions>IntraAppFlows, InterAppFlows</questions>
                        <instances>0</instances>
                        <memoryPerInstance>2</memoryPerInstance>
                </tool>
        </tools>
</config>
```
8.Click on *Next* (Green rightarrow in the toolbar)

9.Click on *Directory (Ignore parent directory)*

10.Select the `%benchmark%/benchmark/apks` directory

11.If any warnings appear, just click *OK*

12.Click on *Next* (Green rightarrow in the toolbar) again

13.Click *Yes*

14.Then you will get the fully loaded benchmark result.

```
┌─────────────┐
│  Download   │
│  the latest │
│    BREW     │
└─────────────┘
       │
       ▼
┌───────────────────────┐
│  Make flushMemory.sh and │
│      killpid.sh          │
└───────────────────────┘
       │
       ▼
┌─────────────┐
│ Download the│
│  ReproDroid │
│  Benchmark  │
└─────────────┘
       │
       ▼
┌─────────────────┐
│   Load the      │
│ benchmark on your│
│  selected tool  │
└─────────────────┘
       │
       ▼
┌─────────────┐
│ Configure the│
│  BREW xml   │
└─────────────┘
       │
       ▼
┌─────────────┐
│ Launch the  │
│  BREW and   │
│   analyze   │
└─────────────┘
```