Code and design analysis tools

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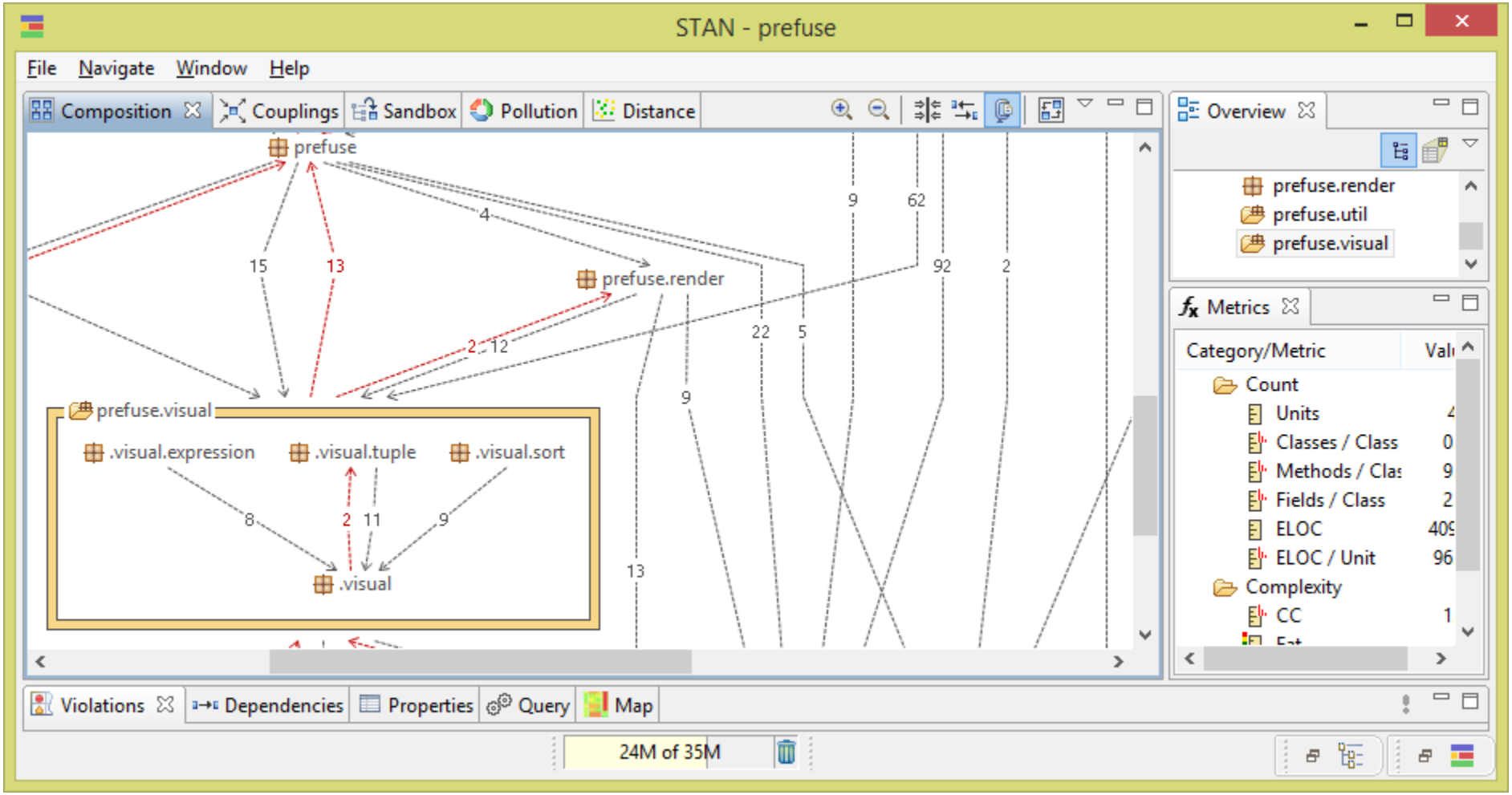
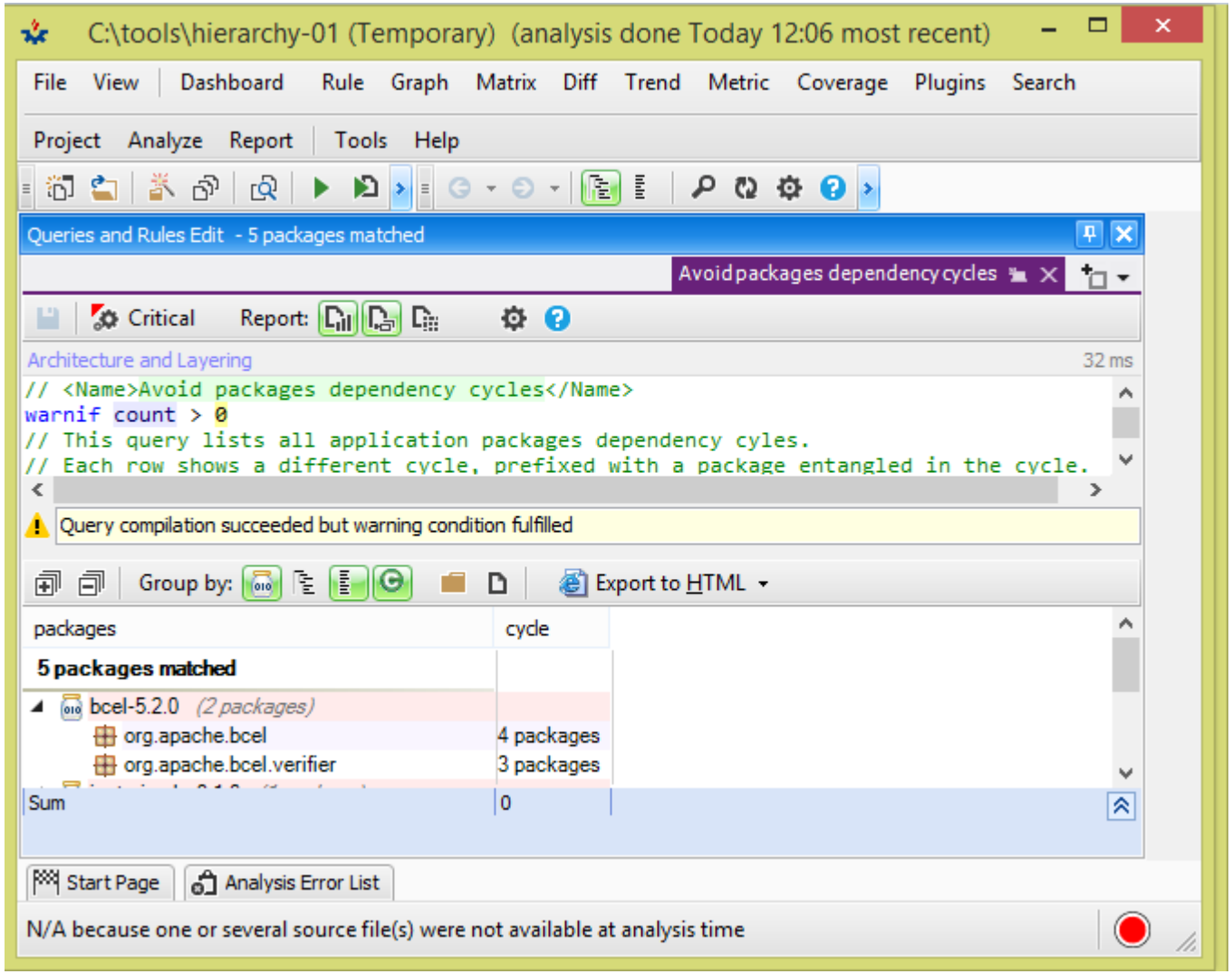
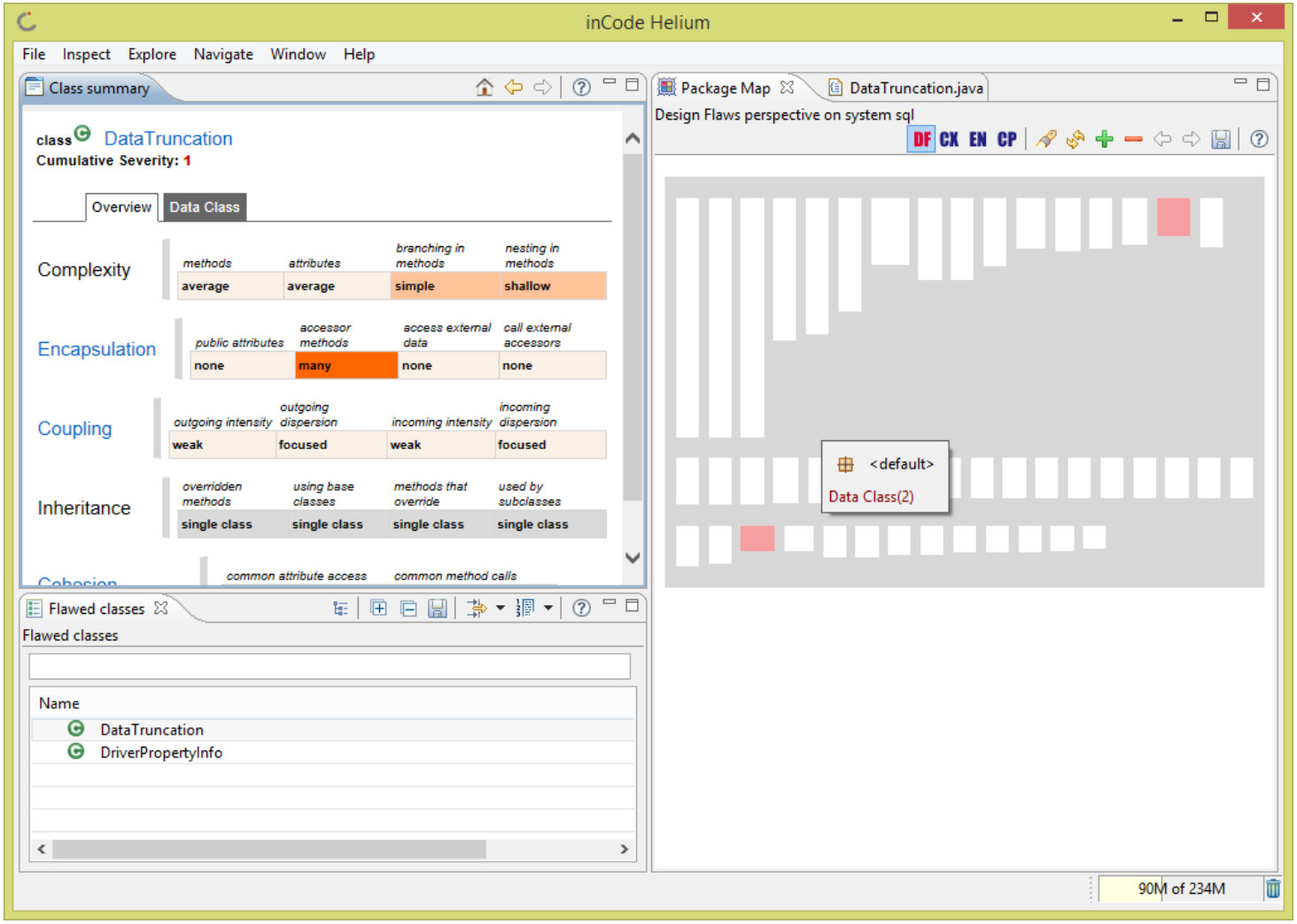

STAN - prefuse
File
Navigate
Window
Help
Composition
Couplings
Sandbox
Pollution
Distance
Overview
prefuse
prefuse.render
prefuse.util
prefuse.visual
Metrics
Category/Metric
Count
Units
Classes / Class
Methods / Cla
Fields / Class
ELOC
ELOC / Unit
Complexity
CC
prefuse.visual
.visual.expression
.visual.tuple
.visual.sort
.visual
Violations
Dependencies
Properties
Query
Map
24M of 35M

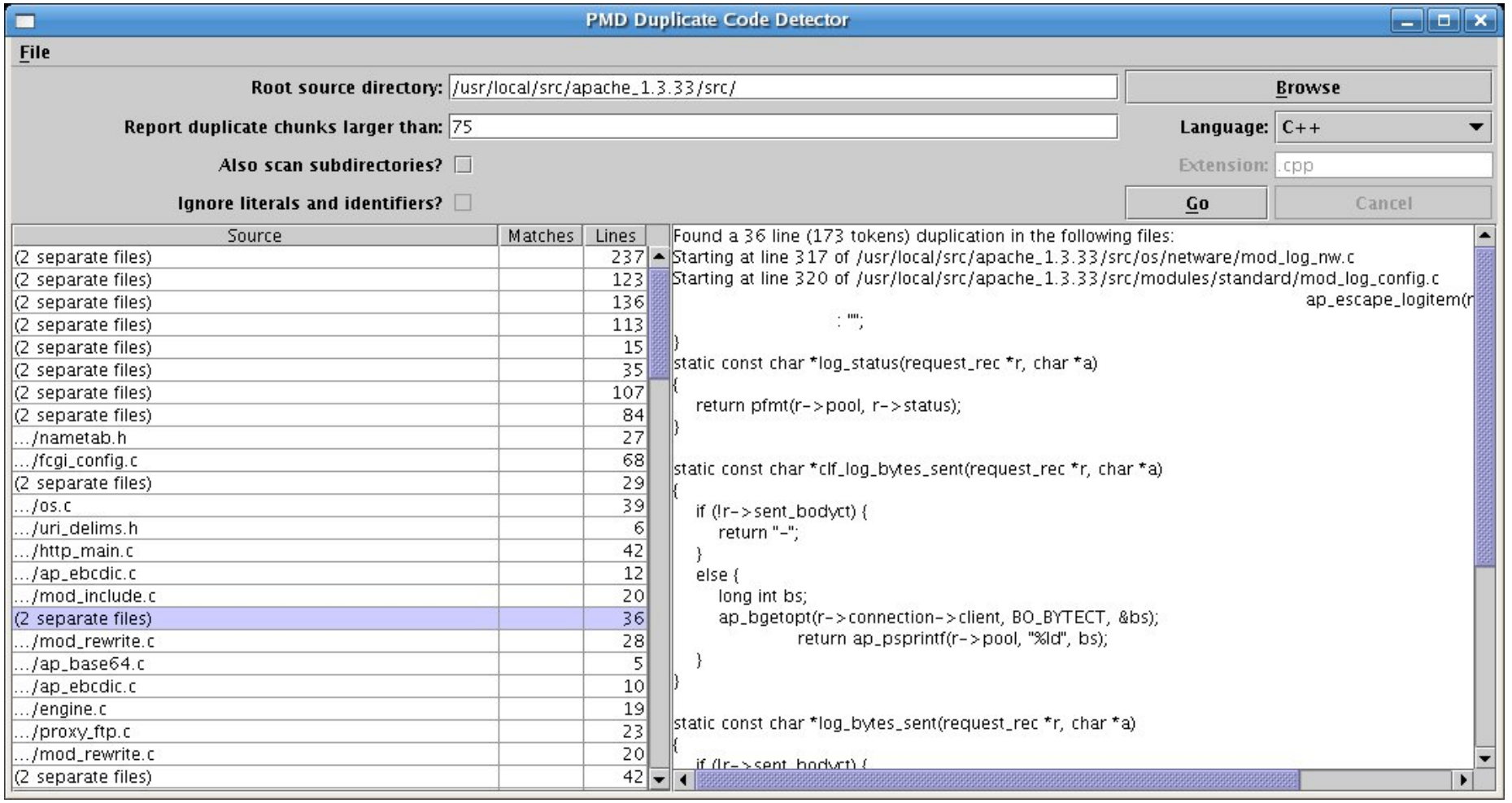
JArchitect


C:\tools\hierarchy-01 (Temporary) (analysis done Today 12:06 most recent)
File View Dashboard Rule Graph Matrix Diff Trend Metric Coverage Plugins Search
Project Analyze Report Tools Help
Queries and Rules Edit - 5 packages matched
Avoid packages dependency cycles
Critical Report:
Architecture and Layering
32 ms
// <Name>Avoid packages dependency cycles</Name>
warnif count > 0
// This query lists all application packages dependency cyles.
// Each row shows a different cycle, prefixed with a package entangled in the cycle.
Query compilation succeeded but warning condition fulfilled
Group by:
Export to HTML
packages
cycle
5 packages matched
bcel-5.2.0 (2 packages)
org.apache.bcel
4 packages
org.apache.bcel.verifier
3 packages
Sum
0
Start Page
Analysis Error List
N/A because one or several source file(s) were not available at analysis time

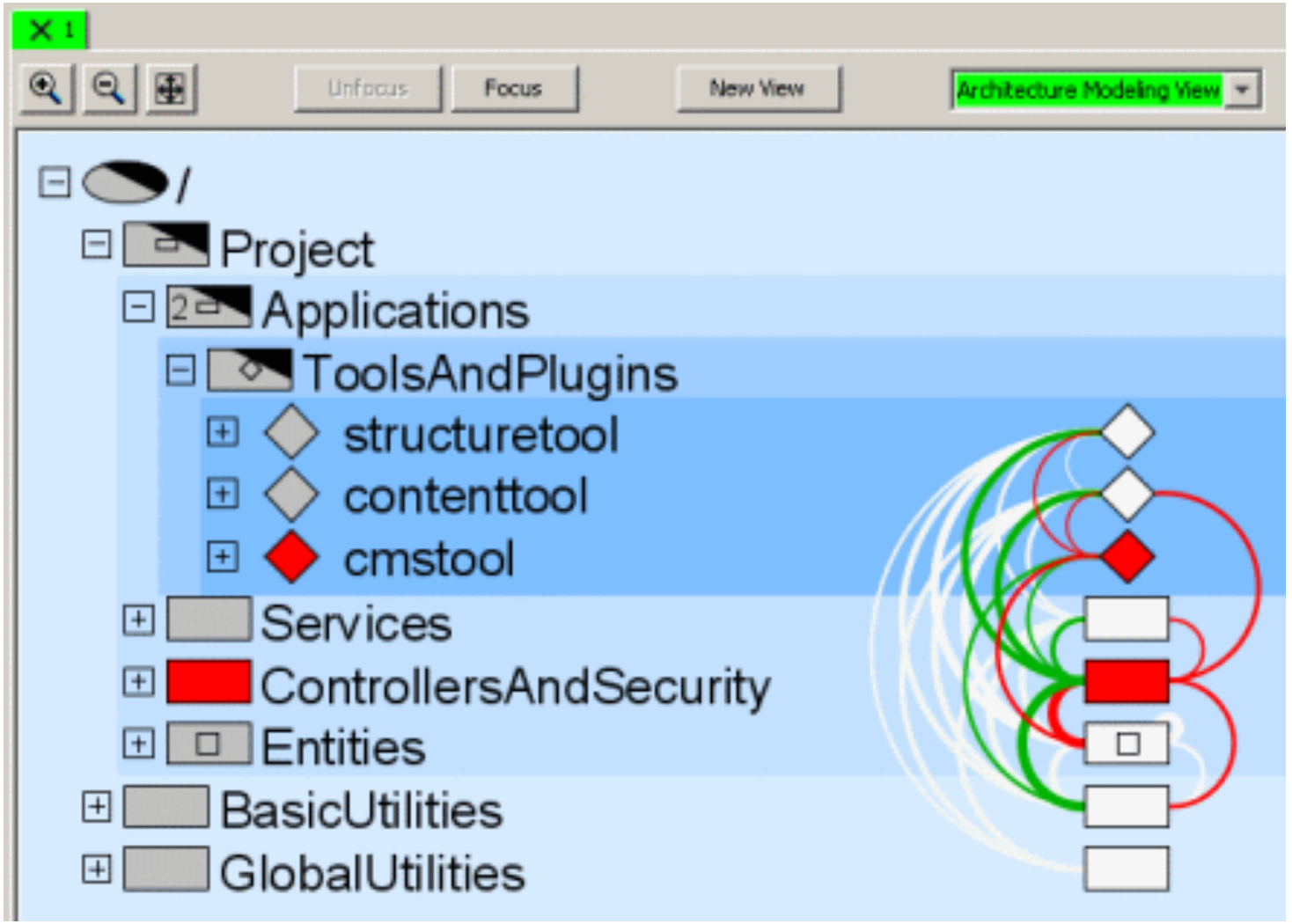
InFusion/InCode



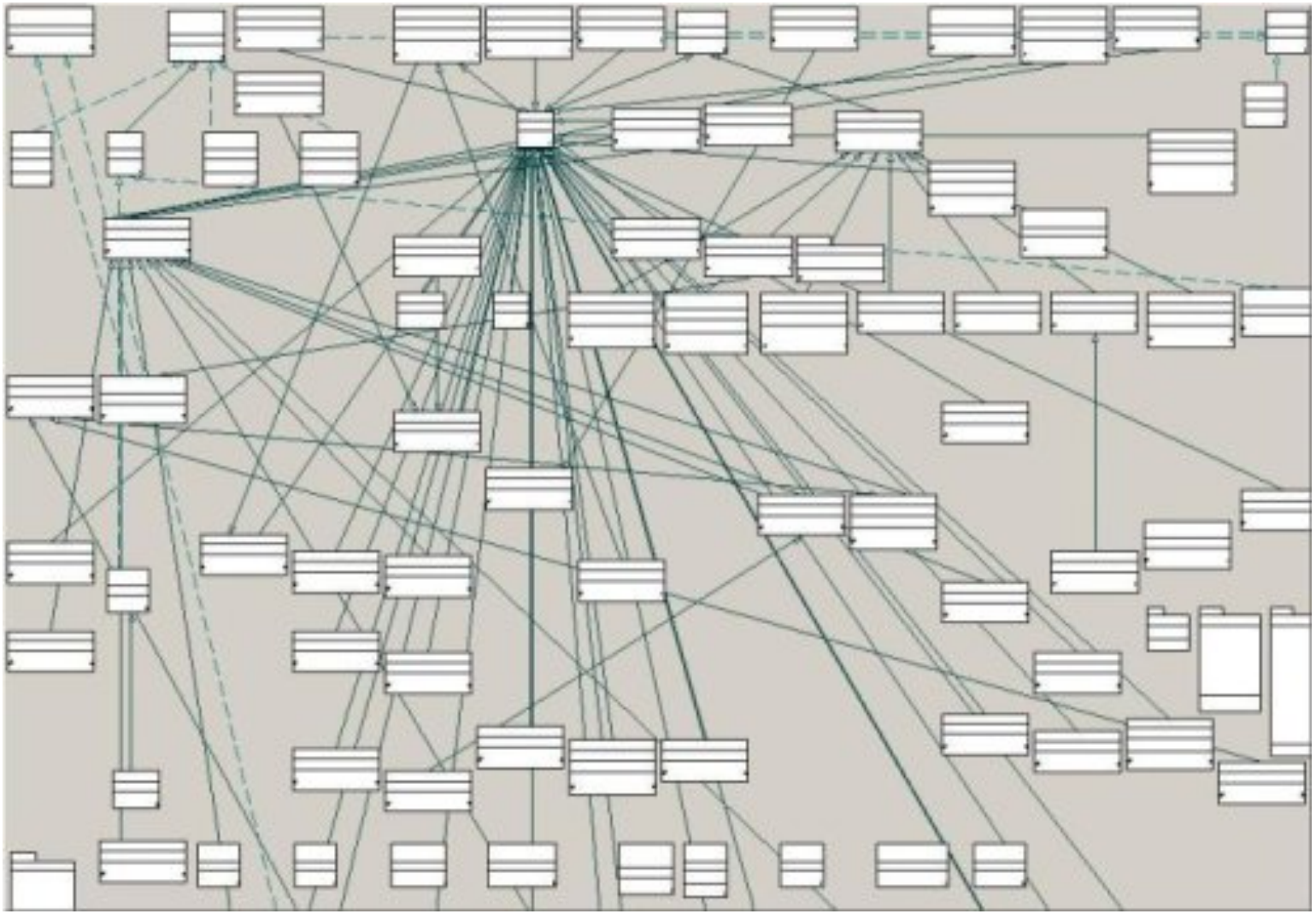
PMD CPD


PMD Duplicate Code Detector
File
Root source directory: /usr/local/src/apache_1.3.33/src/
Browse
Report duplicate chunks larger than: 75
Language: C++
Also scan subdirectories?
Extension: .cpp
Ignore literals and identifiers?
Go
Cancel
Source
Matches
Lines
(2 separate files) 237
(2 separate files) 123
(2 separate files) 136
(2 separate files) 113
(2 separate files) 15
(2 separate files) 35
(2 separate files) 107
(2 separate files) 84
.../nametab.h 27
.../fcgi_config.c 68
(2 separate files) 29
.../os.c 39
.../uri_delims.h 6
.../http_main.c 42
.../ap_ebcdic.c 12
.../mod_include.c 20
(2 separate files) 36
.../mod_rewrite.c 28
.../ap_base64.c 5
.../ap_ebcdic.c 10
.../engine.c 19
.../proxy_ftp.c 23
.../mod_rewrite.c 20
(2 separate files) 42
Found a 36 line (173 tokens) duplication in the following files:
Starting at line 317 of /usr/local/src/apache_1.3.33/src/os/netware/mod_log_nw.c
Starting at line 320 of /usr/local/src/apache_1.3.33/src/modules/standard/mod_log_config.c
ap_escape_logitem(r
: "";
}
static const char *log_status(request_rec *r, char *a)
{
return pfmt(r->pool, r->status);
}
static const char *clf_log_bytes_sent(request_rec *r, char *a)
{
if (!r->sent_bodyct) {
return "-";
}
else {
long int bs;
ap_bgetopt(r->connection->client, BO_BYTECT, &bs);
return ap_psprintf(r->pool, "%ld", bs);
}
}
static const char *log_bytes_sent(request_rec *r, char *a)
{

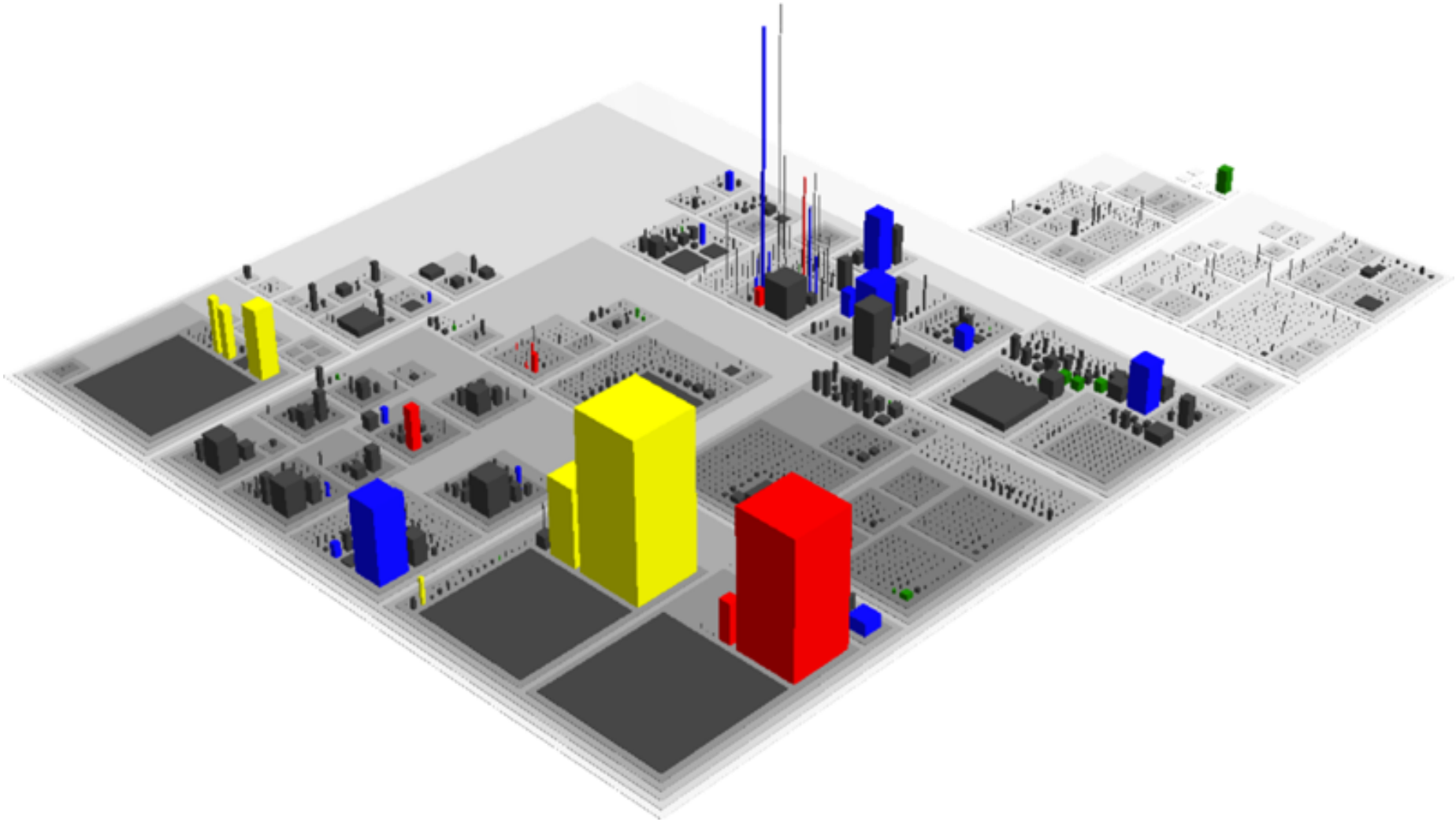
SotoArc


1
Unfocus
Focus
New View
Architecture Modeling View
/
Project
Applications
ToolsAndPlugins
structuretool
contenttool
cmstool
Services
ControllersAndSecurity
Entities
BasicUtilities
GlobalUtilities

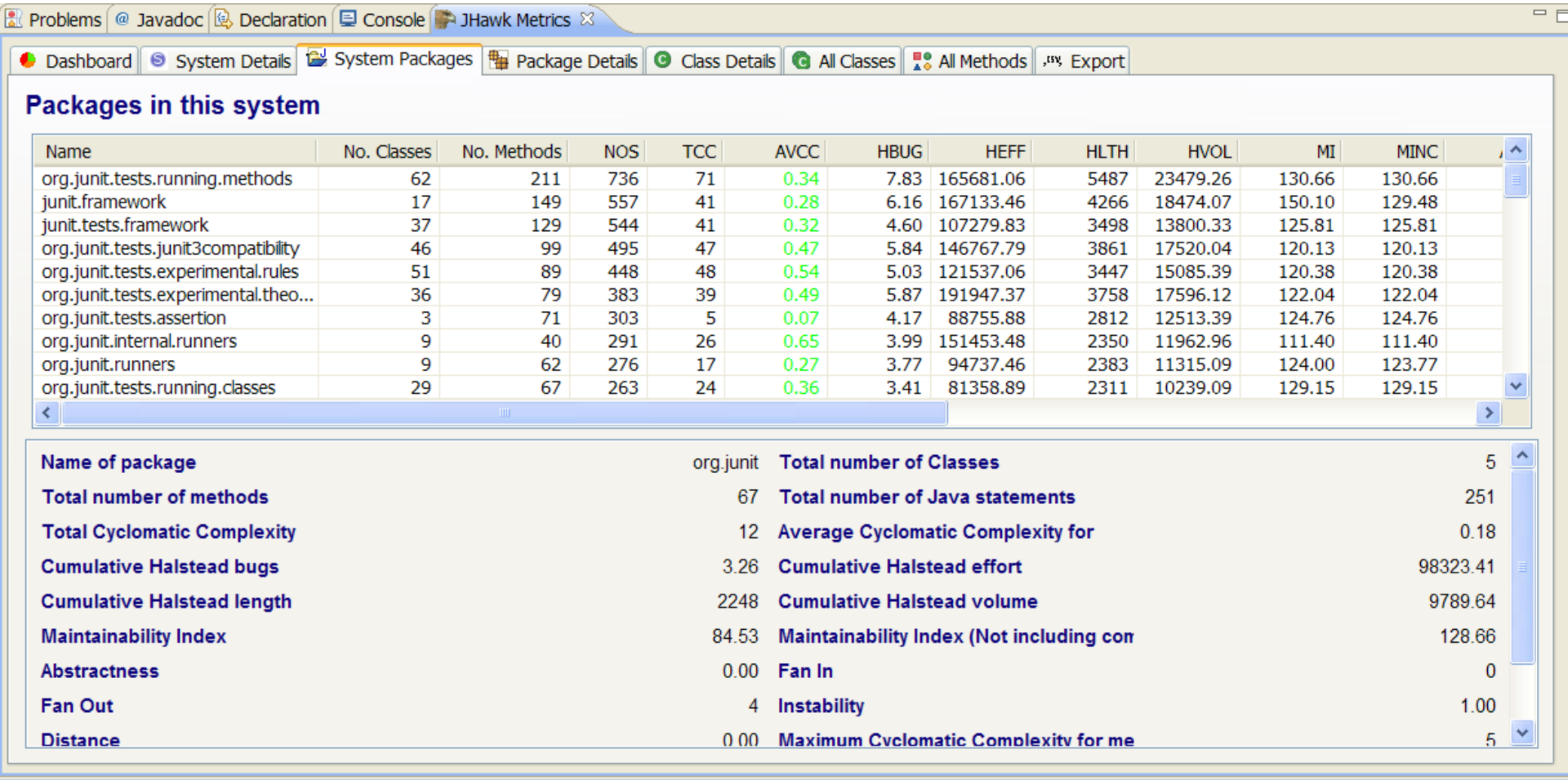
Lattix DSM



CodeCity



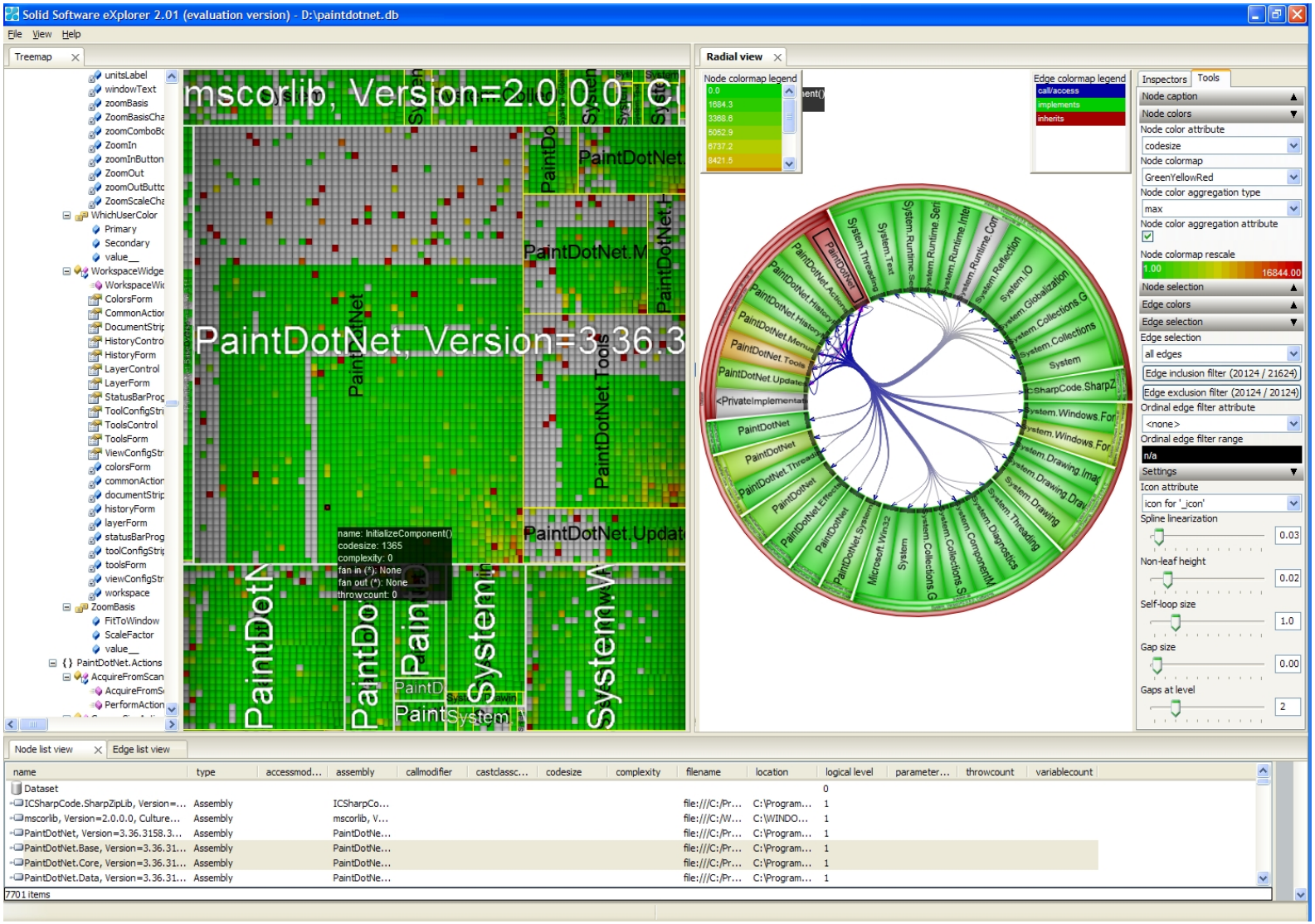
JHawk



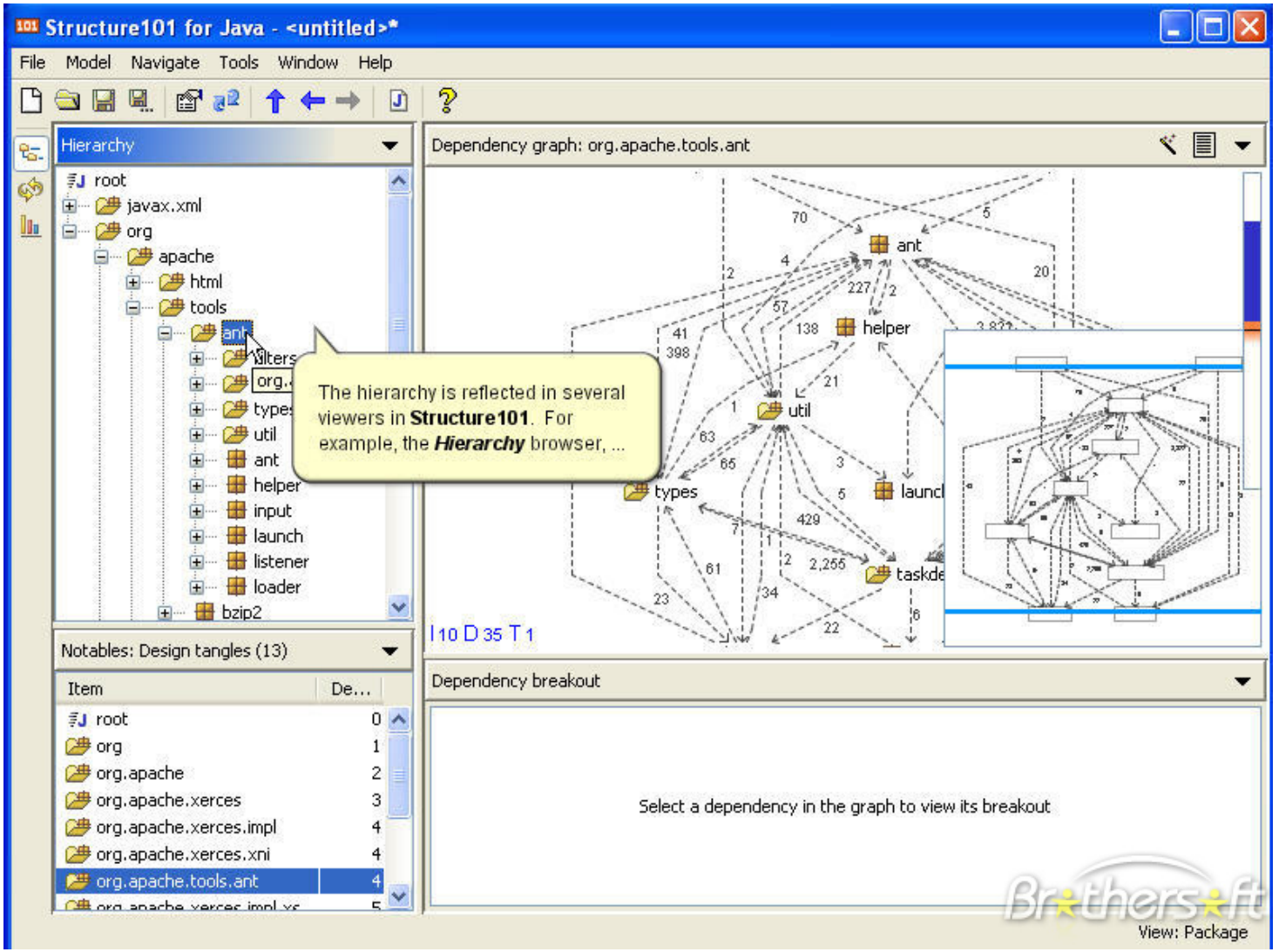
Name	No. Classes	No. Methods	NOS	TCC	AVCC	HBUG	HEFF	HLTH	HVOL	MI	MINC
org.junit.tests.running.methods	62	211	736	71	0.34	7.83	165681.06	5487	23479.26	130.66	130.66
junit.framework	17	149	557	41	0.28	6.16	167133.46	4266	18474.07	150.10	129.48
junit.tests.framework	37	129	544	41	0.32	4.60	107279.83	3498	13800.33	125.81	125.81
org.junit.tests.junit3compatibility	46	99	495	47	0.47	5.84	146767.79	3861	17520.04	120.13	120.13
org.junit.tests.experimental.rules	51	89	448	48	0.54	5.03	121537.06	3447	15085.39	120.38	120.38
org.junit.tests.experimental.theo...	36	79	383	39	0.49	5.87	191947.37	3758	17596.12	122.04	122.04
org.junit.tests.assertion	3	71	303	5	0.07	4.17	88755.88	2812	12513.39	124.76	124.76
org.junit.internal.runners	9	40	291	26	0.65	3.99	151453.48	2350	11962.96	111.40	111.40
org.junit.runners	9	62	276	17	0.27	3.77	94737.46	2383	11315.09	124.00	123.77
org.junit.tests.running.classes	29	67	263	24	0.36	3.41	81358.89	2311	10239.09	129.15	129.15

Name of package	org.junit	**Total number of Classes**	5
Total number of methods	67	**Total number of Java statements**	251
Total Cyclomatic Complexity	12	**Average Cyclomatic Complexity for**	0.18
Cumulative Halstead bugs	3.26	**Cumulative Halstead effort**	98323.41
Cumulative Halstead length	2248	**Cumulative Halstead volume**	9789.64
Maintainability Index	84.53	**Maintainability Index (Not including con**	128.66
Abstractness	0.00	**Fan In**	0
Fan Out	4	**Instability**	1.00
Distance	0.00	**Maximum Cyclomatic Complexity for me**	5

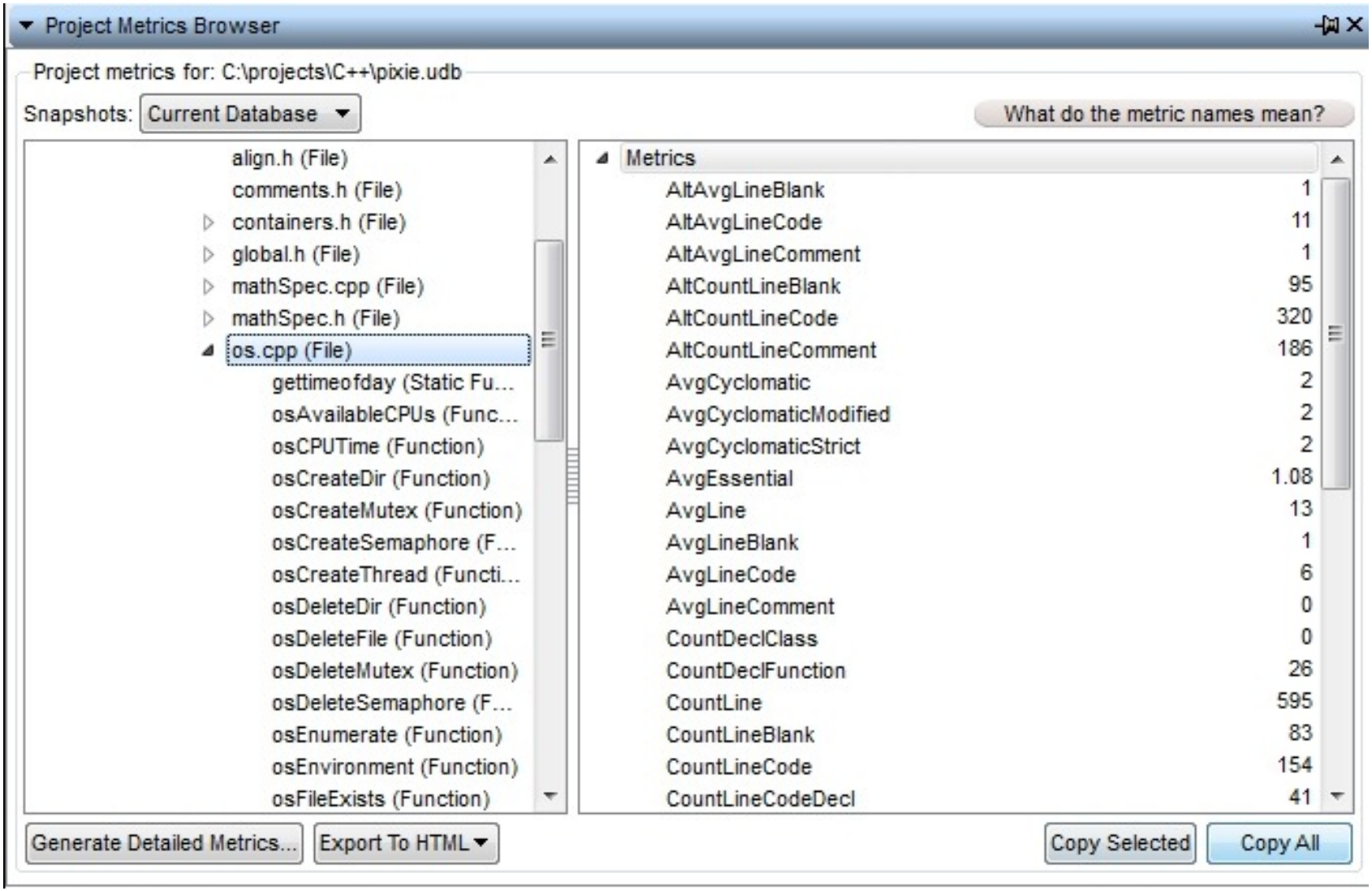
SolidSx


Solid Software eXplorer 2.01 (evaluation version) - D:\paintdotnet.db
File View Help
Treemap
Radial view
mscorlib, Version=2.0.0.0
PaintDotNet, Version=3.36.3
Node colormap legend
Edge colormap legend
Inspectors
Tools
Node caption
Node colors
Node color attribute
codesize
Node colormap
GreenYellowRed
Node color aggregation type
max
Node color aggregation attribute
Node colormap rescale
Node selection
Edge colors
Edge selection
Edge selection
all edges
Edge inclusion filter (20124 / 21624)
Edge exclusion filter (20124 / 20124)
Ordinal edge filter attribute
Ordinal edge filter range
Settings
Icon attribute
Spline linearization
Non-leaf height
Self-loop size
Gap size
Gaps at level
Node list view
Edge list view
name
type
accessmod...
assembly
callmodifier
castclassc...
codesize
complexity
filename
location
logical level
parameter...
throwcount
variablecount
Dataset
7701 items

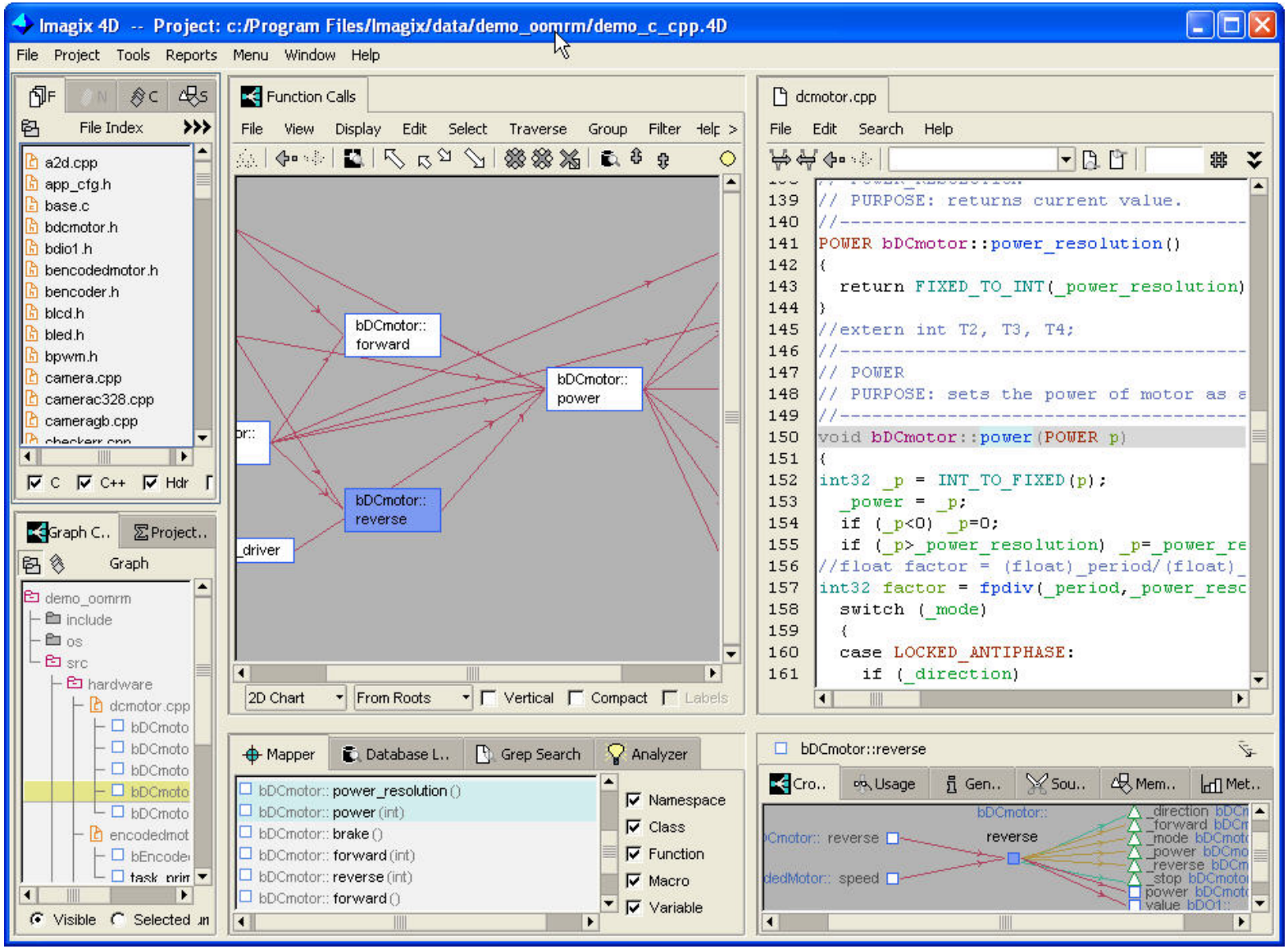
Structure 101



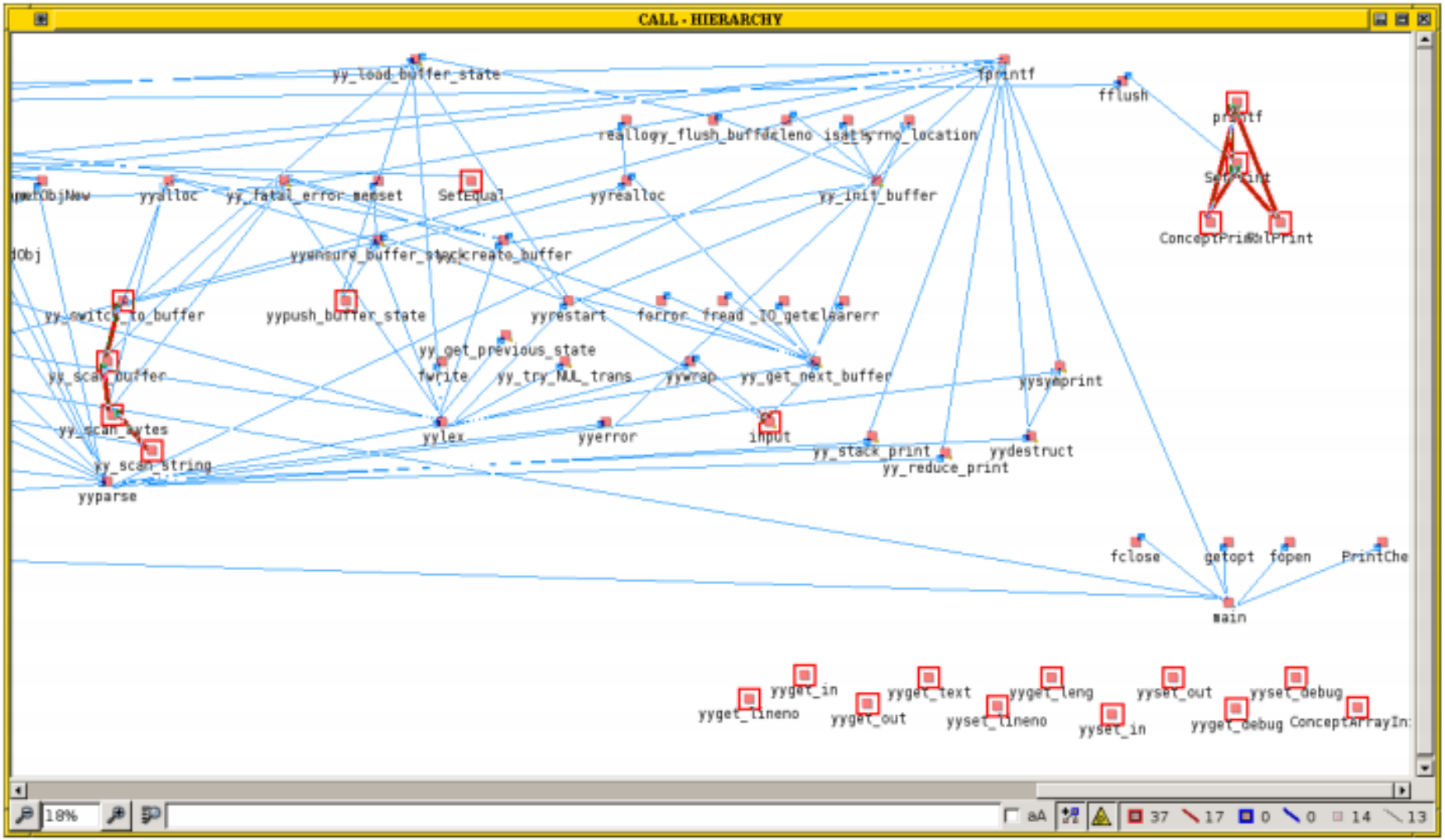
Understand


Project Metrics Browser
Project metrics for: C:\projects\C++\pixie.udb
Snapshots: Current Database
What do the metric names mean?
align.h (File)
comments.h (File)
containers.h (File)
global.h (File)
mathSpec.cpp (File)
mathSpec.h (File)
os.cpp (File)
gettimeofday (Static Fu...
osAvailableCPUs (Func...
osCPUTime (Function)
osCreateDir (Function)
osCreateMutex (Function)
osCreateSemaphore (F...
osCreateThread (Functi...
osDeleteDir (Function)
osDeleteFile (Function)
osDeleteMutex (Function)
osDeleteSemaphore (F...
osEnumerate (Function)
osEnvironment (Function)
osFileExists (Function)
Metrics
AltAvgLineBlank 1
AltAvgLineCode 11
AltAvgLineComment 1
AltCountLineBlank 95
AltCountLineCode 320
AltCountLineComment 186
AvgCyclomatic 2
AvgCyclomaticModified 2
AvgCyclomaticStrict 2
AvgEssential 1.08
AvgLine 13
AvgLineBlank 1
AvgLineCode 6
AvgLineComment 0
CountDeclClass 0
CountDeclFunction 26
CountLine 595
CountLineBlank 83
CountLineCode 154
CountLineCodeDecl 41
Generate Detailed Metrics...
Export To HTML
Copy Selected
Copy All

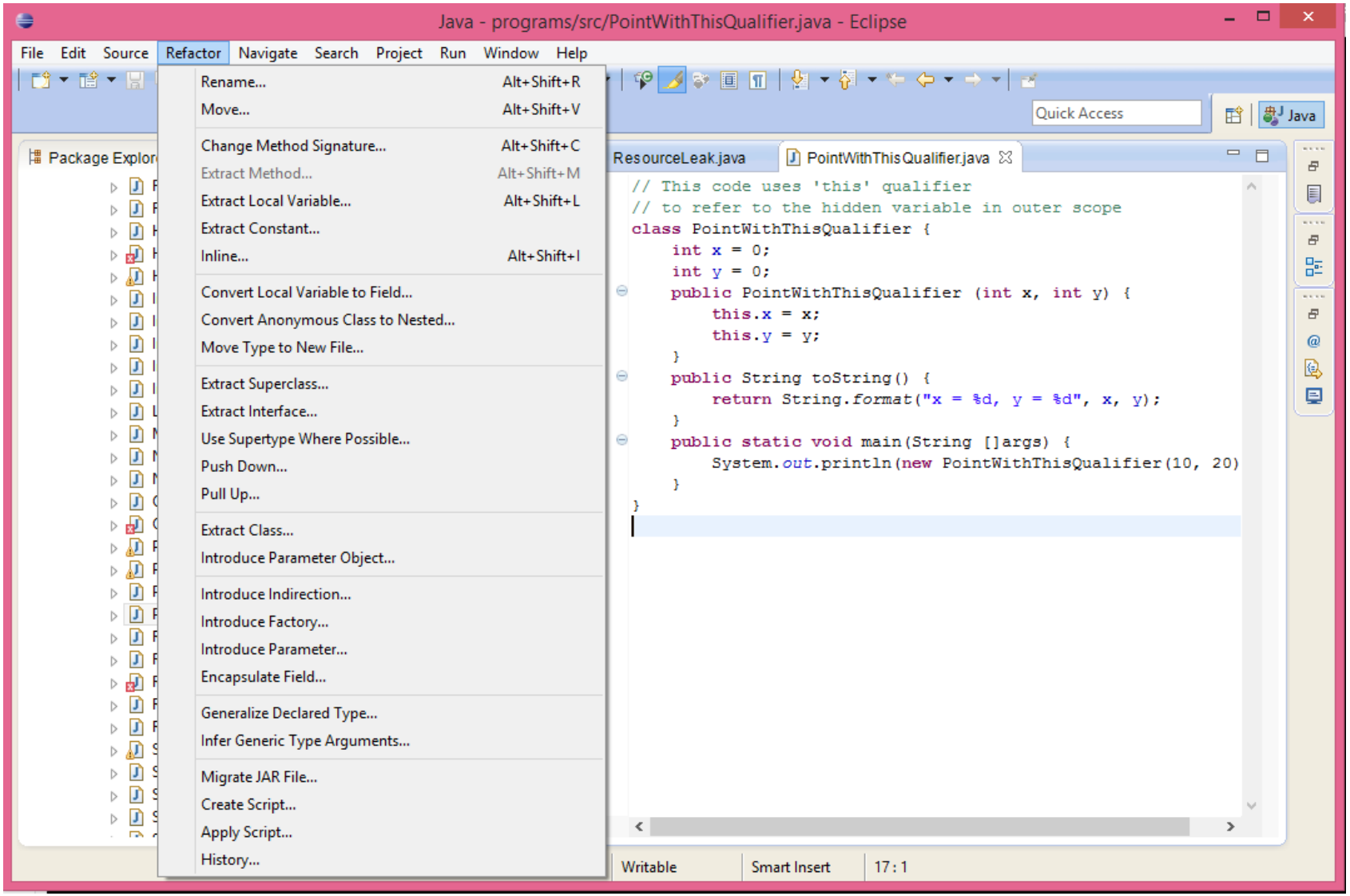
Imagix 4D


Imagix 4D -- Project: c:/Program Files/Imagix/data/demo_oomrm/demo_c_cpp.4D
File Project Tools Reports Menu Window Help
File Index
a2d.cpp
app_cfg.h
base.c
bdcmotor.h
bdio1.h
bencodedmotor.h
bencoder.h
blcd.h
bled.h
bpwm.h
camera.cpp
camerac328.cpp
cameragb.cpp
C C++ Hdr
Graph C.. Project..
Graph
demo_oomrm
include
os
src
hardware
dcmotor.cpp
Visible Selected
Function Calls
File View Display Edit Select Traverse Group Filter
bDCmotor:: forward
bDCmotor:: power
bDCmotor:: reverse
_driver
2D Chart
From Roots
Vertical
Compact
Labels
dcmotor.cpp
File Edit Search Help
// PURPOSE: returns current value.
POWER bDCmotor::power_resolution()
{
return FIXED_TO_INT(_power_resolution)
}
//extern int T2, T3, T4;
// POWER
// PURPOSE: sets the power of motor as
void bDCmotor::power(POWER p)
{
int32 _p = INT_TO_FIXED(p);
_power = _p;
if (_p<0) _p=0;
if (_p>_power_resolution) _p=_power_re
//float factor = (float)_period/(float)_
int32 factor = fpdiv(_period,_power_resc
switch (_mode)
{
case LOCKED_ANTIPHASE:
if (_direction)
Mapper
Database L..
Grep Search
Analyzer
bDCmotor:: power_resolution ()
bDCmotor:: power (int)
bDCmotor:: brake ()
bDCmotor:: forward (int)
bDCmotor:: reverse (int)
bDCmotor:: forward ()
Namespace
Class
Function
Macro
Variable
bDCmotor::reverse
Cro..
Usage
Gen..
Sou..
Mem..
Met..
reverse
power
value

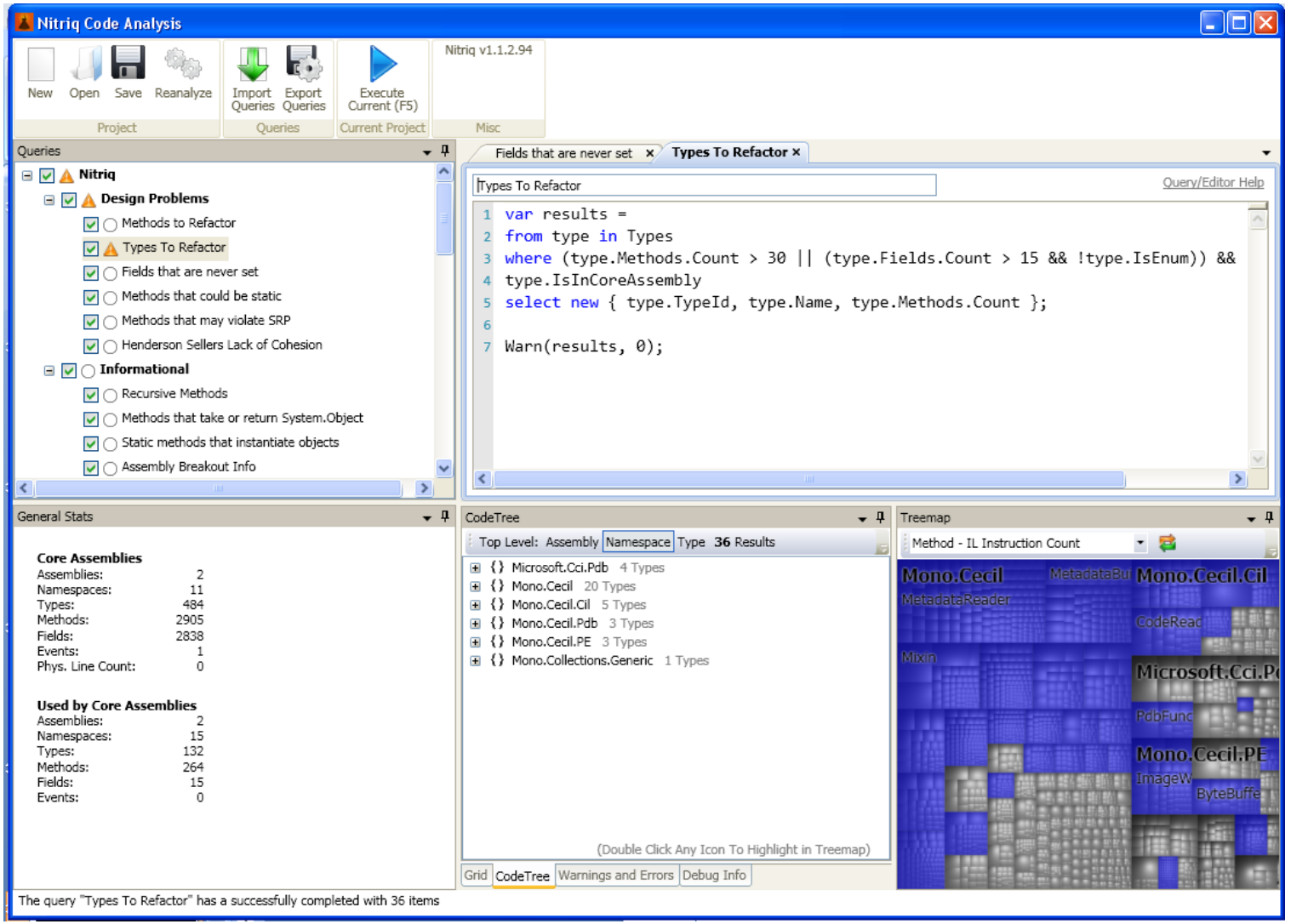
Bauhaus


CALL - HIERARCHY
yy_load_buffer_state
fprintf
fflush
printf
reallocyy_flush_buffer
__errno_location
yyalloc
yy_fatal_error
memset
SetEqual
yyrealloc
yy_init_buffer
yyensure_buffer_stack
yy_create_buffer
yy_switch_to_buffer
yypush_buffer_state
yyrestart
ferror
fread
_IO_getc
clearerr
yy_get_previous_state
yy_scan_buffer
fwrite
yy_try_NUL_trans
yywrap
yy_get_next_buffer
yysymprint
yy_scan_bytes
yylex
yyerror
input
yy_stack_print
yydestruct
yy_reduce_print
yy_scan_string
yyparse
fclose
getopt
fopen
main
yyget_in
yyget_text
yyget_leng
yyset_out
yyset_debug
yyget_lineno
yyget_out
yyset_lineno
yyset_in
yyget_debug
18%

Eclipse IDE


Java - programs/src/PointWithThisQualifier.java - Eclipse
File Edit Source Refactor Navigate Search Project Run Window Help
Rename... Alt+Shift+R
Move... Alt+Shift+V
Change Method Signature... Alt+Shift+C
Extract Method... Alt+Shift+M
Extract Local Variable... Alt+Shift+L
Extract Constant...
Inline... Alt+Shift+I
Convert Local Variable to Field...
Convert Anonymous Class to Nested...
Move Type to New File...
Extract Superclass...
Extract Interface...
Use Supertype Where Possible...
Push Down...
Pull Up...
Extract Class...
Introduce Parameter Object...
Introduce Indirection...
Introduce Factory...
Introduce Parameter...
Encapsulate Field...
Generalize Declared Type...
Infer Generic Type Arguments...
Migrate JAR File...
Create Script...
Apply Script...
History...
Quick Access
Java
Package Explor
ResourceLeak.java
PointWithThisQualifier.java
// This code uses 'this' qualifier
// to refer to the hidden variable in outer scope
class PointWithThisQualifier {
int x = 0;
int y = 0;
public PointWithThisQualifier (int x, int y) {
this.x = x;
this.y = y;
}
public String toString() {
return String.format("x = %d, y = %d", x, y);
}
public static void main(String []args) {
System.out.println(new PointWithThisQualifier(10, 20)
}
}
Writable
Smart Insert
17 : 1

Nitriq


Nitriq Code Analysis
New
Open
Save
Reanalyze
Project
Import Queries
Export Queries
Queries
Execute Current (F5)
Current Project
Nitriq v1.1.2.94
Misc
Queries
Nitriq
Design Problems
Methods to Refactor
Types To Refactor
Fields that are never set
Methods that could be static
Methods that may violate SRP
Henderson Sellers Lack of Cohesion
Informational
Recursive Methods
Methods that take or return System.Object
Static methods that instantiate objects
Assembly Breakout Info
Fields that are never set
Types To Refactor
Types To Refactor
Query/Editor Help
1 var results =
2 from type in Types
3 where (type.Methods.Count > 30 || (type.Fields.Count > 15 && !type.IsEnum)) &&
4 type.IsInCoreAssembly
5 select new { type.TypeId, type.Name, type.Methods.Count };
6
7 Warn(results, 0);
General Stats
Core Assemblies
Assemblies: 2
Namespaces: 11
Types: 484
Methods: 2905
Fields: 2838
Events: 1
Phys. Line Count: 0
Used by Core Assemblies
Assemblies: 2
Namespaces: 15
Types: 132
Methods: 264
Fields: 15
Events: 0
CodeTree
Top Level: Assembly Namespace Type 36 Results
Microsoft.Cci.Pdb 4 Types
Mono.Cecil 20 Types
Mono.Cecil.Cil 5 Types
Mono.Cecil.Pdb 3 Types
Mono.Cecil.PE 3 Types
Mono.Collections.Generic 1 Types
(Double Click Any Icon To Highlight in Treemap)
Grid
CodeTree
Warnings and Errors
Debug Info
Treemap
Method - IL Instruction Count
Mono.Cecil
MetadataReader
Mono.Cecil.Cil
Mixin
Mono.Cecil.PE
The query "Types To Refactor" has a successfully completed with 36 items

Tools to explore

Jhawk (Java)	CodeCity (C++, Java, C#)	CppDepend (C++)	Sotograph (C++, Java, C#)
Imagix 4D (C, C++, Java)	Lattix (C/C++, Java, C#)	SolidSX (C++, Java, C#)	Bauhaus (C/C++, Java, C#)
Structure101 (Java, C#)	Understand (C/C++, Java, C#)	Simian (C/C++, Java, C#, …)	Jarchitect (Java)
Ndepend (C#)	Stan4J (Java)	InFusion (C/C++, Java)	InCode (C/C++, Java)