

CodeSonar Analysis Report

generated by Administrator on Wed Aug 23 15:54:33 2017
for analysis netperf analysis 1

Summary

Table 1: netperf analysis 1 Summary

Active Warnings	File Count	Project Name	Time Started	Time Finished	Machine
207	334	netperf	Tue Jul 11 16:18:13 2017	Tue Jul 11 16:21:56 2017	eduECFA.kent.ac.uk

Figure 1: netperf analysis 1, Warnings by Class

Warnings

Figure 1: netperf analysis 1, Warnings by Class

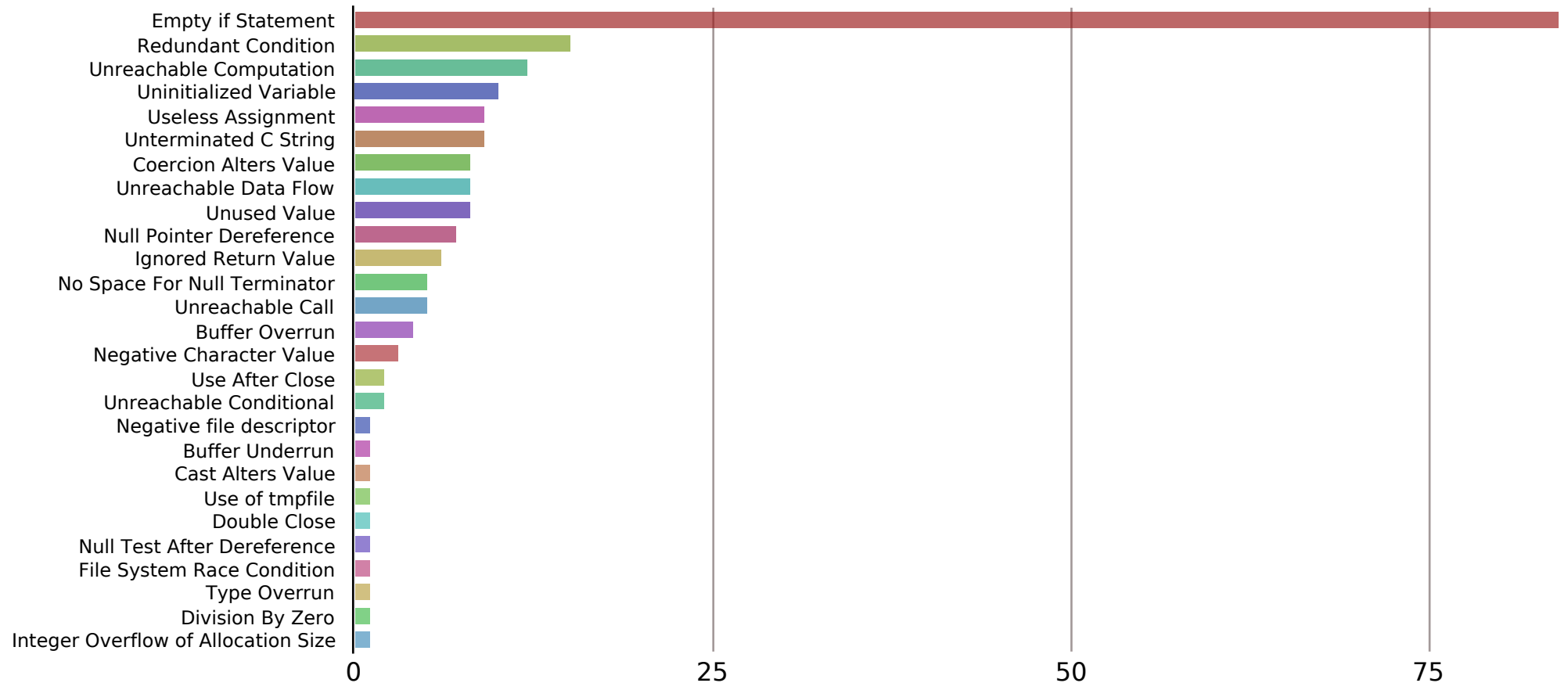


Table 2: netperf analysis 1, Warnings by Class

Table 2: netperf analysis 1, Warnings by Class

Warning Class	Active Warnings
Empty if Statement	84
Redundant Condition	15
Unreachable Computation	12
Uninitialized Variable	10
Useless Assignment	9
Unterminated C String	9
Coercion Alters Value	8
Unreachable Data Flow	8
Unused Value	8
Null Pointer Dereference	7
Ignored Return Value	6
No Space For Null Terminator	5
Unreachable Call	5
Buffer Overrun	4
Negative Character Value	3
Use After Close	2

Table 3: netperf analysis 1, Warnings by File

Warning Class	Active Warnings
Unreachable Conditional	2
Buffer Underrun	1
Use of tmpfile	1
File System Race Condition	1
Negative file descriptor	1
Null Test After Dereference	1
Division By Zero	1
Type Overrun	1
Integer Overflow of Allocation Size	1
Double Close	1
Cast Alters Value	1

Table 3: netperf analysis 1, Warnings by File

File	Active Warnings	Total Lines	Language
shell.c	14	584	C
shell-time.c	13	358	C
shell-run.c	11	104	C

Table 3: netperf analysis 1, Warnings by File

File	Active Warnings	Total Lines	Language
powertrace.c	10	360	C
collect.c	9	1558	C
cfs-posix.c	8	108	C
shell-rime.c	8	359	C
shell-file.c	6	289	C
framer-802154.c	6	274	C
eeeprom.c	6	166	C
nullrdc.c	5	368	C
shell-crc.c	5	310	C
shell-download.c	5	269	C
nbr-table.c	5	483	C
shell-vars.c	5	134	C
shell-sendtest.c	4	213	C
csma.c	4	507	C
shell-text.c	4	211	C
contiki-main.c	3	314	C
shell-rime-sendcmd.c	3	177	C

Table 3: netperf analysis 1, Warnings by File

File	Active Warnings	Total Lines	Language
shell-rime-unicast.c	3	195	C
shell-base64.c	3	151	C
shell-rime-debug.c	3	220	C
phase.c	3	252	C
ctk.c	3	1933	C
shell-power.c	3	262	C
tapdev.c	2	213	C
frame802154e-ie.c	2	585	C
nullrdc-noframer.c	2	112	C
shell-ps.c	2	73	C
rudolph1.c	2	338	C
rudolph2.c	2	407	C
shell-rime-netcmd.c	2	175	C
shell-rime-debug-runicast.c	2	174	C
shell-powertrace.c	2	77	C
rtimer.c	2	108	C
shell-rime-ping.c	2	170	C

Table 3: netperf analysis 1, Warnings by File

File	Active Warnings	Total Lines	Language
serial-shell.c	2	113	C
shell-memdebug.c	2	128	C
route.c	1	292	C
ctimer.c	1	175	C
tapdev-driv.c	1	111	C
shell-rime-neighbors.c	1	102	C
sensors.c	1	137	C
random.c	1	54	C
frame802154.c	1	623	C
shell-collect-view.c	1	85	C
rucb.c	1	170	C
runicast.c	1	250	C
slip.c	1	457	C
netflood.c	1	184	C
mac-sequence.c	1	124	C
ifft.c	1	168	C
shell-coffee.c	1	83	C

Table 3: netperf analysis 1, Warnings by File

File	Active Warnings	Total Lines	Language
linkaddr.c	1	80	C
serial-line.c	1	137	C
polite.c	1	144	C
etimer.c	1	272	C
collect-link-estimate.c	1	139	C
trickle.c	1	210	C
ctk-filedialog.c	1	177	C
shell-rime-sniff.c	1	156	C
shell-reboot.c	1	88	C
netperf-shell.c	1	65	C
collect-neighbor.c	1	436	C
neighbor-discovery.c	1	196	C
shell-blink.c	1	121	C
shell-netperf.c	1	730	C
button-sensor.c	0	32	C
pir-sensor.c	0	35	C
assert.c	0	41	C

Table 3: netperf analysis 1, Warnings by File

File	Active Warnings	Total Lines	Language
me_tabs.c	0	121	C
leds.c	0	119	C
broadcast.c	0	119	C
ctk-curses.c	0	517	C
settings.c	0	475	C
stbroadcast.c	0	120	C
settings.h	0	352	C
symbols.c	0	4	C
stbroadcast.h	0	153	C
linuxradio-drv.c	0	210	C
symbols.h	0	3	C
symbols.h	0	44	C
unicast.c	0	123	C
tapdev-drv.h	0	43	C
xmem.c	0	87	C
process.c	0	388	C
eprom.h	0	116	C

Table 4: netperf analysis 1, Warning Instances

File	Active Warnings	Total Lines	Language
link-stats.c	0	211	C
chameleon-raw.c	0	215	C
ctk-textentry-checkbox.c	0	62	C
anti-replay.h	0	80	C
button-sensor.h	0	12	C
link-stats.h	0	65	C
sensors.h	0	72	C
pir-sensor.h	0	12	C
print-stats.c	0	87	C
xmem.h	0	42	C
stunicast.c	0	176	C
vib-sensor.h	0	52	C

(Showing 100 of 334 Files)

Table 4: netperf analysis 1, Warning Instances

Score	Warning Class	File Name	Procedure Name	Line Number	State	Owner
68	Negative Character Value	ctk.c	textentry_input	1255	None	None

Table 4: netperf analysis 1, Warning Instances

Score	Warning Class	File Name	Procedure Name	Line Number	State	Owner
68	Negative Character Value	shell-base64.c	base64_add_char	89	None	None
68	Negative Character Value	shell.c	shell_strtolong	535	None	None
65	Redundant Condition	shell-vars.c	process_thread_shell_vars_process	80	None	None
64	Division By Zero	powertrace.c	powertrace_print	132	None	None
63	Uninitialized Variable	frame802154.c	frame802154_check_dest_panid	214	None	None
63	Uninitialized Variable	shell-download.c	process_thread_shell_download_process	143	None	None
63	Uninitialized Variable	shell-rime-debug-runicast.c	process_thread_shell_runicast_process	86	None	None
63	Uninitialized Variable	shell-rime-debug.c	process_thread_shell_unicast_process	150	None	None
63	Uninitialized Variable	shell-rime-ping.c	process_thread_shell_rime_ping_process	77	None	None
63	Uninitialized Variable	shell-rime-sendcmd.c	process_thread_shell_sendcmd_process	105	None	None
63	Uninitialized Variable	shell-rime-unicast.c	process_thread_shell_unicast_send_process	92	None	None
63	Uninitialized Variable	shell-rime.c	process_thread_shell_mac_process	122	None	None
63	Uninitialized Variable	shell-rime.c	process_thread_shell_send_process	260	None	None
63	Uninitialized Variable	shell-sendtest.c	process_thread_shell_sendtest_process	129	None	None
61	Integer Overflow of Allocation Size	shell-crc.c	process_thread_shell_bin2hex_process	129	None	None
61	No Space For Null Terminator	shell-time.c	process_thread_shell_repeat_server_process	173	None	None
61	No Space For Null Terminator	shell-ps.c	process_thread_shell_ps_process	61	None	None

Table 4: netperf analysis 1, Warning Instances

Score	Warning Class	File Name	Procedure Name	Line Number	State	Owner
61	No Space For Null Terminator	shell-file.c	process_thread_shell_read_process	205	None	None
61	No Space For Null Terminator	shell-time.c	process_thread_shell_randwait_process	323	None	None
60	No Space For Null Terminator	shell-time.c	process_thread_shell_repeat_process	250	None	None
60	Unterminated C String	shell-time.c	process_thread_shell_repeat_server_process	174	None	None
60	Unterminated C String	shell-time.c	process_thread_shell_randwait_process	324	None	None
60	Unterminated C String	shell-time.c	process_thread_shell_randwait_process	338	None	None
60	Unterminated C String	shell-time.c	process_thread_shell_repeat_process	251	None	None
59	File System Race Condition	eeeprom.c	eeeprom_init	82	None	None
59	Unterminated C String	cfs-posix.c	cfs_open	52	None	None
59	Unterminated C String	shell.c	shell_output_str	386	None	None
59	Unterminated C String	shell.c	shell_output_str	389	None	None
59	Unterminated C String	ctk-filedialog.c	ctk_filedialog_eventhandler	148	None	None
58	Negative file descriptor	cfs-posix.c	cfs_seek	100	None	None
58	Buffer Overrun	shell-sendtest.c	process_thread_shell_sendtest_process	184	None	None
58	Buffer Overrun	shell-powertrace.c	process_thread_shell_powertrace_process	65	None	None
58	Double Close	cfs-posix.c	cfs_close	73	None	None
58	Use After Close	cfs-posix.c	cfs_write	85	None	None

Table 4: netperf analysis 1, Warning Instances

Score	Warning Class	File Name	Procedure Name	Line Number	State	Owner
58	Unterminated C String	shell.c	shell_output_str	387	None	None
57	Buffer Overrun	shell-sendtest.c	process_thread_shell_sendtest_process	189	None	None
57	Use After Close	cfs-posix.c	cfs_read	79	None	None
51	Null Test After Dereference	frame802154e-ie.c	frame80215e_create_ie_tsch_channel_hopping_sequence	303	None	None
51	Type Overrun	shell-base64.c	base64_add_char	105	None	None
48	Coercion Alters Value	contiki-main.c	stdin_handle_fd	135	None	None
48	Null Pointer Dereference	polite.c	recv	60	None	None
48	Null Pointer Dereference	shell.c	process_thread_shell_kill_process	161	None	None
48	Coercion Alters Value	csma.c	send_packet	385	None	None
48	Null Pointer Dereference	nbr-table.c	nbr_table_add_lladdr	368	None	None
47	Null Pointer Dereference	shell-rime.c	process_thread_shell_packetize_process	175	None	None
47	Coercion Alters Value	route.c	route_lookup	174	None	None
47	Coercion Alters Value	shell-download.c	shell_download_init	263	None	None
47	Coercion Alters Value	rucb.c	rucb_open	150	None	None
47	Coercion Alters Value	shell-time.c	process_thread_shell_time_process	107	None	None
46	Null Pointer Dereference	shell.c	shell_output_str	387	None	None
46	Null Pointer Dereference	linkaddr.c	linkaddr_copy	65	None	None

Table 4: netperf analysis 1, Warning Instances

Score	Warning Class	File Name	Procedure Name	Line Number	State	Owner
46	Null Pointer Dereference	ctk.c	select_widget	983	None	None
46	Coercion Alters Value	tapdev.c	tapdev_poll	175	None	None
45	Coercion Alters Value	ifft.c	ifft	123	None	None
44	Cast Alters Value	random.c	random_rand	52	None	None
39	Buffer Underrun	nbr-table.c	remove_key	195	None	None
33	Buffer Overrun	serial-shell.c	shell_default_output	76	None	None
27	Ignored Return Value	eeeprom.c	eeeprom_fill	60	None	None
27	Ignored Return Value	eeeprom.c	eeeprom_init	105	None	None
27	Ignored Return Value	eeeprom.c	eeeprom_read	160	None	None
27	Ignored Return Value	eeeprom.c	eeeprom_write	136	None	None
27	Ignored Return Value	mac-sequence.c	mac_sequence_is_duplicate	76	None	None
27	Ignored Return Value	netflood.c	recv_from_ipolite	113	None	None
23	Unused Value	powertrace.c	powertrace_print	95	None	None
23	Unused Value	powertrace.c	powertrace_print	96	None	None
23	Unused Value	powertrace.c	powertrace_print	102	None	None
23	Unused Value	powertrace.c	powertrace_print	103	None	None
23	Unused Value	powertrace.c	powertrace_print	112	None	None

Table 4: netperf analysis 1, Warning Instances

Score	Warning Class	File Name	Procedure Name	Line Number	State	Owner
23	Unused Value	powertrace.c	powertrace_print	114	None	None
23	Unused Value	powertrace.c	powertrace_print	115	None	None
23	Unused Value	shell.c	shell_start_command	325	None	None
21	Useless Assignment	cfs-posix.c	cfs_seek	92	None	None
21	Useless Assignment	cfs-posix.c	cfs_seek	94	None	None
21	Useless Assignment	cfs-posix.c	cfs_seek	96	None	None
21	Useless Assignment	collect.c	rtmetric_compute	252	None	None
21	Useless Assignment	framer-802154.c	create_frame	88	None	None
21	Useless Assignment	framer-802154.c	create_frame	90	None	None
21	Useless Assignment	framer-802154.c	create_frame	93	None	None
21	Useless Assignment	framer-802154.c	create_frame	98	None	None
21	Useless Assignment	tapdev.c	tapdev_init	141	None	None
20	Redundant Condition	collect-link-estimate.c	collect_link_estimate_update_tx	83	None	None
20	Redundant Condition	contiki-main.c	set_rime_addr	153	None	None
20	Redundant Condition	csma.c	backoff_period	160	None	None
20	Redundant Condition	csma.c	channel_check_interval	484	None	None
20	Redundant Condition	frame802154e-ie.c	frame80215e_create_ie_tsch_channel_hopping_sequence	303	None	None

Table 4: netperf analysis 1, Warning Instances

Score	Warning Class	File Name	Procedure Name	Line Number	State	Owner
20	Redundant Condition	nbr-table.c	nbr_table_allocate	234	None	None
20	Redundant Condition	nullrdc-noframer.c	send_packet	51	None	None
20	Redundant Condition	nullrdc.c	packet_input	324	None	None
20	Redundant Condition	nullrdc.c	send_one_packet	213	None	None
20	Redundant Condition	phase.c	phase_update	124	None	None
20	Redundant Condition	phase.c	phase_wait	186	None	None
20	Redundant Condition	rtimer.c	rtimer_run_next	101	None	None
20	Redundant Condition	rudolph1.c	handle_data	189	None	None
20	Redundant Condition	rudolph2.c	recv	355	None	None
18	Unreachable Call	collect.c	update_parent	318	None	None
18	Unreachable Call	collect.c	update_parent	378	None	None
18	Unreachable Call	powertrace.c	powertrace_print	131	None	None
18	Unreachable Call	rtimer.c	rtimer_run_next	102	None	None
18	Unreachable Call	shell-vars.c	process_thread_shell_var_process	104	None	None

(Showing 100 of 207 Warnings)

Analysis Metrics

Table 5: netperf analysis 1 Metrics

Metric Name	Value
Blank Lines	5472
Code Lines	23496
Comment Lines	24266
Include file instances	150
Lines with Code	24661
Lines with Comments	25431
Mixed Lines	1165
Top-level file instances	150
Total Lines	54399
User-defined functions	956

File Metrics

Table 6: netperf analysis 1 File Metrics Summary

Metric Name	Max	Min	Avg
Blank Lines	219	0	16.38
Code Lines	1198	2	70.35
Comment Lines	1302	0	72.65
Cyclomatic Complexity	194	0	9.30
Lines with Code	1289	2	73.84
Lines with Comments	1422	0	76.14
Mixed Lines	120	0	3.49
Modified Cyclomatic Complexity	167	0	8.81
Taint Propagator Total	14	0	0.36
Taint Sink Total	6	0	0.41
Taint Source Total	2	0	0.06
Total Lines	2219	3	162.87

Table 7: netperf analysis 1 File Metrics Details

Table 7: netperf analysis 1 File Metrics Details

File	Total Lines	Lines with Code	Lines with Comments	Code Lines	Comment Lines	Blank Lines
uip.h	2219	698	1422	578	1302	219
ctk.c	1933	1289	554	1198	463	181
collect.c	1558	983	436	956	409	166
ctk.h	989	467	506	376	415	107
shell-netperf.c	730	584	80	577	73	73
uipopt.h	684	159	487	122	450	75
frame802154.c	623	401	194	380	173	49
frame802154e-ie.c	585	458	119	434	95	32
shell.c	584	438	87	438	87	59
process.h	531	90	386	88	384	57
ctk-conio.c	530	419	71	403	55	56
ctk-curses.c	517	384	93	383	92	41
trickle-timer.h	514	76	418	65	407	31
csma.c	507	369	99	364	94	44
nbr-table.c	483	331	132	328	129	23
settings.c	475	284	104	281	101	90

Table 7: netperf analysis 1 File Metrics Details

File	Total Lines	Lines with Code	Lines with Comments	Code Lines	Comment Lines	Blank Lines
queuebuf.c	473	365	103	345	83	25
slip.c	457	343	90	327	74	40
collect-neighbor.c	436	312	86	310	84	40
shell.h	416	83	293	82	292	41
trickle-timer.c	410	243	128	238	123	44
rudolph2.c	407	272	97	269	94	41
psock.h	404	59	321	49	311	34
chameleon-bitopt.c	395	265	104	258	97	33
process.c	388	233	113	229	109	46
tcpip.h	378	55	283	53	281	42
packetbuf.h	371	153	185	141	173	45
nullrdc.c	368	271	87	247	63	34
powertrace.c	360	276	57	274	55	29
shell-rime.c	359	255	55	250	50	54
shell-time.c	358	228	80	226	78	52
settings.h	352	173	134	156	117	62
rudolph1.c	338	244	69	241	66	28

Table 7: netperf analysis 1 File Metrics Details

File	Total Lines	Lines with Code	Lines with Comments	Code Lines	Comment Lines	Blank Lines
ctk-draw.h	335	27	281	26	280	28
list.c	330	123	182	123	182	25
route-discovery.c	329	220	80	216	76	33
pt.h	322	57	231	56	230	35
contiki-main.c	314	213	63	209	59	42
shell-crc.c	310	213	59	210	56	41
tcp-socket.h	299	63	212	62	211	25
radio.h	294	62	186	61	185	47
route.c	292	191	76	185	70	31
shell-file.c	289	209	49	209	49	31
cfs.h	285	61	200	60	199	25
contiki-default-conf.h	285	95	185	63	153	37
contiki-conf.h	275	183	57	165	39	53
announcement.h	274	35	213	34	212	27
framer-802154.c	274	172	80	165	73	29
etimer.c	272	171	74	171	74	27
shell-download.c	269	173	65	173	65	31

Table 7: netperf analysis 1 File Metrics Details

File	Total Lines	Lines with Code	Lines with Comments	Code Lines	Comment Lines	Blank Lines
mt.h	263	29	208	28	207	27
shell-power.c	262	185	49	182	46	31
packetbuf.c	254	167	71	166	70	17
etimer.h	254	23	208	22	207	24
phase.c	252	159	71	156	68	25
runicast.c	250	168	63	166	61	21
broadcast-announcement.c	235	144	64	142	62	29
frame802154.h	230	101	138	65	102	27
packetqueue.h	222	31	168	30	167	24
shell-rime-debug.c	220	148	45	147	44	28
chameleon-raw.c	215	141	64	135	58	16
shell-sendtest.c	213	141	52	138	49	23
tapdev.c	213	137	52	130	45	31
link-stats.c	211	120	77	117	74	17
mesh.c	211	135	53	134	52	24
shell-text.c	211	140	47	139	46	25
linuxradio-drv.c	210	157	34	157	34	19

Table 7: netperf analysis 1 File Metrics Details

File	Total Lines	Lines with Code	Lines with Comments	Code Lines	Comment Lines	Blank Lines
trickle.c	210	137	60	133	56	17
tsch-conf.h	201	97	85	90	78	26
timesynch.c	198	113	64	112	63	22
ipolite.h	197	28	151	27	150	19
polite-announcement.c	197	119	57	117	55	23
neighbor-discovery.c	196	116	57	116	57	23
shell-rime-unicast.c	195	117	52	116	51	27
rime.c	194	115	66	107	58	21
elfloader.h	194	40	143	34	137	17
udp-socket.h	193	33	147	32	146	14
polite.h	192	25	150	24	149	18
mtarch.c	185	92	66	84	58	35
netflood.c	184	116	54	116	54	14
aes-128.c	183	108	57	108	57	18
ipolite.c	183	118	55	118	55	10
ctk-filedialog.c	177	125	39	125	39	13
shell-rime-sendcmd.c	177	102	51	100	49	26

Table 7: netperf analysis 1 File Metrics Details

File	Total Lines	Lines with Code	Lines with Comments	Code Lines	Comment Lines	Blank Lines
ccm-star.c	177	111	50	111	50	16
uip-fw.h	176	34	127	30	123	19
stunicast.c	176	107	60	107	60	9
shell-rime-netcmd.c	175	95	55	93	53	27
ctimer.c	175	112	51	112	51	12
shell-rime-debug-runicast.c	174	113	44	111	42	19
collect.h	171	86	71	74	59	26
shell-rime-ping.c	170	111	44	110	43	16
rucb.c	170	110	47	110	47	13
rtimer.h	169	37	115	33	111	21
ifft.c	168	94	57	93	56	18
ctimer.h	166	20	133	19	132	14
eeeprom.c	166	87	51	87	51	28
cc.h	165	64	96	47	79	22
mmem.c	164	49	98	49	98	17
simple-udp.h	163	33	115	32	114	16

(Showing 100 of 334 Files)