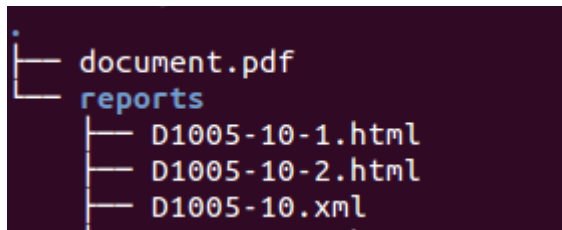


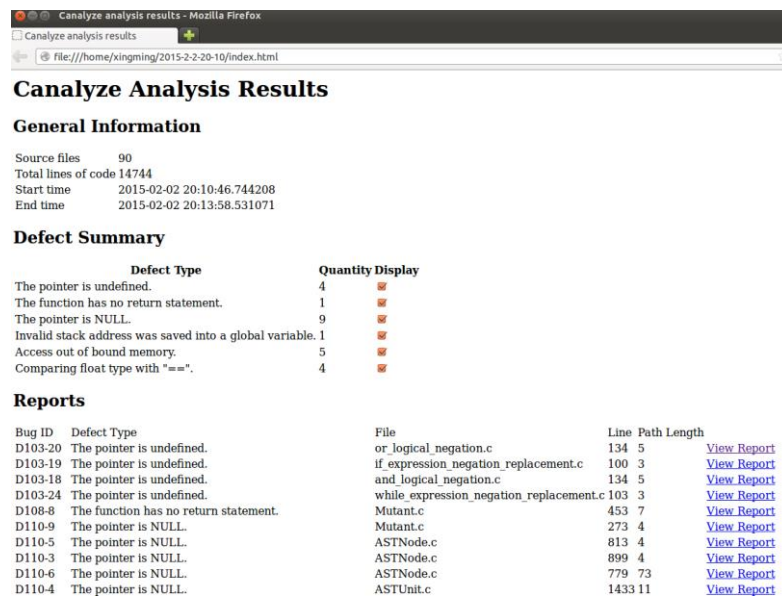
1,unzip the attachment, the directory is as followed:



“cd reports ”, you can get a “*index.html*”(tens of files in current directory) , open it:

```
~/attachment/reports$ firefox index.html
```

2, content of “*index.html*” is as followed:



The screenshot shows a web browser window titled 'Canalyze analysis results - Mozilla Firefox'. The address bar shows the file path 'file:///home/xingming/2015-2-2-20-10/index.html'. The page content is titled 'Canalyze Analysis Results' and includes a 'General Information' section with the following data:

Source files	90
Total lines of code	14744
Start time	2015-02-02 20:10:46.744208
End time	2015-02-02 20:13:58.531071

Below this is a 'Defect Summary' section with a table:

Defect Type	Quantity	Display
The pointer is undefined.	4	<input checked="" type="checkbox"/>
The function has no return statement.	1	<input checked="" type="checkbox"/>
The pointer is NULL.	9	<input checked="" type="checkbox"/>
Invalid stack address was saved into a global variable.	1	<input checked="" type="checkbox"/>
Access out of bound memory.	5	<input checked="" type="checkbox"/>
Comparing float type with "==".	4	<input checked="" type="checkbox"/>

At the bottom is a 'Reports' section with a table:

Bug ID	Defect Type	File	Line	Path	Length	
D103-20	The pointer is undefined.	or_logical_negation.c	134	5		View Report
D103-19	The pointer is undefined.	if_expression_negation_replacement.c	100	3		View Report
D103-18	The pointer is undefined.	and_logical_negation.c	134	5		View Report
D103-24	The pointer is undefined.	while_expression_negation_replacement.c	103	3		View Report
D108-8	The function has no return statement.	Mutant.c	453	7		View Report
D110-9	The pointer is NULL.	Mutant.c	273	4		View Report
D110-5	The pointer is NULL.	ASTNode.c	813	4		View Report
D110-3	The pointer is NULL.	ASTNode.c	899	4		View Report
D110-6	The pointer is NULL.	ASTNode.c	779	73		View Report
D110-4	The pointer is NULL.	ASTUnit.c	1433	11		View Report

2.1 Part of “*Defect Summary*” summarizes this report. In this case, we found six kinds of “bugs” (not be ensured to be bug), the first is “The pointer is undefined”, count is “4”; the last is “comparing float type with “==””, count is “4”, and so on.

2.2 Part of “**Reports**” details every bug, such as the first one is as followed:

Bug ID	Defect Type	File	Line	Path Length	
D103-20	The pointer is undefined.	or_logical_negation.c	134	5	View Report

There are 5 columns:

Bug ID	the ID of this bug, which is “ <i>D103-20</i> ”
Defect Type	the kind of this bug
File	The file in which we detect this bug, which is “ <i>or_logical_negation.c</i> ”.
Line	at line number of “File”, we detect this bug, which is “ <i>134</i> ”
Path Length	the count of branches from start analysis to detect this bug

2.2 “*View Report*” is the hyperlink of static analysis process for this bug.

For first “bug” as an example,

```

1 }
2 static gboolean mutator_milu_or_logical_negation_clean(ASTNode * node, gint type)
3 {
4     Start Analysis.
5     {
6         ASTNode * cnode;
7         if(type == 1)
8         {
9             cnode = node;
10        }
11        else if(type == 2 )
12        {
13            cnode = node->children->children->children;
14        }
15        else if(type == 3 )
16        {
17            cnode = node->children->next_sibling->children->children;
18        }
19        ASTNode * pnode = cnode->parent;
20    }
21    The pointer is undefined. cnode
  
```

Event 1: we start analysis.

....

Event 5: we detect the “bug”, when this function runs as the special path we highlighted.