Software Engineering CS301

Web Application for NIC

Coding Metrics

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1. Introduction

This document will provide the coding metric values for the project. The metric tools used for the same are,

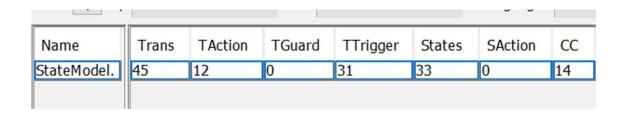
- SDMetrics the Object-Oriented design quality measurement tool for the UMLTM. SDMetrics analyzes the structure of your UML models.
- PHPloc A tool for quickly measuring the size and analyzing the structure of a PHP project.

2. SDMetrics Output

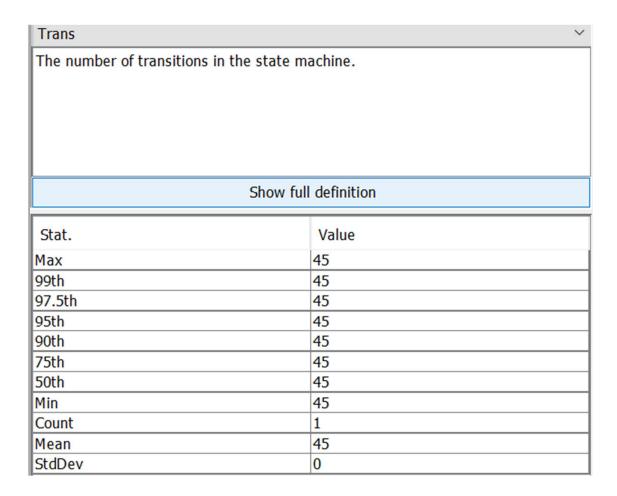
This section shows the analysis of UML metrics for the whole project. The UML files used are the state diagrams from the Software Design Specifications. Below are the metric analyses provided by the tool.

Name	Domain	Category	Description
Objects	component	Size	The number of objects on instances of the component.
Diags	component	Diagram	The number of times the component appears on a diagram.
NumOps	node	Size	The number of operations of the node.
NumComp	node	Size	The number of subcomponents of the node.
NumPack	node	Size	The number of packages of the node.
AssEl	node	Coupling	The number of elements the node is associated with.
Instances	node		The number of instances of the node.
InstanceLinks	node	Coupling	The number of links attached to instances of the node.
Diags	node	Diagram	The number of times the node appears on a diagram.
type	diagram		The type of diagram (class diagram, sequence diagram, etc.
Elements	diagram	Size	The total number of design elements on the diagram.
Classes	diagram	Size	The number of classes on the diagram.
Interfc	diagram	Size	The number of interfaces on the diagram.
Packages	diagram	Size	The number of packages on the diagram.
Assoc	diagram	Complexity	The number of associations on the diagram.
Genrs	diagram	Complexity	The number of generalizations on the diagram.
Deps	diagram	Complexity	The number of UML dependencies and UML usage dependencies on the diagram.
Abstr	diagram	Complexity	The number of abstractions on the diagram.
Objects	diagram	Size	The number of objects on the diagram.
Links	diagram	Complexity	The number of links on the diagram.
Messages	diagram	Complexity	The number of messages on the diagram.
Stimuli	diagram	Complexity	The number of stimuli on the diagram.
Actors	diagram	Size	The number of actors on the diagram.
UseCase	diagram	Size	The number of use cases on the diagram.
ExtPts	diagram	Size	The number of extension points on the diagram.

Overall Analysis



Below are the details of individual metrics



TAction		~
The number of actions	defined for the transitions of the state machine	
	Show full definition	
Stat.	Value	
Max	12	
99th	12	
97.5th	12	
95th	12	
90th	12	
75th	12	
50th	12	
Min	12	
Count	1	
Mean	12	
StdDev	0	

TGuard

The number of guards defined for the transitions of the state machine.

Show full definition		
Stat.	Value	
Max	0	
99th	0	
97.5th	0	
95th	0	
90th	0	
75th	0	
50th	0	
Min	0	
Count	1	
Mean	0	
StdDev	0	

TTrigger

The number of triggers on the transitions of the state machine.

Show full definition				
Stat.	Value			
Max	31			
99th	31			
97.5th	31			
95th	31			
90th	31			
75th	31			
50th	31			
Min	31			
Count	1			
Mean	31			
StdDev	0			

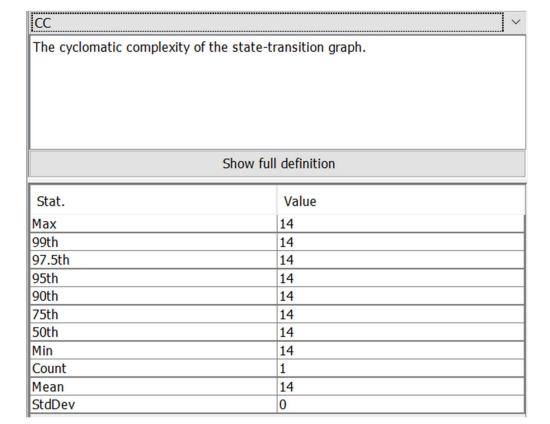
States

The number of states in the state machine.

Show full definition

Stat.	Value	
Max	33	
99th	33	
97.5th	33	
95th	33	
90th	33	
75th	33	
50th	33	
Min	33	
Count	1	
Mean	33	
StdDev	0	

SAction			*		
The number of actions	defined for the sta	ates of the state machine.			
Show full definition					
Stat.		Value			
Max		0			
99th		0			
97.5th		0			
95th		0			
90th		0			
75th		0			
50th		0			
Min		0			
Count		1			
Mean		0			
StdDev		0			



2. PHPloc Output

This section shows the analysis of code metrics for the whole project (Client - Side and Admin - Side).

```
phploc 4.0.1 by Sebastian Bergmann.
Directories
                                                            2
Files
                                                           29
  Lines of Code (LOC)
                                                         1728
                                                         11 (0.64%)
1717 (99.36%)
536 (31.02%)
  Comment Lines of Code (CLOC)
  Non-Comment Lines of Code (NCLOC)
Logical Lines of Code (LLOC)
    Classes
                                                            0 (0.00%)
      Average Class Length
         Minimum Class Length
        Maximum Class Length
                                                            0
                                                            0
      Average Method Length
        Minimum Method Length
                                                            0
        Maximum Method Length
                                                            a
                                                           27 (5.04%)
    Functions
      Average Function Length
    Not in classes or functions
                                                          509 (94.96%)
Cyclomatic Complexity
  Average Complexity per LLOC
Average Complexity per Class
                                                         0.13
                                                         0.00
    Minimum Class Complexity
                                                         0.00
    Maximum Class Complexity
                                                         0.00
  Average Complexity per Method
                                                         0.00
    Minimum Method Complexity
                                                         0.00
    Maximum Method Complexity
                                                         0.00
Dependencies
  Global Accesses
    Global Constants
Global Variables
                                                            0 (0.00%)
0 (0.00%)
    Super-Global Variables
                                                           54 (100.00%)
  Attribute Accesses
                                                            a
    Non-Static
                                                            0 (0.00%)
    Static
                                                            0 (0.00%)
  Method Calls
    Non-Static
                                                            0 (0.00%)
0 (0.00%)
    Static
Structure
  Namespaces
  Interfaces
                                                            0
                                                            0
  Traits
  Classes
    Abstract Classes
                                                            0 (0.00%)
    Concrete Classes
                                                              (0.00%)
  Methods
    Scope
                                                            0 (0.00%)
0 (0.00%)
      Non-Static Methods
      Static Methods
    Visibility
      Public Methods
                                                            0 (0.00%)
      Non-Public Methods
                                                            0 (0.00%)
  Functions
                                                            6
                                                            6 (100.00%)
    Named Functions
    Anonymous Functions
                                                            0 (0.00%)
  Constants
    Global Constants
                                                            0 (0.00%)
                                                            0 (0.00%)
    Class Constants
```