WeCalEvent

Project Reporting Document

Software Engineering 2

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LaTeX

Contents

1 Function Points

Function types	Weight		
	Simple	Medium	Complex
N.Inputs	3	4	6
N.Outputs	4	5	7
N.Inquiry	3	4	6
N.ILF	7	10	15
N.EIF	5	7	10

Internal Logical File

- Users
- Events
- Notifications

There are three entities with simple structure.

Thus we adopt a simple weight for all of them : $3 * 7 = 21$ FPs.

External Interface File

- Weather

This is a medium weight entity: $1 * 7 = 7$ FPs.

External Input

- Login/Logout
- Create/Update user
- Create/Update/Delete event
- Import Calendar

Login/Logout is a simple structure entity.

For three other entities we adopt medium weight: $1 * 3 + 3 * 4 = 15$ FPs.

External Output

- Calendar
- Export Calendar

Weight for Calendar is 7, for Export Calendar is 5: $1 * 7 + 1 * 5 = 12$ FPs.

External Inquiry

- Search users
- View event
- View profile

Search users and View profile are easy tasks, while View event is medium hard: $2 * 3 + 1 * 4 = 10$ FPs.

Thus, in total we have $21 + 7 + 15 + 12 + 10 = 65$ FPs $->$ unadjusted function points.

1.1 Comparison with actual

Using JEE as programming language unadjusted SLOC $= 65 * 46 = 2990$ SLOC

Our project actual SLOC obtained with CLOC tool including test :

Java: 2772 SLOC

JSF: 731 SLOC

Total: 3503 SLOC

1.2 Result analyse

Regarding to FP analyse, our actual size of project is approximately equal to Functional Point results with an error rate of (3503-2990)/2990 = 17% .

2 COCOMO II analyse

We will get the required effort by COCOMO II, by using our actual source line of code.

2.1 COCOMO formula

Effort $=2.94 * (KSLOC)^E * EAF$

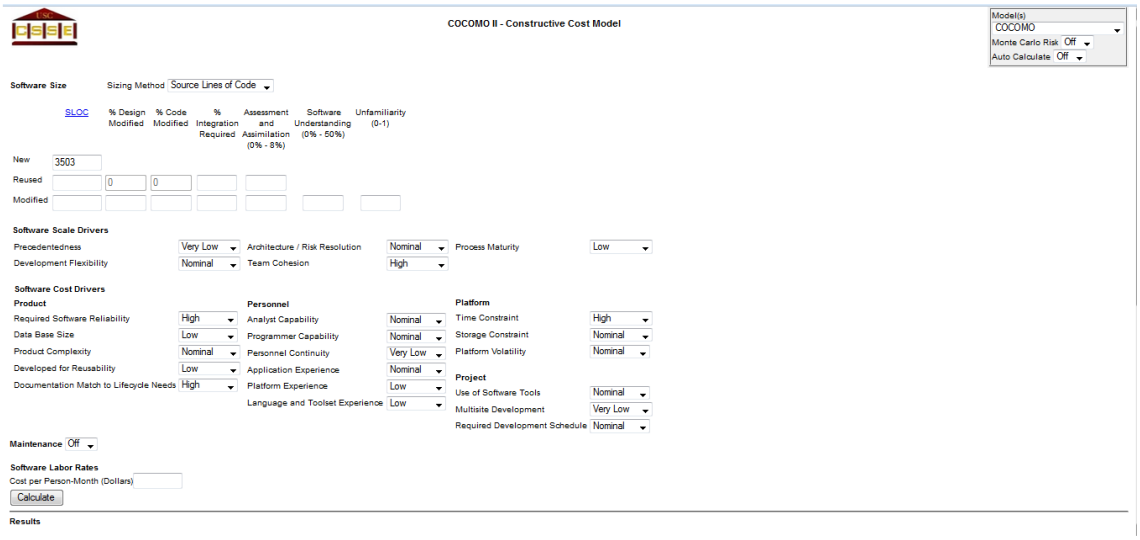
EAF : The effort Adjustment Factor derived from the Cost Drivers.

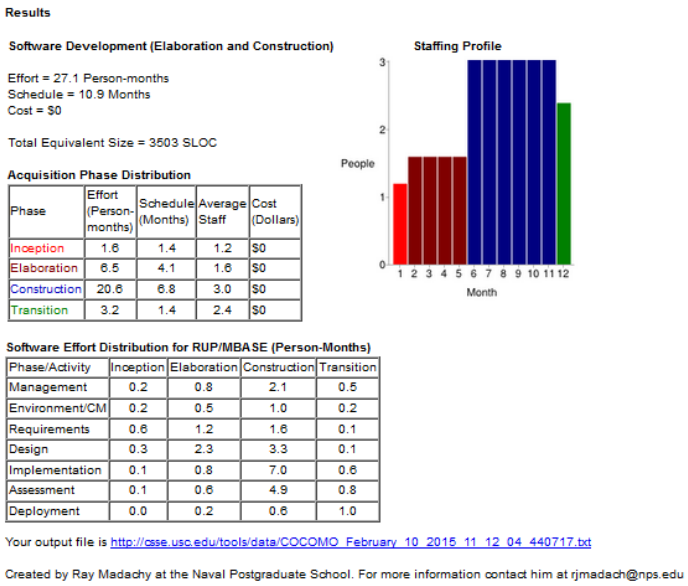
E : Is an exponent derived from five Scale Drivers

KSLOC : 3,503

Result:

These results are obtained with the following link: http://csse.usc.edu/tools/COCOMOII.php





2.2 Result analyse

Number of people = Effort/Duration = 27.1/10.9 = 2.48 = 3 people.

To fulfill the effort required for this project 3 people are required, which matches with our number of team members.