2009

Carnegie Mellon University

The team "Gang of Four" – Group 2

[CYCLE 2 REPORT]

Table of Contents

1. Summary

1. Purpose

The purpose of this document is to discuss the retrospection done by the whole team after the end of cycle-2 of the TSPi project.

2. Process

Entry Criteria	The team has gone through the all the forms at the end of cycle 2. The team has read the chapter's 10, 16, 17 & 18 of the prescribed textbook to understand the process.
Overview of Process	The team joins for a postmortem meeting to discuss - The goals that were set at the launch of the project. - The goals that were achieved. - The goals that could not be accomplished. - The team also reviews the summary of cycle 2 data pertaining to product development to understand project status.
Exit Criteria	The peer review forms are filled by the team. A report is generated that summarizes the accomplishments of the first cycle.

3. Key Points

1) We achieved SPI better than 1, because we reused a library code.

2) We probably overestimated our tasks in the Cycle 2 and also because of reuse, we achieved CPI better than one.

3) Cycle 2 has been less rigorous, as all of us got used to the data collection process and all of us were able to analyze most of the reports.

2. Role Reports

Team Lead Role Report:

Role	Team Leader/ Support Manager <ABHISHEK>
Self review	**As a Team leader:** I tried my best to adhere to the goals that I defined in the LAU2. I tried to discover and resolve technical and personal issues in the team. I tried to co-ordinate activities including, coding, testing, integration and the data analysis. **Areas of Improvement:** Team scoreboard to measure how the team is feeling about the project could have been created. Due to dual role I was performing, I found it difficult to cope up with the load. **As a Support Manager:** • Due to certain problems in the setup of the process dashboard on the local machine of one of the team members. I was putting in the data on behalf of that person. • I helped the planning manager to configure the process dashboard and extract the reports from the tool. • As in this cycle we did all the coding, testing and integration. It was required that we have a good configuration management process. And we made sure that we adhered to the quality standards we defined, we used findbugs to get rid of most of the mechanical defects. • I coordinated with the team members when updating a certain piece of code into the based lined code. • We did not have a CCB process. We did think about having it, however, we thought we did not need it. • Risk: We were tracking risks and issues in every status meeting. This was one of the better thing as compared to the cycle1.
Team performance	The team performed really well. We were close (18 LOC/hr) to our productivity goal (20 Loc/hr). Our documentation and understanding of the process has been good. We were conducting the meetings very well. In the cycle2, all team members were able to interpret the data and the intent behind it. I have been happy with the team's morale and productivity.

As Engineer	**Tasks accomplished:** • I tried my best to produce defect free deliverables including code. I coded controller and performed code integration. • I updated the design document based on the defects we found during testing and coding.

Process Manager Role Report:

Role	**Quality/Process Manager<JOAO>**
Self review	**Accomplishments:** Gain a better knowledge and experience on the role responsibilities and with the TSP process. Better understanding on support tool usage and data assessment using the tool. I have achieved the goal to have a defect ration below 20 defects/KLOC. The components I have created achieved a zero defect ratio, however they were very simple and small components in comparison with the others components required to build the system. I have also accomplished the goal to collect and record data consistently due to the software tool used to support the project (Dashboard tool). Once understanding how the tool works (which was not that difficult), it was easy to collect data. **Areas of Improvement:** Need understand more about how to improve team quality process and gain more knowledge on the software development tool used (Eclipse). As a personal goal established on this project, I aimed to attain a productivity ratio of 15 LOC/h. Nevertheless, my ratio was 19 LOC/h, thus I need to gain more practice on coding in order to achieve my goal.
Team performance	**Accomplishments:** The team is following the TSP process and having commitment with the goal to deliver a quality product to the client. The TSP process data are being kept updated by each team member using the tool. The team velocity on coding was satisfactory almost reaching the planned

	value. We could also reuse more code than we expected, which helped us to increase our velocity. **Areas of Improvement:** The defect ratio per line of code achieved by the team was much higher than expected (almost 3 times higher). This may be due to some part of the team members not having experience with the language and the tool. During code review and code inspection the team found most of the defects injected during code, which helped on decreasing the number of defects found later test stages. Nevertheless, the defect ratios expected for reviews and inspections was also higher than the expected. Therefore, we should improve the quality on our reviews and inspections. The team also had some difficulties on adopting the svn tool as a change management tool. Some documents were initially created using Google Docs to allow document edition by more than one person at the same time. But, after editing, these documents should be kept on svn tool for version control, which was not done with all documents created by the team. Therefore, the team still needs to better adopt document creation process.
As Engineer	**Accomplishments:** I a quality and process document were created to help the team view the standards to be used and the quality goals to be achieved as a team. **Areas of Improvement:** Create a team scoreboard to measure how the team is feeling about the project. Keep track of team data to improve team quality. Be more effective on creating mechanism to help the team on follow the standards and to ensure that everything are on an acceptable quality level.

Development Manager Role Report:

Role	**Development Manager <KRISHNAN>**
Self review	**Accomplishments:** Set up the development environment integrated with bug tracking software and subversion. Created an initial code skeleton for the team to work on.

	Worked with other team mates to verify if the code was following the design. Completed the Comparator Component assigned to me. Unit tested the GUI Component. Identified and fixed defects in the GUI component.
Team performance	**Accomplishments:** The team used the findbugs tool to capture defects in code. The usage of the tool significantly improved the team ability to identify bugs. The team was able to identify in total of 35 Defects. The team was able to resuse 32% of TOTAL Lines of code which helped the SPI to remain > 1.0
As Engineer	**Accomplishments:** Completed and integrated the comparator component summing up to 117 LOC Found and tested a library that could be used to compare two files and find the difference records which sums up to 225 LOC.

Planning Manager Role Report:

Role	Planning Manager <NISHA>
Self review	I came up with the list of tasks and schedule for cycle 2 during the cycle 2 launch. It was seen that the time taken to complete coding tasks took much lesser time and effort than expected. This was because one module of code was reused completely. The planned effort (with code-reuse) was much higher, because we had taken into consideration the tweaking that we thought we needed to perform on re-used code in order to suit our project needs. But then we realized that even tweaking it was not warranted. This brought down the actual effort for coding drastically. Hence there was lots of time to do code inspection and review effectively as a team. I created a task called defect fixing and allotted it to everybody, for everyone to fix code defects. There was sufficient time for all members to fix all code defects found during code inspection and review. **Area of Improvement:**

	To plan more ahead in time for assignment submissions, to achieve effective sharing of work for assignment deliverables. To check the time log of team members to check if any actual data is missed out.
Team performance	All meetings went off well with equal participation from all team members. Decisions are taken well, after taking every team member's opinion.
As Engineer	I had to develop GUI module and Online Help module. My estimated productivity : 15 LOC/hr The planned time to complete GUI : 12 hrs , Actual time taken : 4 hrs The Planned time to complete Online Help: 10 hrs , Actual time taken : 1 hr Actual lines for GUI : 206 LOC Actual lines for Online Help : 45 LOC Actual Productivity: 51 LOC/Hr TEAM PERFORMANCE: We had a good configuration management in place to check-in developed code. We had a dedicated person to integrate all modules of code into a base lined version . The code was integrated by the team member without any integration issues. This was a good sign. The code inspection went off well , by a line by line analysis of every line of code. **Area of Improvement:** To make the GUI more usable from an end-user's perspective.

3. Role Evaluations

Peer review by Joao

Name	**Joao**	Team	**4**	Instructor	**Mel Rosso**
Date	**May 2nd 2009**	Cycle No	**2**	Week No	**7**

For each role, evaluate the work required and the relative difficulty in % during the cycle

Role	Work Required	Role Difficulty
Team Leader	30%	20%
Development Manager	15%	20%
Planning Manager	30%	20%
Quality/Process Manager	15%	20%
Support Manager	10%	20%
Total Contribution (100%)		

Rate the Entire Team against each criteria | **(Fill Color as 'Grey' to mark the cell as selected**

Team Spirit	1	2	3	4	**5**
Overall effectiveness	1	2	3	**4**	5
Rewarding experience	1	2	3	**4**	5
Team productivity	1	2	3	**4**	5
Process quality	1	2	3	**4**	5
Product quality	1	2	3	**4**	5

Rate role for overall contribution --1(inadequate) to 5 (superior)

Team Leader	1	2	3	4	**5**
Development Manager	1	2	3	**4**	5
Planning Manager	1	2	3	**4**	5
Quality/Process Manager	1	2	3	**4**	5
Support Manager	1	2	3	**4**	5

Rate each role for helpfulness and support -- 1 (inadequate) to 5 (superior)

Team Leader	1	2	3	**4**	5
Development Manager	1	2	3	**4**	5
Planning Manager	1	2	3	**4**	5
Quality/Process Manager	1	2	3	**4**	5
Support Manager	1	2	3	4	**5**

Rate each role for how well it was performed -- (inadequate) to 5 (superior)

Team Leader	1	2	3	**4**	5
Development Manager	1	2	3	**4**	5
Planning Manager	1	2	3	**4**	5
Quality/Process	1	2	3	**4**	5

Manager
Support Manager   1   2   3   **4**   5

Peer review by Krishnan

Name	**Krishnan**	Team	**4**	Instructor	**Mel Rosso**
Date	**May 2nd, 2009**	Cycle No	**2**	Week No	**7**

For each role, evaluate the work required and the relative difficulty in % during the cycle

Role	Work Required	Role Difficulty
Team Leader	30	35
Development Manager	20	15
Planning Manager	25	25
Quality/Process Manager	20	25
Support Manager	5	10
Total Contribution (100%)	100	100

Rate the Entire Team against each criteria   (Fill Color as 'Grey' to mark the cell as selected

Criteria	1	2	3	4	5
Team Spirit	1	2	3	4	**5**
Overall effectiveness	1	2	3	**4**	5
Rewarding experience	1	2	3	**4**	5
Team productivity	1	2	3	**4**	5
Process quality	1	2	3	**4**	5
Product quality	1	2	**3**	4	5

Rate role for overall contribution --1(inadequate) to 5 (superior)

Role	1	2	3	4	5
Team Leader	1	2	3	**4**	5
Development Manager	1	2	**3**	4	5
Planning Manager	1	2	3	**4**	5
Quality/Process Manager	1	2	3	**4**	5
Support Manager	1	2	**3**	4	5

Rate each role for helpfulness and support -- 1 (inadequate) to 5 (superior)

Role	1	2	3	4	5
Team Leader	1	2	3	4	**5**
Development Manager	1	2	3	**4**	5
Planning Manager	1	2	3	**4**	5
Quality/Process Manager	1	2	3	**4**	5
Support Manager	1	2	3	**4**	5

Rate each role for how well it was performed -- (inadequate) to 5 (superior)

Role	1	2	3	4	5
Team Leader	1	2	3	4	**5**
Development Manager	1	2	3	**4**	5
Planning Manager	1	2	3	**4**	5
Quality/Process Manager	1	2	3	**4**	5

Support Manager	1	2	3	4	5

Peer review by Nisha

Name	**Nisha**	Team	**4**	Instructor	**Mel Rosso**
Date	**April 12th 2009**	Cycle No	**1**	Week No	**4**

For each role, evaluate the work required and the relative difficulty in % during the cycle

Role	Work Required	Role Difficulty
Team Leader	30.%	40.%
Development Manager	20.%	10.%
Planning Manager	20.%	20.%
Quality/Process Manager	20.%	20.%
Support Manager	10.%	10.%
Total Contribution (100%)	100.%	

Rate the Entire Team against each criteria (Fill Color as 'Grey' to mark the cell as selected

Team Spirit	1	2	3	4	**5**
Overall effectiveness	1	2	3	4	**5**
Rewarding experience	1	2	3	**4**	5
Team productivity	1	2	3	4	**5**
Process quality	1	2	3	**4**	5
Product quality	1	2	3	4	**5**

Rate role for overall contribution --1(inadequate) to 5 (superior)

Team Leader	1	2	3	4	**5**
Development Manager	1	2	3	**4**	5
Planning Manager	1	2	3	**4**	5
Quality/Process Manager	1	2	3	**4**	5
Support Manager	1	2	3	**4**	5

Rate each role for helpfulness and support -- 1 (inadequate) to 5 (superior)

Team Leader	1	2	3	**4**	5
Development Manager	1	2	3	**4**	5
Planning Manager	1	2	3	**4**	5
Quality/Process Manager	1	2	3	**4**	5
Support Manager	1	2	3	4	**5**

Rate each role for how well it was performed -- (inadequate) to 5 (superior)

Team Leader	1	2	3	**4**	5
Development Manager	1	2	3	**4**	5
Planning Manager	1	2	3	**4**	5
Quality/Process	1	2	3	**4**	5

Manager					
Support Manager	1	2	3	4	5

Peer review by Abhishek

Name	Abhishek	Team	**4**	Instructor	**Mel**
Date	**May 02 2009**	Cycle No	**2**	Week No	**7**

For each role, evaluate the work required and the relative difficulty in % during the cycle

Role	Work Required	Role Difficulty
Team Leader	20	20
Development Manager	25	20
Planning Manager	20	20
Quality/Process Manager	20	20
Support Manager	15	20
Total Contribution (100%)	100	100

Rate the Entire Team against each criteria (Fill Color as 'Grey' to mark the cell as selected)

Team Spirit	1	2	3	4	5
Overall effectiveness	1	2	3	4	5
Rewarding experience	1	2	3	4	5
Team productivity	1	2	3	4	5
Process quality	1	2	3	4	5
Product quality	1	2	3	4	5

Rate role for overall contribution --1(inadequate) to 5 (superior)

Team Leader	1	2	3	4	5
Development Manager	1	2	3	4	5
Planning Manager	1	2	3	4	5
Quality/Process Manager	1	2	3	4	5
Support Manager	1	2	3	4	5

Rate each role for helpfulness and support -- 1 (inadequate) to 5 (superior)

Team Leader	1	2	3	4	5
Development Manager	1	2	3	4	5
Planning Manager	1	2	3	4	5
Quality/Process Manager	1	2	3	4	5
Support Manager	1	2	3	4	5

Rate each role for how well it was performed -- (inadequate) to 5 (superior)

Team Leader	1	2	3	4	5
Development Manager	1	2	3	4	5
Planning Manager	1	2	3	4	5
Quality/Process Manager	1	2	3	4	5
Support Manager	1	2	3	4	5

4. References

- **Chapter 10,16,17&18 – Defining the Requirements, Introduction to Team Software Process, Watts Humphrey.**