

Extreme Programmin on PWAP (ficticious) a wireless application

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ABSTRACT: Naturesoft has chosen extreme programming as a discipline to software development because of simplicity, error free, communication flow, focus on programming and unit testing. extreme programming was presented to the top management of Naturesoft and they felt very happy and gave their full support by allowing pair programming, reducing working hours from 45hrs to 40hrs per week, providing perks etc. Naturesoft applied XP to the project named pwap a wireless application. the actual development consisted of requirement gathering, estimation, iteration planning, standup meeting, release plan. the team consists of 5 persons [1-project manager, 4-developers (2 pair)].

PROBLEM DEFINITION : PWAP is an electronic parking display device allowing drivers to pay parking fees for the exact amount of time, the vehicle is parked in a given street without having to predetermine length of time the vehicle is immobilized. The device has a display with parking details like zone, start time etc. The PWAP device use WAP/SMS phone or PDA's to communicate the parking data to PWAP server. The money to be ventilated to the city & parking authorities is communicated by the PWAP back office server.

REQUIREMENT GATHERING : The client once visited at the project launch and described the complete stories of the project. In this project the Client was not physically present, but always available on call. Each story was noted on a separate cards and the task estimation exercise was done as we developed lots for multiple iterations. A Use Case diagram was drawn for the complete project. In this project we had 12 Use Cases.

ESTIMATION: Using COSMIC-FFP (Common Software Measurement International Consortium – Full Function Point) number of Cfsu's (COSMIC function size unit) for each iteration was found. The sum of Cfsu of all iteration of PWAP is 101 Cfsu. The time taken for development of 1 Cfsu is 2 man days (this we got from fast experience). Release date was planned based on the

estimation. But order of release was received from Client.

ITERATION PLANNING : While starting each iteration, one complete day was spent by holding a meeting to brief the story by the Project Manager to the team. The iteration is broken into tasks and tasks were scheduled by asking developers to sign up for the tasks they want, and asked them to estimate their tasks using Cfsu.

STANDUP MEETING : Every day morning a small 5 to 10 minutes discussion was arranged to sort out the problem faced in the previous day and the details of that day's tasks.

RELEASE PLAN : Releases were made at the end of each lot (lot consists a set of iteration given by the client).

CONCLUSION: From our experience it was concluded that XP is appropriate and most noteworthy points are as below:

- Pair programming gives more code, better code, better understanding of the system and improves the skill of the developers.
- 40 hours per week drives error free software.
- Shout ...Aim...Aim.. (Driving System) gives confidence.
- Stand-up Meetings every day is real trouble shooter.
- Iteration release provides early benefit to the Client while providing early feedback to the programmer.

The Project has been completed as per the schedule on 16.2.2001. The Client was delighted on seeing the project completed in time.

Bibliography:

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