Software Project Management

Lecture 3

Stepwise Project Planning

Introduction

- This Lecture provides an overview of the basic steps needed to produce a project plan

'Step Wise' - aspirations

- Practicality
  - tries to answer the question 'what do I do now?'

- Scalability
  - useful for small project as well as large

- Range of application

- Accepted techniques
  - e.g. borrowed from PRINCE etc

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'Step Wise' - an overview

0. Select project

1. Identify project objectives

2. Identify project infrastructure

3. Analyse project characteristics

Review

4. Identify products and activities

5. Estimate effort for activity

Lower level detail

6. Identify activity risks

For each activity

10. Lower level planning

7. Allocate resources

9. Execute plan

8. Review/ publicize plan

A project scenario

- Hardware/software engineering company (C++ language of choice)

- teams are selected for individual projects - some friction has been found between team members

- HR manager suggests psychometric testing to select team

Project scenario - continued

- Software package to be used to test staff

- Visual basic suggested as a vehicle for implementation

- usability is important - decision to carry out usability tests

Step 1 establish project scope and objectives

- 1.1 Identify objectives and measures of effectiveness

  – 'how do we know if we have succeeded?'

- 1.2 Establish a project authority

  – 'who is the boss?'

- 1.3 Identify all stakeholders in the project and their interests

  – 'who will be affected/involved in the project?'

Step 1 continued

- 1.4 Modify objectives in the light of stakeholder analysis
  - 'do we need to do things to win over stakeholders?'

- 1.5 Establish methods of communication with all parties
  - 'how do we keep in contact?'

Back to the scenario

- ## Project authority

  - should be a project manager rather than HR manager?

- ## Stakeholders

  - project team members to complete on-line questionnaires: concern about results?

- ## Revision to objectives

  - provide feedback to team members on results

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Step 2 Establish project infrastructure

- 2.1 Establish link between project and any strategic plan
  - 'why did they want the project?'

- 2.2 Identify installation standards and procedures
  - 'what standards do we have to follow?'

- 2.3. Identify project team organization
  - 'where do I fit in?'

Step 3 Analysis of project characteristics

- 3.1 Distinguish the project as either objective or product-based.
  - Is there more than one way of achieving success?

- 3.2 Analyse other project characteristics (including quality based ones)
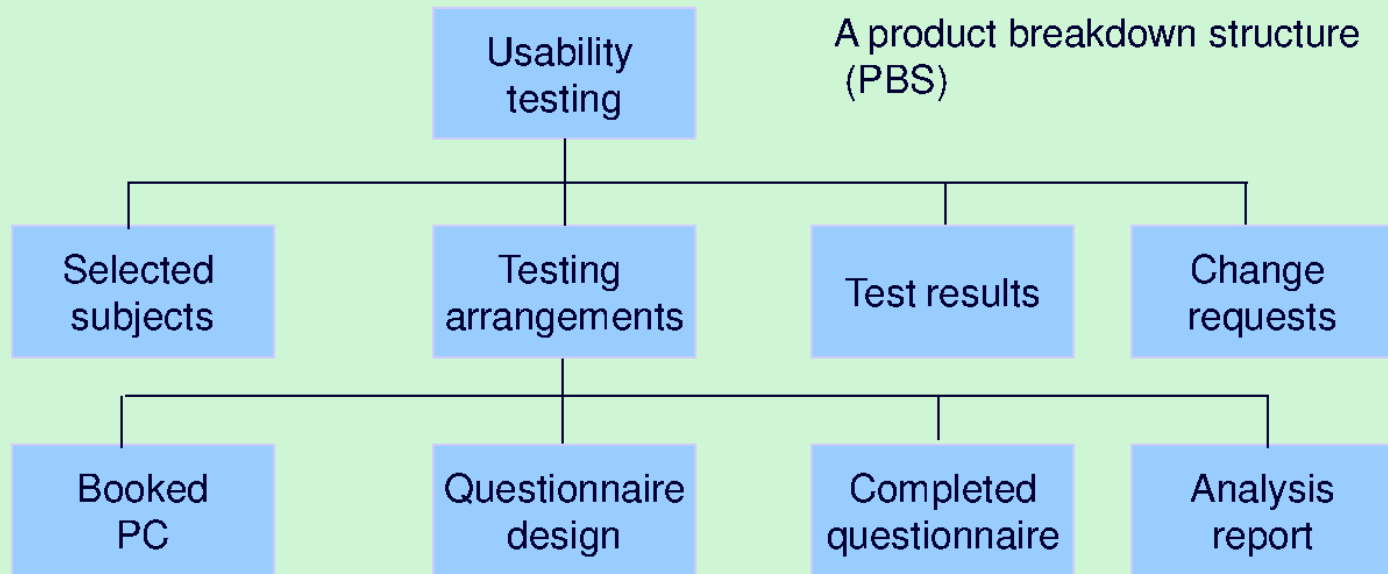 - what is different about this project?

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Step 3 continued

- Identify high level project risks
  - 'what could go wrong?'
  - 'what can we do to stop it?'

- Take into account user requirements concerning implementation

- Select general life cycle approach
  - waterfall? Increments? Prototypes?

- Review overall resource estimates
  - 'does all this increase the cost?'

Back to the scenario

- Objectives vs. products
  - use paper questionnaire then input results of the analysis?

- Some risks
  - team members worried about implications and do no co-operate
  - project managers unwilling to try out application
  - Developer not familiar with features of VB

- Answer? - evolutionary prototype?

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Step 4 Identify project products and activities

4.1 Identify and describe project products - 'what do we have to produce?'

A product breakdown structure (PBS)

- Usability testing
  - Selected subjects
  - Testing arrangements
    - Booked PC
    - Questionnaire design
    - Completed questionnaire
    - Analysis report
  - Test results
  - Change requests

Applications

- Clocking IT: Task filters, time tracking, milestones, timeline, calendar, graphs, drag and drop organizing, notes, comments, reports, CSV export, pretty much everything you will need. One neat feature is the Facebook like integrated chat, pretty handy.

- Klok: Your time is your product. Every minute you spend working that goes unaccounted for is like giving away your product for free. Tracking your time accurately is essential to staying profitable. In addition, knowing how much time you spend on past projects can allow you to better estimate future projects. From what I can see, this Adobe Air app has a pretty good looking interface.

Scope of Research

Research Management :

How to …. Guide for researchers

- What ever your discipline, managing your day to day aspects of a research is a challenge.

- Get practical advice, tips and strategies to help secure the resources and develop the skills you need to manage your research project more effectively.

- Website reference link for details :

https://www.emeraldinsight.com/research/guides/management/index.htm