Project Retrospectives
a different look

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Refresh on retrospectives (1)

- A retrospective is:
  - **A** group learning tool for software projects

- Purpose
  - Identify
  - Produce an **action**

Refresh on retrospectives (2)

- Post mortem ≠ project retrospective

- A retrospective is an **event** not a meeting

- ROI from post mortems is poor
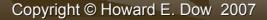
Refresh on retrospectives (3)

- Writing the results of a retrospective in a document is NOT taking action

- Taking action is:
  – Planning, executing and measuring some activity to make a change.

- The change is effective if the measurable result is achieved

Norm Kerth's retrospective process

- Select experienced facilitator
- Identify participants
- Facilitator interviews participants
- Required preparation identified
- Plan the event
- Conduct the event
- Extract the wisdom
- Identify next steps
- Wrap up and close

Observations

- Does this method meet the purpose of retrospective? Yes

- Disadvantage
  - Two days to complete

- If your project can invest two days – do it

- If not – here is another method

"Affinity method" for project retrospectives

Credit – unknown

Can often be completed in 2-3 hours
(plus training and preparation)

Outline – The "affinity method"

- Purpose
- People and roles
- Rules
- Participant's responsibilities
- Process
- Assignment of action items

- Do's and Don'ts (Suggestions to make your retrospectives better)

- Purpose
  - For a project determine and record
    - What went "right" or correct
    - What went wrong (issues)
  - Identify
    - What needs to be kept and reinforced
    - What needs improvement
- Output
  - Prioritized list of what needs improvement
  - Clear statement of <u>who</u> is going to do <u>what</u> and <u>when</u>
  - How results will be measured
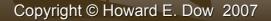
People and Roles (1)

- Facilitator
  - Independent of project and trained
  - May deliver training session
  - Plans the event
  - Runs the event
  - Drives creation of action plan with identified responsible individual

People and roles (2)

- Project Leader
  - Establishes need
  - Helps create seed questions
  - Identifies participants

- Participants
  - Prepare
  - Participate

"Rules"

- Focus on product or project
- Identify what worked AND what didn't
- No problem solving
- No finger pointing
- Comments are anonymous
- Facilitator is the final authority
- Participants must agree to rules

Responsibilities

- Facilitator
  - Ensures all people are heard
  - Does not allow inappropriate conduct
- Participants
  - Honest
  - Realistic
  - Clear
  - Professional

Process

1) Start: Entry criteria and inputs

2) Planning

3) Distribute

- Event announcement
- Pre event assignment (pre-work)

4) Pre-work

5) Conduct retrospective event

6) Exit criteria and outputs

Start: Entry criteria and inputs

- Project Leader
  - Establishes need retrospective
  - Identifies facilitator
  - Initial contact with participants
    - Agree to participate
    - Are trained
    - Will take action based on retrospective results

Planning and pre-work - Facilitator

- Planning
  - Identify participants, date, time and place of event
    - Room with LOTS of blank wall space
  - Optional – interview key personnel to get a sense of the successes and issues
  - With project leader create focus or seed questions
- Contacts participants
  - Meeting logistics (date, time, place)
  - Expectations and pre-work assignment
  - Seed or focus questions
  - "Sticky notes" (PostIt® Notes)

Focus or Seed Questions

- Used to
  - Orient the retrospective to a specific area
    - If there were major issues with customer
    - If the development environment was lacking
  - Stimulate thoughts
    - General questions that cover a broad spectrum of topics

- **Caution:** Questions asked can have a dramatic influence on results of retrospective. Suggestion: keep them general

Software project: Sample seed questions

- What one "thing" worked well?
- What one thing happened that you wished had not?
- What was missing from the project?
- In what areas was more expertise needed?
- In what areas was detail lacking?
- Where was there too much detail?
- What displeased the customer most?
- If you could have changed this project in one way - what would it have been?
- If you were the project leader, what one thing would you have changed?
- What tools were missing?

Training courses: Sample seed questions

- In what areas was detail lacking?
- Where was there too much detail?
- As the customer, what pleased you most?
- How effective were the handouts?
- How appropriate was the pace?
- What could have been done to ensure you were better prepared?
- As the customer, what aggravated you the most?
- How appropriate is the course duration?
- What should be added to the course?
  What should be removed?

Pre-work

- Project participants
  - Read the seed or focus questions
  - Think about the project in the context of the questions
  - Write 1 issue or comment per sticky note
  - Bring your sticky notes to the retrospective event

Overview of typical <u>retrospective event</u>

- Start
  - Refresh on roles, responsibilities, goals and output
- Facilitator reads "sticky notes"
- Participants generate new "sticky notes"
- Break
- Group "stickies"
- Identify theme, root issue or major point
- Vote to set priority
- Tally and wrap up
- Identify teams to work on improvement project(s)

Start

- Facilitator
  - Reviews purpose, process, goals and rules
  - Answer questions
  - Hands out
    - Additional blank "sticky notes"
    - Pens
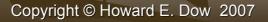 - Collects pre-work (completed "sticky notes")

Read "sticky notes"

- Facilitator reads each sticky
- Each sticky placed randomly placed on wall

- Encouraged
  - Generating new stickies - given to facilitator and mixed in with existing stickies
- Allowed
  - Questions to elicit clarification
- Not allowed
  - Discussion
  - Creating solutions
  - Disagreeing

Break

- Short body break

- Re-arrange room
  - Move chairs, tables etc. away from walls

Group "stickies"

- All participants (no sitting allowed)
- Silently - no discussion
- Group sticky notes into "logical groupings" or themes (not good or bad)
- If a sticky moves between multiple groups, duplicate sticky and place in each group
- Continue until there is no more movement

Identify the theme, root issue or major point

- For each group of stickies – discuss and identify
  – Theme
  – Core or root issue
  – Major point
- Write theme or core or root issue on a sticky and places at top of list

- Operational note: No sitting – people should be close to the grouped stickies

Vote to set priority

- Hand out voting stickies

- 3 votes per person
- Use on any group you want - or - place all on one group

- Result – prioritized list of issues based on input from all participants

Action items

- Project leader and facilitator
  - Identify teams and team leaders to work on top issues
  - Set date for identification of
    - Goal
    - Schedule
    - Measures
- Project leader identifies who should obtain a "retrospective summary report" and who will write it.

Tally and wrap up

- Facilitator places all stickies in a notebook in priority order
  - Some organizations scan the notebook for electronic records
- Given to person assigned to write the retrospective summary report.
- Information becomes part of the project's history

Recap

- Don't have enough time for a full retrospective? Try the "affinity" approach
- Planning and facilitation are key
- Follow the process – abide by the rules
- The more stickies generated the better
- Tackle the top two or three issues
- Measure impact of any adjustments or improvements
- Share the knowledge with others

Sample statistics

- Performance test project (12 people, 8 weeks)
  - 3 hours to complete retrospective
  - 35 issues identified
  - Top 3 issues assigned to 4 person teams
- SW development (23 people, 6 months)
  - 4 hours to complete
  - 60+ issues
  - Top 2 issues assigned to 3 person teams
- University classes (15 – 25 students, 1 semester course)
  - 20 – 40 issues identified
  - Top 4 issues assigned to instructor
  - Issues were of lower priority in subsequent classes

References

- <u>Techniques and Recommendations for Implementing Valuable Postmortems in Software Development Projects</u>, Gloria H. Congdon, Master's Project, University of Minnesota, May 1999

- <u>Project Retrospectives</u>, Don Bagert, presentation for CSSE 373 (Software Project Management), Rose-Hulman Institute of Technology, Februrary 2006

- <u>Project Retrospectives</u>, Steve Rakitin, Software Quality Consulting, 2005

- <u>A Defined Process for Project Postmortem Review</u>, Collier, DeMarco and Fearey, IEEE Software, July 1996

- <u>Adaptive Software Development</u>, James A,Highsmith, pages 171-175

Items needed

- Sticky notes for pre event homework – at 2x3 size is good
  - 1 pad per person before event
  - 10-15 stickies per person during event
- Spiral (bound) notebook
- Markers, pens, pencils
- Clear tape
- Large stickies for theme or headings of groups
- Stickies for voting
  - Small (1.5 x 1.5)
  - Different color

Thank you for your time

Questions, comments, ..