Future of KDE Development

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http://www.flickr.com/photos/cdm/54246114/
Current Limitations

- It's hard to share work in a team
- Patch review on mailinglists makes it hard to track changes and status (Allen Winter: "Has this patch actually been committed?")
- No offline operation
- Meaning of trunk/ changes all the time
- Patches are reviewed elsewhere (mailing list, review board, private email)
Why not just switch to Git?

Git seems to be the right tool for us to move forward.

- CVS -> SVN is straightforward, SVN -> git is not
- Which "tree" is the official KDE flavor?
- How to keep track of what's going on?
- Estimated cost: ~1 year of reduced productivity
  - We want to be more productive!
What if we switch to $DVCS$?

- What ensures that the code that is released is feature complete?

- Who ensures that code that is in the stabilization branch is getting stabilized?

- How can we provide playgrounds for developers to share their branches with others?
KDE 4.0 development

KDE 0.0 - KDE 3.5: ~ 420,000 SVN revisions
KDE 3.5 - KDE 4.0: ~ 300,000 SVN revisions

09/2005: KDE 4.0 development starts
09/2006: Akademy talk: Most (?)attendees haven't seen the KDE 4 splash screen yet
09/2007: Beta phase starts
01/2008: KDE 4.0
07/2008: KDE 4.1
KDE's Current Development Model

- Centralized and Flat
- kde-core-devel and release-team
- Release cycle: 6 months, time-based: 4 months coding, two months freeze
- Distros "fork" KDE
- KDE development is easing into calmer waters
A changing community ...

- Not every subproject is happy with a 6 month release cycle

- A growing, more complex community is more likely to feel those mismatches
  - individuals who have time in bursts ("Michael Pyne")
  - companies with contractual obligations (enterprise support, development contracts)

- "usable for some isn't usable for others" (enterprise, user, poweruser, developer)

- More disruptive changes in some parts, others are really stable
... in a changing environment.

- Growing, more diverse community
- New development models and tools supporting have appeared
- Developers want more powerful collaboration tools
- More integration of third party technology
- Software dependencies: kdesupport, Phonon
- It's not only OSVs that want to use KDE: KDE on Mac and Windows, mobile devices, ...
KDE 4.0 Release Team
Solution?
Agile Development

- **Power to the People** (and not to the Policies)
- Policies avoid chaos, but do not Guide

Individuals define KDE, Policies do not motivate
Agile Dev. (II)

Working Software is important

- Deliver it as soon as possible, as often as possible
- Ensure that whatever has survived testing will be released
- Motivate users to work with the developer
- Motivate developers to work with users
Agile Dev. (III)

Rapid Development
- No process inducted slowdown
- Simplicity - The art of avoiding unnecessary work
- Reflect upon your workflow and share your experiences with others
Agile Dev. (IV)

It's more important to adopt than to prepare.

- Any deviation from prepared plans is an emergency situation
  - Planning is impossible without fixed resources

- Adaptive development
  - Optimized for unplanned change
Freezes?
and how about?

Release cycle

!=

Development Cycle
"Always Summer in Trunk?"

Possible solutions:
- trunk/ is always open for feature commits
- those commits should be 'reasonable stable'
- But: Translations for /trunk are never complete
Current development

freeze

trunk

4.x branch

4.x.0 4.x.1

"Always Summer in Trunk"

trunk

freeze

4.x branch

4.x.0 4.x.1

: bugfix only
: open for development
Only one stone ...

- **Publish milestone:**
  - Exemplifies new features to the non-developers and developers
- **Branch milestone:**
  - Testers wanted, feedback cycle, stabilisation
  - Test suite? Disable incomplete features?
- **Tested milestone:**
  - stable, feature-complete, ready for user
  - ??delivered on time??
Opportunities

- Create a more agile and scalable development process
- More possible workflows, support for 'team-based development'
- Open up the development KDE community

- Getting ready for our Future
Questions / Discussion

We knew we wouldn't have any time left.

Let's schedule a BoF session.