



# KDE Releases That Just Work(TM)

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# Jeroen van Meeuwen

## Systems Architect, Kolab Systems AG

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### Areas of Interest

- ▶ Stability of core components of Kolab product
  - ▶ KDE PIM, Kontact client,
  - ▶ Cyrus IMAP
- ▶ Happy Kolab Systems support staff
- ▶ Happy Kolab Systems customers
- ▶ Good relationship with happy developers



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### Areas of Interest

- ▶ Release early, release often
- ▶ Freezes halt (other) progress
- ▶ Increase ease for (...)



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## Current Bugzilla Status

- ▶ Many thousands of tickets with version “unspecified” .
- ▶ Many thousands of tickets with status “UNCONFIRMED” .
- ▶ Thousands of (open) tickets against legacy products.
- ▶ Thousands of tickets with no activity for more than 2 years.
- ▶ Generic (mailing list) assignment of tickets.
- ▶ Selected canconfirm and editbugs permissions.
- ▶ No one throat to choke.
- ▶ No use of CLOSED status.
- ▶ No DEFERRED resolution.
- ▶ Little to no automated maintenance (of Bugzilla).
- ▶ Very fast/frequent entry of new tickets.



# Examples of Tickets that Linger Around

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- ▶ "Not Our Problem"
  - ▶ #82679 - "uw-imap disconnect w/ second session"
  - ▶ lack of relevance, can't be fixed, not ours to fix, ...
- ▶ "Not Going to Happen (Any Time Soon)"
  - ▶ #145645 - "do not wrap signature"
  - ▶ unless reporter puts up...
- ▶ "Closed, deferred"
  - ▶ #87331 - "Recurrence \$xth and \$yth DoW,oM"
  - ▶ lack of input, lack of feedback



# Symptoms

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- ▶ Some developers barely look at ticket(s) / queue(s)



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- ▶ Some developers barely look at ticket(s) / queue(s)
  - ▶ Tickets do not get attention they need/deserve
  - ▶ Other tools are used to facilitate processes
    - ▶ Developers look at Bugzilla even less
    - ▶ Reporter feels like nothing happens
    - ▶ Less transparency
    - ▶ Prospect contributors turned off



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- ▶ Mass-updates prohibited





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- ▶ Some developers barely look at ticket(s) / queue(s)
  - ▶ Tickets do not get attention they need/deserve
  - ▶ Other tools are used to facilitate processes
    - ▶ Developers look at Bugzilla even less
    - ▶ Reporter feels like nothing happens
    - ▶ Less transparency
    - ▶ Prospect contributors turned off
- ▶ Mass-updates prohibited
- ▶ No ticket type (—, bug, task, enhancement)
  - ▶ Priority / Severity (ab)used
  - ▶ Up for improvement
- ▶ No or inconsistent use of milestones



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# Products, Components, Versions, Milestones

## Symptom #1: kmail

- ▶ "kmail" no longer supported,
- ▶ still in Bugzilla, alongside preferred "kmail2" successor,
- ▶ Open for bug submission still,
- ▶ 2595 unresolved tickets,
- ▶ New tickets are logged frequently.

## Suggested Treatment

- ▶ Temporarily disable Bugzilla change notifications,
- ▶ Resolve all unresolved kmail tickets,
- ▶ Move all "kmail2" bugs over to "kmail" product,
- ▶ Remove "kmail2" product.



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# High-level Target(s)

- ▶ Bugzilla cleanup
- ▶ Formulate and propose standardized use of ticket parameters
- ▶ Align documented process and establish responsibilities
- ▶ Align use of versions/milestones with source code management
- ▶ Mass-updating tickets through sysadmin requests
- ▶ One throat to choke



# Challenges Ahead

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- ▶ I'm not the only one to think he's an expert
- ▶ I'm not the only expert



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- ▶ I'm not the only one to think he's an expert
- ▶ I'm not the only expert
- ▶ New to KDE



# Challenges Ahead

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- ▶ I'm not the only one to think he's an expert
- ▶ I'm not the only expert
- ▶ New to KDE
- ▶ Consensus...



# Many Good Ideas

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- ▶ Separate release cycles for (core) components
  - ▶ “Frameworks?”
- ▶ Concern for (stable) distribution support
- ▶ Suggestions for branch standardization (current/next/development)
- ▶ More people to test, must be easy to test
- ▶ Standardize / Document clearly, release / branch / versioning policies
- ▶ Better CI integration, mandatory commit review, blaming



# Tasks & Teams

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- ▶ Release Engineering
- ▶ Quality Assurance
- ▶ Triaging
- ▶ Development Teams





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## Quality Assurance

### “New“ Ticket(s) Workflow

- ▶ Group(s) of people that focus on a particular product,
- ▶ Attempt to qualify and enhance quality of tickets,
- ▶ Attempt to determine relevance of ”old“ tickets.

### Release Workflow

- ▶ Group of people that test alpha/beta/rc,
  - ▶ Mark their tickets as high quality,
  - ▶ Developers search for these tickets,
  - ▶ Hopefully they get resolved (in time for GA).
- 
- ▶ No QA contact Bugzilla field used.
  - ▶ Issues resolved do not become test-cases.



# Spring Fever

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## Grand Bugzilla Clean-up

- ▶ Close new ticket entry against unsupported products,
- ▶ Close off all tickets with the last change earlier than \$x years ago,
- ▶ Close off all tickets against unsupported products / versions<sup>a</sup>,
- ▶ Make this a regular process but with earlier than \$y months.

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<sup>a</sup>This requires a walk-through first



# Define Bugzilla field values

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## Example: Version, Milestone

- ▶ Standardize version/milestone references, for example;
  - ▶ '4.9-next' for 4.9 branch HEAD,
  - ▶ '4.9-stable' for latest (stable) release in 4.9 series,
  - ▶ '4.9.\$z' for specific (stable) 4.9 series release,
  - ▶ '5.0-next' for master branch HEAD,
  - ▶ not "Git (master)" (several), "KDE 4", "MS Windows" (kaddressbook), "CVS", "SVN Trunk", "enterprise" (Kontakt)
- ▶ Agree on & Standardize such guidelines



## Define Bugzilla field values (2)

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### Example: Priority, Severity, Importance

- ▶ Priority is “order in which to resolve”,
- ▶ Severity is “impact” (critical, trivial), or “cannot release with/without” (blocker),
- ▶ Importance is combined Priority and Severity (no score)
- ▶ Ticket type (bug, task, enhancement) has not been added / is not used.



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## Postpone and Prioritize

### (Ab)use a “future” milestone, says...

- ▶ Inclusion not yet planned for any other existing target milestone,
- ▶ No due date.

### The “4.9-next” milestone, says...

- ▶ To be included in the next teeny 4.9 series release.
- ▶ Act on “4.9-next” when “4.9.\$z” release is planned.
- ▶ Tickets with “4.9.\$z” milestone now form “To Do Before Release” queue, nice for developers.



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## Versioning Policies

### Example Versioning Bump Policy

- ▶  $\$micro$  bumps for bugfixes only (patchlevel),
  - ▶  $\$teeny$  bumps for small feature enhancements
  - ▶  $\$minor$  bumps for larger feature enhancements (upgrade possible),
    - ▶ may include new/changed run-time dependencies,
    - ▶ may include new/changed build dependencies,
  - ▶  $\$major$  bumps for great feature enhancements
    - ▶ rewrite, refactor, significant changes to package structure, dependency changes
- 
- ▶  $\$x.\$y(.\$z)$  could correspond with SCM branches,
  - ▶  $\$x.\$y(.\$z)$  with Bugzilla versions & milestones,



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- ▶ Release early, release often
- ▶ dev, alpha, beta, rc