

Community RE

Report from the Bleeding Edge

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Release Engineering

Release Engineering is a sub-discipline in software engineering concerned with the compilation, assembly and delivery of source code into finished products or other software components.

In larger projects the specialty of the release engineer can be applied to co-ordinate disparate source trees, projects, teams and components.

[Wikipedia](#)

OpenOffice.org development process



Development process

Planning

Coding

Quality Assurance

Process

Integration

Release

The Plan

Ideas for evaluation

New features

Bug fixes

Enhancements (RFEs)

→ issue in bug tracking system

IssueZilla ID (#i67898#)

Specification (description, design, strings)

Community can participate, bad organization

The Code

Child WorkSpace is a playground for developers

EIS

- Plan CWS (CWS in state **Planned**)
- Create CWS (mail to [cws-announce] mailing list, **New**)
- Add tasks/issues to it

Fix/implement issue

- Commit to CWS (with commit message #i67898#: comment)

EIS

- Work is done (CWS is marked as **Ready for QA**)

Community is getting used to CWS, EIS

The Quality

Who should be QA?

- QA by community member (non-Sun) is not that often
- The exception being in modules config_office and l10n

Verify the changes done by developer

- What should be tested?
- What tests should be performed?

EIS

- Mark CWS as **Approved by QA**

The result is: many QAed CWS waiting for decision.

The Process

What should go in and when?

Difficult job

- Late integration can delay other work
- Integration can reveal some hidden bugs

What is better?

- In typical development
- Close to the release
- OOO680 vs, SRC680

Community involvement

- Ratte decides ;-) Community not involved
- Discuss stuff on IRC (lobbyism ;-), ask for nomination

The Integration

“Manual work”

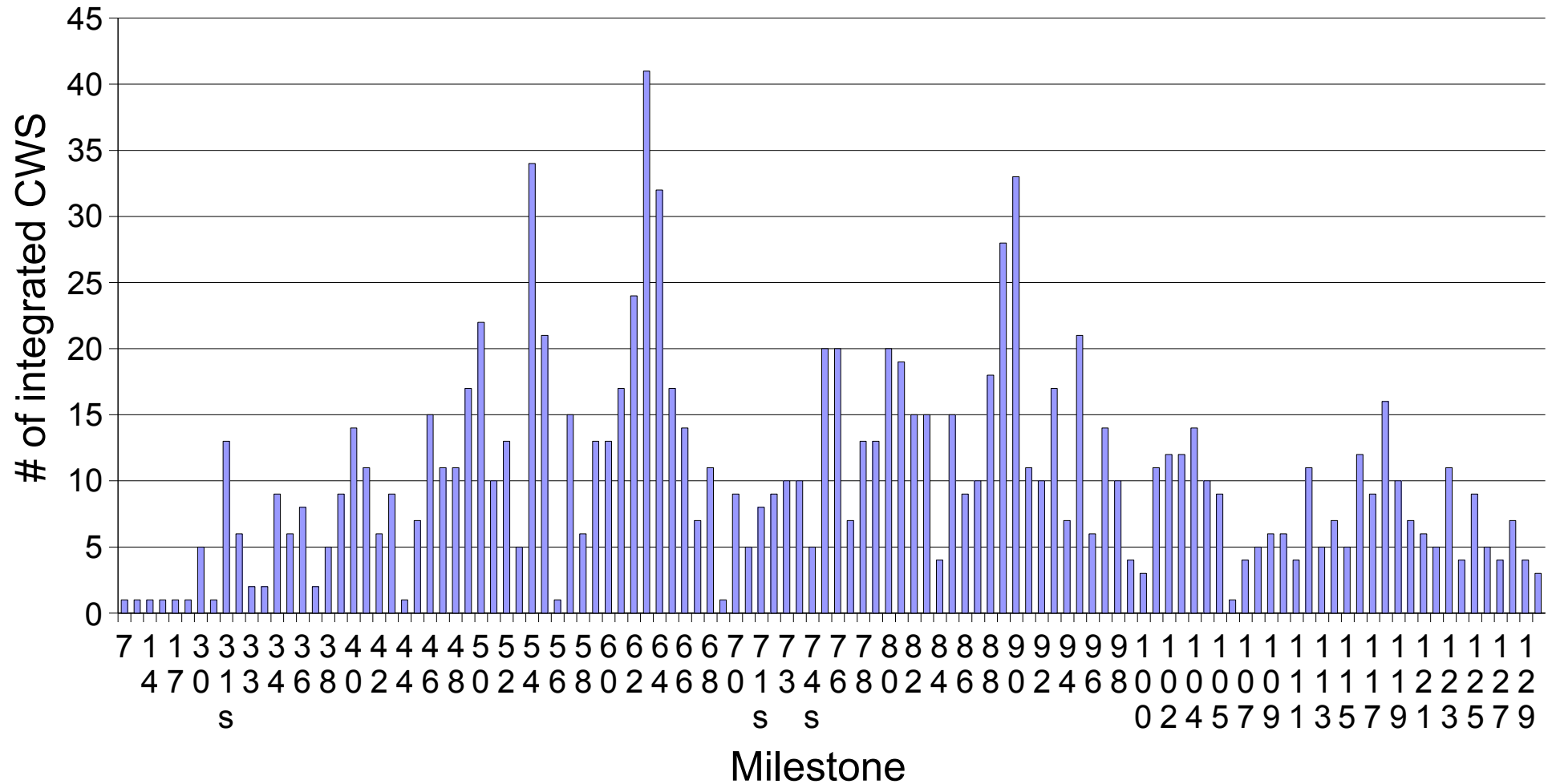
- Merge all pieces together
- Solve potential conflicts, keep things consistent
- CWS in the **Integrated** phase

Community

- No community participation – is it needed at all?
 - Q for Sun RE team ;-)
- This part is hidden for community, perfectly working black box
 - Minor issues (configure.in)

Integrated child workspaces in SRC680

Integrated cws per milestone



The Release

Milestones

- Build
- Test
- Announce ([cws-announce] mailing list)
- Tag
- Upload

Community

- Another black box
- Community waiting for [cws-announce] mails
 - Q: can we make RSS feed out of this data in EIS? ([#i54445#](#))

My build system (community RE)

My build system

Why?

Sun only builds for several languages (Czech is not there)

Am I able to build this beast at all?

One script for all systems (many if and else ;-)

Other teams want/need help

Sun doesn't build on other systems/platforms

Sun doesn't use configure, we have to test it

My testing area

The process

Announcement

Mail in [cws-announce] is the beginning

Sometimes I even test not-yet-ready milestone tag

[OOoPlanet](#) entry about new milestone, IRC topic change

Q: can we make RSS feed out of this data in EIS? ;-)

Preparation

Update of the source tree, pack tarball, update patches

Clean integrated stuff

Check integrated child workspaces

Start Build-0 for en-US and cs (ccache) on GNU/Linux

POT files generated, upload them update translations

More information about translation-related parts in Adam's presentation

Sync my tree to ftp.linux.cz

The process II

Build

GNU/Linux first

Microsoft Windows

Mac OS X

(Solaris/SPARC)

Solaris/x86 still missing

Simple tests

Upload (with build logs)

Another work (CWS, testing, new stuff)

Q: Are you able to follow more milestones a week without affecting your other work? I can't.

Some statistics

GNU/Linux and Windows machine:

Pentium IV, 2.8 Ghz, 800 MHz FSB

1G RAM

SUSE Linux 9.0, Windows 2003 server

34 languages (full build)

Windows: 30 hours

GNU/Linux: 15 hours, 10 hours with ccache

en-US only

Windows: 15 hours

GNU/Linux: 2 hours 15 minutes (with ccache)

What can we do better

Potential problems

Not regenerated configure

I have to create one myself (on GNU/Linux only, I can't run autoconf on all systems)

Add it to the build system

Sync and start the build again

Can tinderbox build help?

Moving tags

Regenerate source tarball

Re-sync

Sometimes not announced

On SRX645, we received 3 announces for m57!

Effective method of solving potential problems (P1 build issues)!

P1 build issues

Simple problems

How to effectively solve them?

Current process

- file P1 issue in IZ

- mail rt, CC: the main actor

Is there a better way?

- Milestones on Saturday?

- Tag milestones earlier before announcement so we can pre-test it

- Q: this has been changed recently...



Builds produced by Sun RE

Sun is using distributed build system

- fast builds for their developers

- reusing the results of previous builds

Problems

Questions, discussion

About Pavel Janík <http://blog.janik.cz/>

Free software

GNU project member, Emacs developer (in the past)

OpenOffice.org

member of Community Council, ESC

co-lead L10N

lead CS Native-Lang project

regular builder (32 languages)

Other life

independent consultant

large enterprises

government and public companies and institutions in CZ and EU