

OPEN-SOURCE PROJECT TOOLS FOR CORPORATE PROJECTS?

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Can the corporate
world learn something
from successful Open
Source projects?

CAN WE SUCCEED?



Efficient communication is (obviously)
the key to successful teamwork...

OPEN SOURCE PROJECTS

timezones

cultures

english?

chaotic

egos

meetings?

no boss

divas

...many are **successful!**

CORPORATE PROJECTS

- structure
 - rules
 - same office, same language
 - meetings!
 - the boss!
 - bullet points
- ...many fail!

WHY?

THE QUESTIONS

1. What are we doing?
2. Who knows what?
3. Who usually does what?
4. Who did what, precisely?
5. What happened while I was away?
6. How are we doing?
7. When will this be ready?
8. Who said what on that topic?
9. Wasn't this said before?



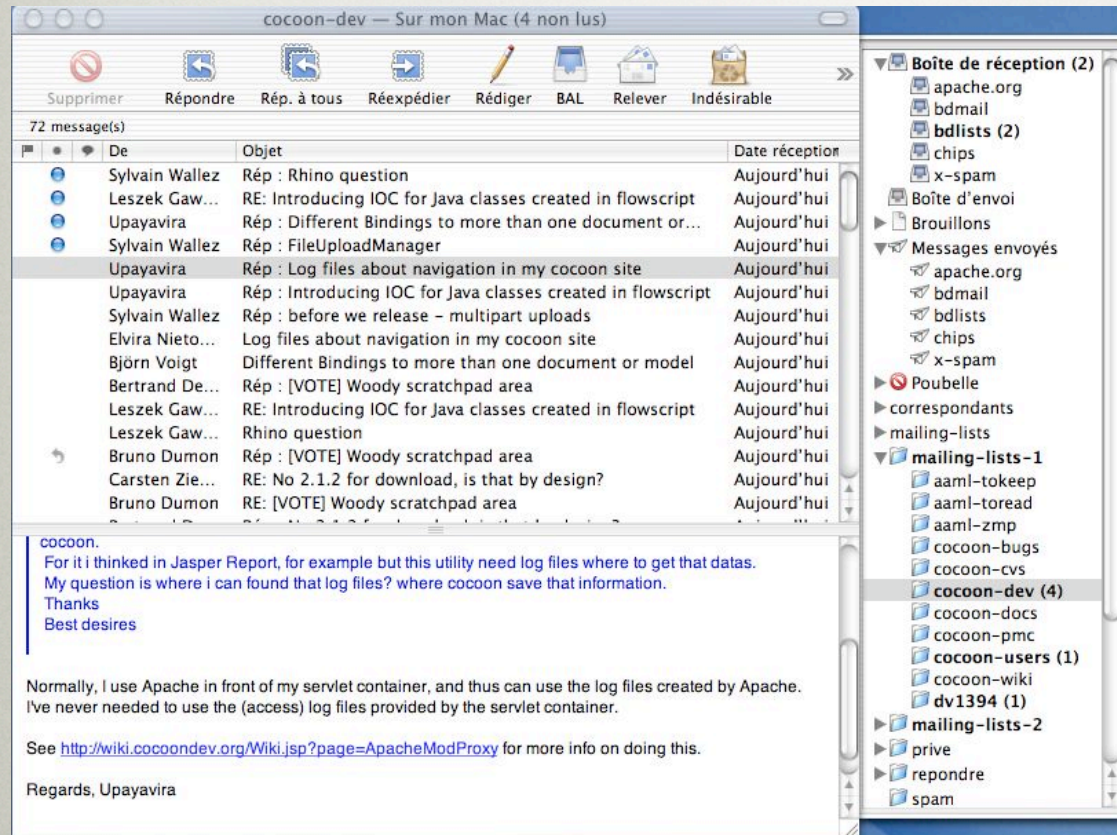
SELF-SERVICE



Team members need *self-service* answers.

THE TOOLS

MAILING LISTS AND ARCHIVES



The default
tool...

Not much
structure

Too much
information

Archives help

SOURCE CODE REPOSITORY

```

$ cvs log status.xml
1.156 (czegele 25-Sep-03):
1.156 (czegele 25-Sep-03):
RCS file: /home/cvs/cod 1.154 (antonio 25-Sep-03):
Working file: status.xml 1.155 (antonio 25-Sep-03):
head: 1.158 1.154 (antonio 25-Sep-03):
----- 1.151 (sylvain 24-Sep-03):
revision 1.158 1.151 (sylvain 24-Sep-03):
date: 2003/09/28 05:01:05; author: a
Update status.xml
-----
revision 1.157
date: 2003/09/26 14:46:23; author: b
YAPT presentation tool sample added
-----
revision 1.156
date: 2003/09/25 16:57:44; author: c
<action dev="CZ" type="add" fixes-
services.com">
    Fixing release of Source in the

```

Stores all
revisions of
all code

Traceable code, differences

Log messages, what changed

ISSUE TRACKER

Bug#: [86168](#) alias:
Product:
Component:
Status: NEW
Resolution:
Assigned To: myk@mozilla.org (Myk Melez)
QA Contact: matyt-bugzilla@tpg.com.au
URL: <http://www.template-toolkit.org/>
Summary: Bugzilla should use template pages instead of hard-coded HTML
Status:
Whiteboard:
Keywords: meta

Hardware:
OS:
Version:
Priority:
Severity:
Target Milestone:

Reporter: kiko@async.com.br (Christian Reis)
Add CC:
CC:

☐ Remove selected CCs

Flags: (Help!) Requestee:

Attachment	Type	Created	Flags	Actions
Fix MakeFile.PL of Template Toolkit 2.06	patch	2002-01-11 08:34:44	none	Edit
Create a New Attachment (proposed patch, testcase, etc.)				View All

Bug 86168 depends on: [80183](#) [98602](#) [98707](#) [103778](#) [103953](#) [110013](#) [124274](#) [170213](#) [190212](#) [80183](#), [98602](#), [98707](#), [103778](#), [103953](#), [110013](#), [124274](#), [170213](#), [190212](#) [Show dependency tree](#)
Bug 86168 blocks: [100089](#) [104690](#) [100089](#), [104690](#) [Show dependency graph](#)

Votes: 5 [Show votes for this bug](#) [Vote for this bug](#)

Additional Comments:

- ☒ Leave as NEW
 - ☐ Accept bug (change status to ASSIGNED)
 - ☐ Resolve bug, changing resolution to
 - ☐ Resolve bug, mark it as duplicate of bug #
 - ☐ Reassign bug to
 - ☐ Reassign bug to owner and QA contact of selected component
-

[View Bug Activity](#) | [Format For Printing](#)

Description:

Opened: 2001-06-15 16:24

One page per issue

History, decisions

Not only for bugs!

Powerful search and classification

Dependencies, critical paths

ISSUE DEPENDENCIES

Bugs that [bug 86168](#) depends on

([view as bug list](#))

- [80183 \[Bugzilla 2.16, jake@bugzilla.org\]](#) - configurable index page (using Template Toolkit).
 - [37339 \[Bugzilla 2.16, jake@bugzilla.org\]](#) - Bugzilla sidebar, containing info in footer.
 - [76484 \[Bugzilla 2.16, jake@bugzilla.org\]](#) - Allow multiple QuickSearch forms in a single document.
- [98602 \[Bugzilla 2.16, myk@mozilla.org\]](#) - Templatize createattachment.cgi.
- [98707 \[Bugzilla 2.16, gerv@mozilla.org\]](#) - query.cgi redesign/templatisation.
- [103778 \[Bugzilla 2.16, myk@mozilla.org\]](#) - templatize buglist.cgi.
- [103953 \[Bugzilla 2.16, gerv@mozilla.org\]](#) - Templatise enter_bug.cgi.
- [110012 \[Bugzilla 2.16, gerv@mozilla.org\]](#) - Spank show_bug.cgi hard - templatize and combine.
- [124274 \[Bugzilla 2.16, myk@mozilla.org\]](#) - RFE: make link names in "Actions" footer customizable.
 - [140435 \[Bugzilla 2.16, gerv@mozilla.org\]](#) - Templatise GetCommandMenu.
- [170213 \[Bugzilla 2.18, gerv@mozilla.org\]](#) - Make all static HTML files into page.cgi pages.
- [190212 \[---, justdave@bugzilla.org\]](#) - Templatize all administrator-facing pages in Bugzilla.
 - [119485 \[Bugzilla 2.18, myk@mozilla.org\]](#) - Templatise editusers.cgi.
 - [92905 \[Bugzilla 2.16, bbaetz@acm.org\]](#) - editusers.cgi errors in apache errorlog: fetchrow failed.
 - [148147 \[Bugzilla 2.18, preed@sigkill.com\]](#) - Templatize whineatnews.pl.
 - [190196 \[Bugzilla 2.18, justdave@bugzilla.org\]](#) - editproducts.cgi needs templating.
 - [190220 \[Bugzilla 2.18, justdave@bugzilla.org\]](#) - templatize editcomponents.cgi.
 - [190222 \[Bugzilla 2.18, justdave@bugzilla.org\]](#) - templatize editgroups.cgi.
 - [190223 \[Bugzilla 2.18, justdave@bugzilla.org\]](#) - templatize editkeywords.cgi.
 - [190224 \[Bugzilla 2.18, justdave@bugzilla.org\]](#) - templatize editmilestones.cgi.
 - [190226 \[Bugzilla 2.18, justdave@bugzilla.org\]](#) - templatize editversions.cgi.

Answer “why is this not done?”
Show critical paths

PROJECT WIKI

Cocoon Wiki

Main

About
People
Search

SandBox

Recent Changes
All Pages
Undefined Pages
Orphaned Pages

For Beginners

Cocoon Guide
Tutorials
How-To's
Best Practices
Snippets
Example Apps
FAQs
Links

Wishlists
Cocoon Docs Drafts
Samples Refactor
Random Thoughts
Possible Applications
Events
DeleteMe

Referenced by
ImplementingTra...
OlderNews
DevelopingCompo...

You are:
BertrandDelacretaz[#]

[Edit this page]

License
SystemInfo
Cocoon
Forrest
cocoondev.org
Outerthought

JS Wiki v2.0.39

XML

Your trail: [Main](#) | [Generator](#) | [DevelopingComponents](#) | [Components](#)

WritingPipelineComponents

Writing Pipeline Components

This page describes common information needed to write generators, transformers and serializers.

Using the sitemap, you describe how pipelines should be assembled. The resulting pipeline always has the following structure: one generator, zero or more transformers, and one serializer. The only exception to this rule are readers, which implicitly combine the generation and serialization step and thus also prevent you from declaring transformation steps (within that pipeline). The generator could also be an aggregator, which is just a special type of generator.

These components (generator, transformer(s) and serializer) are put together in what is usually called a "SAX pipeline". In this pipeline, SAX events are propagated. SAX-events are events corresponding to what appears in an XML document: "start element", "characters" and "end element" being the most important. A generator will start generating SAX events. The transformer that follows the generator will receive these events and can react on them, producing new SAX-events itself. The SAX-events generated by the transformer will then be received by the next transformer, which will then again start generating new events, and so on. At the end, the SAX-events are consumed by the serializer which will convert the SAX-events to some binary stream. This could be an XML document, but also a HTML document, an image, or a PDF file. The following picture shows this concept.

```
graph LR; generator -- "SAX events" --> transformer1[transformer 1]; transformer1 -- "SAX events" --> transformer2[transformer 2]; transformer2 -- "SAX events" --> dots["..."]; dots -- "SAX events" --> serializer;
```

While Cocoon sets up the pipeline, it will assign a "consumer" to each generator and transformer. The consumer is where the SAX-events should be sent to, thus the next component in the pipeline. The consumer of the generator will be the first transformer, the consumer of the first transformer will be the second transformer, and so on. Finally the consumer of the last transformer will be the serializer. The serializer itself does not have a consumer, but an output stream to which it can write its bytes. All the consumers must implement the SAX "ContentHandler" interface. This interface contains methods for each of the SAX-events. The SAX-events are then propagated in the pipeline by calling ContentHandler-methods on the consumer (= the next component in the pipeline).

To give an idea of the different SAX-events, the ContentHandler interface is displayed here:

```
package org.xml.sax;

public interface ContentHandler
{
    public void setDocumentLocator (Locator locator);
    public void startDocument () throws SAXException;
    public void endDocument() throws SAXException;
    public void startPrefixMapping (String prefix, String uri) throws SAXException;
    public void endPrefixMapping (String prefix) throws SAXException;
    public void startElement (String namespaceURI, String localName,
        String qName, Attributes attrs) throws SAXException;
    public void endElement (String namespaceURI, String localName,
        String qName) throws SAXException;
    public void characters (char ch[], int start, int length) throws SAXException;
    public void ignorableWhitespace (char ch[], int start, int length) throws SAXException;
    public void processingInstruction (String target, String data) throws SAXException;
    public void skippedEntity (String name) throws SAXException;
}
```

Note that there is also another SAX event interface, the LexicalHandler. That interface is used to pass on less

Collaborative
editing

Traceable
writing

Centralized
content

Potentially
chaotic

PROJECT BLOG



Chronological
posts, news,
articles

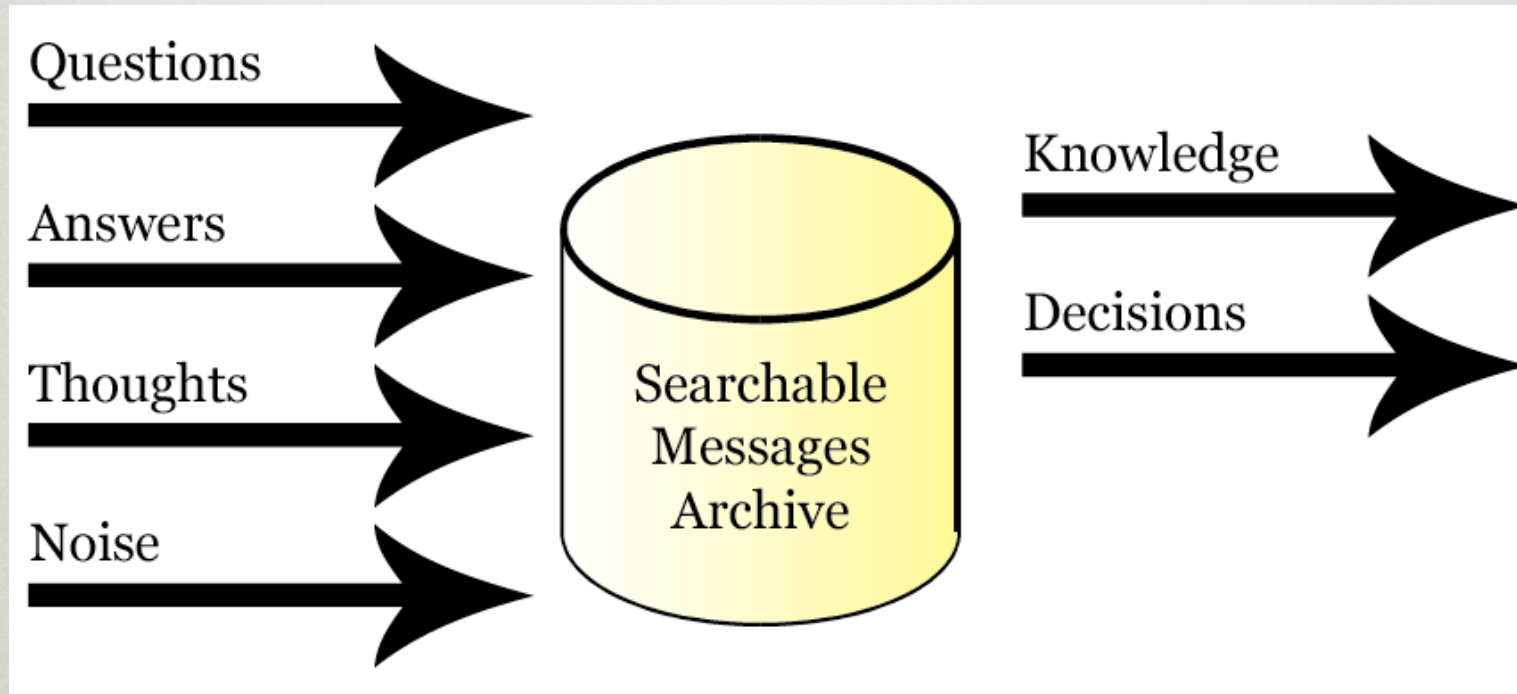
Categories, search

Central source of
news, gossip, stories

RSS feeds,
broadcasting

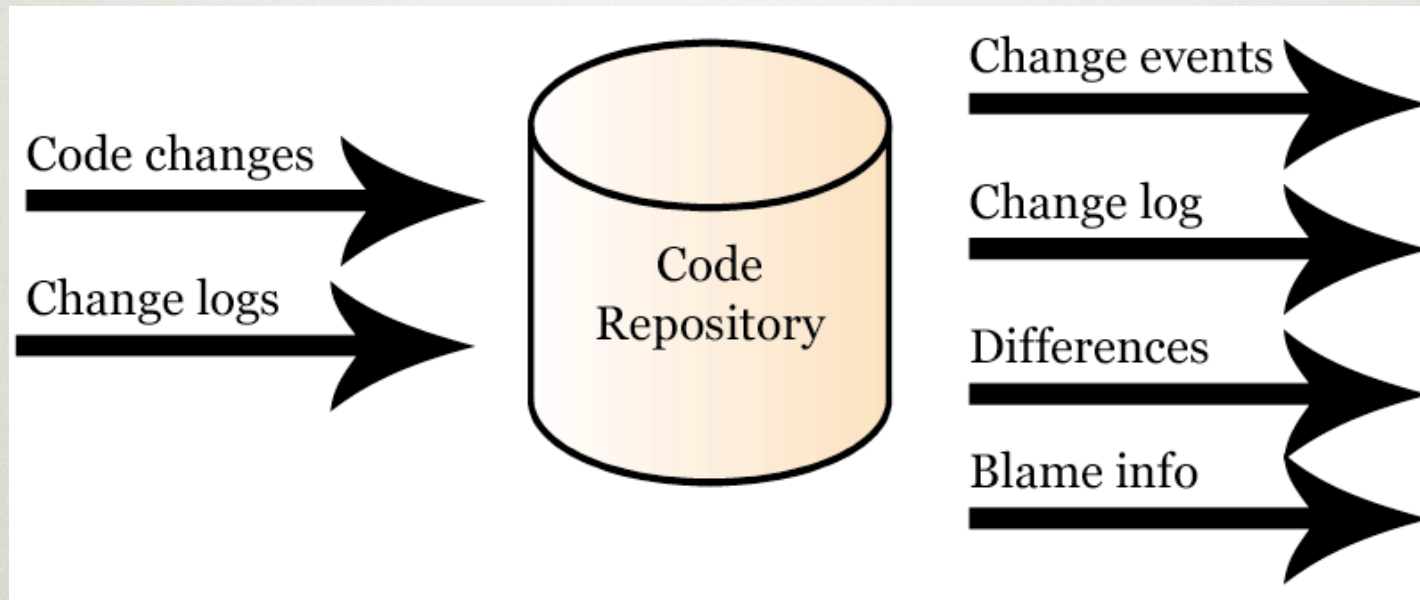
WHAT DOES
EACH TOOL BRING?

MAILING LISTS AND ARCHIVES



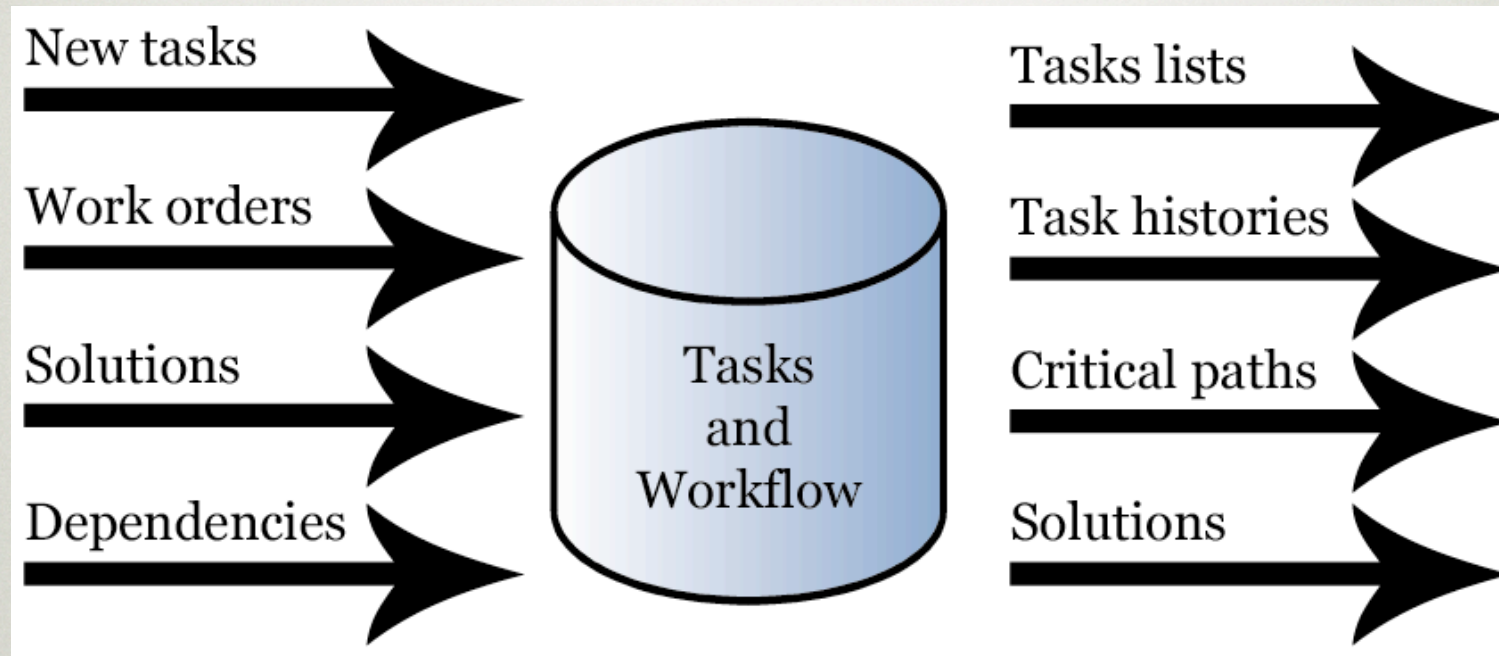
Lists require *lots* of discipline to be useful.
Searching is often hard.

SOURCE CODE REPOSITORY



Adds a lot of value to simple checkout
and commit operations.
Tells the story of the code in detail.

ISSUE TRACKER

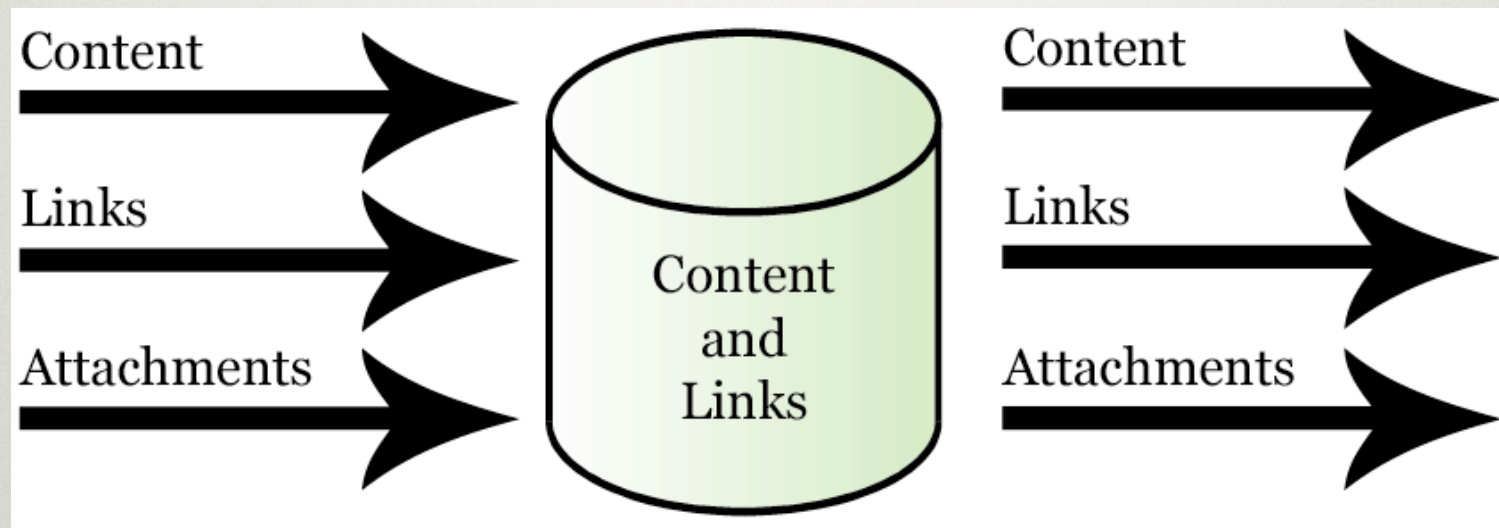


Structuring and classification add a lot of value.

Gives each issue a unique ID.

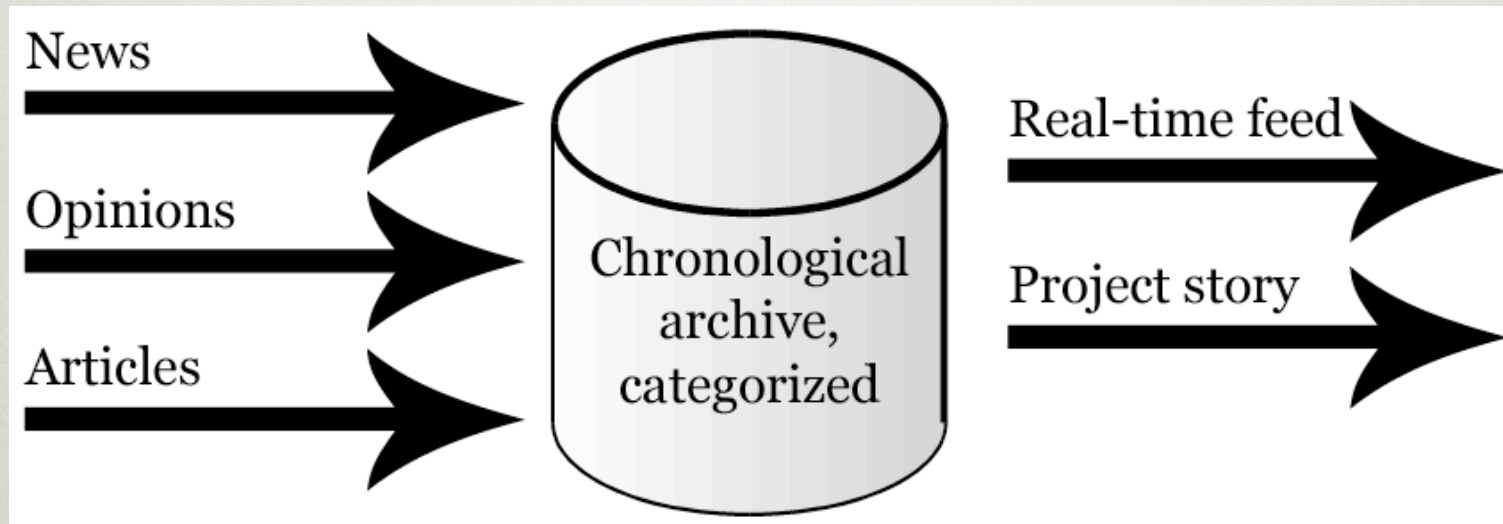
Very detailed story of the project, knowledge base.

PROJECT WIKI



Does not adds much value to the content.
Needs discipline to stay useful.
Strong linking features.

PROJECT BLOG



The best way to disseminate news.

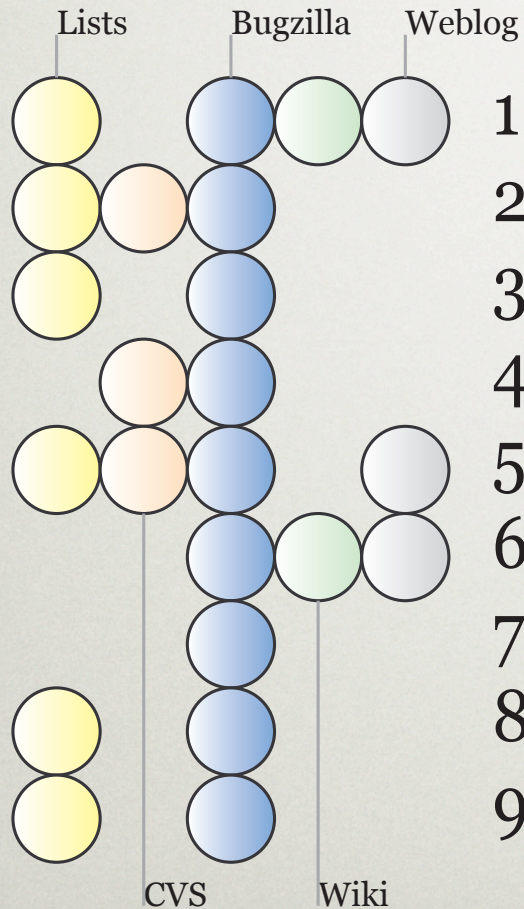
Celebrate milestones.

Leave space for Random Thoughts.

Does your customer subscribe?

ANSWERS?

ANSWERS



1. What are we doing?
2. Who knows what?
3. Who usually does what?
4. Who did what, precisely?
5. What happened while I was away?
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EXAMPLES

Apache HTTP Server

Mozilla, Firefox

Linux

Open Office

etc., etc...

Using *public* instances of these tools...

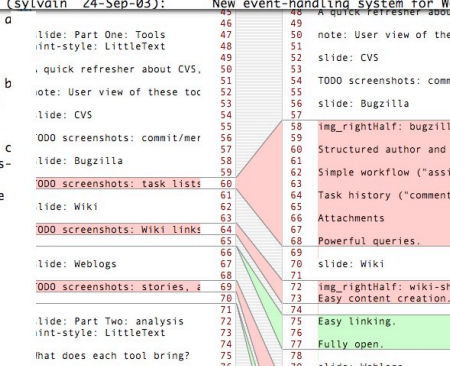
COUNTER-EXAMPLES

Let's have a show of hands...

WHAT NOW?

START SMALL...

```
$ cvs log status.xml
1.156 (cziegele 25-Sep-03): Fixing release of Source in the
1.156 (cziegele 25-Sep-03): </action>
RCS file: /home/cvs/co 1.154 (antonio 25-Sep-03): <action dev="AG" type="update">
Working file: status.x 1.155 (antonio 25-Sep-03): Update lib commons-lang to 2.0,
head: 1.158 1.154 (antonio 25-Sep-03): </action>
----- 1.151 (sylvain 24-Sep-03): <action dev="SW" type="add">
revision 1.158 1.151 (sylvain 24-Sep-03): New event-handling system for Wo
date: 2003/09/28 05:01:05; author: a
Update status.xml
-----
revision 1.157
date: 2003/09/26 14:46:23; author: b
YAPT presentation tool sample added
-----
revision 1.156
date: 2003/09/25 16:57:44; author: c
<action dev="CZ" type="add" fixes-
services.com">
    Fixing release of Source in the
```



A source code repository and issue tracker bring the most value.

Bugs that bug 86168 depends on

(view as bug list)

- 80183 [Bugzilla 2.16, jake@bugzilla.org] - configurable index page (using Template Toolkit).
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- 124274 [Bugzilla 2.16, myk@mozilla.org] - RFE: make link names in "Actions" footer customizable.
 - 140435 [Bugzilla 2.16, gerv@mozilla.org] - Templatise GetCommandMenu.
- 170213 [Bugzilla 2.18, gerv@mozilla.org] - Make all static HTML files into page.cgi pages.
- 190212 [Bugzilla 2.18, justdave@bugzilla.org] - Templatize all administrator-facing pages in Bugzilla.
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 - 92905 [Bugzilla 2.16, bbactz@acm.org] - editusers.cgi errors in apache errorlog: fetchrow failed.
 - 148147 [Bugzilla 2.18, preed@sigkill.com] - Templatize whineatnews.pl.
 - 190196 [Bugzilla 2.18, justdave@bugzilla.org] - editproducts.cgi needs templating.
 - 190220 [Bugzilla 2.18, justdave@bugzilla.org] - templatize editcomponents.cgi.
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 - 190224 [Bugzilla 2.18, justdave@bugzilla.org] - templatize editmilestones.cgi.
 - 190226 [Bugzilla 2.18, justdave@bugzilla.org] - templatize editversions.cgi.

THE RULES

If you're working on something,
it *must* be an issue from our tracker.

If something's not in the source
code repository, it *doesn't exist*.

CODA

CONCLUSIONS

These tools work!
Self-service answers are the key.
You can start small.
Don't forget *openness*.

LINKS

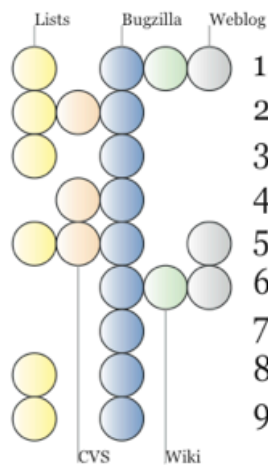
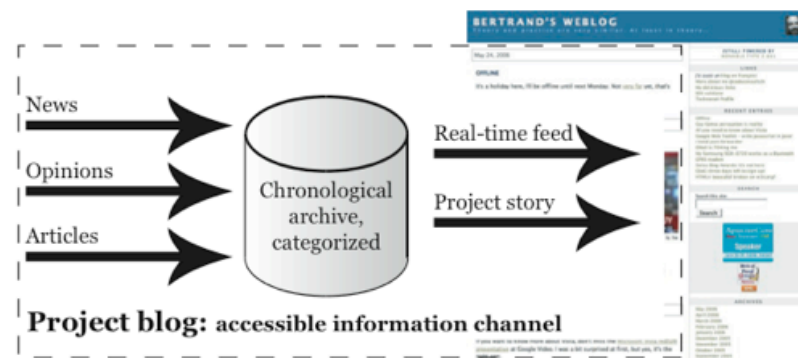
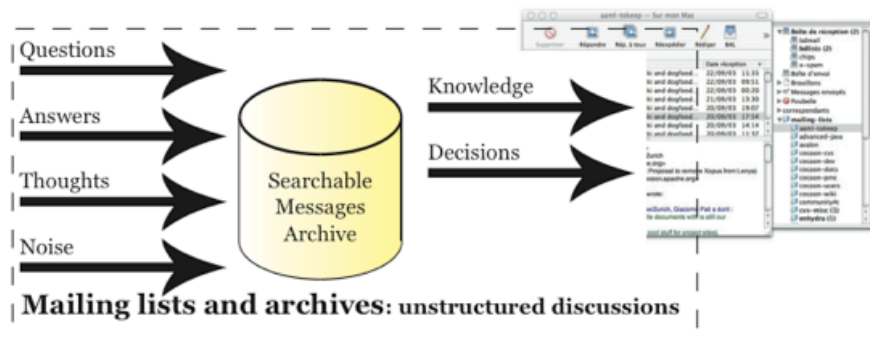
<http://www.bugzilla.org/>

<http://www.atlassian.com/software/jira/>

<http://www.nongnu.org/cvs/>

<http://subversion.tigris.org/>

<http://www.ezmlm.org/>



1. What are we doing?
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9. Wasn't this said before?

Open Source project tools for corporate projects?



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