Understanding the Requirements for Developing and Designing Open Source Software

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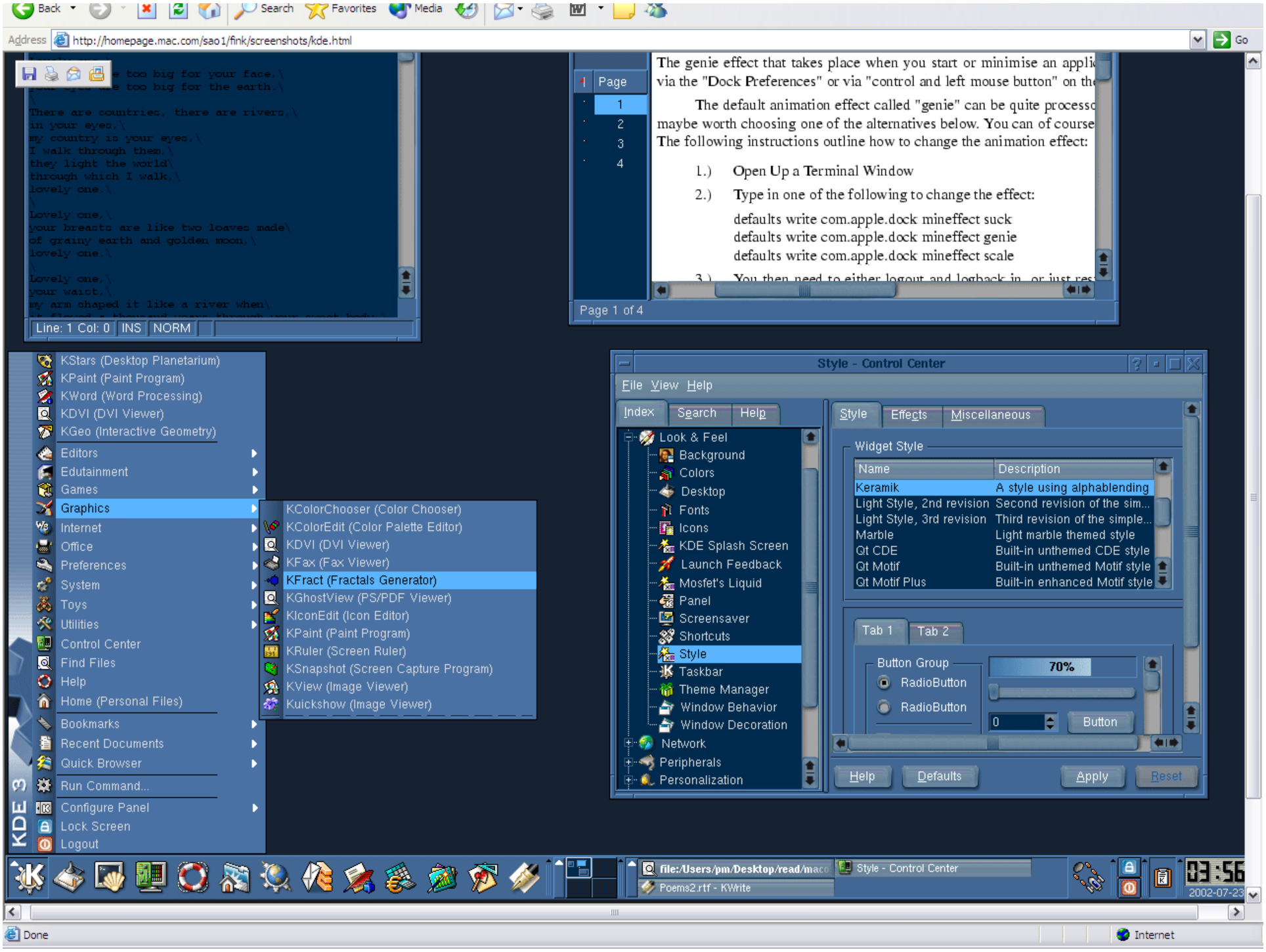
http://www.ics.uci.edu/~wscacchi/Presentations/Workshop2003/OSS-Req-Design-Process


Back
Search
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Media
Address
http://homepage.mac.com/sao1/fink/screenshots/kde.html
Go
Line: 1 Col: 0
INS
NORM
Page
1
2
3
4
The genie effect that takes place when you start or minimise an appli
via the "Dock Preferences" or via "control and left mouse button" on th
The default animation effect called "genie" can be quite processo
maybe worth choosing one of the alternatives below. You can of course
The following instructions outline how to change the animation effect:
1.) Open Up a Terminal Window
2.) Type in one of the following to change the effect:
defaults write com.apple.dock mineffect suck
defaults write com.apple.dock mineffect genie
defaults write com.apple.dock mineffect scale
Page 1 of 4
KStars (Desktop Planetarium)
KPaint (Paint Program)
KWord (Word Processing)
KDVI (DVI Viewer)
KGeo (Interactive Geometry)
Editors
Edutainment
Games
Graphics
Internet
Office
Preferences
System
Toys
Utilities
Control Center
Find Files
Help
Home (Personal Files)
Bookmarks
Recent Documents
Quick Browser
Run Command...
Configure Panel
Lock Screen
Logout
KDE
KColorChooser (Color Chooser)
KColorEdit (Color Palette Editor)
KDVI (DVI Viewer)
KFax (Fax Viewer)
KFract (Fractals Generator)
KGhostView (PS/PDF Viewer)
KIconEdit (Icon Editor)
KPaint (Paint Program)
KRuler (Screen Ruler)
KSnapshot (Screen Capture Program)
KView (Image Viewer)
Kuickshow (Image Viewer)
Style - Control Center
File View Help
Index
Search
Help
Look & Feel
Background
Colors
Desktop
Fonts
Icons
KDE Splash Screen
Launch Feedback
Mosfet's Liquid
Panel
Screensaver
Shortcuts
Style
Taskbar
Theme Manager
Window Behavior
Window Decoration
Network
Peripherals
Personalization
Style
Effects
Miscellaneous
Widget Style
Name
Description
Keramik
A style using alphablending
Light Style, 2nd revision
Second revision of the sim...
Light Style, 3rd revision
Third revision of the simple...
Marble
Light marble themed style
Qt CDE
Built-in unthemed CDE style
Qt Motif
Built-in unthemed Motif style
Qt Motif Plus
Built-in enhanced Motif style
Tab 1
Tab 2
Button Group
RadioButton
RadioButton
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Help
Defaults
Apply
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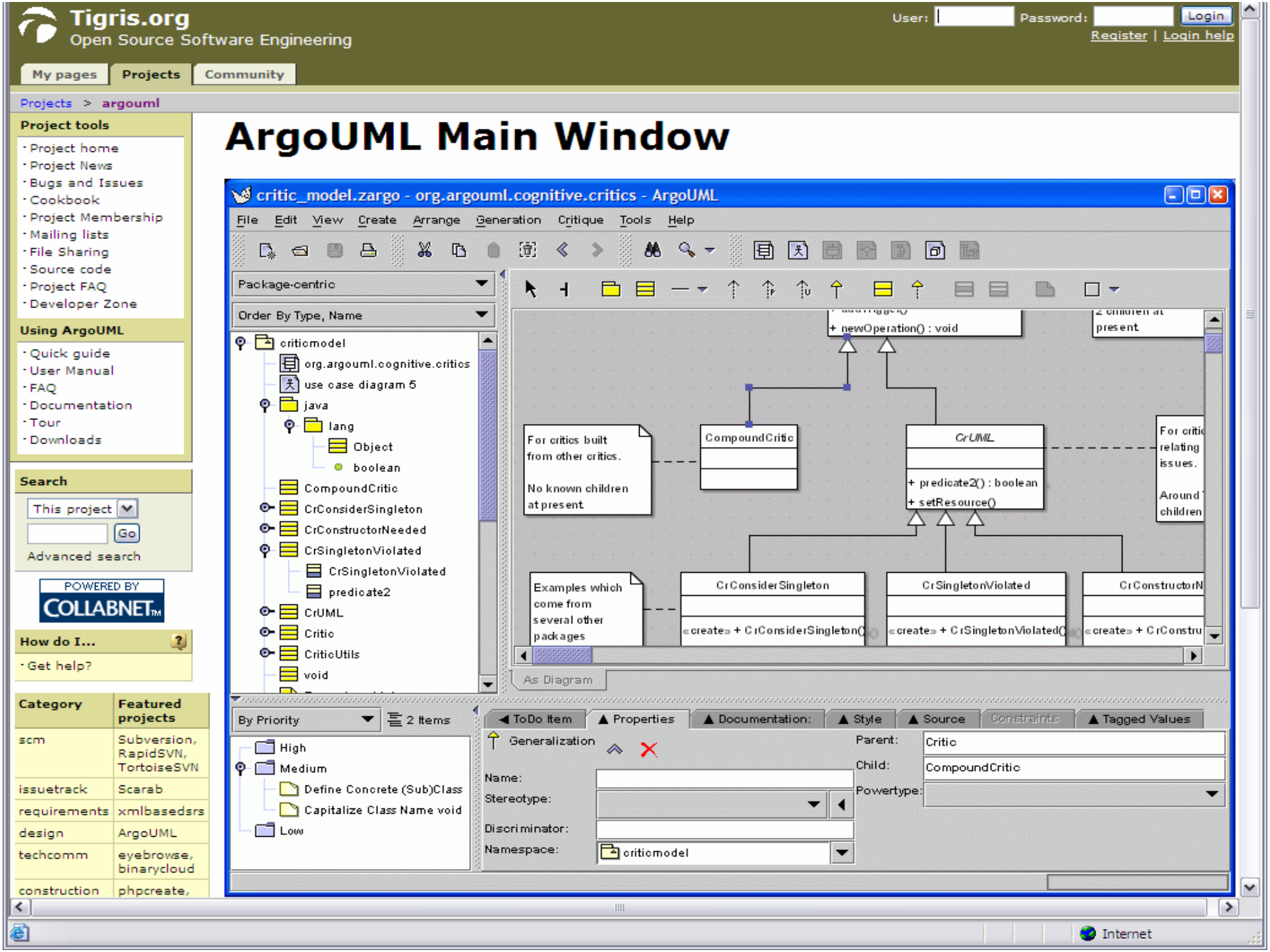
file:/Users/pm/Desktop/read/mac
Style - Control Center
Poems2.rtf - KWrite
03:56
2002-07-23
Done
Internet


Tigris.org
Open Source Software Engineering
User:
Password:
Login
Register | Login help
My pages
Projects
Community
Projects > argouml
Project tools
Project home
Project News
Bugs and Issues
Cookbook
Project Membership
Mailing lists
File Sharing
Source code
Project FAQ
Developer Zone
Using ArgoUML
Quick guide
User Manual
FAQ
Documentation
Tour
Downloads
Search
This project
Go
Advanced search
POWERED BY COLLABNET
How do I...
Get help?
Category
Featured projects
scm
Subversion, RapidSVN, TortoiseSVN
issuetrack
Scarab
requirements
xmlbasedsrs
design
ArgoUML
techcomm
eyebrowse, binarycloud
construction
phpcreate,
ArgoUML Main Window
critic_model.zargo - org.argouml.cognitive.critics - ArgoUML
File Edit View Create Arrange Generation Critique Tools Help
Package-centric
Order By Type, Name
criticmodel
org.argouml.cognitive.critics
use case diagram 5
java
lang
Object
boolean
CompoundCritic
CrConsiderSingleton
CrConstructorNeeded
CrSingletonViolated
CrSingletonViolated
predicate2
CrUML
Critic
CriticUtils
void
+ newOperation() : void
For critics built from other critics.
No known children at present
CompoundCritic
CrUML
+ predicate2() : boolean
+ setResource()
Examples which come from several other packages
CrConsiderSingleton
«create» + CrConsiderSingleton()
CrSingletonViolated
«create» + CrSingletonViolated()
As Diagram
By Priority
2 Items
High
Medium
Define Concrete (Sub)Class
Capitalize Class Name void
Low
ToDo Item
Properties
Documentation
Style
Source
Constraints
Tagged Values
Generalization
Parent: Critic
Child: CompoundCritic
Name:
Stereotype:
Powertype:
Discriminator:
Namespace: criticmodel
Internet

Astronomy Picture of the Day

Discover the cosmos! Each day a different image or photograph of our fascinating universe is featured, along with a brief explanation written by a professional astronomer.

2003 September 4

Composite Crab
Credit: J. Hester (ASU) et al., CXC, HST, NASA

Explanation: The Crab Pulsar, a city-sized, magnetized neutron star spinning 30 times a second, lies at the center of this composite image of the inner region of the well-known Crab Nebula. The spectacular picture combines optical data (red) from the Hubble Space Telescope and x-ray images (blue) from the Chandra Observatory, also used in the popular Crab Pulsar movies. Like a cosmic dynamo the pulsar powers the x-ray and optical emission from the nebula, accelerating charged particles and producing the eerie, glowing x-ray jets. Ring-like structures are x-ray emitting regions where the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BACK
NEXT

Overview

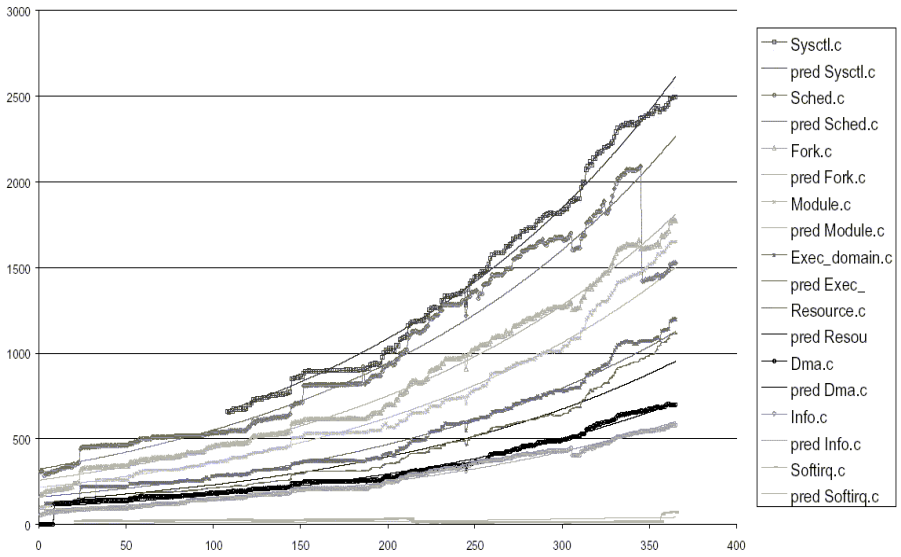
- Research methodology
- Open source processes for Requirements
- Software development informalisms
- Implications
- Conclusions

Research methodology

- Prior empirical (case) studies of Open Source Software Development (OSSD) Projects
  - Mockus, Fielding, Herbsleb, 2000, 2002, Apache httpd server
  - Reis and Fortes, 2002, Mozilla Web browser
  - Schach *et al.*, 2002; Holt *et al.*, 2000, Linux Kernel
  - Koch and Schneider 2001; German 2002, GNOME User Interface
  - Jorgensen, 2001, FreeBSD operating system
  - Garg *et al.*, 2002, OSSD ("progressive open source") within HP

Research methodology

- Individual case studies: significant details, but limited (and *premature*) generalization, little/no comparative analysis
- Very few studies that examine *multiple OSSD projects* in *multiple domains*
  - Such studies would offer higher degree of comparative analyses and generalization of results


3000
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Sysctl.c
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Fork.c
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Module.c
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Exec_domain.c
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Resource.c
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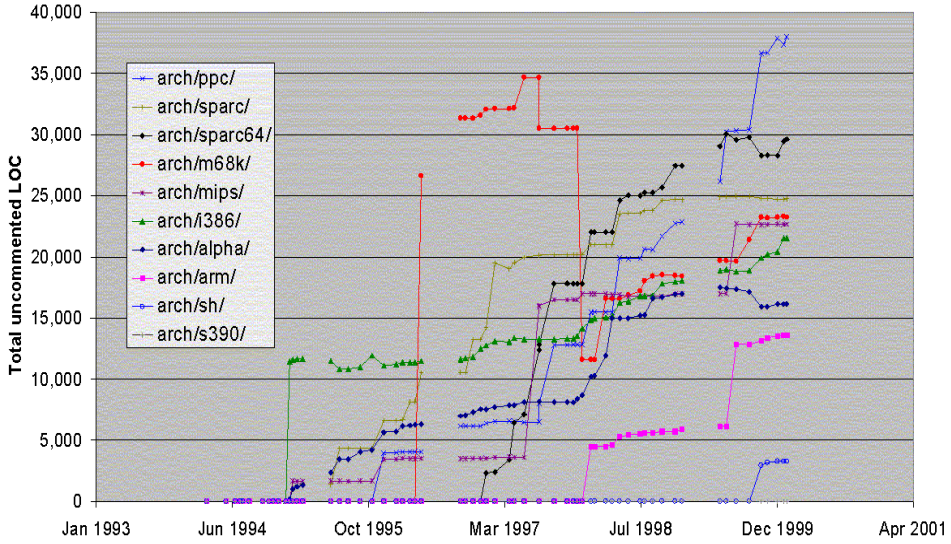
pred Dma.c
Info.c
pred Info.c
Softirq.c
pred Softirq.c


Total uncommented LOC
40,000
35,000
30,000
25,000
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15,000
10,000
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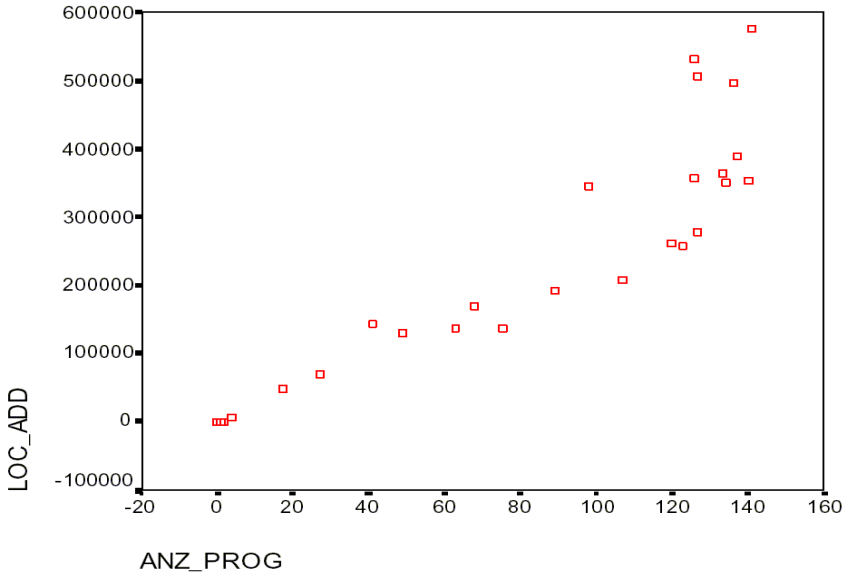
0
Jan 1993
Jun 1994
Oct 1995
Mar 1997
Jul 1998
Dec 1999
Apr 2001
arch/ppc/
arch/sparc/
arch/sparc64/
arch/m68k/
arch/mips/
arch/i386/
arch/alpha/
arch/arm/
arch/sh/
arch/s390/


LOC_ADD
600000
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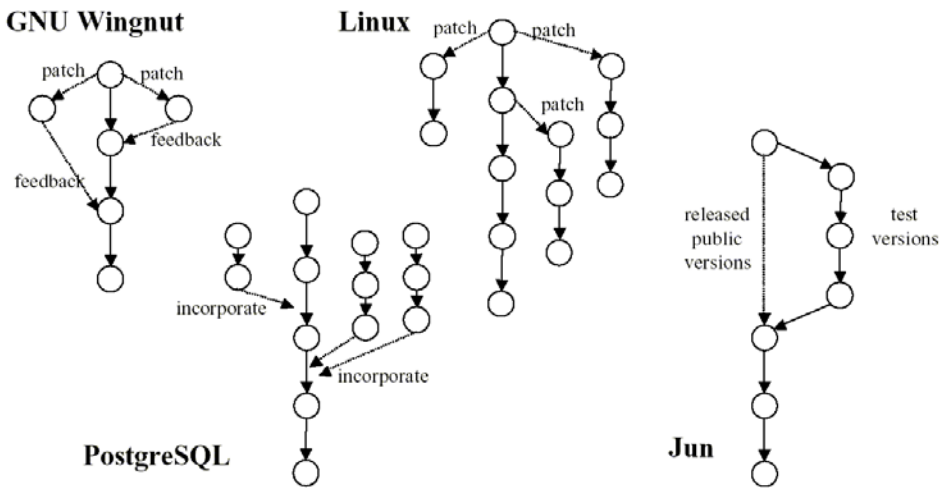
ANZ_PROG


GNU Wingnut
patch
patch
feedback
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Linux
patch
patch
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incorporate
incorporate
PostgreSQL
released
public
versions
test
versions
Jun

Research methodology

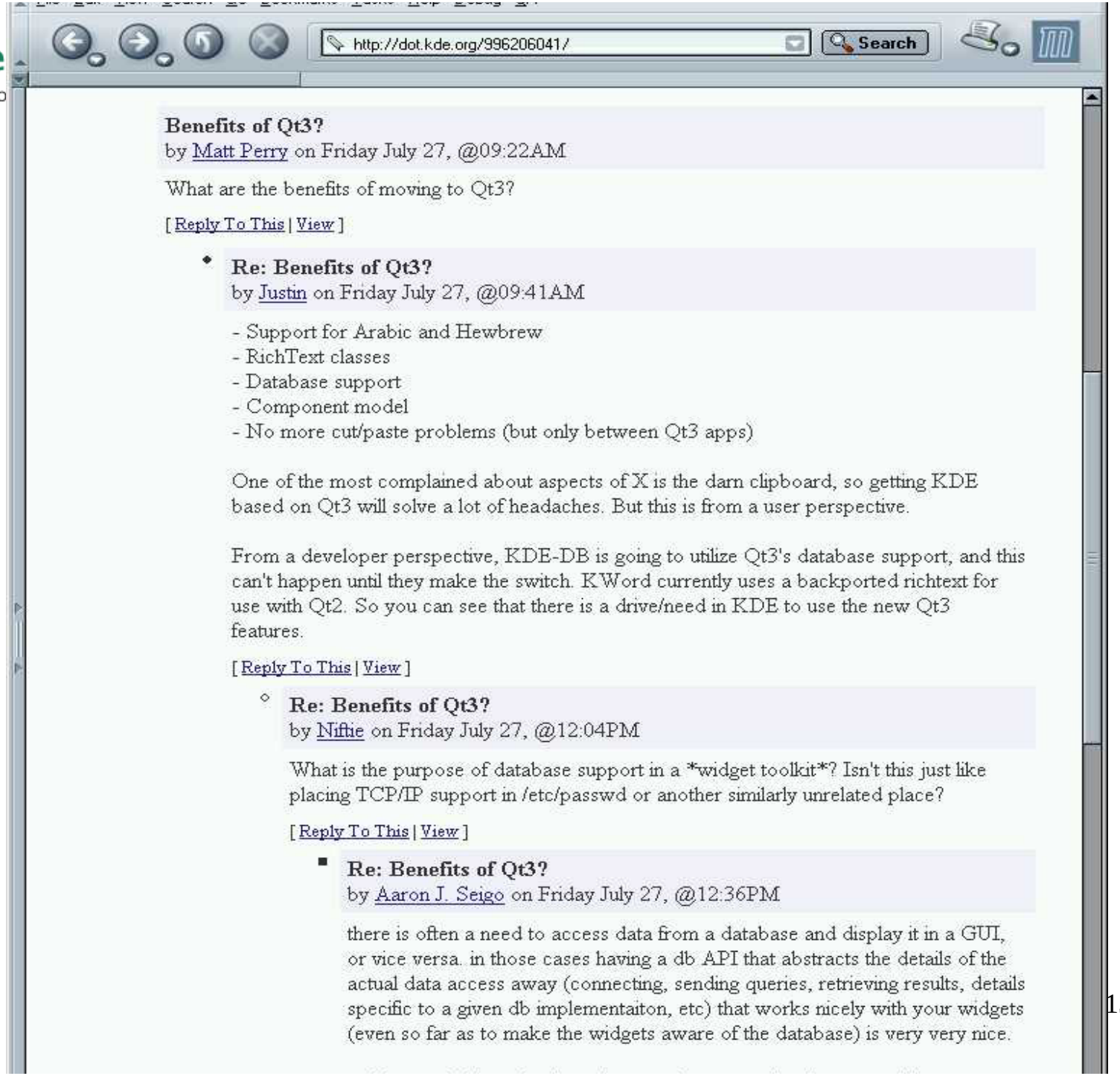
- Comparative case studies
  - Multiple open software development projects
    - Within and across multiple communities
- Qualitative ("grounded theory") techniques
- Analyzing and modeling
  - development processes
  - work practices and roles
  - development artifacts and tools
  - community structures and process dynamics

OSS processes for Requirements

- *Post-hoc* assertion of requirements+design after implementation
- Reading, sense-making, accountability
- Continually emerging webs of discourse
- Condensing and hardening discourse
- Global access to this discourse

OSS processes for Requirements/Design

- OSS Requirements/Designs are
  - not explicit
  - not formal
- OSS Requirements/Designs are embedded within “informalisms”
- Example OSS informalisms follow


http://dot.kde.org/996206041/
Search
Benefits of Qt3?
by Matt Perry on Friday July 27, @09:22AM
What are the benefits of moving to Qt3?
[Reply To This | View]
Re: Benefits of Qt3?
by Justin on Friday July 27, @09:41AM
- Support for Arabic and Hewbrew
- RichText classes
- Database support
- Component model
- No more cut/paste problems (but only between Qt3 apps)
One of the most complained about aspects of X is the darn clipboard, so getting KDE based on Qt3 will solve a lot of headaches. But this is from a user perspective.
From a developer perspective, KDE-DB is going to utilize Qt3's database support, and this can't happen until they make the switch. KWord currently uses a backported richtext for use with Qt2. So you can see that there is a drive/need in KDE to use the new Qt3 features.
[Reply To This | View]
Re: Benefits of Qt3?
by Niftie on Friday July 27, @12:04PM
What is the purpose of database support in a *widget toolkit*? Isn't this just like placing TCP/IP support in /etc/passwd or another similarly unrelated place?
[Reply To This | View]
Re: Benefits of Qt3?
by Aaron J. Seigo on Friday July 27, @12:36PM
there is often a need to access data from a database and display it in a GUI, or vice versa. in those cases having a db API that abstracts the details of the actual data access away (connecting, sending queries, retrieving results, details specific to a given db implementaiton, etc) that works nicely with your widgets (even so far as to make the widgets aware of the database) is very very nice.

In

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ArgoUML Vision

Cognitive Support for Design

Software design is a cognitively challenging task. Designers must manually enter designs, but the primary difficulty is decision-making rather than data-entry. If designers improved their decision-making capabilities, it would result in better designs.

Current CASE tools provide automation and graphical user interfaces that reduce the manual work of entering a design and transforming a design into code. They aid designers in decision-making mainly by providing visualization of design diagrams and simple syntactic checks. Also many CASE tools provide substantial benefits in the area of version control and concurrent design mechanisms. One area of design support that has been not been well supported is analysis of design decisions.

Current CASE tools are usable in that they provide a GUI that allows designers to access all the features provided by the tool. And they support the design process in that they allow the designer to enter diagrams in the style of popular design methodologies. But they typically do not provide process support to guide the designer through the design task. Instead, designers typically start with a blank page and must remember to cover every aspect of the design.

ArgoUML is a domain-oriented design environment that provides cognitive support of object-oriented design. ArgoUML provides some of the same automation features of a commercial CASE tool, but it focuses on features that support the cognitive needs of designers. These cognitive needs are described by three cognitive theories:

- reflection-in-action,
- opportunistic design, and
- comprehension and problem solving.

Following the UML Specification

ArgoUML is based directly on the UML 1.3 specification. In fact, a large part of ArgoUML was generated automatically from the UML specification. ArgoUML is (to the best of our knowledge) the only tool that implements the UML meta-model exactly as specified. In contrast, current commercial tools use tools use basically the same internal representation of the design that they used in previous versions.

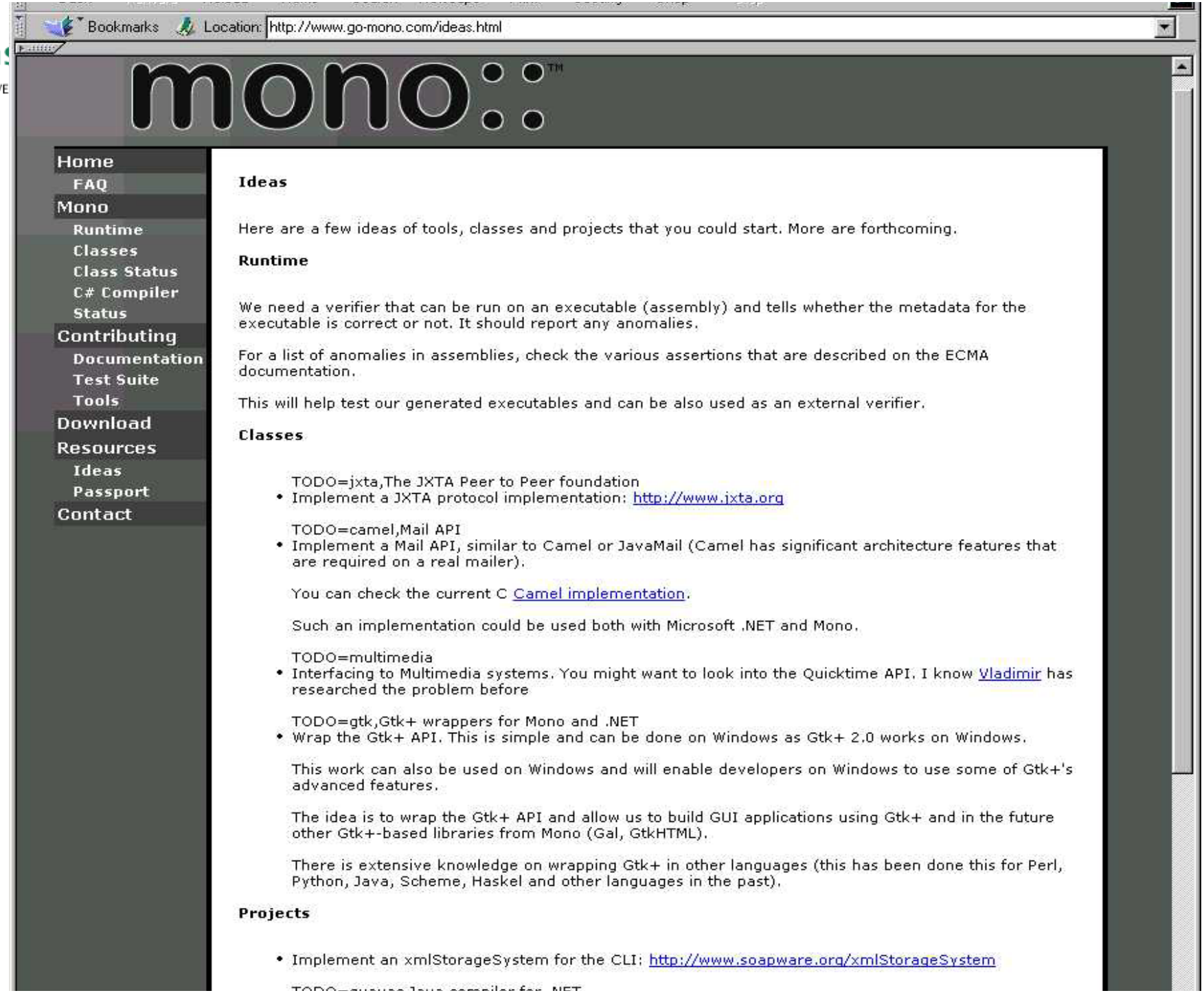
Furthermore, it is our goal to provide comprehensive support for OCL (the Object Constraint Language) and XMI (the XML Model Interchange format), which other tools currently do not support.

Community Software Development

As with all software produced by our research group, ArgoUML is available for free and can be used in commercial settings. For terms of use, see the license agreement presented when you download ArgoUML.

ArgoUML was originally developed by a small group of people as a research project. ArgoUML has many features that make it special, but it does not implement all the features that commercial CASE tools provide. We are providing the source code for ArgoUML for you to review, customize to your needs, and improve. Over time, we hope that ArgoUML will evolve into a powerful and useful tool for everyone to use.

Community software development has worked successfully to produce the FSF's GNU utilities and the Linux operating system. It has also worked in producing GEF, the Graph Editing Framework, which is a major component of ArgoUML.


Bookmarks
Location: http://www.go-mono.com/ideas.html
mono::™
Home
FAQ
Mono
Runtime
Classes
Class Status
C# Compiler
Status
Contributing
Documentation
Test Suite
Tools
Download
Resources
Ideas
Passport
Contact
Ideas
Here are a few ideas of tools, classes and projects that you could start. More are forthcoming.
Runtime
We need a verifier that can be run on an executable (assembly) and tells whether the metadata for the executable is correct or not. It should report any anomalies.
For a list of anomalies in assemblies, check the various assertions that are described on the ECMA documentation.
This will help test our generated executables and can be also used as an external verifier.
Classes
TODO=jxta,The JXTA Peer to Peer foundation
Implement a JXTA protocol implementation: http://www.jxta.org
TODO=camel,Mail API
Implement a Mail API, similar to Camel or JavaMail (Camel has significant architecture features that are required on a real mailer).
You can check the current C Camel implementation.
Such an implementation could be used both with Microsoft .NET and Mono.
TODO=multimedia
Interfacing to Multimedia systems. You might want to look into the Quicktime API. I know Vladimir has researched the problem before
TODO=gtk,Gtk+ wrappers for Mono and .NET
Wrap the Gtk+ API. This is simple and can be done on Windows as Gtk+ 2.0 works on Windows.
This work can also be used on Windows and will enable developers on Windows to use some of Gtk+'s advanced features.
The idea is to wrap the Gtk+ API and allow us to build GUI applications using Gtk+ and in the future other Gtk+-based libraries from Mono (Gal, GtkHTML).
There is extensive knowledge on wrapping Gtk+ in other languages (this has been done this for Perl, Python, Java, Scheme, Haskel and other languages in the past).
Projects
Implement an xmlStorageSystem for the CLI: http://www.soapware.org/xmlStorageSystem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MAC
Unreal
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Pearman Alpha Released
Unreal Engine News for July 2001
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UT PS2 Footage [26MB]
UT Technology Movie [42MB]
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General
UT Matches
Rocket Arena
Chaos
Editing
Signup!
What's Hot
LAN Parties
Events
Buy It
Latest News
In the Press
Gallery
Gameplay
Tips & Tricks
Community
Behind the Scenes
Fan Alley
Downloads
Game Help
Editing & Scripting
European Web Site
EDITING & SCRIPTING
The greatest thing about the Unreal Engine Technology which Unreal Tournament uses, is that you can actually create your own levels, mods, skins, models, and more; making for an endless amount of new things to play with, and new things to see. Heck, people even get hired for doing these things, so give it a shot, you just might like it.
Below are links to various sections which give some detail on where to learn about editing, as well as a few tutorials and downloads to help get you started. Good luck!
Editing Resources
INFOGRAMES
EPIC GAMES

The Chandra Automatic Data Processing Infrastructure

David Plummer and Sreelatha Subramanian
Harvard-Smithsonian Center for Astrophysics, 60 Garden St. MS-81, Cambridge, MA 02138

Abstract:

The requirements for processing Chandra telemetry are very involved and complex. To maximize efficiency, the infrastructure for processing telemetry has been automated such that all stages of processing will be initiated without operator intervention once a telemetry file is sent to the processing input directory. To maximize flexibility, the processing infrastructure is configured via an ASCII registry. This paper discusses the major components of the Automatic Processing infrastructure including our use of the STScI OPUS system. It describes how the registry is used to control and coordinate the automatic processing.

1. Introduction

Chandra data are processed, archived, and distributed by the Chandra X-ray Center (CXC). Standard Data Processing is accomplished by dozens of ``pipelines" designed to process specific instrument data and/or generate a particular data product. Pipelines are organized into levels and generally require as input the output products from earlier levels. Some pipelines process data by observation while others process according to a set time interval or other criteria. Thus, the processing requirements and pipeline data dependencies are very complex. This complexity is captured in an ASCII processing registry which contains information about every data product and pipeline. The Automatic Processing system (AP) polls its input directories for raw telemetry and ephemeris data, pre-processes the telemetry, kicks off the processing pipelines at the appropriate times, provides the required input, and archives the output data products.

2. CXC Pipelines

Figure 2 represents the series of pipelines that are run to process the Chandra data. Each circle represents a different pipeline (or related set of pipelines). Level 0 processing (De-commutation) will produce several data products that correspond to the different spacecraft components. Data from the various components of the spacecraft will follow different threads through the system. The arrows represent the flow of data as the output products of one pipeline are used as inputs to a pipe (or pipes) in the next level. Some pipelines are run on arbitrary time boundaries (as data are available) and others must be run on time boundaries based on observation interval start and stop times (which are determined in the level 0.5 pipe, OBI_DET).

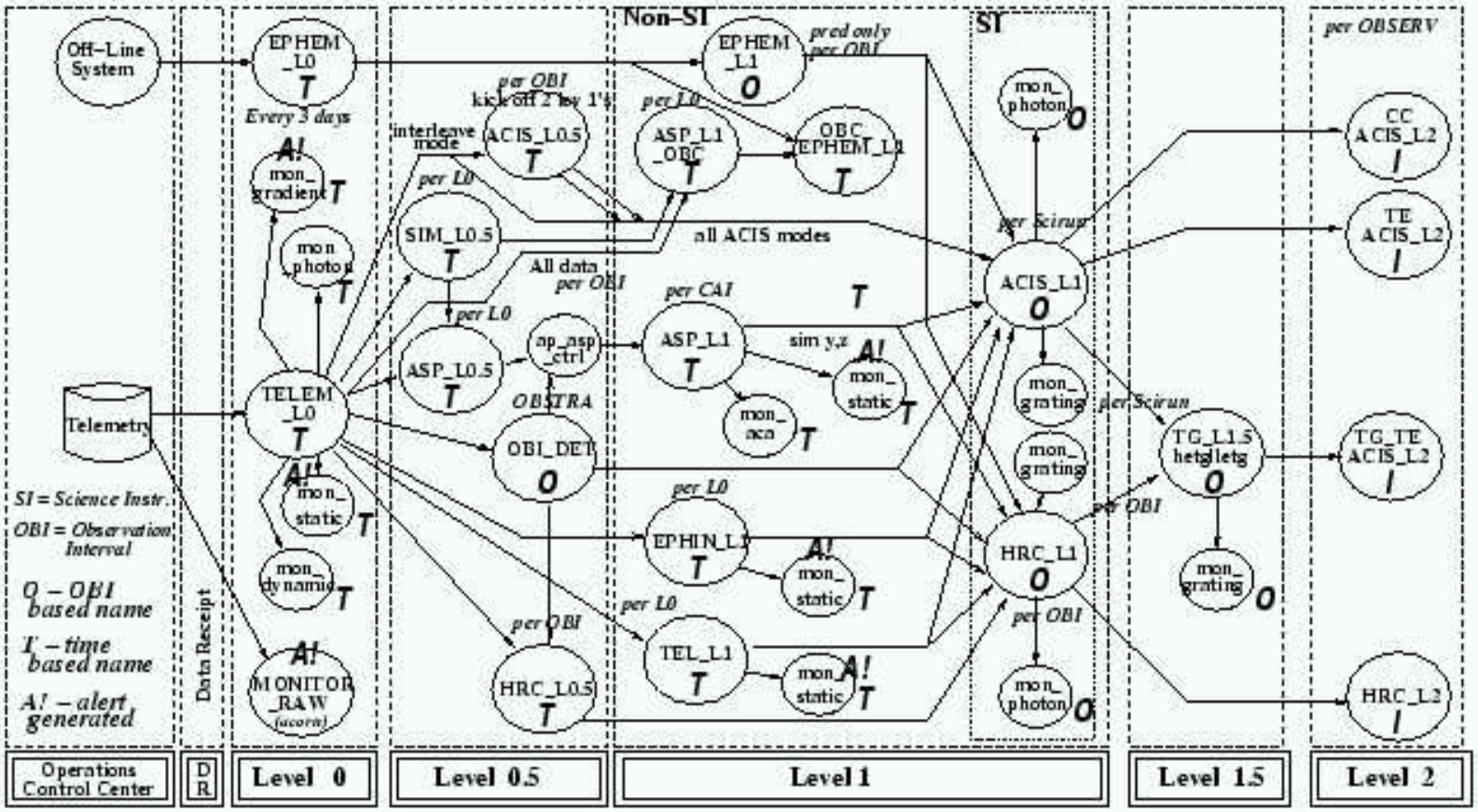


Figure 2: Standard Processing Threads.

Traditional vs. OSS processes for Requirements

- Elicitation
- Analysis
- Specification and modeling
- Validation
- Communicating and managing

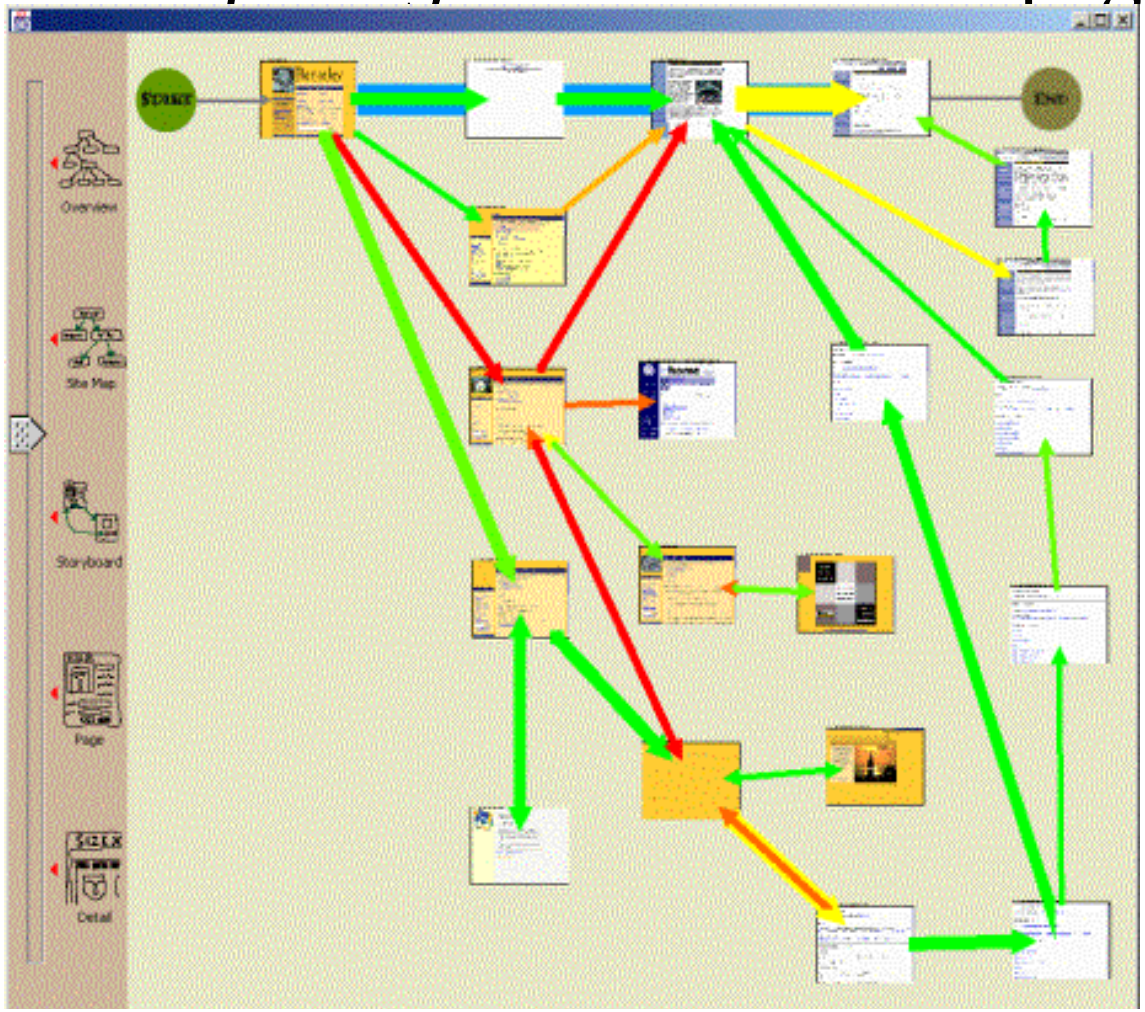
- *Post-hoc* assertion
- Reading, sense-making, accountability
- Continually emerging webs of discourse
- Condensing and hardening discourse
- Global access to discourse

Software Informalisms

- Community communications
  - Threaded discussion forums
  - Email (list servers)
  - Newsgroups
  - IRChat/Instant messages
  - Community digests (“Kernel Cousins”)

Software Informalisms

- *Scenarios of Usage* as linked Web pages



Software Informalisms

- How-To guides, To-Do lists, FAQs
- Traditional software user documentation
  - Unix/Linux man pages
- External publications
  - trade articles
  - scholarly research papers
  - books (cf. O'Reilly Books)

Software Informalisms

- Open Software Web Sites
  - Community Web sites
  - Community Software Web sites
  - Project Web sites
  - Source code Webs/Directories


Back
Forward
Reload
Stop
Print
SOURCEFORGE.net
my sf.net
software map
foundries
about sf.net
My Favorites
Go
Login via SSL
New User via SSL
Search
Software/Group
Search
SF.net Resources
· Site Docs
· Site Status
· Site Map
· Compile Farm
· Project Help Wanted
· New Releases
· Get Support
IBM DB2
Powering e-business
Most Active
1 Gaim
2 eGroupWare, Enterprise collab suite
3 Tiki CMS/Groupware
4 WinMerge
5 phpMyAdmin
6 AWStats
7 MinGW - Minimalist GNU for Windows
8 Compiere ERP + CRM Business Solution
9 POPFile - Automatic Email Classification
10 AMSN
More Activity>>
Top Downloads
1 eMule
2 BitTorrent
3 eMule Plus
4 DC++
5 VirtualDub
6 CDex
7 guliverkli
8 ffdshow
SourceForge.net is the world's largest Open Source software development website, with the largest repository of Open Source code and applications available on the Internet. SourceForge.net provides free services to Open Source developers.
Project of the Month
Every month the SF.net team picks one outstanding project to highlight the software and personality that drive the Open Source Community!
Project of the Month for September 2003
TightVNC
Foundries
SourceForge.net Foundries are topic-focused areas where developers connect and collaborate around software development.
Highlighted Foundries:
Clustering, Distributed Computing, Linux on Large Systems
more foundries >>
Enterprise
SourceForge for Corporate Use
SourceForge Enterprise Edition brings the power of SourceForge's award-winning software collaboration environment behind your firewall. With major feature extensions, third party SCM and IDE support, real-time project tracking and reporting, and enterprise grade security and stability, SourceForge Enterprise Edition helps project managers and distributed development teams produce better results in less time.
SourceForge.net Statistics
Hosted Projects: 68,586
Registered Users: 703,332
SourceForge.net Newsletter
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Turck MMCache for PHP version 2.4.0 is released
dstogov - 2003-09-22 05:41 - Turck MMCache for PHP
Turck MMCache is a PHP Accelerator, Optimizer, Encoder and Dynamic Content Cache. It increases performance of PHP scripts by caching them in compiled state, so that the overhead of compiling is almost completely eliminated. Also it uses some optimizations for speed up of PHP scripts execution. Turck MMCache typically reduces server load and increases the speed of your PHP code by 1-10 times. It has been tested with PHP 4.1.0 - 4.3.3 under Linux and Windows with Apache 1.3 and 2.0.
(0 Comments) [Read More/Comment]
Aqsis Renderer 0.8.0 (stable) available
pgregory - 2003-09-22 05:39 - Aqsis Renderer
The latest stable release of Aqsis Win32 and source are now available to download. Work can begin in earnest now of
pmp
PMI registered Project Management Certificate - Online from Villanova
www.villanovau.com
File Collaboration SW
Transparent, Real-time, No UI, 95% Traffic Elimination. Free Trial
www.availl.com
Collaboration Download
Connect teams, share information & manage projects using SiteScape.
http://sitescape.com/free
Manage Schedule, Features
Free Trial: Project Management SW that's easy to setup, learn and use
www.cyclepoint.com

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advanced content management system

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the future of the web

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- Commercial License
- Community
- Downloads
- FAQ
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- Recommend Us
- Search
- Statistics
- Stories Archive
- Submit News
- Surveys
- Top
- Topics
- Your Account

Advertising

Buy Phentermine from prescription filler pharmacy and save.

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Buy Adipex 37.5mg from our online pharmacy.

Who's Online

There are currently, 259 guest(s) and 9 member(s) that are online.

You are Anonymous

PHP-Nuke 7.0 ALPHA 1 Released

The very first version 7.0 has been released, for Club Members only, which includes a new points system, modules access and users groups by points. Also includes some security fixes and the latest phpBB Forums port version 2.0.6. The new points system and users groups will be improved in coming releases. Enjoy!

Enter the Club and get it!

Addons: RGB to HEX Converter module

qschoper writes *"This is a simple module that will convert RGB color codes to hex and hex codes to RGB. A cool tool for use in designing Web pages.*

It can be previewed here ,and downloaded here."

Posted by nukelite on Sunday, September 21 @ 18:47:53 EDT (77 reads)
(**Read More...** | Addons | Score: 0)

The first book on PHP-Nuke - hot of the press - please add your language now

Anonymous writes *"Brandnew - **The first book on PHP-NUKE soon gets hot of the press...** . the first book on phpnuke is so hot that the pupblishers covered it red - see here for full details*

and please see some additional infos on phpnuke-book.com "

Posted by nukelite on Sunday, September 21 @ 18:15:03 EDT (150 reads)
(**Read More...** | 2762 bytes more | Score: 0)

PNukeNews 1.8 Released

Anonymous writes *"PNukeNews version 1.8 has been released. PNukeNews is a stand-alone Windows client that allows PHPNuke site operators design their own news client for their users and distribute it royalty free after registration.*

It includes realtime notification on new news, forum postings or downloads. Notification is configured by the user to be either a selected wav file, flashing icon in the tray, or both. It also includes autoupdate features and skin themes. And last, but not least, proxy support."

Categories

- **All Categories**
- Addons
- Blocks
- Hosting
- Languages
- Questions
- Themes
- YANS

Surveys

Which is better for PHP-Nuke Administration system?

- As it's now
- Control panel on each module
- Navigation Bar
- What is PHP-Nuke?

Vote

Results
Polls

Votes **4179**

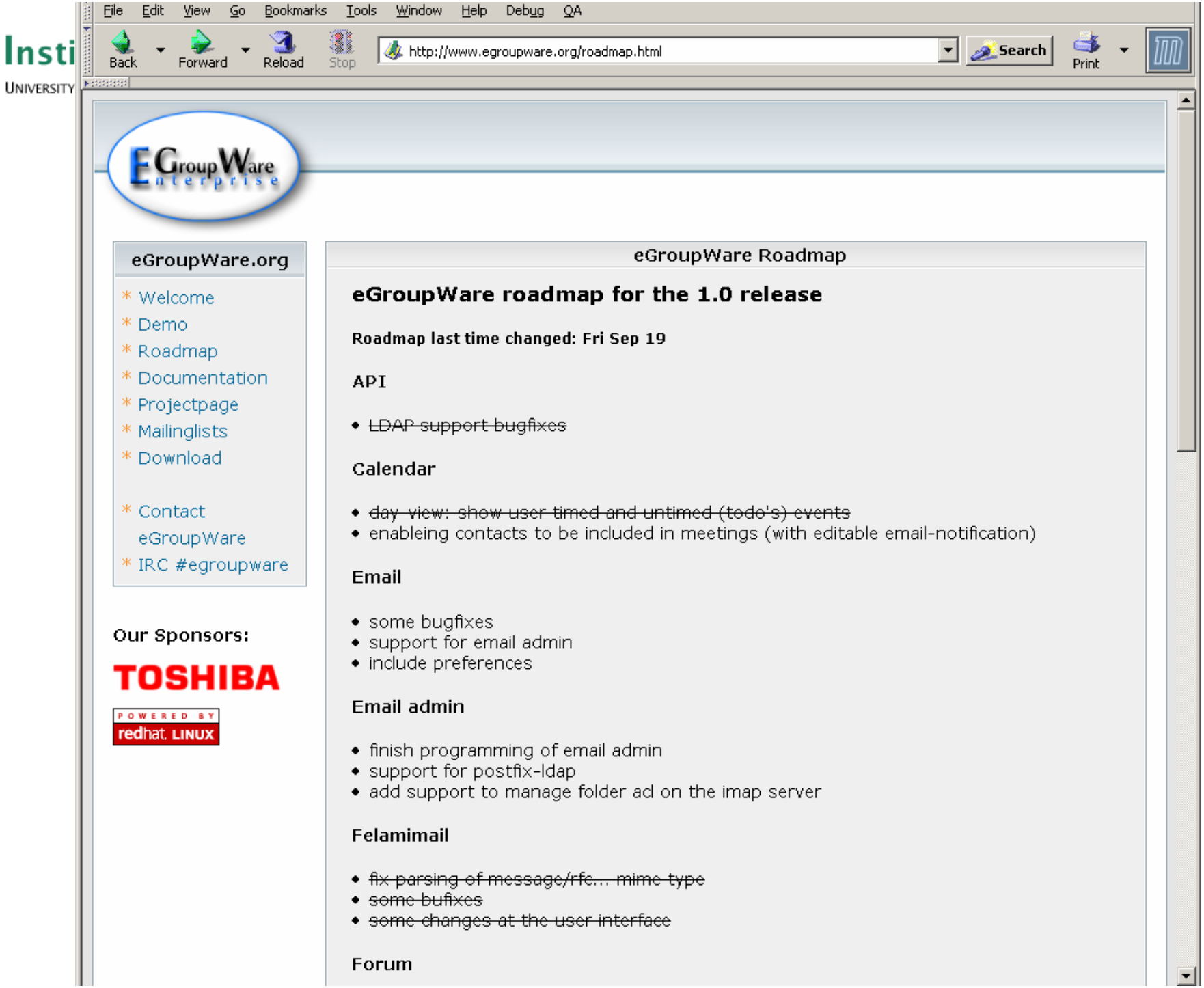
Big Story

There isn't a Biggest Story for Today, yet.

User's Login

Nickname

Password


File Edit View Go Bookmarks Tools Window Help Debug QA
Back Forward Reload Stop
http://www.egroupware.org/roadmap.html
Search
Print
eGroupWare Enterprise
eGroupWare.org
* Welcome
* Demo
* Roadmap
* Documentation
* Projectpage
* Mailinglists
* Download
* Contact eGroupWare
* IRC #egroupware
Our Sponsors:
TOSHIBA
POWERED BY redhat. LINUX
eGroupWare Roadmap
eGroupWare roadmap for the 1.0 release
Roadmap last time changed: Fri Sep 19
API
• ~~LDAP support bugfixes~~
Calendar
• ~~day view: show user timed and untimed (todo's) events~~
• enableing contacts to be included in meetings (with editable email-notification)
Email
• some bugfixes
• support for email admin
• include preferences
Email admin
• finish programming of email admin
• support for postfix-ldap
• add support to manage folder acl on the imap server
Felamimail
• ~~fix parsing of message/rfc... mime type~~
• ~~some bufixes~~
• ~~some changes at the user interface~~
Forum

Software Informalisms

- Software bug reports
  - Ad hoc report Web
  - Bugzilla (database tracking)
- Issue tracking
  - Issuezilla


http://asc.harvard.edu/ciao2.2/bugs/dm
Search
Home
Bookmarks
The Mozilla Or...
Latest Builds
Chandra X-ray Center
About Chandra
Archive
Proposer
Instruments & Calibration
Data Analysis
Newsletters
Help Desk
Calibration Database
NASA Archives & Centers
Search
CIAO
Home
Introduction
Download
Documents
Welcome
Threads
Manuals
Dictionary
Ahelp
CIAO FAQ
Data Caveats
Bug List
Error Messages
Release Notes
Bug: dmextract
- Bug: Crashes when extracting a PHA, while using a stack of files for background extraction [6155]
- Bug (linux): - A memory corruption causes the tool to crash when creating a long HISTORY string. [6205]
- Caveat: BACKSCAL areas for complicated regions may have small (of order 1-2 percent) errors, as they are calculated using an approximate algorithm. CIAO 2.2 is improved relative to CIAO2.1, but still not perfect.
Last modified: 14 November 2001

Software Informalisms

- Software extension mechanisms
  - Inter-application scripting
    - Csh, Perl, Python, Tcl scripting
    - Pipelines (cf. CXCDS)
  - Intra-application scripting (e.g., *UnrealScript*)
  - Plug-in architectures
    - Apache server architecture

Software Informalisms

- Free/OSS licenses – institutionalizing F/OSS culture (values, norms, and beliefs)
  - GNU Public License (GPL)
  - BSD, and more than 35 others (http://opensource.org)
  - "Creative Commons" Project at Stanford Law School developing public license framework

Other Licenses: Frequently Asked Questions

Version 1.0 - February 9, 2001

Q: Are there other licenses that meet the definition of an Open Game?

A: Yes, there are several.

Q: How about the GNU licenses?

A: The General Public License (GPL), the Lesser General Public License (LGPL), and the GNU Free Documentation License (GFDL) all provide terms that could be used to publish an Open Game.

Q: There are lots of Open Source software licenses. Can those be used to create Open Games?

A: In general, if a license meets the Open Source Definition, it will almost certainly provide the tools to distribute an Open Game as well.

Q: Why not use those licenses then?

A: The biggest impediment to using the Open Source licenses is that most of them do not provide for a separation between game rules and trademarks, setting content, fiction, illustrations, and maps. The Open Gaming License does this through the use of the Product Identity clause, and by not requiring that everything in a given work be Open Game Content.

Q: How about the Dominion Rules License?

A: The DRL provides terms that can be used to publish an Open Game.

Q: What about the October Open Game License?

A: The October Open Game License provides terms that can be used to publish an Open Game.

Q: Why not use one of those licenses then?

Please send comments, questions, or feedback to Mary-Elizabeth Allen.

Implications

- Software informalisms are the *media* of software requirements/design
- Software informalisms are the *subject* of software requirements/design
- OSS requirements/design tasks are *implied activities or capabilities*
- *(Re)reading*, *reviewing*, and *reinterpreting* informalisms is a prerequisite to writing OSS.

Implications

- Developing open software requirements is a *community building process*
  - not just a technical development process
  - OSS peer review creates a *community of peers*
- OSSD processes often iterate *daily* versus infrequent singular (milestone) SLC events
  - frequent, rapid cycle time (easier to improve) *vs.* infrequent, slow cycle time (hard to improve)

Implications

- Determining the quality of OSS requirements/designs:
  - not targeted to consistency, completeness, correctness
  - instead focusing attention to community building, freedom of expression, ease of informalism navigation (traceability), implicit vs. explicit informalism structuring

Conclusions

- Developing OSS requirements is *different* than requirements engineering
  - not better, not worse, but different and new
  - more social, more accessible, more convivial
- OSS systems don't need and probably won't benefit from classic software requirements engineering.

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