

Etat de l'Art des Forges Logicielles

Usages collaboratifs

et

Panorama

Où héberger mon code?

Claire Mouton - CREATIS, Lyon, France

claire.mouton@creatis.insa-lyon.fr

Qu'est-ce qu'une forge?

Qu'est-ce qu'une forge?

Une forge ou **plate-forme d'hébergement de projets logiciels** désigne un **environnement Web** constitué d'un ensemble d'outils du travail coopératif et du génie logiciel pour le **développement collaboratif et distribué de logiciels**.

Une Forge a plusieurs facettes :

- Un **portail** communautaire
- Un outil de **gestion de projets**
- Un **environnement de développement** collaboratif
- Un **site** pour une communauté

Contenu d'une Forge

Services aux projets potentiellement disponibles

- Système de **gestion de version** des sources :
CVS / SVN / Git / Mercurial / Bazaar / Darcs
- **Trackers** : demandes de fonctionnalités, suivi des bugs, gestion des tâches
- Livraisons (fichiers, packages)
- **Intégration continue**
- Gestion des documents, **Wiki**
- Autres services aux projets
 - Forums
 - Listes de discussion
 - Sondages, news
 - Administration : gestion des membres, des services associés

Panorama des forges

Panorama des forges

A. Services **en ligne** d'hébergement de projets

B. Logiciels intégrés pour **déployer sa forge**

Déployer sa propre plate-forme pour gagner en indépendance moyennant un coût d'installation, de configuration, d'administration et de maintenance

Panorama des forges

A. Services **en ligne** d'hébergement de projets

- [GitHub](#) (propriétaire, réseau social, compte gratuit pour projet de logiciel libre, dépôts privés payants, intégration continue externe (Travis CI, Appveyor), code review, pull request)
- [GitLab.com](#) Enterprise Edition (propriétaire, nombre illimitée de dépôts et collaborateurs, gratuit pour dépôts privés et publics, Git LFS, intégration continue intégrée, code review, pull request)
- [Bitbucket](#) (propriétaire, gratuit jusqu'à 5 utilisateurs, Git LFS, pas d'intégration continue, code review, pull request, pas de recherche en ligne sur le code)
- [Framagit](#) (Framasoft, instance libre de GitLab)
- [Pikacode](#) (instance de Gogs, gratuit pour dépôts publics et privés, en France (serveur hébergé par OVH!))

Panorama des forges

B. Logiciels intégrés pour **déployer sa forge**

- Uniquement Git :
 - [GitLab](#) Community Edition (alternative open source à GitHub, intégration continue, Git LFS, LDAP)
 - [Gogs](#) (Go Git Service, alternative légère à GitHub (pas de code review / intégration continue), moindre besoin de ressources, facile à installer, rapide) [Demo site](#). Fork plus dynamique : Gitea.
- Multi-logiciel de versionning :
 - [FusionForge](#) (reprise du code sous GPL de Gforge, descendant de SourceForge)
 - [Phabricator](#) (Git, Hg, SVN, collection d'applications web open source, intégration continue)
 - [Redmine](#) (gestion de projet complète, pas de gestion des tests)
 - [Bitbucket server](#) (commercial)
 - [Rhodecode](#) Community / Enterprise Edition (open-source/propriétaire, Git, Hg, SVN, fork, pull request, code review, LFS, interfaçage serveur intégration continue, pas wiki ni bug tracker intégré)
 - [Kallithea](#) (libre, Git et Hg, version 0.3.2 en mai 2016, issu du logiciel RhodeCode payant, pull request, code review, pas de bug tracker intégré)

Quelques comparaisons

Public Git hosting sites

Here are some places that provide free Git hosting. Check on [GitServer](#) if you want to host your own repository.

List is limited to sites that provide explicit Git hosting, not including generic hosting sites that can be used to host Git repositories.

Provider	Framework is open-source?	Support for other SCM	Open-source repositories	Space (GB)	Free private repositories
Assembla	No	SVN/Hg/P4	Yes	0.15	1 project, 3 users
Beanstalk	No	SVN	No	0.1	1 projects, 1 user
bitbucket.org	No	Mercurial	Yes	Unlimited	Unlimited projects, 5 collaborators
Codetidy	No	No	No	0.1	5 repositories, 5 collaborators
Codebase	No	Mercurial/SVN	Public access available	0.05	1 project (unlimited repos), 2 collaborators
CloudForge	No	CVS/SVN	Yes	0.2	1 user only
Deveo	No	Mercurial/SVN	No	Unlimited	Unlimited projects, 6 collaborators
GitEnterprise	No	No	No	1	Unlimited projects, 10 collaborators
GitHub	No	SVN	Yes	Unlimited	No
GitLab.com	Yes	No	Yes	Unlimited	Unlimited projects, unlimited collaborators
Pikacode	No	Mercurial	Yes	1	No
ProjectLocker	No	SVN	Read-only http	0.2	1 project, 2 collaborators
repo.or.cz	Yes	No	Yes	0.4	No
RocketGit	Yes	No	Yes	Unlimited	Unlimited
SourceForge.net	Yes	Hg, SVN	Yes	Unlimited	No
Unfuddle	No	SVN	Yes	0.2	1 project, 2 collaborators
Visual Studio Online	No	TFVC	No	Unlimited	Unlimited, 5 users

Quelques comparaisons

Name	Code review	Bug tracking	Web hosting	Wiki	Translation system	Shell server	Mailing List	Forum	Personal branch	Private branch	Announce	Build system	Team	Release Binaries	Self-hosting
Alioth	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Unknown	Yes
Assembla	Yes ^[21]	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes ^[22]	Yes	Yes	Yes	Unknown	No
Bitbucket	Yes ^[23]	Yes ^[n 1]	Yes ^[24]	Yes	No	No	No	No	Yes	Yes ^[n 2]	No	No	Yes	No ^[25]	Commercially (Stash) ^[n 3]
Buddy	Yes	Yes	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes ^[n 4]	Yes	Yes	Yes
CloudForge	Unknown	Yes	Yes	Yes	No	No	No	No	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	No
CodePlex	No	Yes	No	Yes	No	No	Yes	Yes	No	No	No	No	No	Yes	No
GitHub	Yes ^[26]	Yes ^[27] ^[n 5]	Yes	Yes	No	No	No	No	Yes	Yes ^[n 6]	Yes	3rd-party (e.g. Travis CI, Appveyor and others) ^[28]	Yes	Yes	Commercially (GitHub Enterprise)
GitLab	Yes ^[29]	Yes	Yes ^[30]	Yes	No	No	No	No	Yes	Yes	Yes	Yes ^[31]	Yes	No	Yes ^[n 7]
GNU Savannah	Yes ^[32]	Yes	Yes	No	No	Yes	Yes	No ^[33]	No	No	Yes	No	Yes	Unknown	Yes
java.net/Project Kenai	Unknown	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Unknown	No
Kallithea	Yes	No	Yes	No	No	Unknown	No	No	Yes	Yes	No	No	Yes	Yes	Yes
Launchpad	Yes	Yes	No	No	Yes	No	Yes	No	Yes	Yes ^[n 8]	Yes	Yes ^[n 9]	Yes	Unknown	Yes
OSDN	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No
Ourproject.org	Unknown	Yes	Yes	Yes	No	Unknown	Yes	Yes	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Yes
SourceForge	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes ^[n 10]	Yes	No	Yes	Yes	Yes
tigris.org	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	No	Unknown	No longer for new projects ^[n 11]	No
Team Foundation Server	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Visual Studio Team Services	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Name	Code review	Bug tracking	Web hosting	Wiki	Translation system	Shell server	Mailing List	Forum	Personal branch	Private branch	Announce	Build system	Team	Release Binaries	Self-hosting

https://en.wikipedia.org/wiki/Comparison_of_source_code_hosting_facilities

Quelques comparaisons

Comparaison de services d'hébergement Git en version gratuite

Github	Bitbucket	GitLab
✓ très gros projet (138+ millions dépôts, 600 employés)	✓ très gros projet	✓ projet pérenne et dynamique (132 employés, 33 pays)
✓ Grande interopérabilité avec d'autres outils	✓ Git & Mercurial	✓ pas de limite dans la version hébergée
✗ dépôts publics uniquement	✓ intégration dans les produits Atlassian	✗ des lenteurs sur le site gitlab.com
✗ pas d'instance privée	✗ 5 utilisateurs max/dépôt	✓ instance privée opensource
	✗ pas d'instance privée	✓ outils d'intégration continue natifs

(de Matthieu Boileau, nov. 2016, d'après <http://comparegithosting.com>)

Quelques comparaisons

Github	GitLab	Gogs
✓ Git, SVN, Hg, TFS	✗ Git	✗ Git
✗ externe	✓ interne/externe	✗ interne (light)
✓ très large communauté	✓ très utilisé	✓ relativement nouveau
✓ prise en main intuitive	✓ prise en main relativement rapide	✓ sur le modèle de Github
prog. en Ruby	prog. en Ruby	prog. en Go
	✓ extensions (Continuous Integration, Large File Storage, ...)	

⇒ Combiner éventuellement suivant le mode de diffusion choisi

http://lyoncalcul.univ-lyon1.fr/ed/DOCS_2016-2017/cours_GIT.pdf - Anne Cadiou - mars 2017

Quelques comparaisons

<https://www.slant.co/topics/5335/~alternatives-to-github-for-open-source-projects>

<https://www.slant.co/topics/1440/~self-hosted-web-based-git-repository-managers>

<https://www.slant.co/topics/503/~best-source-code-hosts-for-open-source-projects>

<https://www.slant.co/topics/153/~best-hosted-version-control-services>

Exemples de forges

Exemples de forges

- **GitHub**

<https://github.com/SimonRit/RTK/>

- **GitLab**

<https://gitlab.in2p3.fr/explore/projects>

<https://forge.p2chpd.univ-lyon1.fr/explore/projects>

<https://forge.git.cnrs.fr/> (CNRS)

<https://gitlab.inria.fr/explore/projects> (INRIA)

<http://adullact.net/> (forge open source pour administrations et collectivités françaises)

- **FusionForge**

<https://sourcesup.renater.fr/> (enseignement supérieur et recherche)

<https://gforge.inria.fr/> (INRIA)

- **Redmine**

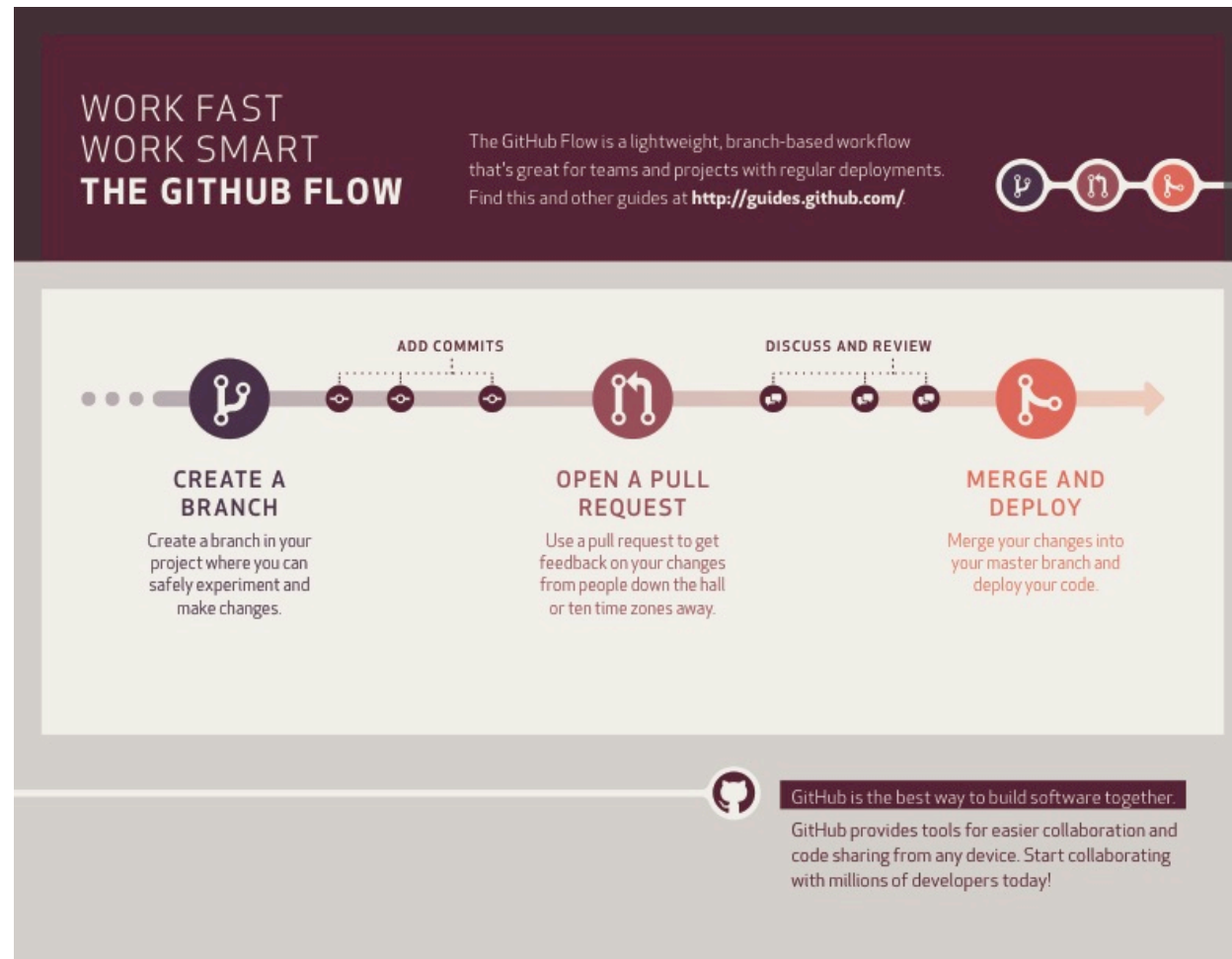
<http://vip.creatis.insa-lyon.fr:9002/projects>

- **Rhodecode**

<https://hephaistos.lpp.polytechnique.fr/rhodecode>

Exemples de forges

Exemple de workflow sur GitHub



<https://guides.github.com/introduction/flow/>

Exemples de forges

Exemple : Projet RTK hébergé sur GitHub

The screenshot displays the GitHub interface for the repository 'SimonRit / RTK'. At the top, there is a search bar and navigation links for 'Pull requests', 'Issues', and 'Gist'. Below this, the repository name 'SimonRit / RTK' is shown along with 'Watch' (29), 'Star' (54), and 'Fork' (36) buttons. Navigation tabs include 'Code', 'Issues' (2), 'Pull requests' (1), 'Projects' (0), 'Wiki', 'Pulse', and 'Graphs'. The repository title is 'Reconstruction Toolkit'. A summary bar shows '3,832 commits', '3 branches', '7 releases', '21 contributors', and 'Apache-2.0' license. Below this are buttons for 'Branch: master', 'New pull request', 'Create new file', 'Upload files', 'Find file', and 'Clone or download'. The main content is a list of repository items:

Item	Description	Latest commit
Simon Rit	Fix initialization of new scale and origin parameters	643f836 9 hours ago
applications	Fix mandory options for rtkdrawgeometricphantom	15 hours ago
cmake	COMP: Conform header include guard names to ITK style	3 months ago
code	Fix initialization of new scale and origin parameters	9 hours ago
documentation	Remove CMake-language block-end command arguments	4 months ago
examples	Convert CMake-language commands to lower case	4 months ago
testing	Fixed bug in rtkdecomposedualenergyprojections. Increased precision	11 days ago
utilities	COMP: Fixing compilation of SimpleRTK with BUILD_SHARED_LIBS enabled	15 days ago
.travis.yml	Do not run any test on travis if compiled with CUDA, only CUDA	6 months ago
CMakeLists.txt	Release v1.3	2 months ago

<https://github.com/SimonRit/RTK>

Exemples de forges

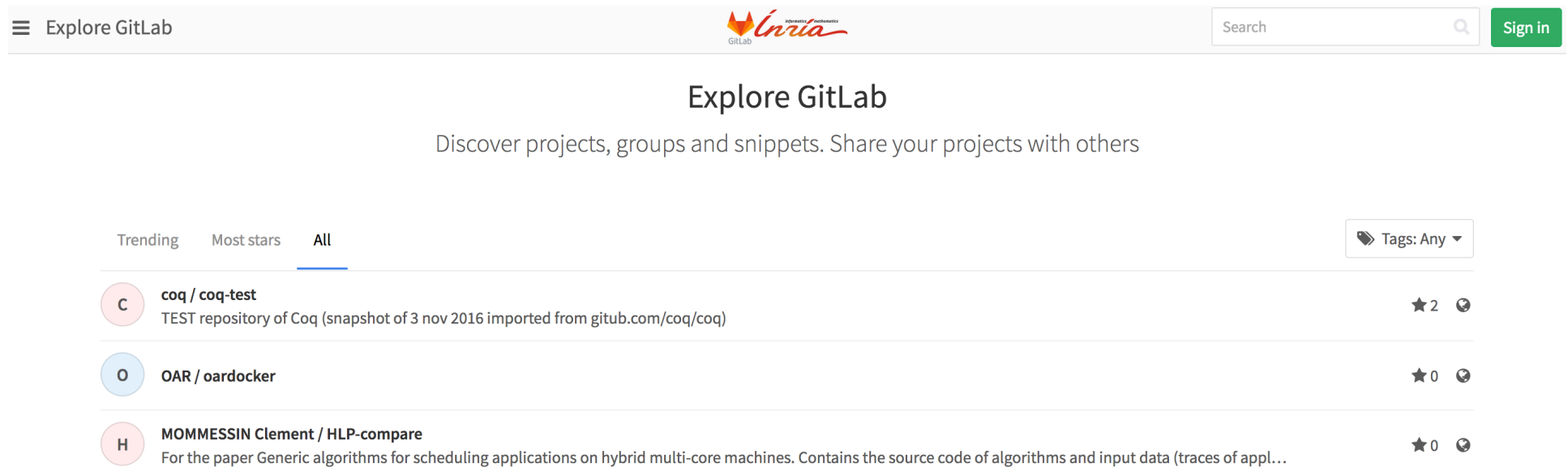
Les fonctionnalités de GitLab

- Création rapide de projets avec gestion des droits (public, privé,...)
- Groupes de projets
- Historique des commits
- Edition en ligne
- Outils annexes :
 - statistiques
 - wiki
 - gestionnaire de tickets
 - notifications par mail
- Intégration continue avec `gitlab-ci`

http://lyoncalcul.univ-lyon1.fr/ed/DOCS_2016-2017/cours_GIT.pdf - Anne Cadiou - mars 2017

Exemples de forges

Exemple : GitLab INRIA



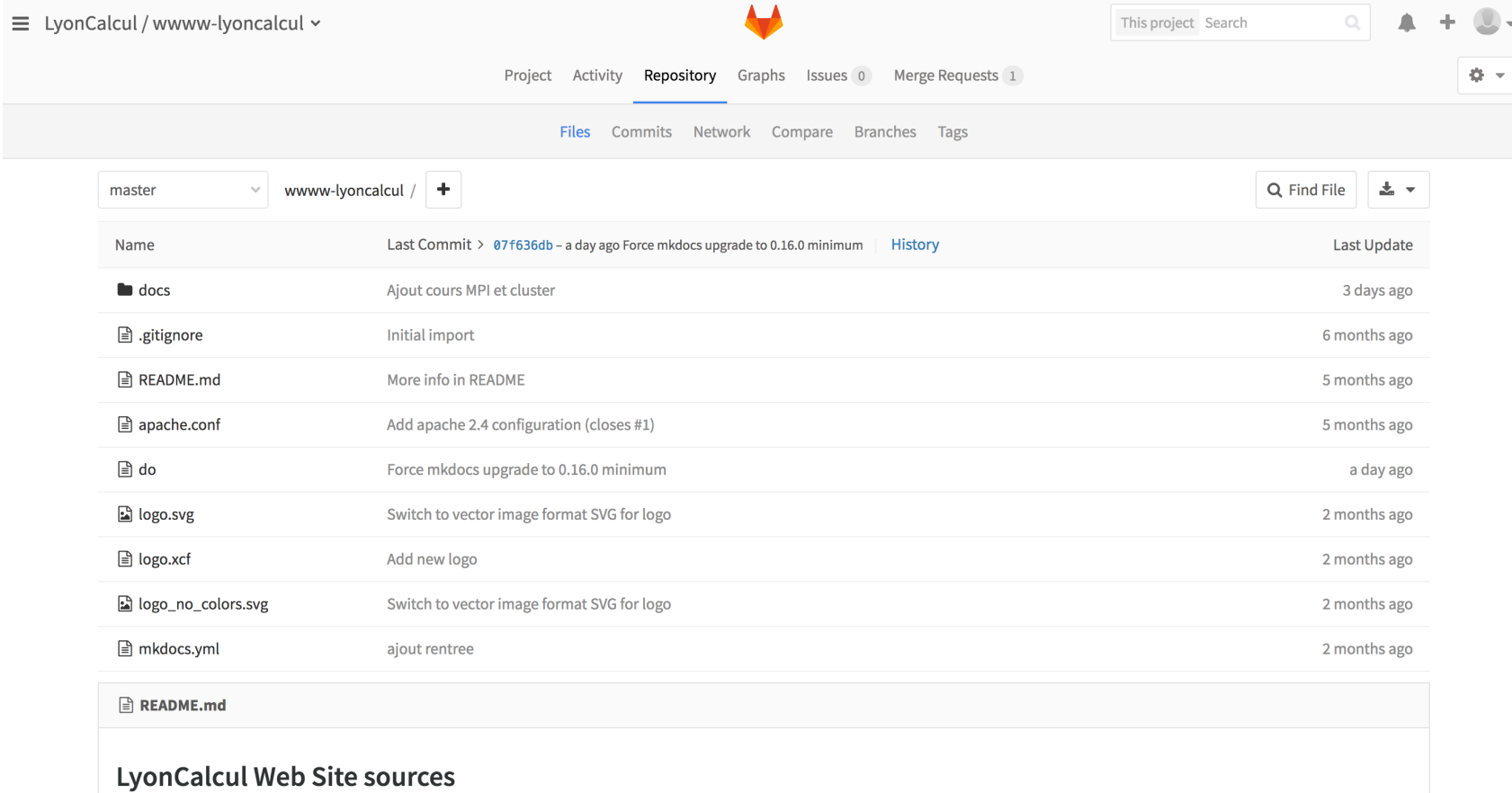
The screenshot shows the GitLab INRIA explore page. At the top, there is a navigation bar with the text "Explore GitLab", the GitLab logo, a search bar, and a "Sign in" button. Below the navigation bar, the main heading is "Explore GitLab" with the subtitle "Discover projects, groups and snippets. Share your projects with others". There are three tabs: "Trending", "Most stars", and "All", with "All" being the active tab. A "Tags: Any" dropdown menu is visible on the right. The list of projects includes:

- coq / coq-test**: TEST repository of Coq (snapshot of 3 nov 2016 imported from gitub.com/coq/coq). It has 2 stars and a lock icon.
- OAR / oardocker**: It has 0 stars and a lock icon.
- MOMMESSIN Clement / HLP-compare**: For the paper Generic algorithms for scheduling applications on hybrid multi-core machines. Contains the source code of algorithms and input data (traces of appl...). It has 0 stars and a lock icon.

<https://gitlab.inria.fr/explore/projects/>

Exemples de forges

Exemple : GitLab Mésocentre Lyon – Projet Lyon Calcul



The screenshot displays the GitLab interface for the repository 'LyonCalcul / www-lyoncalcul'. The 'Repository' tab is active, showing a list of files and their commit history. The 'do' file is highlighted, showing its commit history.

Name	Last Commit > 07f636db – a day ago Force mkdocs upgrade to 0.16.0 minimum History	Last Update
docs	Ajout cours MPI et cluster	3 days ago
.gitignore	Initial import	6 months ago
README.md	More info in README	5 months ago
apache.conf	Add apache 2.4 configuration (closes #1)	5 months ago
do	Force mkdocs upgrade to 0.16.0 minimum	a day ago
logo.svg	Switch to vector image format SVG for logo	2 months ago
logo.xcf	Add new logo	2 months ago
logo_no_colors.svg	Switch to vector image format SVG for logo	2 months ago
mkdocs.yml	ajout rentree	2 months ago

README.md

LyonCalcul Web Site sources

<https://forge.p2chpd.univ-lyon1.fr/LyonCalcul/www-lyoncalcul/tree/master>

Exemples de forges

Exemple : GitLab – Merge request

The screenshot shows a web browser window displaying a GitLab Merge Request. The URL is gitlab.com. The page title is "Merge Request #2187" and it was opened 26 days ago by Robert Speicher. The merge request title is "WIP: Release 8.9", which is currently a Work In Progress. The request is to merge the "release-8-9" branch into the "master" branch, which is 660 commits behind. A CI build is running for commit 44ed9f94. The page includes a discussion section with 19 comments, 10 commits, 2 builds, and 2 changes. The first comment is from Robert Speicher, and the second is from Marin Jankovski, who changed the autovacuuming settings. The right sidebar shows the assignee as Job van der Voort, no milestone, and labels "blog post" and "release". There are 90 participants and a notification to unsubscribe from the thread.

<https://about.gitlab.com/features/>

Exemples de forges

Exemple : GitLab – Résolution de conflit de merge

The screenshot shows a GitLab Merge Request page. At the top, there's a navigation bar with the GitLab logo, a search box, and user profile information. Below the navigation bar, there are tabs for Project, Activity, Repository, Pipelines, Graphs, Issues (5,224), Merge Requests (397), and Snippets. The Merge Requests tab is active.

The main content area shows a Merge Request titled "Merge Request !1234" opened 56 minutes ago by Eliza Burr. The description of the merge request is "Touch project when toggling stars to update cache".

Below the description, it indicates "Showing 3 conflicts for stand:fix-gitlab-workhorse-initd-check into master". There are buttons for "Inline" and "Side-by-side" views.

The conflict resolution interface for the file `app/models/application_setting.rb` is shown. It displays a diff with three conflict regions:

- Line 30: A comment line with a conflict marker. The "Use ours" button is highlighted in green.
- Lines 33-34: A conflict between the current branch (HEAD) and the merge branch. The "Use theirs" button is highlighted in blue.
- Line 703: A conflict between the current branch (HEAD) and the merge branch. The "Use ours" button is highlighted in green.

```
... @@ -30,6 +30,8 @@
30 30 #
31 31
32 32 class ApplicationSetting < ActiveRecord::Base
    HEAD//our changes Use ours
33   CACHE_KEY = 'application_setting.last'
34   CACHE_KEY = 'application_settings.last'
33 33 CACHE_KEY = 'applications_setting.last'
34 34 CACHE_KEY = 'applications_setting.last'
    origin//their changes Use theirs
35 35   serialize :restricted_visibility_levels
36 36   serialize :import_sources
37 37   serialize :restricted_signup_domains, Array
... @@ -703,6 +703,7 @@ class User < ActiveRecord::Base
700 700     else
701 701     UsersStartProject.create!(project: project, user: self)
702 702     end
    HEAD//our changes Use ours
703   project.touch #update project cache
```

Exemples de forges

Exemple : GitLab – Gestion des tâches / bugs (« Issues »)

GitLab.org / GitLab Community Edition

Project Activity Repository Pipelines Graphs **Issues 5,224** Merge Requests 399 Snippets

Open 5,157 Closed 9,331 All 14,488

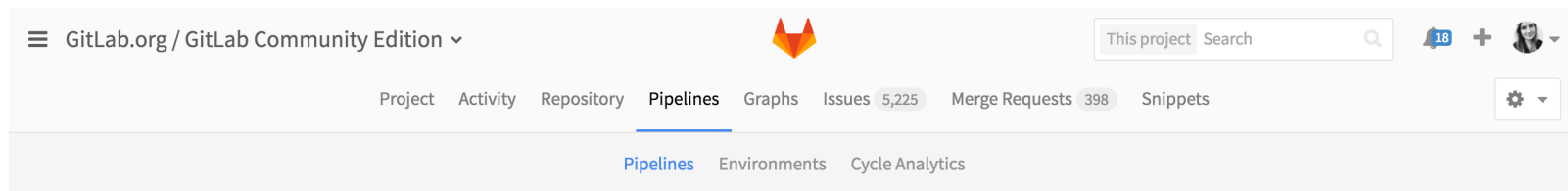
Filter by name ... [New Issue](#)

Author Assignee Milestone Labels Weight Last created

- Make hover/focus/active states consistent for dropdowns**
#24150 · opened 14 minutes ago by Chris Peressini @ 8.14 UX updated 12 minutes ago
- Better hover/focus states for navigation bar buttons**
#24149 · opened 20 minutes ago by Chris Peressini @ 8.14 UX updated 12 minutes ago
- Record img height when uploading so issue page doesn't jump on loading**
#24148 · opened 21 minutes ago by Régis Freyd (GitLab) Frontend updated 21 minutes ago
- Delete environments**
#24147 · opened 39 minutes ago by Dave updated 39 minutes ago
- Add blue border to buttons on focus**
#24146 · opened 41 minutes ago by Chris Peressini @ 8.14 Frontend updated 12 minutes ago
- Make hover/focus/active states more noticeable for buttons**
#24145 · opened about an hour ago by Chris Peressini @ 8.14 UX updated 12 minutes ago
- Make sure all buttons turn dark on focus**
#24144 · opened about 2 hours ago by Chris Peressini @ 8.14 Frontend UX updated 12 minutes ago
- Shared CI secure variables across the projects**
#24143 · opened about 2 hours ago by Vasily Bezruchkin updated about 2 hours ago

Exemples de forges

Exemple : GitLab – Intégration continue



Pipeline #4860322 with 46 builds for `show-status-from-branch` (queued for 2 minutes 55 seconds)

running

Authored by **Lin Jen-Shin (godfat)** 17 minutes ago

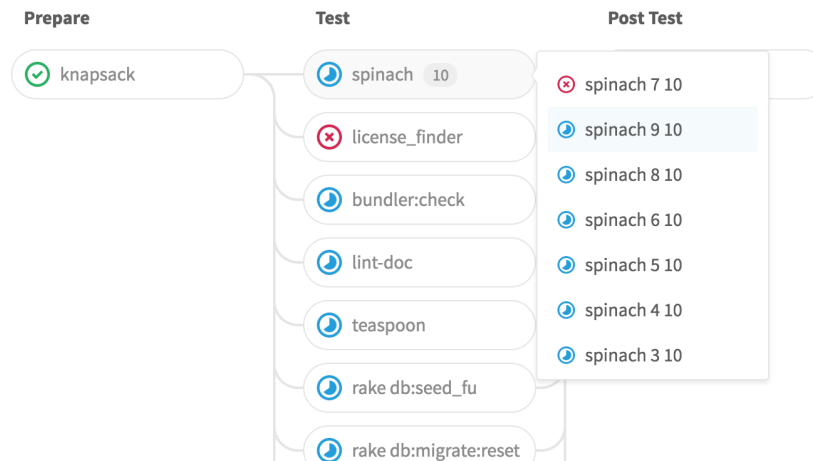
Commit `ce1dc4c25d3464b7a9a1b21d93157c9fed98f705`

Update for CHANGELOG

Hide pipeline graph

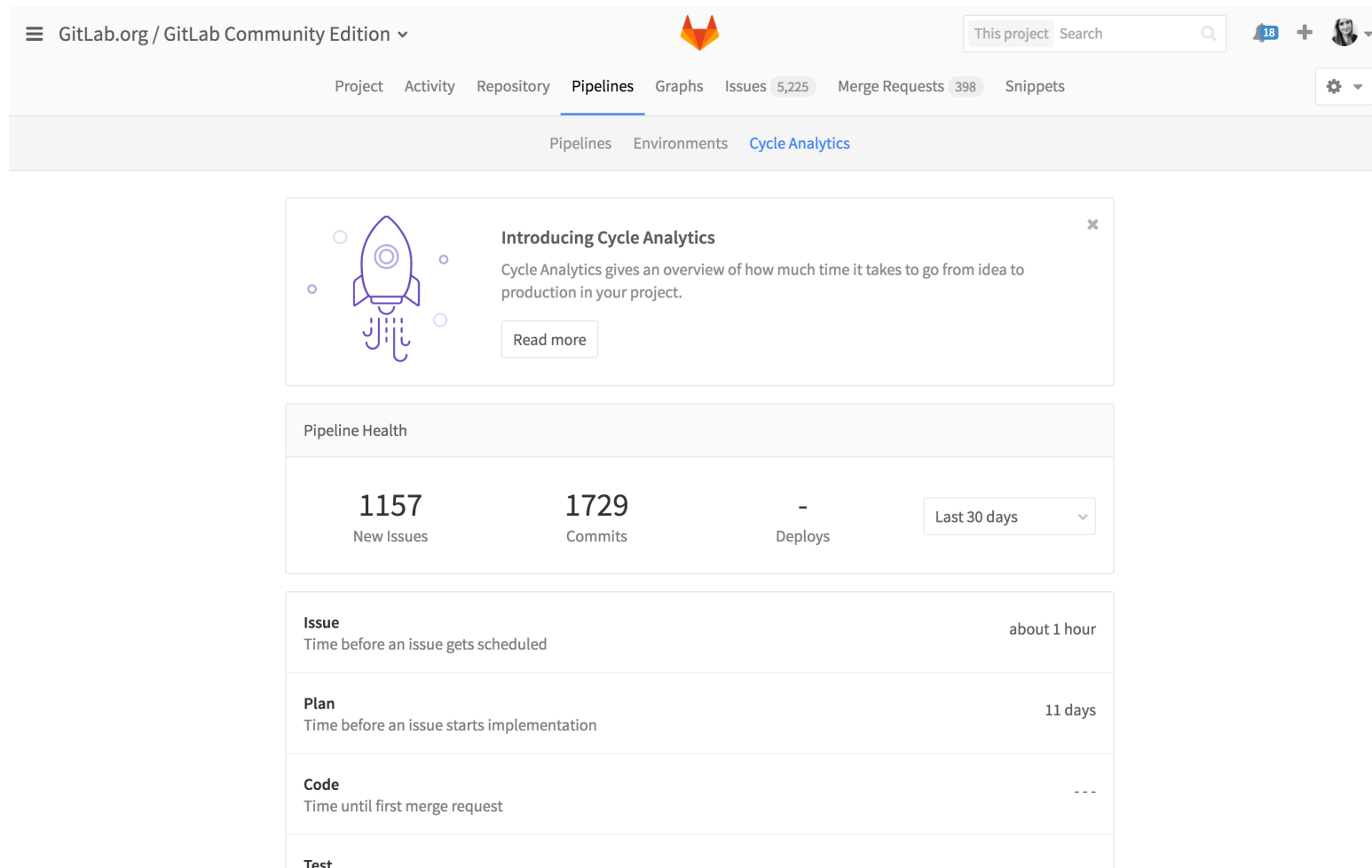
Retry failed

Cancel running



Exemples de forges

Exemple : GitLab – Analyse d'un cycle de développement



The screenshot displays the GitLab interface for a project. At the top, there is a navigation bar with the GitLab logo and a search bar. Below the navigation bar, there are tabs for Project, Activity, Repository, Pipelines, Graphs, Issues (5,225), Merge Requests (398), and Snippets. The Pipelines tab is selected, and the Cycle Analytics sub-tab is active.

Introducing Cycle Analytics

Cycle Analytics gives an overview of how much time it takes to go from idea to production in your project.

[Read more](#)

Pipeline Health

1157 New Issues	1729 Commits	- Deploys	Last 30 days
---------------------------	------------------------	--------------	--------------

Issue about 1 hour
Time before an issue gets scheduled

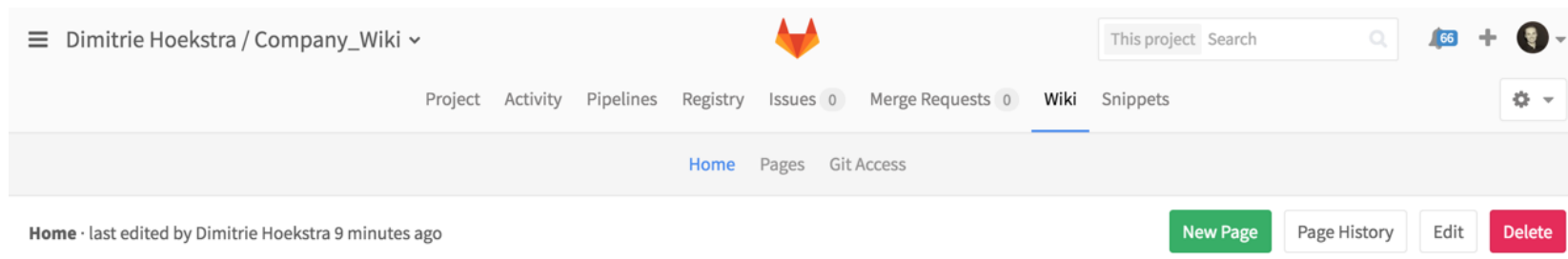
Plan 11 days
Time before an issue starts implementation

Code ---
Time until first merge request

Test

Exemples de forges

Exemple : GitLab – Wiki



The screenshot shows the GitLab Wiki interface for a project named 'Company_Wiki' by Dimitrie Hoekstra. The top navigation bar includes 'Project', 'Activity', 'Pipelines', 'Registry', 'Issues 0', 'Merge Requests 0', 'Wiki', and 'Snippets'. Below this, there are links for 'Home', 'Pages', and 'Git Access'. The main content area shows 'Home · last edited by Dimitrie Hoekstra 9 minutes ago' and buttons for 'New Page', 'Page History', 'Edit', and 'Delete'.

Wiki: Project / Company Values

We value results, transparency, sharing, freedom, efficiency, frugality, collaboration, directness, kindness, diversity, boring solutions, and quirkiness:

- Results:** We care about what you achieve; the code you shipped, the user you made happy, and the team member you helped. Do not compete by proclaiming how many hours you worked yesterday because we don't want someone who took the afternoon off to feel like they did something wrong. Instead, celebrate the achievements of yourself and your teammates. We want people to have the desire to ship.
- Transparency:** Be open about as many things as possible. By making information public we can reduce the threshold to contribution and make collaboration easier. An example is the [public repository of this website](#) that also contains this [company handbook](#). Everything we do is public by default, for example, the [GitLab CE](#) and [GitLab EE](#) issue trackers, but also [marketing](#) and [infrastructure](#). Transparency creates awareness for GitLab, allows us to recruit people that care about our culture, it gets us more and faster feedback from people outside the company, and makes it easier collaborate with them. There are exceptions, material that is not public by default is documented in the [general guidelines](#). On a personal level, you should tell it like it is instead of putting up a poker face. Don't be afraid to admit you made a mistake or were wrong. When something went wrong it is a great opportunity to say "What's the [kaizen](#) moment here?" and find a better way without hurt feelings.
- Sharing:** We care about giving great software, documentation, examples, lessons, and processes to the world. An example is the MIT licensed [GitLab CE](#). We believe that open source creates more value than it captures. We are grateful to our customers, users, partners, investors, and the open source ecosystem.
- Freedom:** You should have clear objectives and the freedom to work on them as you see fit. Any instructions are open to discussion. You don't have to defend how you spend your day. We trust team members to do the right thing instead of having rigid rules.
- Efficiency:** We care about working on the right things, not doing more than needed, and not duplicating work. This enables us to achieve more progress with fewer people and makes our work more fulfilling. We think of how we can make the company better instead of being territorial or defensive.
- Frugality:** [Amazon states it best](#) with: *Accomplish more with less. Constraints breed resourcefulness, self-sufficiency and invention. There are no extra points for growing headcount, budget size or fixed expense.*
- Collaboration:** Helping others is a priority, even when it is not related to the goals that you are trying to achieve. You are expected to ask others for help and advice. Anyone can chime in on any subject, including people who don't work at GitLab. The person who has to do the work decides how to do it but you should always take the suggestions seriously and try to respond and explain.

Exemples de forges

Exemple : Gogs

The screenshot displays the Gogs web interface for the repository 'git / libft'. At the top, there is a navigation bar with links for 'Tableau de bord', 'Problèmes', 'Pull Requests', and 'Explorer'. Below this, the repository name 'git / libft' is shown along with statistics: 'Ne plus suivre' (1), 'Voter' (0), and 'Embranchement' (0). A secondary navigation bar includes 'Problèmes' (0), 'Pull Requests' (0), 'Commissions' (6), 'Publications' (0), and 'Paramètres'. The repository description is 'Lib of C functions', and the clone URL is 'gogs@gogs.io/repo/libft.git'. The current branch is 'master'. A list of recent commits is shown, including an initial commit and several commits fixing file permissions and adding functions.

Commit Hash	Message	Time
git: ddcdbcc8a8	Add ft_puttabint function which can display square and varia...	3 heures auparavant
876125cc0e	initial commit	1 mois auparavant
ddcdbcc8a8	Add ft_puttabint function which can display square and variable size.	3 heures auparavant
315b71211e	Fix files rights. Add ft_strdup_till function.	1 jour auparavant
315b71211e	Fix files rights. Add ft_strdup_till function.	1 jour auparavant
315b71211e	Fix files rights. Add ft_strdup_till function.	1 jour auparavant
315b71211e	Fix files rights. Add ft_strdup_till function.	1 jour auparavant
315b71211e	Fix files rights. Add ft_strdup_till function.	1 jour auparavant
315b71211e	Fix files rights. Add ft_strdup_till function.	1 jour auparavant
315b71211e	Fix files rights. Add ft_strdup_till function.	1 jour auparavant

Exemples de forges

Exemple : Pikacode



Pikacode

Git and mercurial hosting

🏠 Welcome

👤 Log in

☀ Register

Test our new release: v2.pikacode.com

Code hosting



Git and Mercurial
Public and private repositories

Teamwork



Bugtracker
Roadmap and milestones

Security



Hosted in France
Durable backup

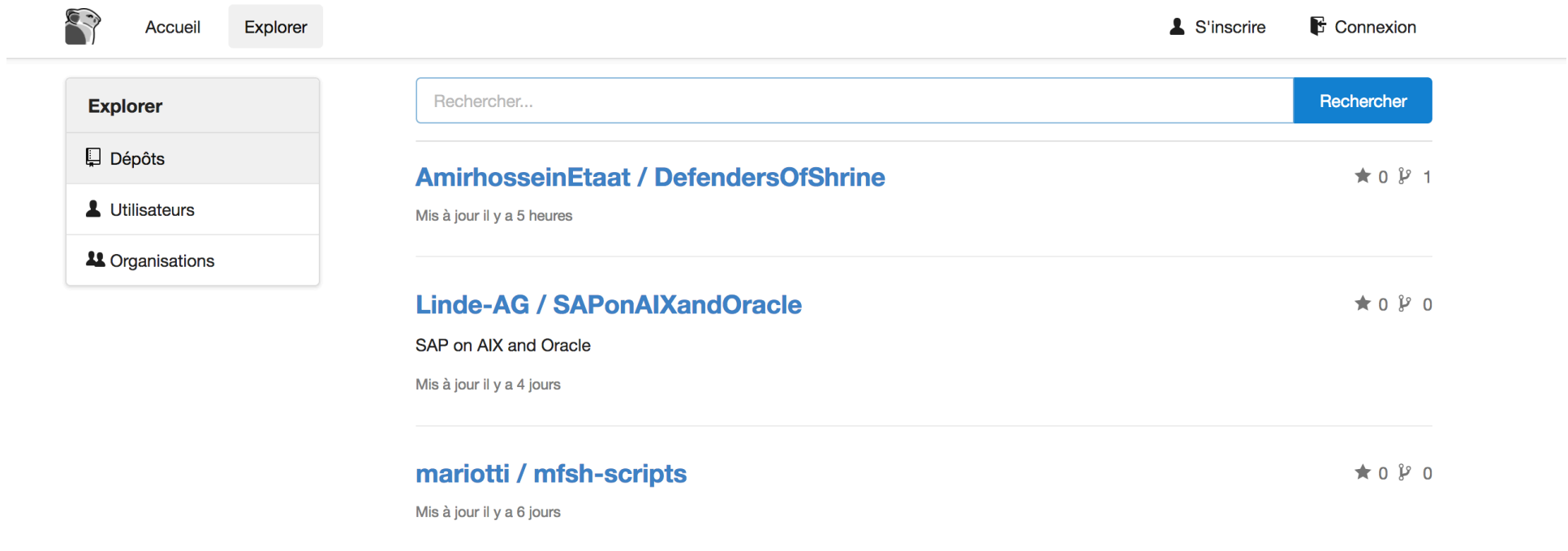
Free Git & Mercurial hosting

Your email

Create my account !

Exemples de forges

Exemple : Pikacode - Dépôts



The screenshot displays the Pikacode web interface. At the top left, there is a profile icon and navigation links for 'Accueil' and 'Explorer'. At the top right, there are links for 'S'inscrire' and 'Connexion'. A search bar with the placeholder text 'Rechercher...' and a blue 'Rechercher' button is positioned below the navigation. On the left side, a sidebar menu under the heading 'Explorer' contains links for 'Dépôts', 'Utilisateurs', and 'Organisations'. The main content area shows a list of repositories:

- AmirhosseinEtaat / DefendersOfShrine** (★ 0 📄 1)
Mis à jour il y a 5 heures
- Linde-AG / SAPonAIXandOracle** (★ 0 📄 0)
SAP on AIX and Oracle
Mis à jour il y a 4 jours
- mariotti / mfsh-scripts** (★ 0 📄 0)
Mis à jour il y a 6 jours

Exemples de forges

Exemple : Pikacode - Commits




Accueil Explorer S'inscrire Connexion

Linde-AG / SAPonAIXandOracle Suivre 2 Voter 0 Fork 0

Files Tickets 0 Pull Requests 0 **Commits 21** Publications 0 Wiki

Branche: master ▾

21 Commits (master) Rechercher des commits Trouver

Auteur	SHA1	Message	Date
 Sumit Das	257da4ddb8	Update March End code additions	il y a 1 semaine
 Sumit Das	d3ac97bf1c	TEST	il y a 1 semaine
 Sumit Das	ef1d7b3ab7		il y a 1 semaine

Exemples de forges

Exemple : FusionForge SourceSup par Renater

SourceSup
par RENATER

La forge Enseignement supérieur et Recherche

Vous êtes déjà authentifié. [Continuer.](#)

Projets [dropdown] Rechercher

Accueil | Ma page | Projets | Échantillons de code | Postes ouverts du projet

Bienvenue sur SourceSup

SourceSup est un service opéré par [RENATER](#)

SourceSup est une plateforme web de gestion de projets à destination de l'Enseignement Supérieur et des laboratoires de Recherche Français. Tous les membres de la communauté peuvent créer un projet sur SourceSup. Les Projets sont, par défaut, privés, mais ils peuvent être rendus publics. De nombreux outils sont disponibles et peuvent être activés pour chaque projet dans l'onglet administration.

- [Documentation](#) est disponible ici
- [Adresse de support](#) pour envoyer un mail à notre support.

Dernières annonces

Release of FullSWOF_UI 1.02.00
Christian Laguerre - 13/05/2016 13:43 - [FullSWOF_UI](#)
The FullSWOF development team is pleased to announce the release of FullSWOF_UI 1.02.00.
1 Commentaire [Lire la suite/Commenter](#)

Release of FullSWOF_2D 1.07.00
Christian Laguerre - 14/03/2016 21:17 - [FullSWOF_2D](#)
The FullSWOF development team is pleased to announce
1 Commentaire [Lire la suite/Commenter](#)

Nouvelle version 3.0 Commandant Poulard !!!
Gérard Milhaud - 17/02/2016 08:01 - [QoQ-CoT](#)
Pré-scriptum : désolé pour l'hypercentex pas très hyper, mais pas possible de faire figurer des liens dans les annonces de SourceSup, même si on peut les rédiger avec fckEditor... :-(
1 Commentaire [Lire la suite/Commenter](#)

Nuage de mots-clés
C++ ESUP Java MATLAB PHP Perl Python R XML XSLT alignment bioinformatics calendrier data analysis database django esup formations java javascript mass spectrometry monitoring pedagogie protein proteomics python quooxdoo read security signal processing simulation web

Statistiques de SourceSup

Projets hébergés : **2,226**
Utilisateurs inscrits : **6,702**

Projets les plus téléchargés

183,008	AGATTE
130,780	DataJiver
81,095	ScientificPython
41,967	eXtensible Metagrammar
41,168	BibliOpera
30,580	Lodel
20,370	Molecular Modelling Toolkit
15,810	Développement de WIMS

<https://sourcesup.renater.fr/>

Exemples de forges

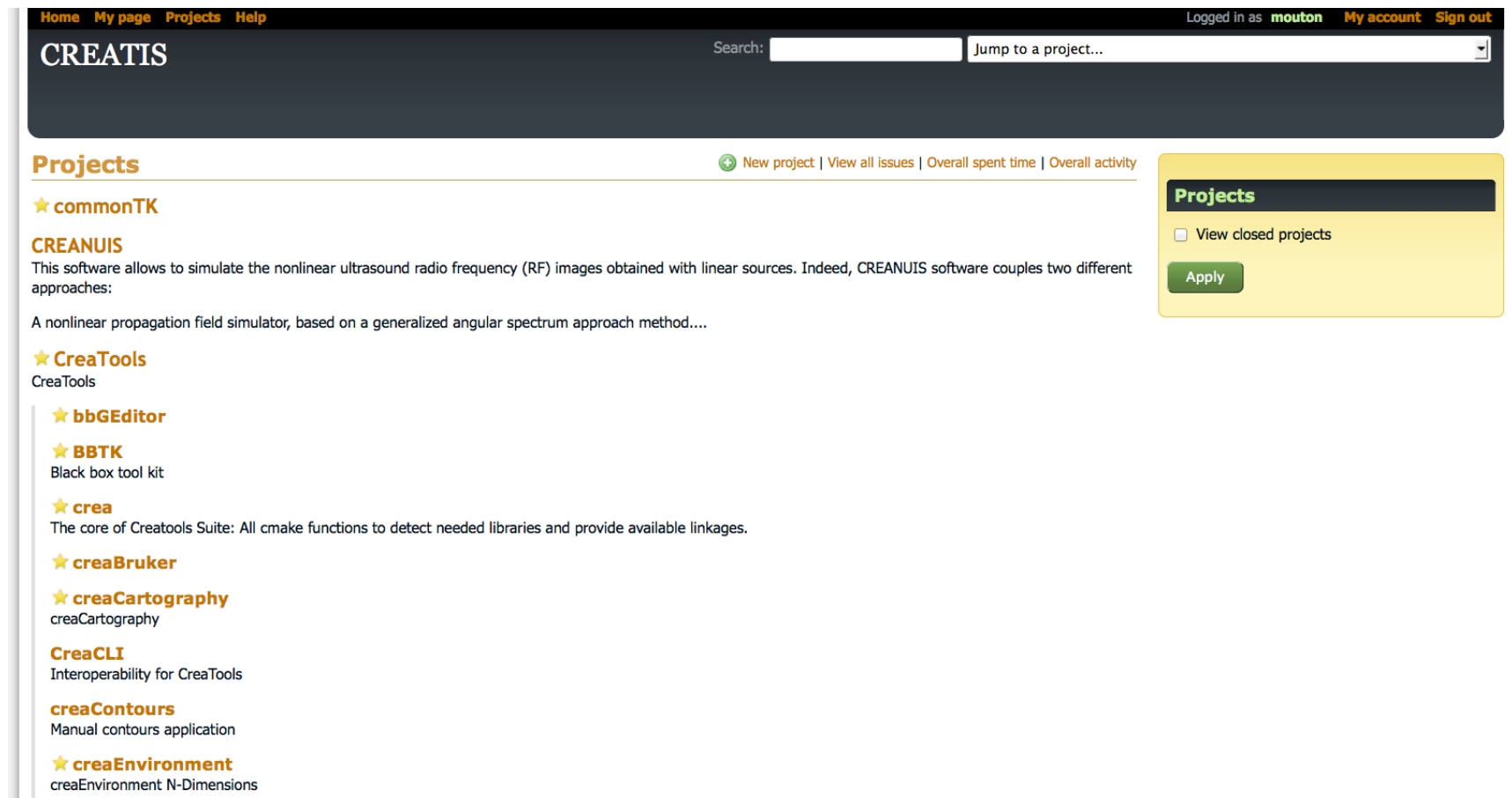
Exemple : FusionForge SourceSup par Renater – Projet AGATTE

The screenshot displays the SourceSup project page for AGATTE. The header includes the SourceSup logo (par RENATER) and the title 'La forge Enseignement supérieur et Recherche'. A search bar is present with the text 'Chercher dans le projet entier' and a 'Rechercher' button. The navigation menu includes 'Accueil', 'Ma page', 'Projets', 'Échantillons de code', 'Postes ouverts du projet', and 'AGATTE'. The 'AGATTE' section is active, showing a 'Résumé' tab. The main content area is divided into three columns: 'Description du projet', 'Information du projet', and 'Membres du projet'. The 'Description du projet' section contains the text: 'Logiciel WEB de gestion du Temps de travail à l'Université : gestion des pointages et des congés'. The 'Information du projet' section lists various metadata: Development Status: 5 - Production/Stable, Environment: Web Environment, Environment: Win32 (MS Windows), Intended Audience: End Users/Desktop, License: Other/Proprietary License, Natural Language: French, Operating System: Microsoft: Windows, Operating System: POSIX: Linux, Programming Language: Delphi/Kylix, Programming Language: Java, Programming Language: PL/SQL, and Topic: Office/Business: Scheduling. The 'Membres du projet' section lists administrators (Kevin Hergalant, Olivier ZILLER, Cédric Champmartin) and members (Jéréme GUTIERREZ, Matthieu Manginot, Matthieu Bildstein). The 'Dernières annonces' section shows three announcements: 'Base de secours' (11/03/2005), 'Installation' (07/02/2005), and 'Client-serveur' (25/10/2004). The footer of the page includes the URL <https://sourcesup.renater.fr/projects/agatte/>.

<https://sourcesup.renater.fr/projects/agatte/>

Exemples de forges

Exemple : Redmine à CREATIS – Les projets



The screenshot displays the CREATIS Redmine interface. At the top, there is a navigation bar with links for Home, My page, Projects, and Help. The user is logged in as 'mouton' and can access My account or Sign out. A search bar and a 'Jump to a project...' dropdown are also present. The main content area is titled 'Projects' and includes links for 'New project', 'View all issues', 'Overall spent time', and 'Overall activity'. A list of projects is shown, each with a star icon and a brief description. The sidebar on the right contains a 'Projects' section with a checkbox for 'View closed projects' and an 'Apply' button.

Home My page Projects Help

CREATIS

Search: [] Jump to a project...

Logged in as **mouton** My account Sign out

Projects [New project](#) | [View all issues](#) | [Overall spent time](#) | [Overall activity](#)

★ **commonTK**

★ **CREANUIS**
This software allows to simulate the nonlinear ultrasound radio frequency (RF) images obtained with linear sources. Indeed, CREANUIS software couples two different approaches:
A nonlinear propagation field simulator, based on a generalized angular spectrum approach method....

★ **CreaTools**
CreaTools

- ★ **bbGEditor**
- ★ **BBTK**
Black box tool kit
- ★ **crea**
The core of Creatools Suite: All cmake functions to detect needed libraries and provide available linkages.
- ★ **creaBruker**
- ★ **creaCartography**
creaCartography
- CreaCLI**
Interoperability for CreaTools
- creaContours**
Manual contours application
- ★ **creaEnvironment**
creaEnvironment N-Dimensions

Projects

View closed projects

Apply

<http://vip.creatis.insa-lyon.fr:9002/projects>

Exemples de forges

Exemple : Redmine à CREATIS – Le projet OsiriX Plug-in >> inTag

The screenshot shows the Redmine interface for the 'inTag' project. The top navigation bar includes 'Home', 'My page', 'Projects', and 'Help'. The project title 'OsiriX Plug-in » inTag' is displayed, along with a search bar and a 'Logged in as mouton' status. The main navigation tabs are 'Overview', 'Activity', 'Roadmap', 'Issues', 'New issue', 'Gantt', 'Calendar', 'News', 'Documents', 'Wiki', 'Files', 'Repository', and 'Settings'. The 'Overview' tab is active, showing a description of the project, a list of members, and an issue tracking summary. The 'Spent time' section shows 0.00 hours. The 'Manager' section lists team members with their avatars and names: Claire Mouton, DAVILA Eduardo, Maciej Orkisz, Patrick Clarysse, pierre croisille, and William A. Romero R. A 'Download' button for 'inTag inTag v1.2-1B' is visible at the bottom right.

Home My page Projects Help

Logged in as mouton My account Sign out

OsiriX Plug-in » inTag

Search: » inTag

Overview Activity Roadmap Issues New issue Gantt Calendar News Documents Wiki Files Repository Settings

Overview [New subproject](#)

inTag plug-in for OsiriX, is a software to calculate, display and analyze myocardial strains and intra-myocardial mechanics from cardiac MR images with a tagging pattern.

inTag brings processing and analysis of cardiac tagged MR sequences to most in the clinical environment. One of the main reasons for MR tagging not to be more frequently used in preclinical of clinical research, is the lack of widely available processing tools.

inTag offers a fast and integrated process that bring quantitative strain analysis to most scientists, or physicians in a matter of minutes.

Further information inTag plug-in wiki

- Homepage: <http://www.creatis.insa-lyon.fr/intag/>

Issue tracking

- Bug: 2 open / 2
- Feature: 4 open / 4
- Support: 0 open / 0
- Research: 0 open / 0
- Integration: 0 open / 0
- Deployment: 0 open / 0
- Test: 2 open / 2

[View all issues](#) | [Calendar](#) | [Gantt](#)

Members

Manager: Claire Mouton, DAVILA Eduardo, Maciej Orkisz, Patrick Clarysse, pierre croisille, William A. Romero R.
Developer: Claire Mouton, DAVILA Eduardo, Patrick Clarysse, pierre croisille, William A. Romero R.
Reporter: Claire Mouton, DAVILA Eduardo, Patrick Clarysse, pierre croisille, William A. Romero R.
Viewer: Claire Mouton, coralie vandroux, DAVILA Eduardo, Frédéric Cervenansky, Maciej Orkisz, Patrick Clarysse, pierre croisille, William A. Romero R.

Spent time

0.00 hour

[Log time](#) | [Details](#) | [Report](#)

Manager

Claire Mouton DAVILA Eduardo

Maciej Orkisz Patrick Clarysse

pierre croisille William A. Romero R. CNRS Research Engineer

Download
inTag inTag v1.2-1B

Powered by Redmine © 2006-2013 Jean-Phillippe Lang

Exemples de forges

Exemple : Redmine à CREATIS – Le projet OsiriX Plug-in >> inTag/Issues

The screenshot shows the Redmine web interface for the 'OsiriX Plug-in >> inTag' project. The top navigation bar includes links for Home, My page, Projects, and Help, along with user information (Logged in as mouton) and account management (My account, Sign out). A search bar is present with the text '» inTag'. Below the navigation bar, there are tabs for Overview, Activity, Roadmap, Issues (selected), New issue, Gantt, Calendar, News, Documents, Wiki, Files, Repository, and Settings.

The 'Issues' section is active, showing a list of issues. The filters are set to 'Status: open'. The table below lists the issues:

#	#	Project	Tracker	Status	Priority	Subject	Updated	
<input type="checkbox"/>	2012	2012	inTag	Bug	New	Normal	Ambiguity with parameter identifier in xls files	05/28/2013 04:56 pm
<input type="checkbox"/>	1962	1962	inTag	Feature	New	Normal	Alternatives Motion estimators	03/29/2013 09:55 am
<input type="checkbox"/>	1937	1937	inTag	Bug	New	Normal	Limited access to sample data	03/18/2013 05:02 pm
<input type="checkbox"/>	1936	1936	inTag	Feature	In Progress	Normal	Contour interactive correction	08/26/2013 07:11 pm
<input type="checkbox"/>	1935	1935	inTag	Test	New	Normal	RefIntag Test	03/18/2013 05:03 pm
<input type="checkbox"/>	1934	1934	inTag	Test	New	Normal	inTag Evaluation	03/18/2013 05:04 pm
<input type="checkbox"/>	1933	1933	inTag	Feature	New	Normal	Point value picking	03/18/2013 05:04 pm
<input type="checkbox"/>	1931	1931	inTag	Feature	In Progress	Normal	Strain rates, peak strain rates computation	03/18/2013 05:17 pm

Below the table, there are buttons for Apply, Clear, and Save. The sidebar on the right contains sections for 'Issues' (View all issues, Summary) and 'Graphs' (Open aging issues, Total issues over time, Total bugs over time, Calendar, Gantt).

(1-8/8)

Also available in: [Atom](#) | [CSV](#) | [PDF](#)

Exemples de forges

Exemple : Redmine à CREATIS – Le projet OsiriX Plug-in >> inTag/Wiki

Home My page Projects Help

Logged in as **mouton** My account Sign out

OsiriX Plug-in » inTag

Search: » inTag

Overview Activity Roadmap Issues New issue Gantt Calendar News Documents Wiki Files Repository Settings

[OsiriX Plug-in] inTag WIKI

This site is meant to provide information about software development and product line engineering of inTag plug-in for OsiriX

This wiki contains technical and project management documentation.

Content

- ! inTag Changelog
- 1. Software development road map
- 2. Developer Guide
- 3. Meetings log
- 4. Recommended links and resources

Overview

The aim of the inTag software is to calculate, display and analyse myocardial strains and intra-myocardial mechanics of the heart.

The following diagrams outline the activities involved within an inTag analysis over a sequence of images.

I. Specify image settings such as direction, orientation and tag type, and select the Region of Interest (ROI) in ord

User	inTag

Wiki

Content

- ! inTag Changelog
- 1. Software development road map
- 2. Developer Guide
- 3. Meetings log
- 4. Recommended links and resources

pierre croisille

William A. Romero R.
CNRS
Research Engineer

Download
inTag inTag v1.2-1B

Exemples de forges

Exemple : Redmine à CREATIS – Le projet OsiriX Plug-in >> inTag/Dépôt

The screenshot shows a Redmine interface for a repository named 'OsiriX Plug-in » inTag'. The user is logged in as 'mouton'. The page features a navigation bar with tabs for Overview, Activity, Roadmap, Issues, New issue, Gantt, Calendar, News, Documents, Wiki, Files, Repository, and Settings. Below the navigation bar, the current branch is 'master' and the tag is empty. The main content area displays a file tree with the following items and sizes:

Name	Size
OsiriXPlugin	
wxInTag.skel	
.gitignore	162 Bytes
AxinoeLogo.xpm	23 KB
CMakeLists.txt	2.98 KB
CreatisLogo.png	4.99 KB
CreatisLogo.xpm	22.9 KB
README	10 KB
builtwithwx.png	2.7 KB

Below the file tree, the 'Latest revisions' section shows a list of commits:

#	Date	Author	Comment
a8cb985e	05/24/2012 02:18 am	Jean-Charles BERTIN	Added parameters to debug save panel.
ee1a20c5	05/24/2012 02:17 am	Jean-Charles BERTIN	Added inTag to saved parameters.
3f71b14d	05/24/2012 01:45 am	Jean-Charles BERTIN	Make wxInTag target optional.
c5f77ff4	05/24/2012 01:44 am	Jean-Charles BERTIN	Fixed compilation warning.
8214dea9	05/23/2012 08:44 pm	Jean-Charles BERTIN	Use Alternate key to access debug save panel.
153fa0ba	05/23/2012 08:30 pm	Jean-Charles BERTIN	Minor cleanup.
30343549	05/23/2012 08:27 pm	Jean-Charles BERTIN	Added Wait.h file.
37e03b5f	05/23/2012 08:25 pm	Jean-Charles BERTIN	Added slices versioning.
2d74de58	05/23/2012 08:25 pm	Jean-Charles BERTIN	First import.
83305de5	05/23/2012 08:25 pm	Jean-Charles BERTIN	Added recalculation of initial results with warping algorithm.

At the bottom of the page, there is a 'View differences' button and a footer indicating the page is powered by Redmine © 2006-2013 Jean-Philippe Lang. The footer also mentions 'Also available in: Atom'.

Où héberger mon code?

Quelle forge choisir?

Choix nécessairement fait en **concertation avec votre direction** (du laboratoire, de l'université ...) : choix technique mais aussi aspects stratégiques et d'image.

- Quelles sont les **directives** de nos tutelles ?
- S'assurer des **services rendus** par la forge, pas uniquement sur les outils techniques disponibles mais aussi sur l'équipe en place pour la gérer, à la garantie de service, aux délais de réponse ...
- S'assurer de la **pérennité** de la forge (un gros projet est très difficile à migrer).
- Si le développement comprend d'autres partenaires (industriels, européens ...) il est évident que le choix va être guidé par l'**ensemble de ces partenaires**.
- **Aspects communautaires** : Les forges correspondent généralement à une communauté (métier ...) avec des processus et des outils adaptés à ces pratiques : choisir plutôt un environnement proche.

D'après V. Louvet (ICJ / Calcul)

Aucune des forges existantes ne répond à mon besoin !

2 options :

- Installer un logiciel complet de forge au sein de son laboratoire : pas très raisonnable compte tenu de la complexité et du temps d'administration nécessaire.

- N'installer **unitairement** que les logiciels nécessaires :
 - outils de gestion de version,
 - outils de suivi de bugs et de tâches,
 - outil de communication.

Faites du lobbying pour la mise à disposition d'une forge répondant à tous les besoins de notre communauté !

D'après V. Louvet (ICJ / Calcul)

Conclusions : Une forge, un outil essentiel !

- Pour le **développeur** : gestion de code, gestion de configuration, outils de reconstruction automatique, plate-forme de diffusion de son logiciel, listes électroniques, forums, gestion des bugs et demandes de modification, ...
- Pour la **communauté** : connaissance des projets en cours, des compétences, des technologies émergentes, ...
- Pour les **tutelles** : visibilité, tableau de bord des activités de développement de logiciel, image du dynamisme de la production logiciel de l'organisme

D'après V. Louvet (ICJ / Calcul)

Perspectives ?

Cependant ...

Les forges existantes **ne répondent pas forcément à tous les besoins des membres de la communauté ESR.**

Les contraintes :

- **appartenance ou collaboration** avec un organisme
- logiciels sous **licence libre**

peuvent être **rédhibitoires** !

Que peut-on faire quand :

- le besoin de **confidentialité/sécurité** est fort (ex jeu de tests avec infos personnelles/médicales, possibilité de brevet associé, coopération industrielle, ...),
- le logiciel n'est **pas sous licence libre**,
- on n'appartient **pas à une tutelle** qui propose le service ...

D'après V. Louvet (ICJ / Calcul)

Un moment pour échanger !

Et vous, **vous faites comment** pour collaborer ?!?

- Pas de forge ?
- Quelle forge ?
- Quelle utilisation ?

Vos pratiques ?

Vos retours d'expérience ?

Des erreurs à ne pas faire / des conseils ?

Des compléments à ma présentation ?