



Integration of libre software for in-house applications Strategy for contribution

Example of the ProGET collaborative work
platform for researchers at GET

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Context of the ProGET project

- Development of **ProGET**, a platform for collaborative work for researchers in a public higher-grade education institution (GET)
- GET (Groupe des Écoles des Télécommunications) :
 - 4 schools : Engineering schools + Management school
 - Research labs : > 1000 researchers
 - 3 locations
 - Public : depends of French Ministry of Industry
- Team with solid background in libre software
 - PicoLibre, Calibre, etc. (see later)



Goals of ProGET platform

- Re-structuration of GET research activity
 - more visibility
 - more efficient
- For the team : continue previous work (PicoLibre) in the field of collaborative groupware libre software

- Each research project group gets :
 - Own secured workspace (Web interface)
 - Delegation of management of members
 - Documents repository (WebDAV)
 - Unlimited Mailing-Lists
 - Standard web portal + custom web pages
 - Dedicated News feed
 - On-line knowledge-base (Wiki)



Snapshot of ProGET virtual desktop

[proget] - Mozilla Firefox

Fichier Edition Affichage Aller à Marque-pages Outils Aide

https://proget.int-evry.fr/phpgroupware-0.9. OK Search

Your Projects:

Home Admin proget Filemanager sympa PFTCR	<p>LICIP</p> <p>Dossiers du Projet Gestionnaire de fichiers Listes de diffusions (Sympa) News Collaborative work (TWiki) Pages publiées sur le web (peut ne pas marcher) Accès au PortailGET Addressbook Calendar Voir la fiche projet (version imprimable)*</p>	<p>Equipe projet</p> <p>Jean-pierre Archambault Christian Bac Olivier Berger Eric Cousin Jean-marie Gilliot Inconnu Ing sur contrat1 Nicolas Jullien Claire Lassudrie Julien Mallet Gérard Ouvradou Siegfried Rouvrais Samuel Tardieu Ecrire au groupe LICIP</p>
	<p>Dossiers du Projet Gestionnaire de fichiers Listes de diffusions (Sympa) News Collaborative work (TWiki) Pages publiées sur le web (peut ne pas marcher) Accès au PortailGET Addressbook</p>	<p>Equipe projet</p> <p>Christian Bac Olivier Berger Benoit Hamet</p>

Terminé

proget.int-evry.fr



Snapshot of ProGET web portal

Le portail de la recherche au GET: PFTCR - Mozilla Firefox

Fichier Edition Affichage Aller à Marque-pages Outils Aide

get https://proget.int-evry.fr/portail/?page_nam OK Search

get [Accès à la plate-forme de travail collaboratif des projets de recherche GET \(ProGET\)](#)

Nouvelles du projet PFTCR

[XML](#) [RSS](#)

Mise en place de flux RSS pour les nouvelles des projets dans ProGET
01/04/2005 - 16:25

La plate-forme ProGET s'améliore petit à petit : dernière nouveauté, ajout de la publication des nouvelles des projets via des flux RSS, en plus de l'affichage dans les pages des projets sur le portail de la recherche GET.

Ces nouvelles vont donc

PFTCR

Plate-formes de Travail Collaboratif pour la Recherche et l'Enseignement Supérieur

Programme : Société de l'Information

Objectifs Généraux

Les plates formes de travail collaboratif permettent d'expérimenter de nouvelles technologies et de nouveaux usages pour le travail de groupe. On peut attendre de leur utilisation plus large dans le monde de la recherche et de l'enseignement supérieur des apports en matière de productivité, circulation de l'information, efficacité de la communication, qualité des productions, ... Les objectifs de ce projet sont : 1.étudier le travail collaboratif et particulièrement ses déclinaisons dans les deux spécialités qui sont les nôtres à savoir : l'enseignement supérieur et la recherche ;2.développer des modèles pour la gestion des interactions coopératives ;3.contribuer à la diffusion des meilleures pratiques et fournir des outils correspondant à ces modèles ;4.expérimenter ces modèles et outils dans l'enseignement supérieur et la recherche pour en tirer les conclusions.

Voir le programme

[Société de l'information](#)

En savoir plus sur PFTCR

- ◆ [Site WEB de PFTCR](#)
- ◆ [Pour en savoir plus sur PFTCR \(wiki\)](#)

Participant(s) du projet PFTCR

Responsable(s) projet :

- ◆ **Christian Bac** (INT/Dpt INF)
- ◆ **Benoît Hamet** (INT/Dpt INF)

Rechercher : pftc Occurrence suivante Occurrence précédente Surligner Respecter la casse

Terminé [proget.int-evry.fr](#)



Architecture of ProGET platform

- OpenLDAP, Apache, MySQL (over GNU/Linux)
- phpGroupware API
- phpGroupware specific components (portal + adm. management of projects)
- Twiki
- Sympa mailing-list manager
- WebDAV (Apache mod_dav)
- PhpGroupware "standard" groupware components (Calendar, Address Book, News, ...)
- plus quite a bunch of glue...



Past project : PicoLibre

- Software development hosting platform (like Gforge)
- Initial goals : easy to use and deploy
- Developed at GET (ENST Bretagne, INT)
- Released under the GNU GPL
- <http://www.picolibre.org/>
- Based on PhpGroupware, Sympa, CVS, OpenLDAP, MySQL
- Deployed in 3 GET sites, and several other places outside GET
 - teaching computer science : students projects
 - ad-hoc collaborative projects withing GET



Lessons learned from PicoLibre

- It works : collaborative work everyday

- Problems :
 - **long term maintenance**
 - requires specific tools and knowledge on user side (CVS for access to documents repository)
 - not really achieved the status of an *open* libre software project : mostly in-house, although GNU/GPL



Let's be more generic :
the case for most organisations



Strategy of libre software use

- Great catalog of superb applications to take advantage of
(in our case : Apache, Sympa, Twiki, PhpGroupware, etc.)
- Question of *contributions*, and impact on in-house projects ? :
 - Free to use
 - Free to contribute
 - Not forced to contribute
 - *Why contribute* if only building internal “in-house” application



Issues for maintenance of in-house projects

- Need to constantly integrate evolutions of external components :
 - Bug corrections
 - Security fixes
- Maintaining the existing systems in production
- Maintaining a large set of patches



Example : Maintenance of PicoLibre

- Strong dependencies on phpGroupware
- Based on old version of phpGroupware
- Set of patches instead of clean "plugins"
- Project stalled
- Big trouble ahead (security) ?
- Alternatives : Gforge ?



Strategy for contribution

- We were aware of rules of libre software project's life
- We wanted to minimize the part that we would need to maintain for future maintenance whenever external components evolve
- We depended a lot on PhpGroupware evolutions
- **We decided to officially contribute instead of keeping modifications private and were prepared for a long and more complex process than if we had just done them in-house**
- We adapted the project load and schedule to take this external interaction into account
- We (hope to) have a much more maintainable application in the long-term now (compared to PicoLibre)



Ultimate maintenance solution ?

- **Outsource your own adaptations, maintenance effort to the external libre projects (community)**
- Difficult bet, but worth the try
- Can be achieved once quality of contributions is good
- Requires observance of specific project contribution policy rules
- Better achieved by officially taking part to external projects (phpGroupware in our case, through Benoît official enrollment)



Lessons learned

- Existing libre software projects not always of homogeneous quality :
 - mix of old and new code ("one-time contributions")
- Really study the code to assess the real features of products (including qualification tests)
- Know the projects
- Know the code ownership rules in the project
- Play along the projects' rules
- Prepare for internal problems related to transfers of ownership of contributed code
- Project hazards (PhpGroupware split : eGroupware, ...)



Conclusion : Contribution strategy

- We learned how to define a *strategy* for external libre software integration :
 - In-house integration projects could be somehow very classical
 - Except that external projects evolve
 - Necessity for some "outsourcing" of our own adaptations whenever possible
 - One must adapt to external libre software projects rules, which requires proper planing for project management
- Trying to collaborate with external projects through official contributions is the best way to ensure future maintenance of developed elements
- In the libre software environment, contribution is not mandatory, but it becomes necessary.



Thank you for your attention

Questions ?



Planet FLOSS research

Want to know what's happening in Free / Libre / OpenSource software research community :

<http://libresoft.urjc.es/planet/>

(RSS feeds / WebLogs agregation)

Join us also if you run such WebLog...



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