KDE/ISI Student Projects Debriefing
The Real Story of a few Students near Toulouse

Kévin Ottens

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Outline

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Prologue

Shakespeare says it all...

Two households, both alike in dignity,
In fair Toulouse, where we lay our scene,
From ancient grudge break to new mutiny,
Where student blood makes academic hands unclean.
et caetera

Wait! This time, it has a Happy End^{TM}

- This time we have Konqui instead of Mercutio
- You'll learn how we got
  - Happy students
  - Happy professors
  - Thanks to KDE projects

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WTH is IUP ISI?
Yeah, I don't like acronyms either...

Where?

- Toulouse, France
- Paul Sabatier University
- Engineering Department

What?

- "Professional Institute" (IUP quality label)
- Software engineering
- Strong focus on:
  - Project management
  - Development processes
  - Quality assurance
  - Distributed systems and real-time

Students Projects in the IUP ISI (1/2)
Ok kids, we're looking at you... at least we pretend

Goals

- Apply what they learn in class
- Learn new technics or technologies by themselves
- Experience "for real":
  - Project management
  - Client relationship...

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- Apply what they learn in class
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  - Client relationship... if possible the worst cases

Students Projects in the IUP ISI (2/2)
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General Organization

- 6 month projects
- Professors act as the client team
- Students act as the development team
  - 5 fourth year students
  - 5 third year students (only for the last three months)
- Fourth year students responsibilities:
  - Form the teams
  - Pick the project (from the proposed ones)
  - Choose their development process
  - Complete the project with the help of the third years

Previous IUP ISI Student Projects

Son, when you'll grow up you'll be proud to work in a Java-shop

The typical organization (last two years)

- Choosen processes: OpenUP or Scrum+XP
- Fourth years fully manage the project, write code
- Third years write tests, sometimes code... procrastinate?
- Professors mainly measure effort through documents, demos and meetings

Topics and technics covered

- Process engineering
- Project execution
- Java, more Java with Swing and J2EE
- Use of CVS, lately Subversion appeared

Outline

1. Introduction

2. Context

3. **Embrace**

4. Extend

First Approach
Try not to be scary... Trussst in me!

Professors side

- Proposed projects close to the usual topics
  - KPlato for project management
  - Umbrello for UML modeling
- Installed a machine with NX so that they can test applications
  - Avoid them to install a free OS if they don't use one
  - Avoid to deploy the unstable software on their work computer

Student side

- Proposed a Qt/KDE introduction
- Acted as local consulting

Adapt to the current trend (1/2)
Let's make some room for me instead...

Obvious potential problems

- Deployment of the development platform
- No communication with the community
- Troubles tracking community progresses
  - Begun shortly after the "BIC monday" policy
- Visibility on the work done

Adapt to the current trend (2/2)
Let's make some room for me instead...

Obvious solutions tested

- Technical support during the first weeks (deployment)
- Allocate KDE mentors before the students start
  - Jonathan Riddell (Umbrello)
  - Thomas Zander & Will Stephenson (KPlato)
- Push them to contact sysadmin for svn accounts
- Let them choose how to work
  - 3.5 vs trunk?
  - specific branch or not?
- Track the commit logs

General Timeline (1/3)
Let's follow the plan! Damn, where is the plan?

Before official start

- Qt/KDE training
- Allocating the KDE mentors

Inception (10/13 - 11/10)

- Development environment installation
- First documents: risk list, vision
- Umbrello team decide to go in a branch
- KPlato team bite the bullet and go with trunk

General Timeline (2/3)
Let's follow the plan! Damn, where is the plan?

Warm up (until 12/15)

- Develop new features
- Ensure the proposed feature set is ok with the professors
- Umbrello: Adds profiling
- KPlato: Adds mockup of new UI elements

Full development (until the end 03/23)

- Integrate the third years!
- Keep implementing new features
- Prepare the defence

Umbrello defence

KPlato defence

General Timeline (3/3)
Let's follow the plan! Damn, where is the plan?

Work officially done

- KPlato
  - More views (tasks per resource, metrics and graphs)
  - PERT support (view, editor, critical path)
- Umbrello
  - Migrated to a sane undo/redo framework
  - Added support for some UML 2.0 primitives
    - Sequence diagram
    - Activity diagram

Hidden work... after the official end

- Umbrello branch merged back on trunk
- KPlato architecture improvements proposals

How did it work?
I hope they had some fun... *crossing fingers*

Areas for improvements

- Project management
  - Not easy to be process driven inside the community
  - Professor team should be more pro-active in this area
- Visibility on third years work

What worked well

- Interaction with the community
  - Students were shy but felt welcomed
  - Slowly improved their communication
- Unexpected idea: two Hacking Sessions on saturday
  - February & March, the last two months
  - Formed a core team, it's now monthly!

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Hacking Session February

Hacking Session March

Outline

What's next?
$\pi/2$

Coming year at the IUP ISI

- We can propose as many projects as we want
- We can cover any domain we want
  - Instant messaging
  - Multimedia
  - ...

Spread outside Toulouse?

- IMO we **must** spread this kind of projects
- Probably needs to be adapted depending on the culture
- People willing to replicate in India

Advices to get you started
First a lonely bird, then a flock

Build Trust

- Both with students and professors
- Give the professors guarantees on how to track progresses
  - Even if they don't use them

Be Flexible & Committed

- Be ready to give up on the type of applications
  - At least the first year
  - On success you can ask for more
- Be ready to feel alone to support the students on the technical side
  - At least the first year
  - On success you can get more help thanks to new blood

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And now for something completely different

(or not)

Summary
In case you slept until now, it's time to WAKE UP!

The Idea

- Setup KDE projects as part of a course of study
- Have groups of students working on a common project

The Outcome

- Students get better chance to have an interesting internship/job thanks to Qt & KDE skills
- More people working on KDE applications during the projects (6 months!)
- Addiction: Fresh blood enter the KDE community!

Resources
Just to prove some of my claims

📄 Dot opening article
http://dot.kde.org/1165100724/

📄 Coverage on my blog
http://ervin.ipsquad.net

📄 Coverage on annma's blog
http://annma.blogspot.com/2007/02/hacking-day.html

Final words
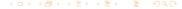## An end? I prefer a new beginning...

Thank you!

- To the professors of the IUP ISI, Toulouse
  - For their support of new ideas
  - For allowing this idea to grow
- To the adventurous students
  - For the nice work done
  - And, congrats for your diploma!

How to help

- Spread the idea to universities near to you
- Propose new ideas for next year projects
- Step up as mentors

Final words
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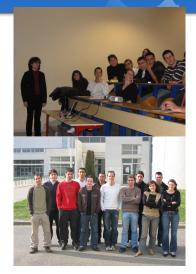   - For the nice work done
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Questions?

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