# Three years of collaboration with Toulouse University

## Don't look back, we're building the future here

Kévin Ottens

**KDAB**

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# Outline

1 Introduction

2 Embrace & Extend

3 Win-Win situation

4 To be continued...

# Outline

# Prologue

## On the Internet

- The official story as we know it
- KDE4 series is born
- KDE 4.3 is soon to be
- It's been a long journey to get there

## Meanwhile in the County of Toulouse...

- We've been writing the small story
- A course of study fully embraced KDE and FOSS
- Maybe our future lies there...

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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 techniques or technologies by themselves
- Experience "for real":
  - Project management
  - Client relationship...

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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

# Student Projects before the KDE era
Son, when you'll grow up you'll be proud to work in a Java-shop

## The typical organization (last few years)

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

## Topics and techniques covered

- Process engineering
- Project execution
- Java, more Java with Swing and J2EE

# Outline

# First Approach & Growth
Try not to be scary... Trusssst in me!

## First year

- Stay close to usual topics using KPlato & Umbrello
- NX server so that professors can test applications
- Acted as local consulting, and trained the students

## Following years

- No constraint on the type of projects
- No constraints on the amount of groups (except available resources)
- We have more manpower, thanks to
  - Awareness in the KDE community
  - Previous "seasons" students willing to help

# General organization (1/3)
En avaaaant, marche!

## Learning from first year mistakes

- Reduce the load on people to allow scaling
- Professors acted as client
- But they didn't have the required "user knowledge"

## Community side

- One client
  - Helps to find the features
  - Negociates the priorities
- One person as technical support
  - Proposes ways to improve the work done on the code base
  - Helps to find the right people to talk to in the community

# General organization (2/3)
## En avaaaant, marche!

### University side

- One project manager
    - Receives a report from the client at each iteration
    - Discusses the documents and project progress during meetings
    - Proposes ways to improve the project management
- Technical support
    - Two persons per project
    - A group available for daily concerns (mostly on IRC)
    - Available on site once a week
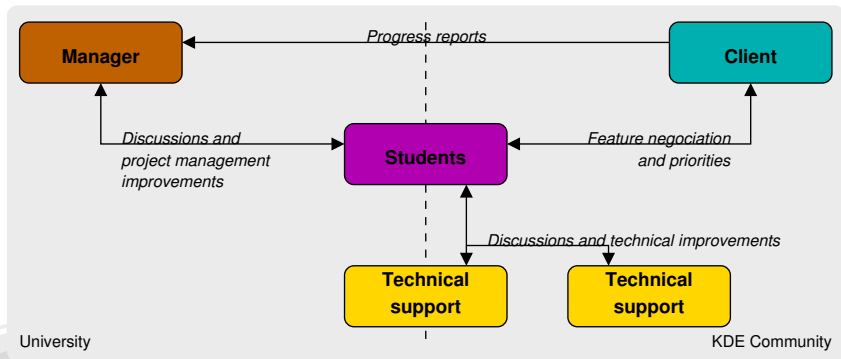    - Proposes ways to improve application design and code production

# General organization (3/3)
## En avaaaant, marche!

## Local team

- "Previous seasons" students (support level 1)
- Myself (support level 2)

# Project list
There can be only one! erm... well lots...

## Proposals

- Season 1, fixed: KPlato & Umbrello
- Season 2: KPresenter, *Kscd*, *Kopete*, *Ksirk*, *Kapman*, Umbrello, KPlato
- Season 3: Kopete, *KPresenter*, Umbrello, *KBugBuster*, *Akonadi/N810*

## Choice process

- Introduced all the projects to the students
- Let them form teams of four students and choose the project they wanted
- Let them resolve conflicts

# General timeline
### Let's follow the plan! Damn, where is the plan?

## Main phases

- Allocating mentors and clients
- Students start
  - Installations, first documents
  - Learning the project, making contacts
- Going full steam
  - Integrate the third years

## To keep in mind

- Works best if training is done in parallel of startup
- Prepare a computer room for students trainings
- Be strict on expectations regarding communication

# Umbrello defence
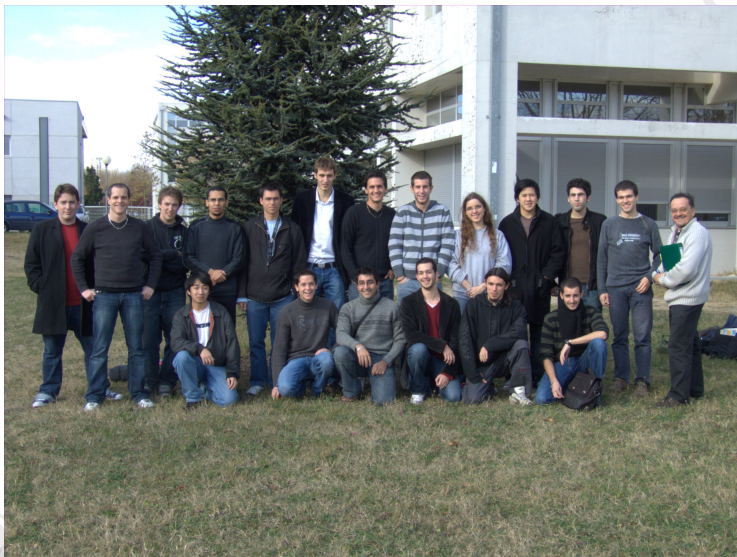## The adventurous students from season 1

# KPlato defence
The adventurous students from season 1

# The initial season 2 teams
It's all about people

# Yet another group picture (season 3)
It's all about people

# How did it work?
Apparenly they had some fun...

## Areas for improvements

- Visibility on third years work...
- Season 3: Interaction with the Maemo/Qt team
  - Tighter control from Nokia
  - Less contacts in the Maemo community

## What works well

- Project management and Scalability
  - Client/Manager separation helped a lot
- Technical abilities and learning of teams
- Motivation and training of third years
- Interaction with the KDE community
  - Once the students stop being shy

# Outcomes (1/2)
Some expected, some not...

## Season 1

- Official version: goals were fulfilled
- Umbrello branch got merged on trunk
- KPlato architecture improvements proposals

## Season 2

- Kapman released with KDE 4.2, part of kdegames
- The new Kscd is part of kdemultimedia (!?)
- Ksirk changes merged back upstream
- Some of Kopete changes got merged back...

## Season 2 (Unofficial)

- KDE 4.0 release event in Toulouse, students helped
- Michel Saliba subtitled the whole Aaron's Keynote

# Outcomes (2/2)
## More travelling than usual

## Season 3

- KBugBuster not ready yet for prime time
- KPresenter changes merged upstream (2.1)
- Akonadi/N810 apps looked at for reusing some components

## Season 3 (Unexpected)

- Half the Akonadi/N810 team attended the KDE PIM meeting
- Jean-Nicolas Artaud attended the KOffice sprint

# Outline

# KDE wins
As if the unexpected project outcomes were not enough...

## Global community

- More work gets done
  - Revive projects low on contributors
  - Allow to explore and experiment
- New regular contributors

## Local community

- Raise Qt/KDE awareness in local companies
  - Projects switching to Qt because of internships
- Develop new activities in LUGs
  - A core team formed around Hacking Sessions
  - Now monthly, people from outside the university coming

# Hacking Session February 2007

# Hacking Session March 2007

# Qt/KDE companies and students win
As if the unexpected project outcomes were not enough...

## Qt/KDE companies

- Pool of people to hire from
- Former students will push Qt/KDE to their employers

## Students

- More interesting university projects
- Easier to get internships
- More interesting internships
    - KDAB hired an intern last year
    - KO GmbH is hiring an intern this year
- For the most actives, job opportunities...

# Alexis Ménard, Season 1
I hope you're enjoying Oslo dude! :-p

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# Spread the idea
## That's why I'm here

## Spread outside the IUP ISI?

- In discussion with a local engineering school for a similar scheme
- Need to adapt depending on the type of school, the schedule, etc.

## Spread outside Toulouse?

- IMO we **must** spread this kind of projects
- Probably needs to be adapted depending on the culture
- AFAIK some attempts in India, Brazil and Norway

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

## Build Trust

- Both with students and professors
- Give the professors guarantees
  - 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

# 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
- Try to set it up in other universities
    - Feel free to ask for advices or information!
    - If needed I can also discuss with your professor staff, etc.

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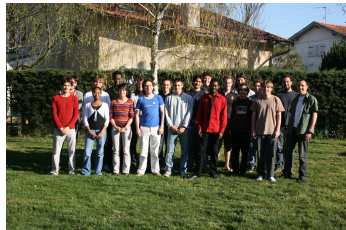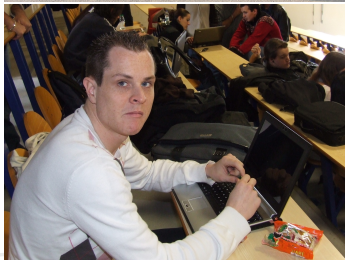### An end? I prefer a new beginning...

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# Questions?



Kévin Ottens  kevin@kdab.com