

Xtreme Programming FORUM



XP For a Dislocated Team: Process Innovation

Presented by

Tetyana Loskutova

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Public Lecture



- | | |
|---------------|-----------------------------------------------------------------------------|
| 16:00 – 16:45 | XP For a Dislocated Team:
Process Innovation
<i>Tetyana Loskutova</i> |
| 16:45 – 17:30 | Discussion |
| 17:30 – 18:00 | Drinks and snacks |

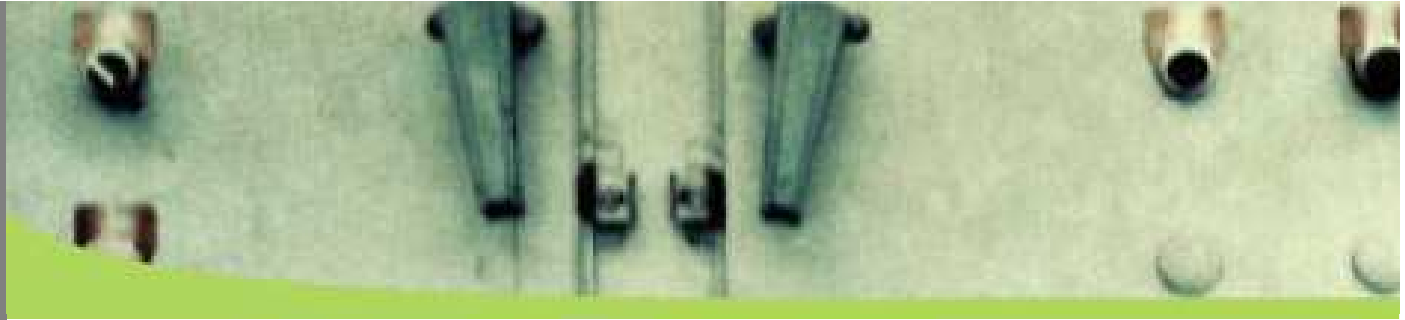


db4objects World is Open, Large & Small

Employees in 9 countries and community members in 177 countries

- **Location independence – business strength**
 - Openness – to cultures, ideas, and methods
 - Innovation – best talent
 - Sensitivity to trends around the world
 - Global presence at very low cost

- **Benefits of Location Independence to Engineers**
 - Bypass borders, policies, and politics
 - Unique quality of life (flexible time, no commute, choice of location)
 - Achieve focused work (few meetings, no overhead)
 - **Unique freedom (all of the above)**



The Distance Factor

Facts:

- No Offices
- 11 Engineers in 11 locations (9 countries)
- Community of 30,000 all over the world
- Product release on 9 platforms

A prescription for failure?

Distinguish between one product team from
outsourced project



Overcoming the Distance Factor

Basics:

- ✓ Trust each other (face to face, careful hiring)
- ✓ Constant communication (Internet tools)
- ✓ Clarity of tasks and responsibilities
- ✓ Courage to be different



Unique Engineering Process

➤ Openness

- Open source – Free testing, support and marketing
- Open minded – new ideas are key to success (change is welcome)
- Open culture -- diversity make us all better
- **Requires trust, Intellectual honesty and self discipline**

➤ Agile

- Release early, release often – continuous build
- Monthly releases – development releases
- Every 3-4 month -- Production releases

➤ Extreme Programming...



Extreme Programming

- **A methodology designed to increase software project success rate**
- **Recognizes that change is constant**
- **Emphasizes Team work (top importance for distributed team)**
- **Constant communication with customer (Jira, Forums, Road Map, conferences)**
- **Constant testing feedback from customer (continuous build)**



Extreme Programming: Planning

Priority Queue Meeting

- **Iteration Planning (1 week)**

1. Team reports on last week task completion

We calculate “Team Velocity”


- **Led by Coach**

- **Use IDS to measure velocity**

Issue Navigator — Early Progress Report

Displaying issues 1 to 6 of 6 matching issues.

Current View:

Browser ([Current Fields](#) | [Printable](#) | [Full Content](#)) | [XML](#) | [RSS](#) ([Issues](#) | [Comments](#)) | [Word](#) | [Excel](#) ([All fields](#) | [Current fields](#)) 

T	Key	Summary	Assignee	Peers	Pr	Status	Created	Original IDS Estimate	Time Spent	Iteration	Order 
	COR-1187	Lazy queries returned by ObjectSet.iterator don't respect the db4o lock	Rodrigo B. de Oliveira		↑	 Closed	29/Feb/08	1	3.62h	32	2
	COR-1182	FirstClassObjectHandler should have responsibility over it's marshalling format	Carl Rosenberger	Norberto Goussies	↑	 In Progress	26/Feb/08	2		32	2
	COR-1179	Linq 'orderby' throwing exceptions	Rodrigo B. de Oliveira	Patrick Roemer	↑	 Closed	26/Feb/08	2	6.83h	32	2
	COR-1174	Mark factory methods using global configuration as deprecated	Patrick Roemer	Rodrigo B. de Oliveira	↑	 Resolved	20/Feb/08	0	1.5h	32	2
	COR-1182	[Linq] Query caching yielding wrong results	Rodrigo B. de Oliveira	Patrick Roemer	↑	 Closed	12/Feb/08	2	7.2h	32	2
	COR-1183	Remove ObjectContainerBase dependency from StringHandler constructors	Richard Liang	Adriano Verona	↑	 Closed	26/Feb/08	2	6h	32	3



Extreme Programming: Planning

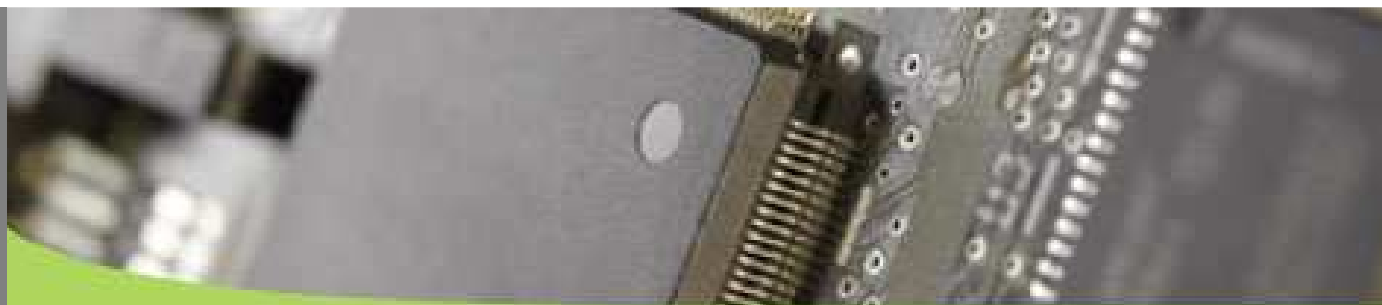
2. “Customer” present new priority queue
Engineers pick a task and a peer

- Led by VPE
- Priority Task Queue. Managed by customer. Affected by all users
- Jira: user stories. break down to small units (2-3 IDS)
- Engineers (pairs) pick tasks from queue weekly

3. Show and tell – by whole team

Engineers work in pairs to design, break down and estimate the tasks

db4objects



T	Key	Summary	Assignee	Peers	Pr	Status	Created	Original IDS Estimate	Time Spent	Iteration	Order
	COR-1200	I/O benchmarking as part of the Tutorial	Tetyana Loskutova		↑	Open	04/Mar/08	2		33	1
	COR-1193	Prepare "Best Practices and Productivity" Presentation	Rodrigo B. de Oliveira		↑	In Progress	04/Mar/08				1
	COR-1191	Prepare 6.4 "stable" release	Carl Rosenberger		↑	Open	04/Mar/08				1
	COR-1198	Live coding/pairing session presentation for Berlin	Rodrigo B. de Oliveira	Carl Rosenberger	↑	Open	04/Mar/08				2
	COR-1197	Code walk through Presentation	Patrick Roemer		↑	Open	04/Mar/08			33	2
	COR-1196	15 minutes lightning talks for Internal meeting in Berlin	Unassigned		↑	Open	04/Mar/08				2
	COR-1195	prepare Main Themes, performance, modularizations and quality presentation	Carl Rosenberger		↑	Open	04/Mar/08				2
	COR-1194	Prepare Berlin presentation, "todo2006 where we are"	Unassigned		↑	Open	04/Mar/08				2
	COR-1192	Prepare OME presentation for dUC	Tetyana Loskutova		↑	Open	04/Mar/08	1		33	2
	COR-1188	orderAscending is ignored when followed by a constraint on the same field	Unassigned		↑	Open	01/Mar/08				2
	COR-1186	Fully remove second write indirection logic from Marshalling	Carl Rosenberger	Norberto Goussies	↑	In Progress	27/Feb/08	2	30h	33	2
	COR-1182	FirstClassObjectHandler should have responsibility over it's marshalling format	Carl Rosenberger	Norberto Goussies	↑	In Progress	26/Feb/08	2		32	2
	COR-1176	Single sharpen run to convert all the sources	Adriano Verona	Richard Liang	↑	Open	22/Feb/08	2		33	2
	COR-1139	Blog about ad-hoc LINQ	Rodrigo B. de Oliveira	Patrick	↑	In Progress	05/Feb/08	2		33	2



Tools that help: Jira

- **Base for the iteration planning meeting**
- **Priority Queue**
- **Progress Report**
- **Estimates**
- **Pairs**
- **Velocity tracking**



Tools that help: Skype

- **All meetings**
- **Stand-up chat : Playing To Win**
- **Pairing chat**
- **Company chat (developers + management)**
- **Generic Geek Gossip (constant knowledge exchange)**
- **Off-topic chat**



Tools that help: Bootsy

- Current IDS for this iteration
- Random pairs
- Voting
- Quick Jira task info

Rodrigo B. de Oliveira says: 2008/02/12 12:50:08 PM

!jira COR-1119

Bootsy The Friendly Skype Bot says: 2008/02/12 12:50:11 PM

COR-1119 - Open - Provide LINQ solution files and build integration for the CompactFramework

Bootsy The Friendly Skype Bot says: 2008/02/26 04:29:41 PM

adriano verona: 1 IDS
carl@db4o.com: 4 IDS
norberto.goussies: 5 IDS
patrick roemer: 4 IDS
richard_liang: 6 IDS
Total: 10 IDS

Rodrigo B. de Oliveira says: 2008/02/26 04:29:41 PM

!jira ids



Extreme Programming: Planning

Next day: Commitment meeting – led by architect

- Each of the priority tasks is presented and estimated (estimate includes test)
- Commit tasks to not exceeding “Team Velocity” (based on last week)

Coordinate daily

Play to win (chat) – “good morning! I am working on...”; “anyone wants to pair?”

Share knowledge daily

**Never ending chat, GGG, design chats, task chats
– discuss technical questions**



When XP breaks – Fix it

- **Coach: monitors that we stay on track**
- **Tasks were not finished by the week – fixed amount of IDS per person**
- **Fixed pairs for each task**
- **Direct pairing is not possible: closely discuss and review pair code**



Designing

- **Design Session: Skype conference + Wiki or google doc**
- **Can be also Forum (attract customer at making design decisions)**
- **Risky functionality: use SVN spikes**
- **Refactoring pairing sessions: excellent way to transfer knowledge**



Coding

- **Customer is always available: VPE, user, customer-support team**
- **Pair programming: use pairing server or share a desktop**
- **Xtreme connect: pair with the direct customer**
- **Record paircasts: educational and promotional resource**
- **Integration through SVN**
- **No commit until build-before-checkin is successful**



Testing

- **Unit tests: db4ounit**
- **Automated test-suite for all platforms**
- **Cruise Control: builds, runs the tests, releases**
- **No further work is done if the CC build is red. Fix first**
- **Manual release check**



Team Culture

“I got the impression that everyone at db4o really likes what he/she is doing.

Every fixed bug or new feature is rewarded with a "virtual tap on the shoulder" by the other team members. And people are not afraid to admit that they made mistakes, because every found/admitted mistake is one that can be fixed.”

Internship student
Christoph Zimmerli



Overcoming Potential Problems

1. Different time zones

- Play to win chat for coordination
- Team of two – Asynchronous pairing

2. People goof off

- Peer pressure
- Daily tracking of progress on priority tasks (Bootsy)

3. Sharing knowledge

- In Pairing sessions
- In forum, in wiki and chat (structured communication)

4. Lack of coordination

- Track all tasks in Jira; milestones; progress and priority Q
- Meetings
- “Play to win” chat
- Coach and Architect roles



Surprising Benefits

- **Excellent Quality. How?**
 - Test first – never code if you have no failing test
 - Two people design, estimate, code – more ideas, more scrutiny, fewer errors
 - One person codes while the other tries to write a test to make it fail
 - Every check-in to SVN triggers complete testing on all platforms and a build
- **Excellent Productivity**
 - Peer pressure
 - Keep focus in pairing sessions
 - Few meetings
 - Commitment and Tracking progress weekly

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Discussion and questions

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Topics for future events:

- XP Implementation for remote teams in db40 - COMPLETE
- How can local companies take advantage of Agile methodologies to get involved in international software development projects
- Changes in XP and Agile since 2001
- Agile and outsourcing
- Agile and SOA
- Software frameworks best suited to XP
- Software testing/analysis tools
- Software metrics and personal improvement processes
- Continuous integration