

XP Injection

IT Jam 2009



Background

Alimenkou Mikalai

- Java Technical Lead/Scrum Master at **Zoral Labs**
- 5+ years in software development
- 3+ years of working by Agile methodologies
- **Expert** in Agile engineering practices
- Agile coach (TDD, Testing, Planning)

Solntsev Aleksey

- Process Architect at **Infopulse Ukraine**
- Agile volunteer
- **Certified Scrum Practitioner**
- Initiator and coordinator of translation of the cult book "Scrum and XP from the Trenches" into Russian



Agenda

- Introduction to XP
- Build automation
- Continuous Integration
- TDD (unit/integration testing)
- Code quality analysis
- Refactoring

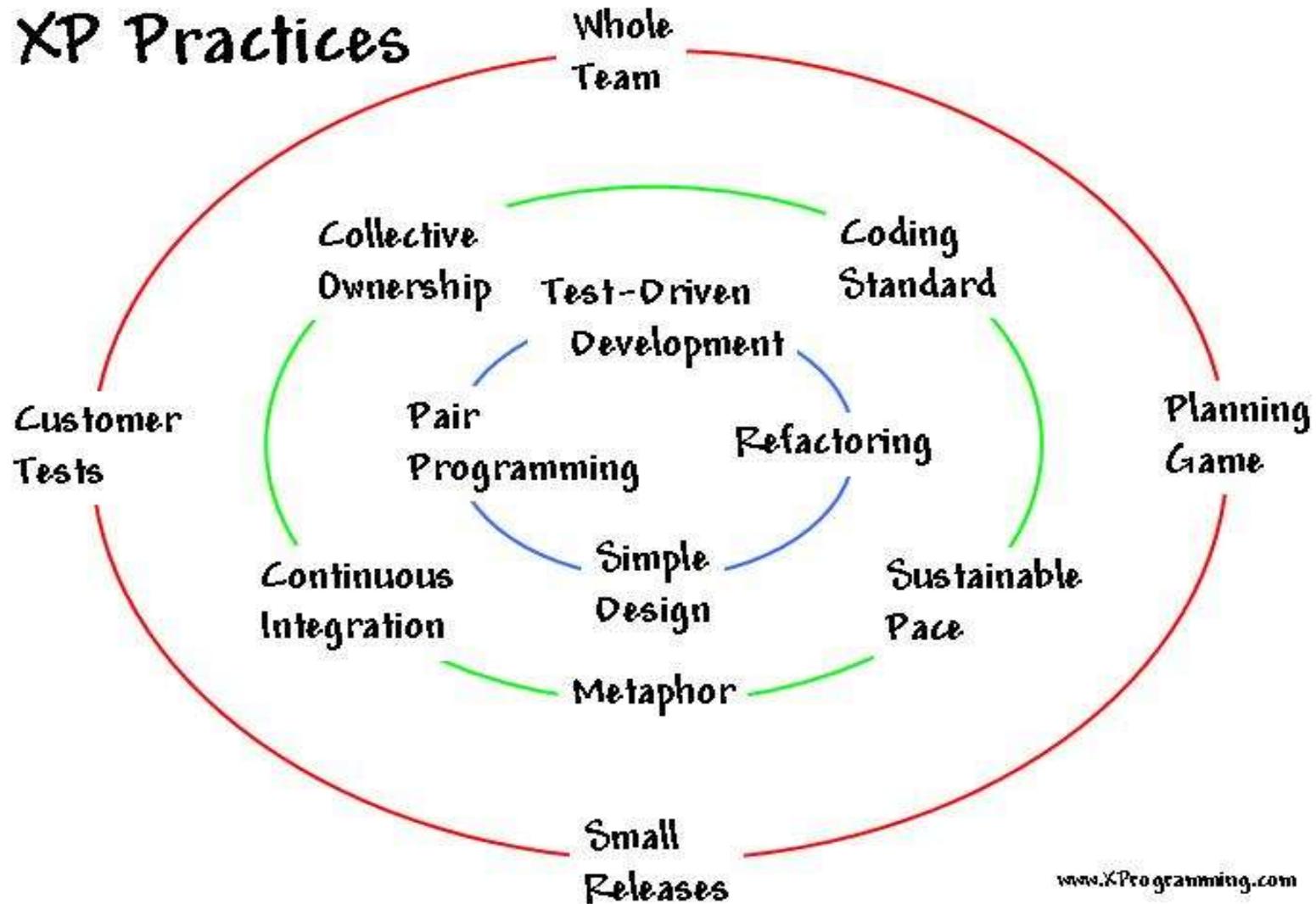
Agenda

- Introduction to XP
- Build automation
- Continuous Integration
- TDD (unit/integration testing)
- Code quality analysis
- Refactoring

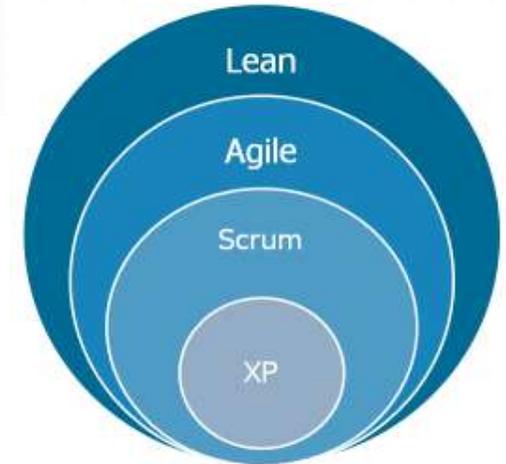
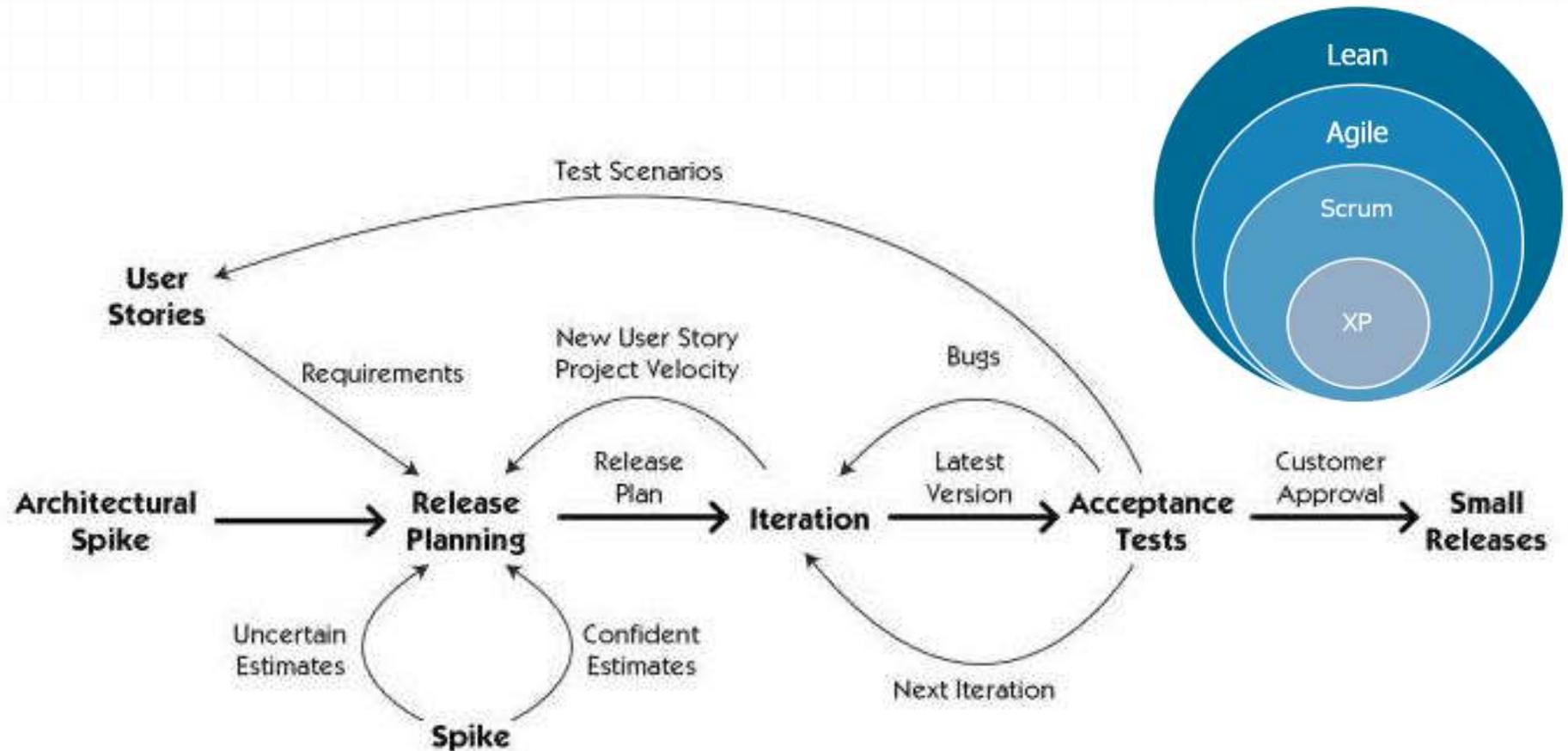
Extreme Programming?



XP Practices



XP is from Agile world



A visual process model for XP

Agenda

- Introduction to XP
- Build automation
- Continuous Integration
- TDD (unit/integration testing)
- Code quality analysis
- Refactoring

«One-button» technology

The image displays a control interface for a concrete batching plant, divided into a software control panel on the left and a 3D schematic of the plant on the right.

Control Panel (Left):

- Диспетчер (Dispatcher):** A table showing machine status and recipes.

Маш.	Нак.	Рецепт	Пмд	К	Отг	Р	A	Оператор
321		В очереди						322 TEST
321	30001	B 15 200GR	1.4	6	3	0.0		

- Автоматика вкл. (Automation On):** A toggle switch.
- Настройки (Settings):** A button.
- Текущий рецепт: TEST (Current recipe):** TEST
- Кол. кубов (Cubic meters):** 440, 0, 500, 0, 900, 3.0
- Ingredients:** Песок (3.40), Песок (0.00), Гравий (2.00), Гранит (0.00), Гранит (0.00)
- Шибера не закрыт (Shutter not closed):** 1840
- 0 %** progress indicator.

3D Schematic (Right):

- Shows a vertical conveyor system with hoppers and mixers.
- Water tank with level indicator (188.0).
- Two aggregate hoppers with levels (3.0 and 4.5) and weights (-0.4 and 2.8).
- Mixer drum with speed dial (30) and status (Закр/Откр).
- Truck icon at the bottom right.
- Graph showing a rising trend line.

Live demo



For watching the video open <http://vimeo.com/8201444>

Build automation

- Eliminate dependencies on key person
- Remove hacks and secret recipes
- Save time and money
- Eliminate redundant tasks
- Improve product quality
- Minimize "bad builds"
- Build everywhere and whenever
- Minimize risks
- Open way to other engineering practices
- Generate up-to-date project information



Agenda

- Introduction to XP
- Build automation
- **Continuous Integration**
- TDD (unit/integration testing)
- Code quality analysis
- Refactoring



How to know that everything is OK?



Who will fix it?



Who broke the build?

Live demo



For watching the video open <http://vimeo.com/8135215>
and then <http://vimeo.com/8200658>

Continuous Integration



... is a software development practice where members of a team **integrate their work frequently**. Each integration is **verified by an automated build** (including test) to detect integration errors as quickly as possible.

Many teams find that this approach leads to **significantly reduced integration problems** and allows a team to **develop cohesive software more rapidly**.

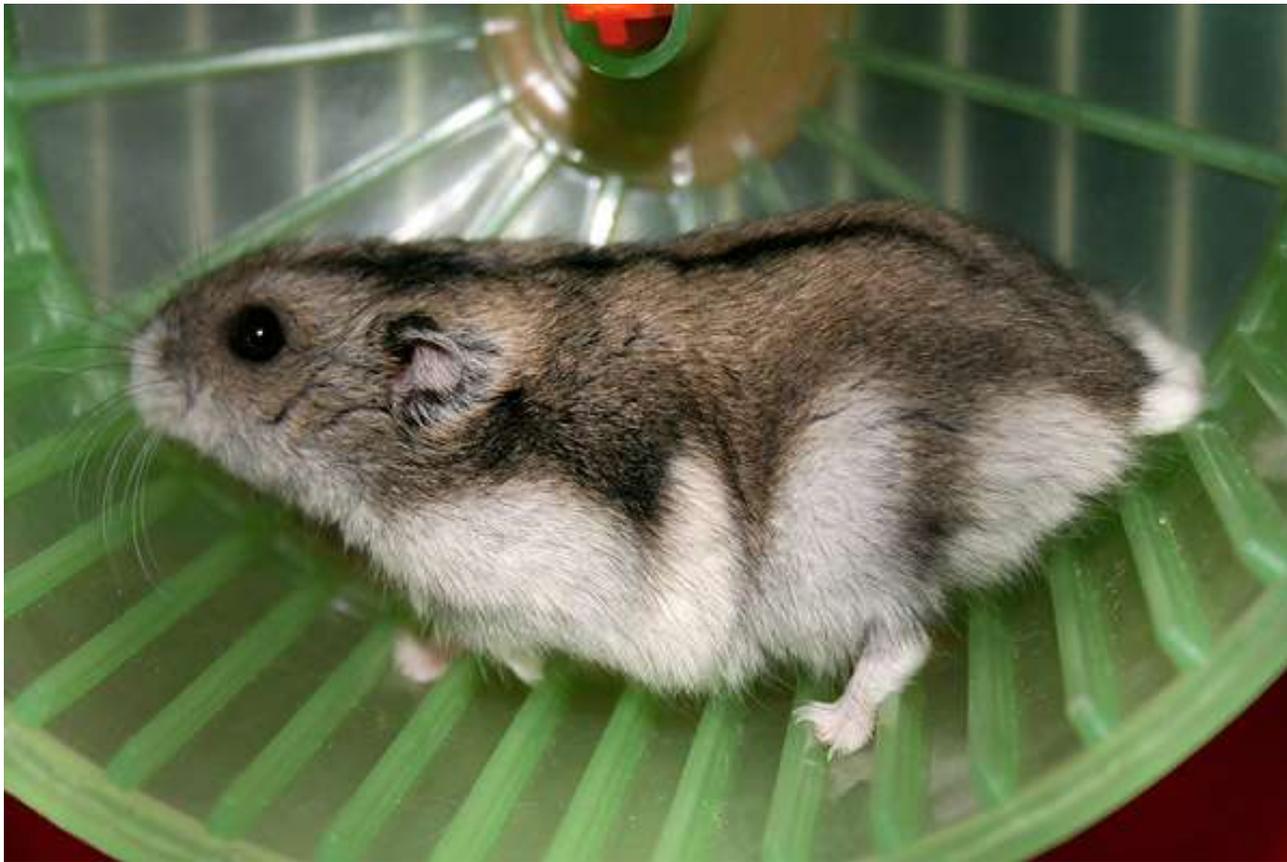
Martin Fowler

<http://martinfowler.com/articles/continuousIntegration.html>

Agenda

- Introduction to XP
- Build automation
- Continuous Integration
- TDD (unit/integration testing)
- Code quality analysis
- Refactoring

Do you know when
you are DONE ?



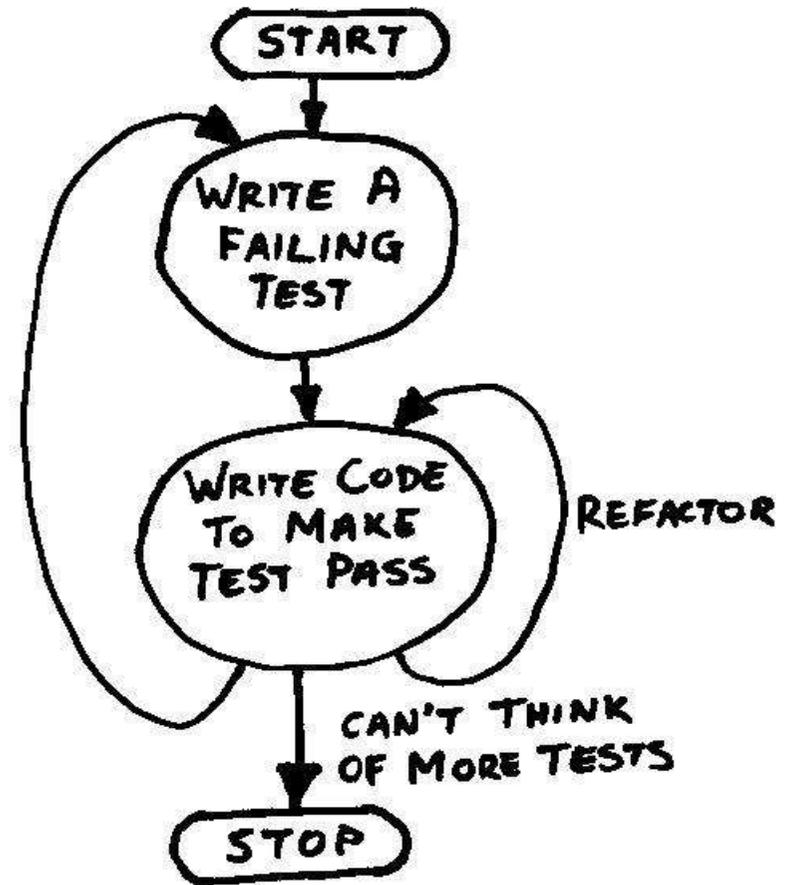
Live demo



For watching the video open <http://vimeo.com/8202622>

Test Driven Development

- No more repeat bugs
- Make regression easier
- Better design
- Less debugger
- No unneeded extra code
- More focus
- Quick feedback
- Less manual testing
- Easy refactoring
- Easier to isolate problem
- Better API
- Great code coverage



Agenda

- Introduction to XP
- Build automation
- Continuous Integration
- TDD (unit/integration testing)
- **Code quality analysis**
- Refactoring

Do you know your code?



Live demo



For watching the video open <http://vimeo.com/8204425>

Do you know what to improve?

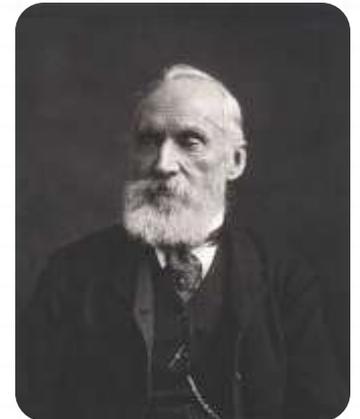
Tell me how you will measure me and I will tell you how I will behave



Eliyahu Goldratt



If you can't measure it, you can't improve it



Lord Kelvin

Agenda

- Introduction to XP
- Build automation
- Continuous Integration
- TDD (unit/integration testing)
- Code quality analysis
- Refactoring

Don't want to pay technical debt?



Live demo



For watching the video open <http://vimeo.com/8203050>

Refactoring

- More readable code
- Easier maintenance
- Code reuse
- Easier to add new code
- Improved design
- Better understanding
- Speeding knowledge
- Easier to test
- Minimize duplication



What you take away?

- What is XP methodology
- How to introduce XP in your project
- Some key engineering practices to start with
- Guide for quick start



Q&A



Email us:

- aleksey.solntsev@gmail.com
- lumii.subscriber@gmail.com

Visit our sites:

- <http://scrum.org.ua/>
- <http://agilecoaching.com.ua/>
- <http://javadevelopmenttips.blogspot.com>