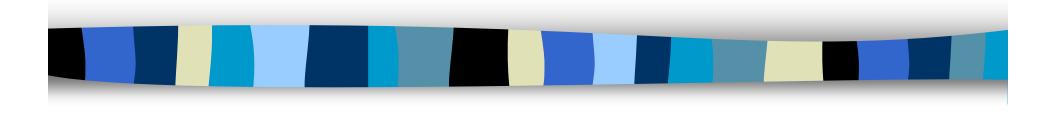
Ptidej Team



Yann-Gaël Guéhéneuc

First MOSEIG Seminar Montreal, QC, Canada 14/05/07



Ptidej Team – OO Programs Quality Evaluation and Enhancement using Patterns

Group of Open, Distributed Systems, Experimental Software Engineering Department of Informatics and Operations Research University of Montreal

Outline

- Who are we?
- What is our aim?
- What is our focus?
- Where are we going?
- What are our contributions?
- Where Is More Information?

Who Are We?

- - Adnen Ghanem
 - Foutse Khomh
 - Naouel Moha
 - Stéphane Vaucher

- 4 Ph.D. students
 9 M.Sc. students
 - Akrab Bouktab
 - François Charbonneau
 - Norddin Habti
 - Mathieu Lemoine
 - Janice Ka-Yee Ng
 - Yousra Tagmouti
 - Julien Tanteri
 - Xintao Wang
 - **-**???

What Is Our Aim?

Developing theories, methods, and tools, to evaluate and to improve the quality of object-oriented programs by promoting the use of idioms, design patterns, and architectural patterns

What Is Our Focus?

- Patterns: "a form or model proposed for imitation"
- Motifs: "a reliable sample of traits, acts, tendencies, or other observable characteristics"
- Micro-architectures: "concrete manifestation of some motifs in the implementation of a system"

Where Are We going?

	Reverse Engineering of Class Diagrams Composition Relationship
Patterns	Operational Descriptions
	Automated Identification (CSP)
	Structural Design Patterns Automated Identification (bit vectors)
	Quantitative and Qualitative Evaluation
	Code Generation
	Reverse Engineering of Scenario Diagrams
	Behavioural Design Patterns Operational Descriptions
	Automated Identification (CSP)
	Quantitative and Qualitative Evaluation
	Reverse Engineering of Class Diagrams
	Design Defects Deperational Descriptions
	Automated Generation of Detection Algorithms
	Execution Patterns Feature Identification
	Evolution Patterns Co-changing Files
	Theory of Pattern-based Comprehension
	Comprehension Patterns Empirical Evaluation of Theory

What Are Our Contributions

- The Ptidej tool suite
 - Pattern Trace Identification, Detection, and Enhancement in Java

Journal and conference papers

- CSMR

-OOPSLA

- ICPC

-TSE

- ICSM

- WCRE

Where Is More Information?

- www.ptidej.net
- ptidej-info@iro.umontreal.ca