Introduction

• New products are rarely developed from scratch
• Existing software development artifacts are reused all the time
• Product line approaches are based on these observations

Software Product Lines: Concepts

• Product line architecture
• Commonality and Variability
• Binding time
• Reuse of product line assets
• Domain engineering
• Maturity levels [Bosch 2002]
  – Development from scratch
  – Standardized infrastructure
  – Platform
  – Product line
  – Configurable product base

Reengineering towards Product Lines

• Raise maturity level of product line development
  – Identify variation points
  – Identify commonalities
  – Derive product line architecture
  – Derive product instances
  – Derive other product line assets
  ⇒ based on legacy development artifacts
• Understand and analyze existing systems
  – Architecture reconstruction/recovery
  – Identification and analysis of reusable software artifacts – Options Analysis for Reengineering (OAR)

Workshop Goals

• Promote discussion about issues in reengineering existing systems towards product lines
• Examine some of the current work
• Define a research agenda to support evolutionary introduction of product line development

Thanks

• Organizers and PC
  – Liam O’Brien
  – Rafael Capilla
  – Arie van Deursen
  – Gerald C. Gannod
  – Bas Graaf
• Authors & speakers
• Participants
Format

• Invited talk

• 25 minutes per paper
  – 10-15 minutes of presentation
  – questions and discussion

• During wrap-up left-over issues can be discussed

‘Assignment’

• For every participant:
  – Ask ≥1 question
  – Raise ≥1 discussion point

Program

• 8:00  Introduction
• 8:20  Invited Talk
  – Rainer Koschke: Consolidating software variants into software product lines – a research outline
• 8:40  Paper Session I
  – Femi Olumofin: Quality-Driven Conformance Checking in Product Line Architectures
  – Bas Cornelissen: Identification of Variation Points Using Dynamic Analysis
• 9:30  Coffee Break
• 9:45  Paper Session II
  – Jens Knodel: Identifying Domain-Specific Reusable Components from Existing OO Systems to Support Product Line Migration
  – Jens Knodel: Analyzing the Product Line Adequacy of Existing Components
  – Igor Ivkovic: Mining Existing Software Product Line Artifacts using Polymorphic Dependency Relations
• 11:00 Wrap-up
• 11:30 Close and Lunch