

Class 8

Outline

- What is a research conference?
- Modeling
- Process

Limerick Ireland



Software Product Line Conference

SPLC 2008

- SPLC had 200 researchers and practitioners
- Volunteers
 - Manage the business of the conference
 - Review papers
- Rotates over Europe, US, Asia

Types of sessions

- Tutorials
- Workshops
- Research reporting
- Experience reporting
- Working sessions

Modeling systems

- Modeling systems
- Looked at separating hardware and software
- Separate requirements
- Modeling both as “blocks”
- Modeling behavior as sequences and states
- Modeling requirements using requirements and use case diagrams

Modeling software

- UML diagrams
- Class diagram which gives details of “domain” concepts and then at lower levels of detail it describes entities in an implementation
- Sequences and states also useful

Modeling domains

- Classes – concepts
- Activity diagrams – domain algorithms
- State diagrams – characteristic “modes” of operation
- Use cases – typical uses of systems in this domain

Vending machines

- Types of development

<http://cms.pcats.org>

http://www.wayne.com/documents/retail_sys_nucleus_na_english_2008-09.pdf

<http://cms.pcats.org/node/1608>

http://www.postilion.com/payments_software/partners.html

<http://www.opengroup.org/naspl/uploads/40/13655/IG0701.pdf>

<https://www.internetsecure.com/merchants/showPage.asp?page=XML5>

Standards

- Specifications
- Definitions
- Constraints

Process

- Different “types” of systems
 - Business IT
 - Embedded
 - Real-time
 - Scientific
- Different approaches
 - What “qualities” are most important?
 - How do we build these

Content packages - Process

- Tasks
- Roles
- Work products
- Guidance

Meta-definitions – Standard categories

- Disciplines
- Domains
- Work Product Kinds
- Role Sets
- Tools Processes
- Custom categories
- Guidance

Custom categories

- Assignment – define an embedded software development method in EPF
- Assignment – model domain of “automatically dispensing a product in exchange for payment”