


A Software Development Process for an Electronic Commerce Portal

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Internet Portal System for Insurances

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Conventional vs. EC Systems


- Development conditions of EC systems:
 - higher degree of interaction
 - higher degree of integration
 - more content in addition to functionality
 - shorter time-to-market
 - *but same level of quality*

➤ Adapted software development process for EC systems required

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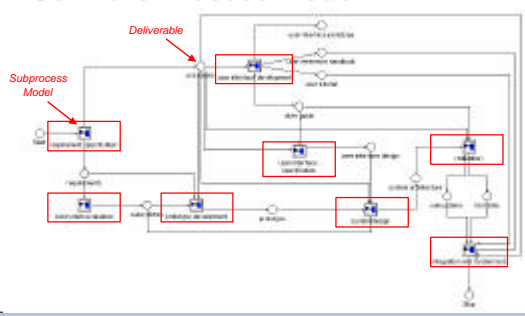
A Portal for Insurance Agents

- combines and integrates
 - content and applications to support the agents' work
- to increase
 - productivity, company loyalty
- built using an adapted software development process



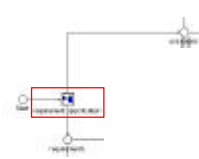
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Software Process Model



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Software Process Model



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Requirements Specification

- cooperation with insurance companies
- comprehensive tasks → singular actions
- prioritized and documented:

Req ID	Requirement	Priority	Type	Rationale
EP-F/1.2.3	All shop items must be accessible via a product hierarchy.	1	MUST	Users are familiar with the concept of a hierarchy and can find items there easily.
EP-F/1.2.4	A full text search may be provided to find products.	3	MAY	The search facility serves as a backup in case the user can't find an item in the hierarchy.

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Software Process Model

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Subsystem Identification

Office	Content Management	Electronic Procurement	Legacy Applications	Comm	Admin
e-Mail Folders	Product Portfolio	Office Material (Toner, ...)	Partner Database	Sending Reminders, Messages, etc.	User Management
Address Book	Company Handbook	Promotional Material (Flyers, ...)	Contracts Database		Monitoring
Calendar	Marketing Information	Company Services (Courses, ...)	Tariff Computer	by Fax SMS e-Mail	Search
To-Do List	Law Documents				Portal-wide Full Text Searches
Outlook	pirobase	SmartStore	Partner DB	sendfax, yaps, JavaMail	
Microsoft	PIRONET	smartstore	CompuLink		

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Cut-Through Prototypes

Office Content Management Electronic Procurement Legacy Applications Comm External Subsystems

Adaptors

Internet Portal System for Insurances (IPSI) Core System

- Q: Subsystem integration feasible?
- A: Adaptor prototypes implementing key features

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Software Process Model

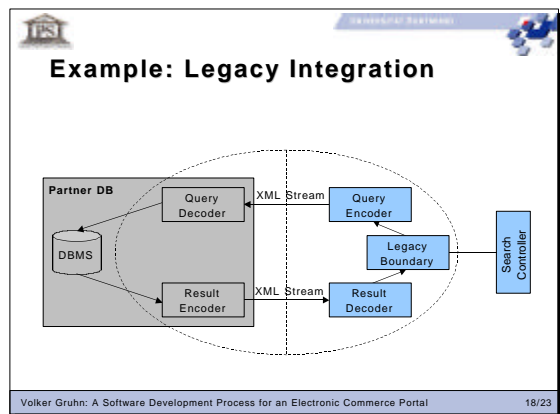
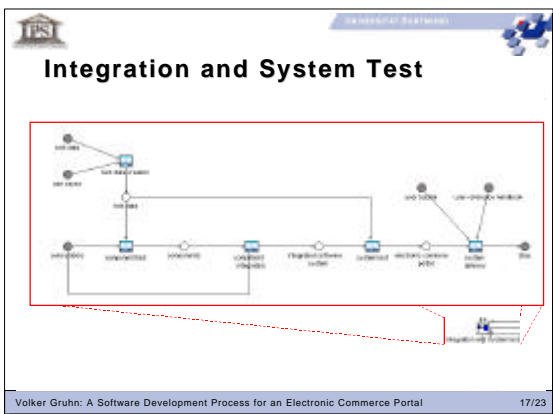
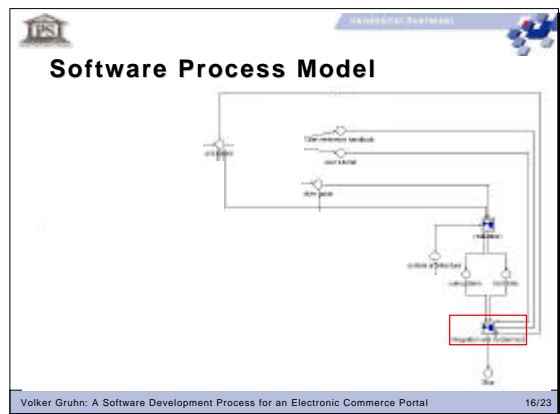
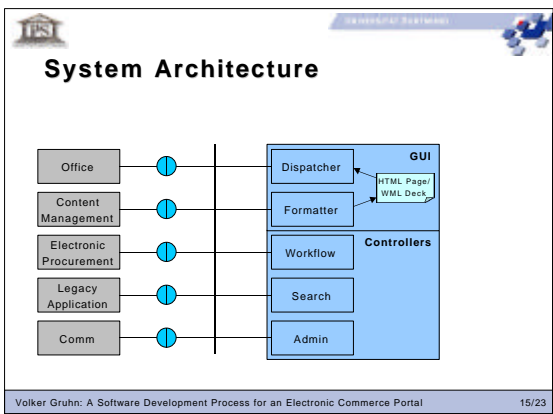
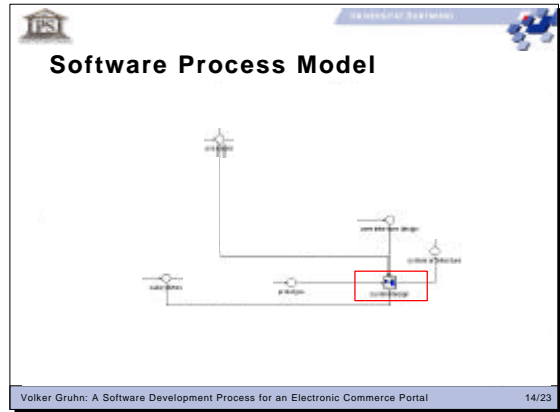
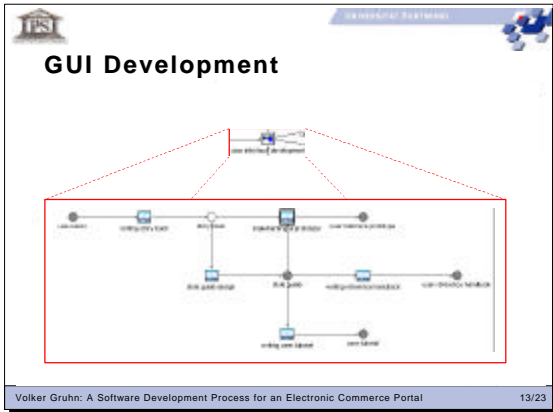
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Prototype Development

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Software Process Model

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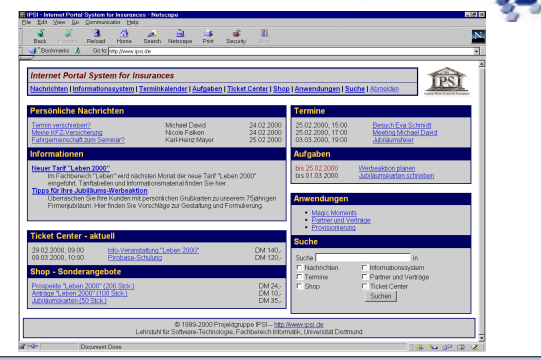


Testing

- Class Test
 - Class functionality ok?
- Subsystem Test
 - Code review; subsystem boundary ok?
- Integration Test
 - Subsystems' interfaces ok?
- System Test
 - Workflow and GUI ok?



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Conclusion: Experiences

- EC software development process can differ from conventional process in:
 - types of tasks
 - order in which tasks are performed
 - roles that perform tasks
 - software tools used
- especially notable:
 - high effort for subsystem integration


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Conclusion: Software Quality

- Problem:
 - quality-assuring methods can fall prey to time-to-market philosophy
- Partial solution:
 - incremental, iterative prototyping to estimate feasibility, effort and dev. time
- Goal: Model software development process ensuring consistent high quality despite more challenging conditions

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Thank you!



Any questions?

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