CIM to PIM to PSM

- Flexible Business Models
- Business metamodels
- Transformation rules
- Transformation engine
- Semantic rules
- Heterogeneous SOA platform metamodels
- Unified and standardised metamodels for SOA & SHIA
- Goal models
- Business rules
- Business processes
- Executable artefacts
- Goals
- Business services
- Service interfaces
- Service contracts
- Service envoi
- Business rules
- SLAs
- Parameterized services
- Semantic Web Services
Oblig 1

- 16/2: CIM models (Scope manager and Objecteering SOA Business semantics and organisations) (Group 1)
- 23/2: Use case models (Group 2)
- 2/3: PIM – SoaML models (Group 3)
- 9/3: PIM – Objecteering SOA (Group 4)
- 16/3: PSM – Java/Web services (Group 5)
- 2x/3: Oblig1 Delivery: For all groups for their part of the system
- 30/3: Discussion of Oblig 1

Short course methodology

- CIM modeling
- CIM 2 PIM mapping
- PIM modeling
- PIM 2 PSM mapping
- PSM modeling
### CIM – PIM – PSM methods

#### CIM

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<thead>
<tr>
<th>Information</th>
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### CIM – PIM – PSM methods in this INF5120 course

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CIM MODELING

Objecteering Scope Manager

- Requirements
- Goals
- Business rules
- Dictionaries
Requirements

Goals
Business rules

Dictionary
Traceability links

1. Selecting an element and freezing the fast link editor

CIM 2 PIM MAPPING
Process and use case relationship

PIM MODELING
Objecteering with SoaML and manual mapping to SOA

• Use the SoaML MDA component for SoaML modeling
• Do manual mapping to the Objecteering Logical SOA model Software model
• (See separate SoaML presentation)

Objecteering SOA

• Business semantic model
• Business organisation model
• Logical model (from SoaML to SOA)
• Business implementation model;
• Software model
• (See Objecteering user guide/demonstration)
Objecteering SOA method and tool support

Objecteering for SOA

- Business Semantic
- Business Organization
- Business Implementation Geography

Business

- Logical Architecture

IT

- Software
- Technical
- Business Implementation
- Hardware & Physical
**Current Component Architecture**

Eclipse 3.4

- CIMFlex Plugins
- SoaML Plugins (default tree editor)
- UML2 SoaML Profiled model
- SoaML model
- PIM4Agents Solution Plugins
- WSMT Plugins
- Semantic Web Services

**Example mapping sequence**

<table>
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<tr>
<th>CIM</th>
<th>BPMN with Objecteering</th>
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<tbody>
<tr>
<td>CIM2PIM</td>
<td>Use case analysis and Manual (later by MOFScript or ATL ?)</td>
</tr>
<tr>
<td>PIM</td>
<td>SoaML – Objecteering (Collaboration (serv.arch), Port/Connector)</td>
</tr>
<tr>
<td>PIM2PIM</td>
<td>Manual (later by MOFScript or ATL ?)</td>
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<tr>
<td>PIMs</td>
<td>Objecteering SOA</td>
</tr>
<tr>
<td>PIM2PSM</td>
<td>Draft automatic: Java API and Design Patterns</td>
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<tr>
<td>PSM</td>
<td>Web Services SOA: UML Profiles for XML, WSDL, BPEL</td>
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<tr>
<td>PSM2Code</td>
<td>Draft automatic: Java</td>
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<tr>
<td>Code</td>
<td>SOA: XML, WSDL, BPEL</td>
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Architectural layers

Different types of services
COMET-S model architecture

Logical architecture layers
Process component