The Study on Ontology Integration of IEEE/EIA 12207 and J2EE

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Outline

- Motivation
- Our Approach
- Combine the knowledge IEEE12207 with J2EE
- Conclusion and Future work
Motivation

Software-Oriented Organization

Activity

<IEEE/EIA 12207>

5D

Define
Design
Develop
Debug
Deploy

Information System

Users

The Study on Ontology Integrating and Applying the Ontologies of IEEE/EIA 12207, CMMI, Workflow and J2EE to Web Service Development Environment
Our Approach

- Use IEEE/EIA 12207 Knowledge
- Use J2EE Technology knowledge
- Integrate the knowledge of IEEE/EIA 12207 and J2EE
Use IEEE/EIA 12207 Knowledge

- Object
- Identify
- Interpret
- Apply
The Ontology of IEEE/EIA 12207

Software-Oriented Organization

What
Organization | Project | Standards | Process | Activities

How
<IEEE/EIA 12207> <J2EE>

5D
Define | Design | Develop | Debug | Deploy

Software
Information System

User
The Study on Ontology Integrating and Applying the Ontologies of IEEE/EIA 12207, CMMI, Workflow and J2EE to Web Service Development Environment
Use J2EE Technology knowledge

- Object
- Identify
- Interpret
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The Study on Ontology Integrating and Applying the Ontologies of IEEE/EIA 12207, CMMI, Workflow and J2EE to Web Service Development Environment

The Ontology of J2EE

Software-Oriented Organization

What
- Organization
- Project
- Standards
- Process
- Activities

How
- Define
- Develop
- Debug
- Deploy

Information System

<IEEE/EIA 12207>

<J2EE>
Integrate the knowledge of IEEE/EIA 12207 and J2EE

Integrate

<IEEE/EIA 12207>  <J2EE>

What
- Organization
- Project
- Standards
- Process
- Activities

How

5D
- Define
- Design
- Develop
- Debug
- Deploy

Software

Information System

Software-Oriented Organization

User
Integrate Approach

Helper Model

IEEE/EIA 12207 Ontology

J2EE Ontology

The Study on Ontology Integrating and Applying the Ontologies of IEEE/EIA 12207, CMMI, Workflow and J2EE to Web Service Development Environment
Integration of the knowledge of IEEE/EIA 12207 and J2EE

- Helper model is the broker between domains to map ontology.
- Helper model identify the knowledge by
  - Role
  - Task
  - Timing
  - Place
  - document
### Ontology of IEEE/EIA 12207 Knowledge (1/2)

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<th>PM(Y1)</th>
<th>SA(Y2)</th>
<th>Architect(Y3)</th>
<th>SD(Y4)</th>
<th>Engineer(Y5)</th>
<th>Integrate(Y6)</th>
<th>Tester(Y7)</th>
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## Ontology of J2EE Knowledge

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Conclusion and Future work

- We will continue to find out some result and have some chance to discover some problem with any other research group.
- We hope we can keep some contribution that can help others in research and application of ontology.
- Combine the mechanism of inference. We will pay some attention on how to integration the inference mechanism on the ontology.
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The Ontology of J2EE