

Service Context Management for Exertion-oriented Programming

Gregory McChesney

Thesis Description

Problem Statement

- No full life-cycle for context management in exertion-oriented programming
- The current Cataloger service does not sufficiently display context details (providers, interfaces, methods and context)
- There is no service UI context editor for interactive exertion-oriented programming.

Conclusion

- A life cycle context management is needed for exertion-oriented programming: context registration by providers, cataloging, updating, deleting and editing for exertions.

Objective/Approach

Objective

A framework for network-centric Life-Cycle Service-context Management (LCSM) for exertion-oriented programming.

Approach

- Literature review and analysis of life-cycle management and exertion-oriented programming
- Define requirements for LCSM
- Architect and design the LCSM framework to support exertion-oriented programming
- Conduct a feasibility study in the SORCER environment
- Implement and deploy the LCSM framework
- Verify and validate the LCSM framework

Schedule

09/01/09	Literature Review
09/15/09	System Requirements
10/01/09	Life-Cycle context management model
10/30/09	Architecture and detailed design
12/09/09	LCSM prototype
01/22/09	Thesis proposal presentation
02/01/09	Framework Implementation
02/10/09	Validation of Use Cases and deployment
03/10/09	Thesis Defense

Requirements

Benefits

- Uniform service context registration by providers
- Uniform method context viewer and editor for service providers
- Friendly and intuitive Service UI for Cataloger service contexts per provider/interface method
- Friendly and intuitive Service UI for task service context
- Friendly and intuitive Service UI for job service context