How to Exploit Domain Knowledge in Multiple Software Product Lines?

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Contact Profile

- Multiple Software Product Lines, Evolution of SPLs
- Objectives / Looking for
  - Share experiences about MSPLs
  - Identify other usecases with the same challenges
  - Evaluate available solutions w.r.t. the problem

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Product Lines

**yourCast**
- Production of Digital Signage system
- 5 SPLs
- Final users are not computer scientists

➤ Research and Industrial Project

**SensApp**
- Deployment of sensor assembles in the cloud
- 4 SPLs
- Final users are not cloud experts

➤ Research and Industrial Project

Both evolving MSPLs

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The Problem

What is and how to derive a valid configuration?

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Current Solution

Exploit domain knowledge at all levels of the MSPL

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Why is it interesting?

1. MSPL configuration should not be just a set of SPL configurations

2. Configuration-process of a MSPL should be domain-driven like SPL configuration-process

3. Evolving and Interrelated SPLs require to manage complexity of relationships

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Discussion

• How to ensure consistency of configurations and of the MSPL itself?
  – Support of multi-instantiation in MSPLs
  – Relationships and constraints between SPLs

• Guidance in configuration-process

• Evolution management of SPLs

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Potential Collaborations

• More informations after the speed dating 😊

• Klaus Shmid and Klaus-Benedikt Schultis: about software ecosystems

• Dean Kramer and Preethu Rose Anish: about configuration interfaces

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Thank you!