

RobMoSys – Brokerage Day



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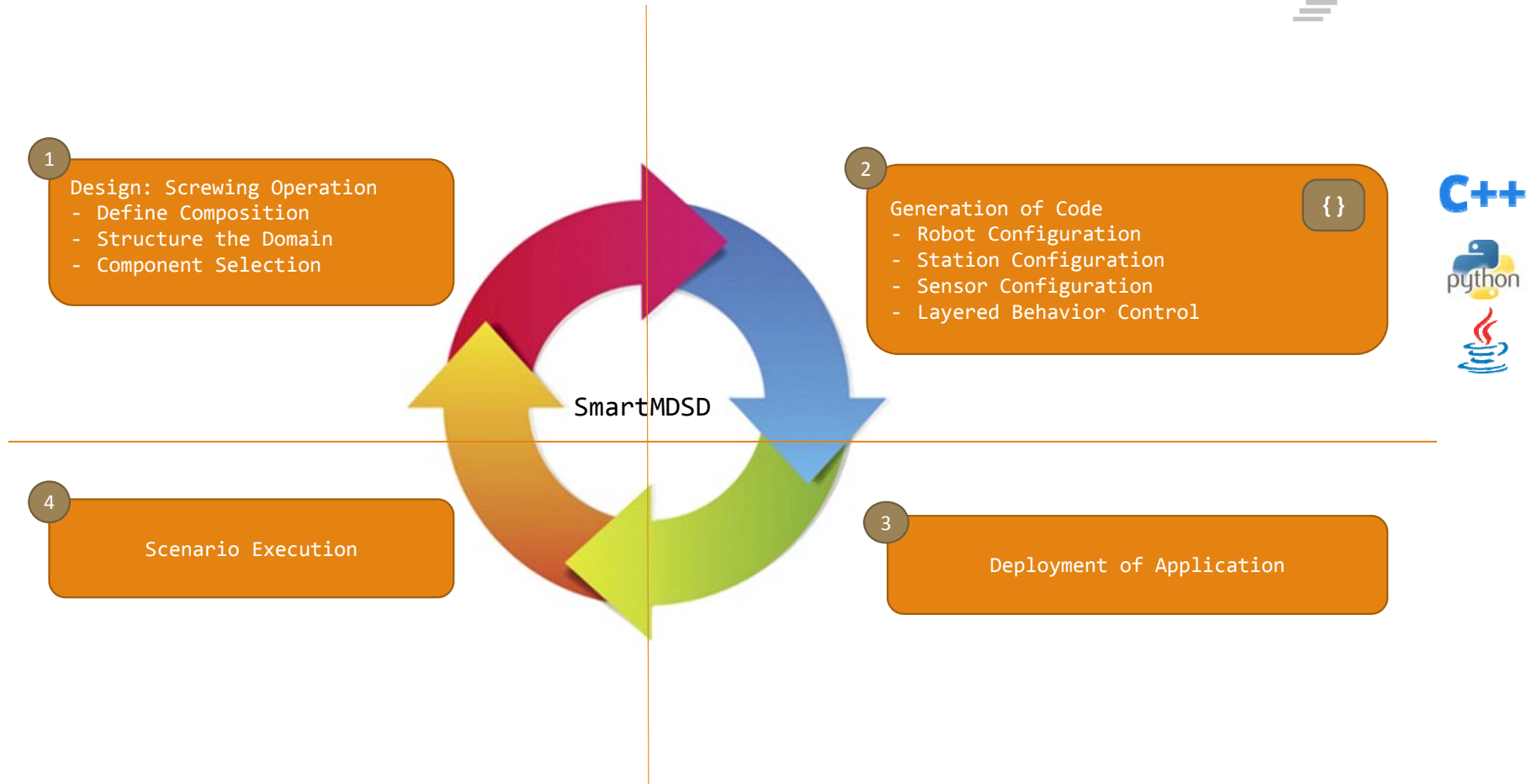
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Concept: Screwing Operations



1
Design: Screwing Operation
- Define Composition
- Structure the Domain
- Component Selection

2
Generation of Code
- Robot Configuration
- Station Configuration
- Sensor Configuration
- Layered Behavior Control



3
Deployment of Application

4
Scenario Execution

SmartMDS



Contributions

Architectural Patterns

- Control/Execution Architectural Patterns

Components

- Robotic Behavior Engine

Meta-Models

- Screwing Operation, Tactile Operations

Model-Driven

- Decouple of Application Layers
- Generators for Layered Controlled Architecture



Objectives

- Industrial Robotics Application for Screwing Operations
- **Role**
 - Component Supplier
 - Behavior Developer
 - System Builder
- **Re-use** of Motion and Perception Stacks
- Meta-models for Screwing Operation, Vision Configuration
- Development of Generators for *Customizable Layered Applications*
- Development of Generators for Robotic Behavior
- Coordination / Synchronization of multiple resources (robot, grippers)

Thank you



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