

Coding Book

Adarsh Choudhary, Mohit Jain, Surabhi Lone

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1. Preface: Definitions & Terminology

1.1 Basic Definitions

The foundational definitions for Existence, Executive, and Property issues in Axis2 are based on the framework established by Kruchten: Kruchten, Philippe. "An Ontology of Architectural Design Decisions in Software Intensive Systems." 2nd Groningen Workshop on Software Variability, 2004. These definitions serve as a guiding framework for categorising issues within Axis2. This coding book further specifies how these definitions are interpreted for Axis2, outlining the criteria and guidelines for correctly labelling issues in alignment with Kruchten's principles.

1.2 Significant Enough Changes/Significant Effort etc

Often, whether an issue is architectural or not depends on the effort involved. What we mean by this, is that something is hard to change. For instance, the addition of a new component is architectural if making large changes later is difficult. Hence, the key question we ask if necessary is "Would it be difficult to change the implementation?".

Following issues were considered existence :

1. AXIS2-5322 Adds a new piece called ServiceBuilderExtension that changes how services are put together.

The following issues were considered architectural, but not existence:

1. AXIS2-5993 : Upgrading to log4j v2.x is a big change that affects logging.

2. Architectural

ARCH-1: Fixes a security issue to stop unauthorised access by updating how the system is built.(AXIS2-5846)

ARCH-2: Improves security to prevent session hijacking (when attackers take over user sessions).(AXIS2-4739)

ARCH-3: Changes how headers (data markers) are processed to make the system faster.(AXIS2-3959)

ARCH-4: Updates memory handling to help the system run smoothly.(AXIS2-3758)

3. Existence

EXI-1: Adds new settings for address and identity handling, a big change for security.(AXIS2-5659)

EXI-2: Allows the system to handle JSON data in addition to other data types.(AXIS2-5362)

EXI-3: Adds a new piece called ServiceBuilderExtension that changes how services are put together.(AXIS2-5322)

4. Executive

EXEC-1: Upgrades to a newer version of the log4j library, improving security and performance.(AXIS2-5993)

EXEC-2: Adds a tool called Maven archetype to make project setup easier.(AXIS2-5230)

EXEC-3: Another Maven archetype tool that simplifies creating new services.(AXIS2-5229)

5. Property

PROP-1: Makes the system faster by cutting out slow steps.(AXIS2-4906)

PROP-2 : Improves general speed and performance.(AXIS2-4509)

6. Non-Architectural

NON-ARCH-1: Fixes a bug in service deployment, making it work correctly without changing the architecture.(AXIS2-5231)

NON-ARCH-2 : Adds a Maven archetype tool to help create new services, useful for setup but not a core change.(AXIS2-5230)

NON-ARCH-3: Another Maven archetype addition, making project setup easier but not changing the system itself.(AXIS2-5229)

