

# Unlocking the OSEE Core Framework

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### What is OSEE?

- OSEE is a tightly integrated environment designed to support lean engineering principles across a product's full life-cycle in the context of an overall systems engineering approach
- OSEE has been deployed on Boeing's next generation Attack Helicopter
  - 300 users
  - Managing ~300,000 Artifacts
  - ~250 Active Branches



# Objective

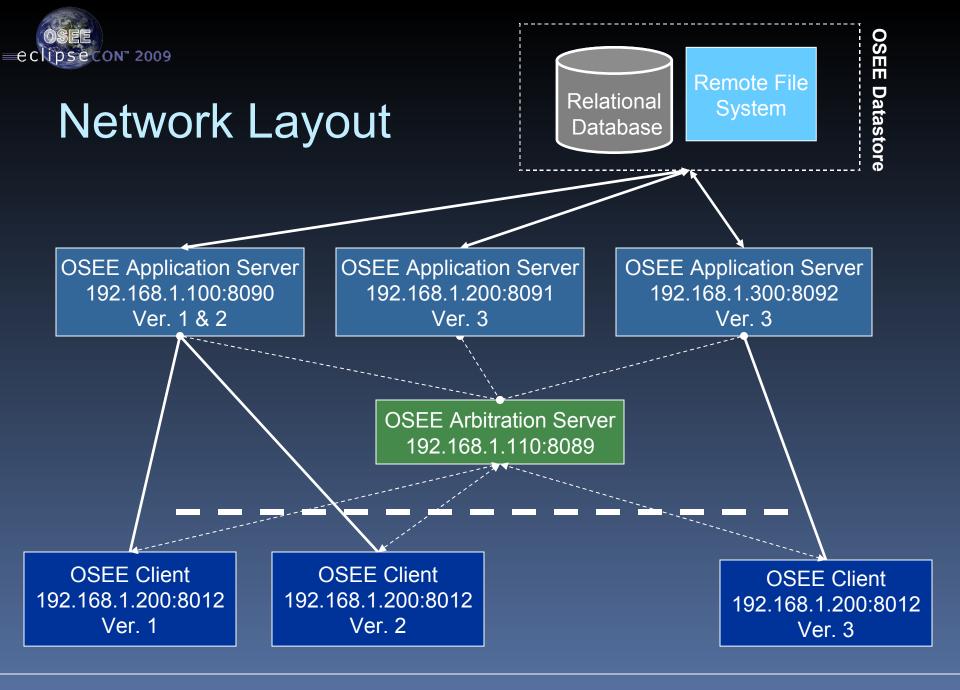
 Inform developers what the OSEE application framework services offer

 For more information http://www.eclipse.org/osee



#### **OSEE Framework Services**

- Providing the following facilities:
  - Transaction-based object-oriented persistence layer
  - Dynamic and strongly types artifact model
  - Advanced version control including multi-level branching
  - Variant management
  - Database independent import/export
  - Subject-based and object-based access control
  - Session management and authentication service
  - Multi-client event notification service
  - Extensible tagging and searching capabilities
  - Task scheduling framework





## Artifact Types

- 🌌 <<default>> : Artifact
- <<default>>:Name
- <<default>>:Annotation
- <<default>>:Static Id



- 🚵 <<default>> : Requirement
- 🚵 <<default>>:Name
- 🞥 <<default>>:Annotation
- 💦 <<default>>:Static Id
- <<default>>:Subsystem
- <<default>>:Qualification Method
- <<default>>:Safety Criticality
- <<default>>:Word Template Content
- <<default>>:Word Ole Data
- <<default>>:Page Type
- <<default>>:Imported Paragraph Number

Inherited Attributes

🦄 <<default>> : System Requirement

👫 <<default>>:Name

& <<default>>:Annotation

🐕 <<default>>:Static Id

👫 <<default>>:Subsystem

<<default>>:Qualification Method

<<default>>:Safety Criticality

<<default>>:Word Template Content

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🔐 <<default>>:Page Type

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- <<default>>:Support IPT
- <<default>>:Legacy Id
- <<default>>:Level 3 IPT
- <<default>>:Level 2 IPT

🕌 <<default>> : Software Requirement

🚠 <<default>>:Name

👫 <<default>>:Annotation

👫 <<default>>:Static Id

💦 <<default>>:Subsystem

🔓 <<default>>:Qualification Method

🔐 <<default>>:Safety Criticality

R <<default>>:Word Template Content

👫 <<default>>:Word Ole Data

🚵 <<default>>:Page Type

🚵 <<default>>:Imported Paragraph Number

- <<default>>:Crew Interface Requirement
- <<default>>:System Security Requirement
- <<default>>:CSCI
- <<default>>:Training Effectivity

🐂 <<default>> : Subsystem Requirement

🎎 <<default>>:Name

& <<default>>:Annotation

🔐 <<default>>:Static Id

🏗 <<default>>:Subsystem

& <<default>>:Qualification Method

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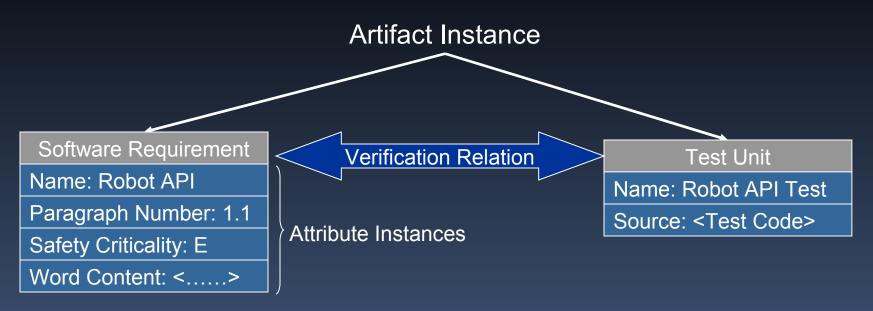
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Inherited Attributes

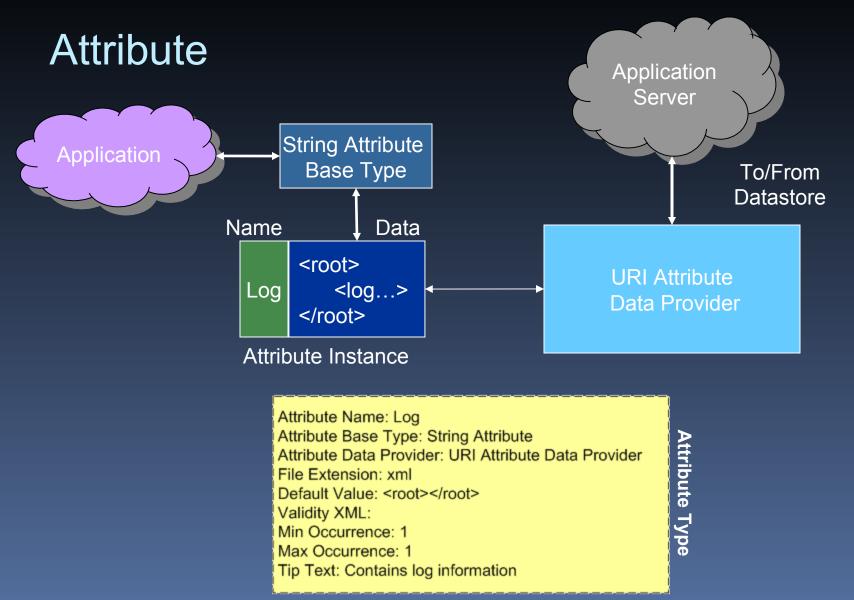


#### Simple, User-definable Data Model

## **Artifacts**

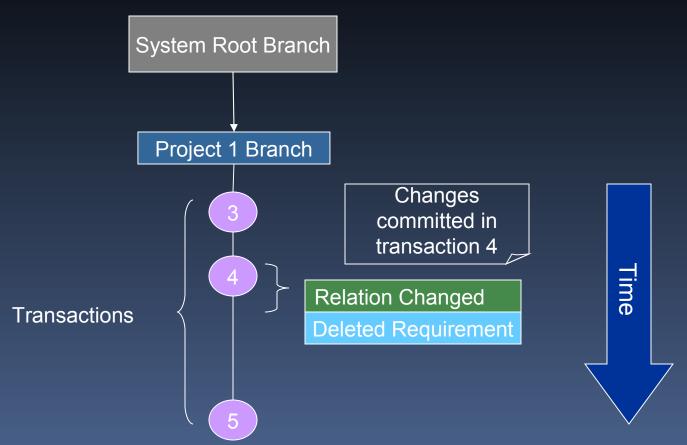






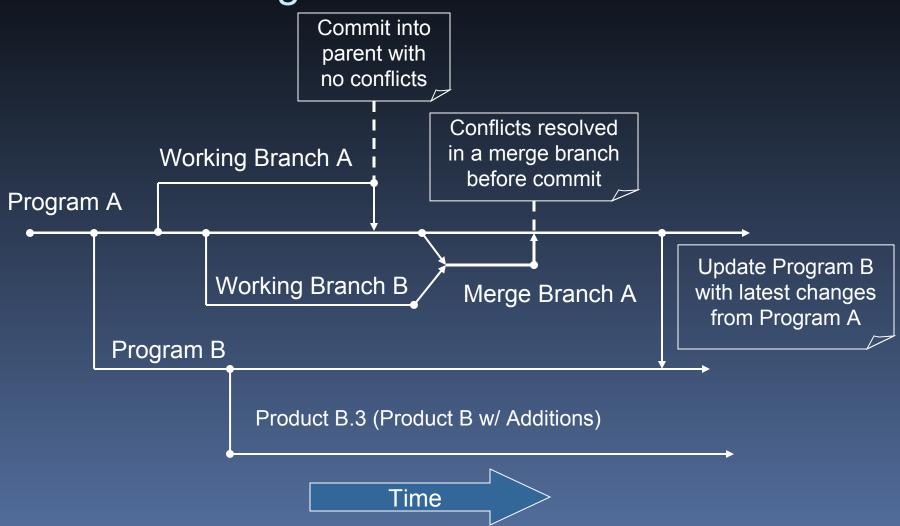


#### **Transactions and Branches**





## Variant Management





# Example

- Aircraft Maintenance Log Book
  - Stores multi-program historical flight information
  - Uses authentication and access control
  - Using Artifact search API to easily access data
  - Easily pluggable with Eclipse plug-ins
    - For example using BIRT to chart flight performance indicators
  - Flight data analysis



# Questions?