



U.S. Department
of Transportation

Federal Highway
Administration

Developing and Using a Transportation Management System Testing Program

Project Presentation

February 2007



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Presentation Overview

- Project purpose
- Intended audience
- Project overview
 - SE “V” Model for ITS
 - The Basics of Testing
 - Approach
- Products



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Project Purpose

- To develop a comprehensive handbook providing technical guidance & practices for **testing and acceptance plans and procedures** for TMS
- Key issues to be addressed
 - Test planning
 - Test procedures
 - Test execution



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Intended Audience

- Individuals involved in or responsible for a wide range of TMS activities
 - Planning
 - Design
 - Implementation
 - Operation
 - Maintenance
 - Evaluation

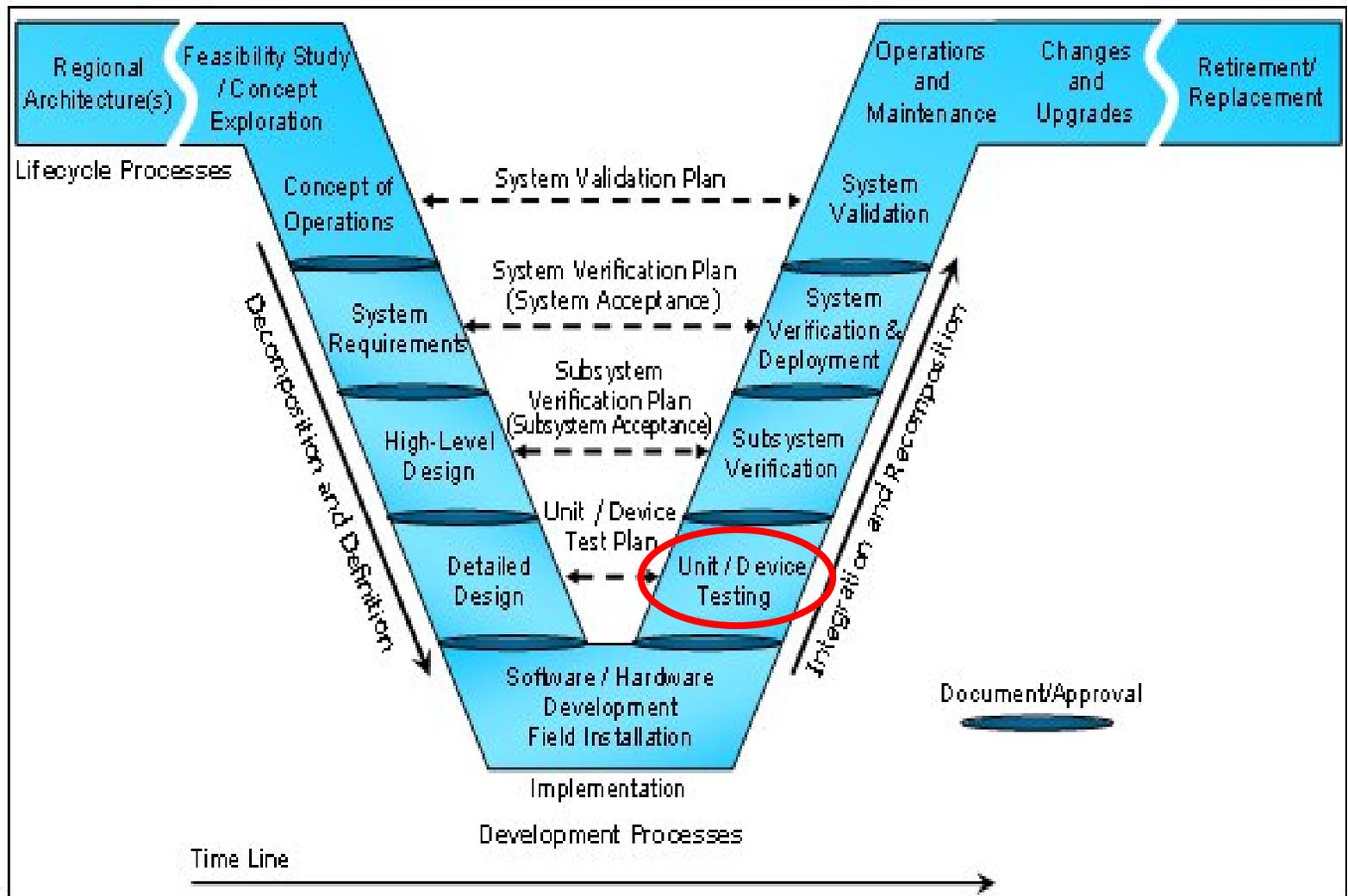


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Project Overview

- Serves as an introduction to the technical discipline of testing
- Provides a foundation for understanding the role, terminology, and technical issues that are encountered while managing a test program.

Systems Engineering “V” Model for ITS





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The Basics of Testing

- Testing judges the extent to which the system meets, exceeds or fails to meet stated objectives.
 - Testing Methods
 - Test Types
 - Test Execution



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Test Methods

- Inspection
- Certificate of Compliance
- Analysis
- Demonstration
- Test (Formal)



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Types of Testing

- Unit Testing
- Installation Testing
- Integration Testing
- Regression Testing
- Acceptance Testing



Test Execution - Hardware

- Prototype Testing
- Design Approval Testing (DAT)
- Factory Acceptance Testing (FAT)
- Site Testing
- Burn-In and Observation Period Testing
- Final Acceptance Testing



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Test Execution - Software

- Design Reviews
- Development Testing
- Site Testing



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Products

- Technical Handbook
- Project Fact Sheet
- Project/Subject Presentation
- Primer
- Question and Answers
- Distribution Plan