

Sparx Enterprise Architect Systems Engineering

<p>Objectives</p> <ul style="list-style-type: none"> Learn how to apply key features of Sparx Enterprise Architect for <ul style="list-style-type: none"> System engineering Object-oriented systems modeling using SysML Build integrated set of system models <ul style="list-style-type: none"> Domain model System requirements System use case model System state model System design model Constraint model System behavioral models Diagrams covered <ul style="list-style-type: none"> Requirements diagram Block definition diagram Internal block diagram Use case diagram State machine diagram Activity diagram Sequence diagram Parametric diagram 		<p>Description</p> <p><i>Enterprise Architect Systems Engineering</i> provides students with a hands-on opportunity for learning how to capture systems engineering models with the OMG Systems Modeling Language 1.3 (OMG SysML™) using Sparx Enterprise Architect (EA). Starting with an overview of EA, students will review various configuration options and model organization guidelines. Students begin building a domain model using simple block definition diagrams. Then students capture system requirements and establish traceability relationships using a relationship matrix. Students continue with creating actors and use cases to build a use case model and then represent their interactions with sequence diagrams. Modeling of state-driven behavior is covered through the use of state machine diagrams. The decomposition of the system into subsystems and components is covered. Students simulate system constraints using parametric diagrams. The course concludes with modeling more detailed internal system behavior with internal block diagrams and activity diagrams. Most class time is used for students to do hands-on exercises following step-by-step workbook.</p>	
		<p>Course Outline (Modules and Topics)</p> <ul style="list-style-type: none"> Build Domain Model <ul style="list-style-type: none"> EA workspace configuration Domains and blocks Diagrams and elements Relationships and properties Capture System Requirements <ul style="list-style-type: none"> Importing requirements from documents SysML requirements diagrams Traceability matrices Searching and navigating model Build Use Case Model <ul style="list-style-type: none"> Use cases, actors, and packages Use case interactions and fragments SysML use case and sequence diagrams Model System State <ul style="list-style-type: none"> States, transitions, events Guards, actions, activities SysML state machine diagrams Model System Design <ul style="list-style-type: none"> Parts and values Value types, units, and dimensions SysML block definition diagrams Model Constraints <ul style="list-style-type: none"> Constraint blocks and binding connectors Parametric simulation SysML parametric diagrams Model System Interaction <ul style="list-style-type: none"> Ports, interfaces, and signals Flow properties and flow items SysML internal block diagrams Model System Behavior <ul style="list-style-type: none"> Activities, flows, synchronization bars Partitions, pins, decisions, guards SysML activity diagrams Allocations 	
<p>Duration 1 day</p>	<p>Course # 01-0625</p>	<p>Prerequisites</p> <ul style="list-style-type: none"> Systems Engineering Fundamentals course SysML User Fundamentals course SysML Modeling Fundamentals course Advanced SysML Modeling course 	<p>In partnership with</p>
<p>Audience</p> <ul style="list-style-type: none"> Systems engineer Systems analyst Software architect Hardware architect 		<p>Continuing education</p> <ul style="list-style-type: none"> Enterprise Architect Systems Development Enterprise Architect Advanced Systems <p>Classroom requirements</p> <ul style="list-style-type: none"> Sparx Enterprise Architect 	

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