





Hippo Software SysML Training

Icon Key:

	Teaches theory – concepts and notation
	Teaches practical use of Enterprise Architect
	Covers BPMN, UML, SysML, ArchiMate
	Includes paper exercises, EA hands-on exercises



SysML Courses

SysML for Systems Requirements Analysis	1 day					
SysML for Systems Engineering	3 days					



On-Site Training

Traditional trainer led interactive training delivered at your own offices:

Number of Delegates	Course Price Per Day *
1-6	£1400
7-9	£1600
10-12	£1800
13-15	£2000



Webinar Training

An alternative approach which can work well for a small number of delegates or those based outside the UK:

Number of Delegates	Webinar Price Per Day *
1	£500
2-3	£800
4-5	£1100
6-7	£1400



Custom Training

Alternatively why not select modules from our catalogue to create your own custom training course...

Remember to allow enough time for exercises to reinforce the theory learned!

* plus VAT (where applicable) and expenses.
We can provide a quotation in Euros or US Dollars if required.



SysML Consulting

Hippo Software consultants can help you to:

- Devise and document standards and guidelines
- Conduct technical reviews and facilitate workshops
- Capture requirements and build use case models
- Architect and design object-oriented solutions

Number of Days	Consulting Price Per Day *
1-4	£950
5-9	£900
10 or more	£850

SysML for Systems Requirements Analysis

This course is aimed at SysML systems analysts and requirements engineers who are tasked with capturing and documenting system requirements and demonstrating traceability. Practical exercises help to reinforce the theory.

Duration: 1 day

Prerequisites: No prior SysML experience is required.
A background in requirements analysis is helpful.

Equipment:



For on-site delivery the customer should provide a suitable training room with a screen or projector to connect to our trainer's laptop and a whiteboard or flipchart. All exercises are completed on paper therefore no PCs or laptops are required.



For webinar delivery delegates require a PC or laptop with an Internet connection (a headset can be helpful). If you wish to test your environment join a test WebEx meeting: www.webex.com/test-meeting.html













Course Style:

60% theory, 40% practical.
Each module is accompanied by targeted exercises to allow delegates to apply the theory and become confident with new concepts and notation.

Delegate Handouts:

Each delegate receives a folder containing all the course slides and comprehensive theory notes which form excellent reference material. Folders also contain exercises and suggested solutions. Following successful completion of the course each delegate receives a certificate.

Course Modules:

			Theory	EA	Notation	Exercise	Hands-on
HIPPO 00	Introduction	½ hour					
HIPPO 30	SysML Overview	½ hour					
HIPPO 31	SysML Requirements	½ hour					
HIPPO 12	SysML Requirements Elicitation	½ hour					
HIPPO 13	SysML Use Case Essentials	2½ hours					
HIPPO 14	SysML Use Case Advanced	2 hours					

SysML for Systems Engineering

This course is designed for systems engineers who are new to SysML. Delegates are taught how to create the core SysML diagram types to analyse requirements and create static and dynamic design models. Practical exercises help to reinforce the theory.

Duration: 3 days

Prerequisites: No prior SysML experience is required.
A background in systems engineering is helpful.

Equipment:



For on-site delivery the customer should provide a suitable training room with a screen or projector to connect to our trainer's laptop and a whiteboard or flipchart. All exercises are completed on paper therefore no PCs or laptops are required.




































For webinar delivery delegates require a PC or laptop with an Internet connection (a headset can be helpful). If you wish to test your environment join a test WebEx meeting: www.webex.com/test-meeting.html

Course Style: 50% theory, 50% practical.
Each module is accompanied by targeted exercises to allow delegates to apply the theory and become confident with new concepts and notation.

Delegate Handouts: Each delegate receives a folder containing all the course slides and comprehensive theory notes which form excellent reference material. Folders also contain exercises and suggested solutions. Following successful completion of the course each delegate receives a certificate.

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HIPPO 13	SysML Use Case Essentials	2½ hours					
HIPPO 14	SysML Use Case Advanced	2 hours					
HIPPO 32	SysML Block Definition Diagrams	1½ hours					
HIPPO 33	SysML Internal Block Diagrams	1 hour					
HIPPO 34	SysML Parametric Diagrams	1½ hours					
HIPPO 15	SysML Activity Diagrams	1 hour					
HIPPO 23	SysML Sequence Diagrams	2 hours					
HIPPO 25	SysML State Machine Essentials	1½ hours					
HIPPO 26	SysML State Machine Advanced	1 hour					



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SysML Module Summary



			Theory	EA	Notation	Exercise	Hands-on
HIPPO 00	Introduction	½ hour					
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HIPPO 33	SysML Internal Block Diagrams	1 hour					
HIPPO 34	SysML Parametric Diagrams	1½ hours					
HIPPO 15	SysML Activity Diagrams	1 hour					
HIPPO 23	SysML Sequence Diagrams	2 hours					
HIPPO 25	SysML State Machine Essentials	1½ hours					
HIPPO 26	SysML State Machine Advanced	1 hour					




SysML Modules

HIPPO 00	Introduction	
		½ hour
	<ul style="list-style-type: none"> ▪ Delegate background and objectives ▪ Timetable and course outline 	




HIPPO 30	SysML Overview	
	 	½ hour
	<ul style="list-style-type: none"> ▪ Advantages of graphical notations ▪ History of SysML and UML ▪ Key SysML diagrams ▪ Process and requirements capture ▪ System structure and dynamics 	




HIPPO 31	SysML Requirements	
	 	½ hour
	<ul style="list-style-type: none"> ▪ Importance of managing requirements ▪ Differentiate needs from solutions ▪ Requirements traceability ▪ Strategies to control scope creep ▪ Document requirements ▪ Requirements levels and relationships ▪ Categorise requirements 	




HIPPO 12	SysML Requirements Elicitation	
	 	½ hour
	<ul style="list-style-type: none"> ▪ What information to gather ▪ Sources of information ▪ Top 8 requirements elicitation techniques ▪ When to use each technique ▪ Common problems with elicitation 	




HIPPO 13	SysML Use Case Essentials	
	 	1 hour
	 Paper Exercises	1½ hours
	<ul style="list-style-type: none"> ▪ Comparison with traditional requirements ▪ Workshops and GUI prototypes ▪ Model users as actors ▪ External systems and timers ▪ Actor definition and notation ▪ Actor generalisation ▪ Use case and scenario definition ▪ Use case notation ▪ Use case diagrams 	




HIPPO 14	SysML Use Case Advanced	
	 	1 hour
	 Paper Exercises	1 hour
	<ul style="list-style-type: none"> ▪ Use case specification ▪ Use cases drive development ▪ Include relationship ▪ Extend relationship ▪ Use case inheritance 	




HIPPO 32	SysML Block Definition Diagrams	
	 	½ hour
	 Paper Exercises	1 hour
	<ul style="list-style-type: none"> ▪ Block definition and notation ▪ Block value properties ▪ Value types, quantity kind and units ▪ Reference and part relationships ▪ Block classification hierarchies ▪ Operations and receptions ▪ Ports and interfaces 	




HIPPO 33	SysML Internal Block Diagrams	
	 	½ hour
	 Paper Exercises	½ hour
	<ul style="list-style-type: none"> ▪ When to create internal block diagrams ▪ Internal block structure ▪ Part and reference property instances ▪ Roles and multiplicity ▪ Ports and interfaces ▪ Items for information flow 	

HIPPO 34	SysML Parametric Diagrams	
	 	½ hour
	 Paper Exercises	1 hour
	<ul style="list-style-type: none"> ▪ Constraint blocks ▪ Parameters on constraint properties ▪ Input and output parameters ▪ Model equations and formulae 	

HIPPO 15	SysML Activity Diagrams	
	 ½ hour	
	Paper Exercises ½ hour	
	<ul style="list-style-type: none"> ▪ Document business activities and workflow ▪ Model sequential actions ▪ Nested and structured activities ▪ Decision and merge (conditional logic) ▪ Fork and join (parallel logic) ▪ Object states and action pins ▪ Send, accept and time signals ▪ Swimlanes for responsibility 	

HIPPO 23	SysML Sequence Diagrams	
	 1 hour	
	Paper Exercises 1 hour	
	<ul style="list-style-type: none"> ▪ Object notation and lifelines ▪ Message passing and sequencing ▪ Actors and the system boundary ▪ Asynchronous messages ▪ Create and delete objects ▪ Interaction frames for loops and decisions ▪ Centralised verses distributed control 	

HIPPO 25	SysML State Machine Essentials	
	 ½ hour	
	Paper Exercises 1 hour	
	<ul style="list-style-type: none"> ▪ When to use state machines ▪ Object lifecycles and states ▪ Transitions and events ▪ Actions ▪ Entry, exit and do events 	

HIPPO 26	SysML State Machine Advanced	
	 ½ hour	
	Paper Exercises ½ hour	
	<ul style="list-style-type: none"> ▪ Guard conditions ▪ Internal events and self-transitions ▪ Automatic transitions ▪ Nested states and the history symbol ▪ Concurrent states 	