EA and Block Diagrams

This course is designed for systems engineers who would like to learn how to create SysML structural models in Enterprise Architect. Delegates are taught how to create block definition diagrams, internal block diagrams and parametric diagrams. This course is highly practical with many hands-on exercises.

Location:	Webinar
Time:	1 day – see public schedule for dates and times
Prerequisites:	Basic Enterprise Architect experience is expected. If new to Enterprise Architect consider attending our "EA Fundamentals" course first.
Equipment:	To attend this webinar delegates require a PC or laptop running Enterprise Architect (SysML edition) with an Internet connection (a headset can be helpful). If you wish to test your environment join a test WebEx meeting: https://www.webex.com/test-meeting.html
	A trial version of Enterprise Architect is fine for training and can be downloaded from Sparx Systems website: www.sparxsystems.com/products/ea/trial.html. It is also helpful to have a mouse as this makes creating diagrams much easier.
Course Style:	50% theory, 50% practical. Each module is accompanied by hands-on exercises to allow delegates to apply the theory and become confident using Enterprise Architect.
Delegate Handouts:	Each delegate receives a booklet containing all the course slides and comprehensive theory notes which form excellent reference material. Booklets 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 73+	EA + SysML Block Definition Diagrams	2 hours	📘	⚙	SysML		💻
HIPPO 74+	EA + SysML Internal Block Diagrams	1½ hours	📘	⚙	SysML		💻
HIPPO 75+	EA + SysML Parametric Diagrams	1½ hours	📘	⚙	SysML		💻

Modules

HIPPO 00	Introduction

- Delegate background and objectives
- Timetable and course outline

HIPPO 73+	EA + SysML Block Definition Diagrams

SysML   1 hour

EA Hands-On Exercises	1 hour

- Create block definition diagrams in EA
- Block definition and notation
- Block value properties
- Value types, quantity kind and units
- Add blocks and value properties in EA
- Reference and part relationships
- Create reference and part associations in EA
- Block classification hierarchies
- Model classification hierarchies in EA
- Operations and receptions
- Define block behaviour in EA
- Ports and interfaces
- Add ports and interfaces in EA

HIPPO 74+	EA + SysML Internal Block Diagrams

½ hour

EA Hands-On Exercises	1 hour

- Create internal block diagrams in EA
- When to create internal block diagrams
- Internal block structure
- Part and reference property instances
- Roles and multiplicity
- Add part property instances in EA
- Connect parts in EA
- Ports and interfaces
- Items for information flow
- Define ports and conjugated ports in EA
- Model item flows in EA

HIPPO 75+	EA + SysML Parametric Diagrams

SysML   ½ hour

EA Hands-On Exercises	1 hour

- Create parametric diagrams in EA
- Constraint blocks
- Define constraint blocks in EA
- Parameters on constraint properties
- Input and output parameters
- Model equations and formulae
- Add constraint properties in EA
- Add parameters in EA
- Connect parameters in EA