



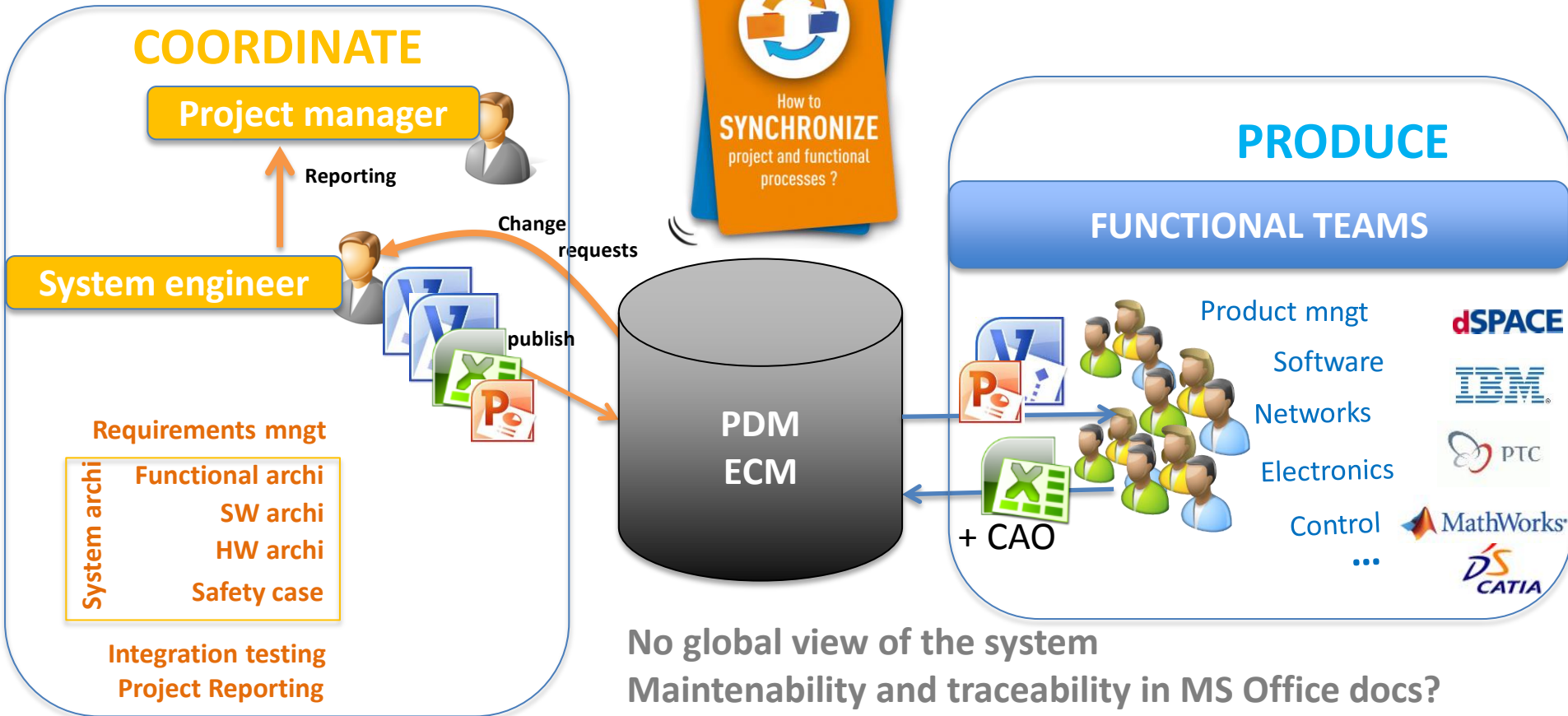
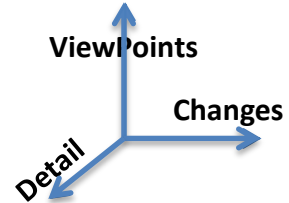
Knowledge Inside System Design Management Solutions

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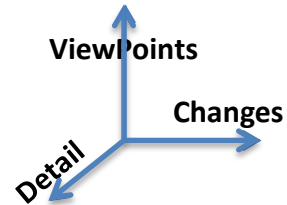
Knowledge Inside
arKItect your system

Engineering organization



No global view of the system
 Maintainability and traceability in MS Office docs?
 Coherence of diagrams and contents?
 Various tools and models from functional teams
 Versions and diversity?

Synchronization of processes with arKItect SEA



COORDINATE

Project manager

Reporting

System engineer

Design System architecture

Benefits

- Automated specification production
- Aided generation and maintenance of complex diagrams
- Automated consistency checks
- Requirements and architecture alignment and traceability
- Automated indicators synthesis

Benefits

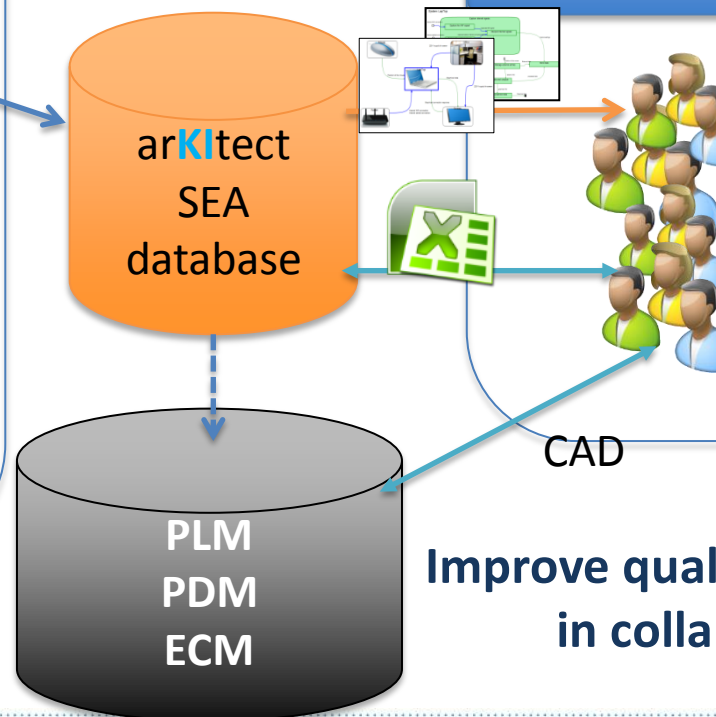
- Global project vision
- Reliable indicators on design
- Detailed information available on demand

PRODUCE

FUNCTIONAL TEAMS « METIERS »

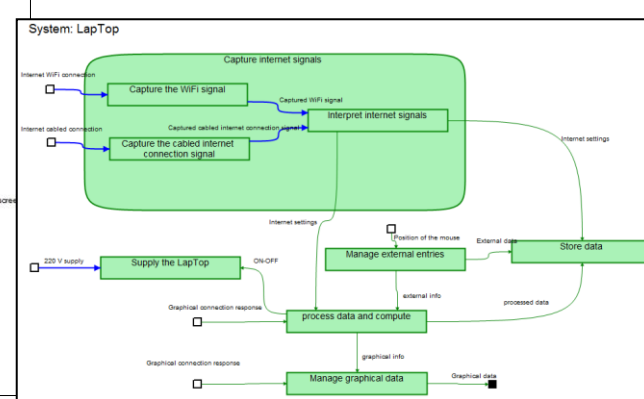
Benefits

- Weekly updated specification and interfaces
- Changes description
- Efficient access to project information

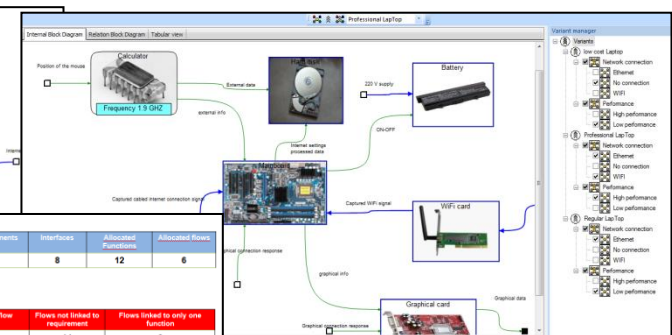


Improve quality and productivity in collaborative work

Functional architecture detail



Variants



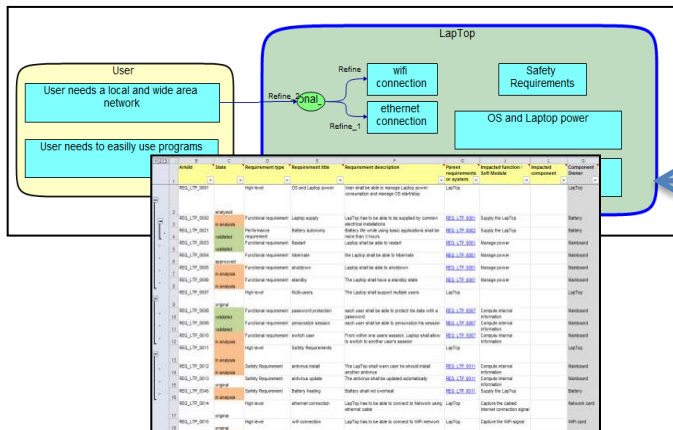
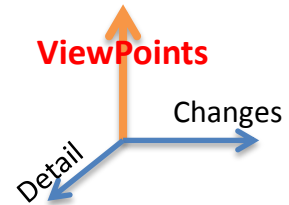
2.1. Work progress					
Functions	Flows	Components	Interfaces	Allocated Functions	Allocated flows
12	14	7	8	12	6
3.2. To do					
3.2.1 Functional architecture					
Functions not linked to requirement	Functions with flow problems	Flows not linked to requirement	Flows linked to only one function		
4	3	14	0		
3.2.2 Physical architecture					
Components not linked to requirement	Components with interface problems	Interfaces not linked to requirement	Interfaces linked to one or more components		
7	0	3	0		
3.2.3 Functions and flows allocation					
Not allocated functions	Component with no function allocated	Not allocated flows	Interfaces with no flow allocated		
0	0	0	2		

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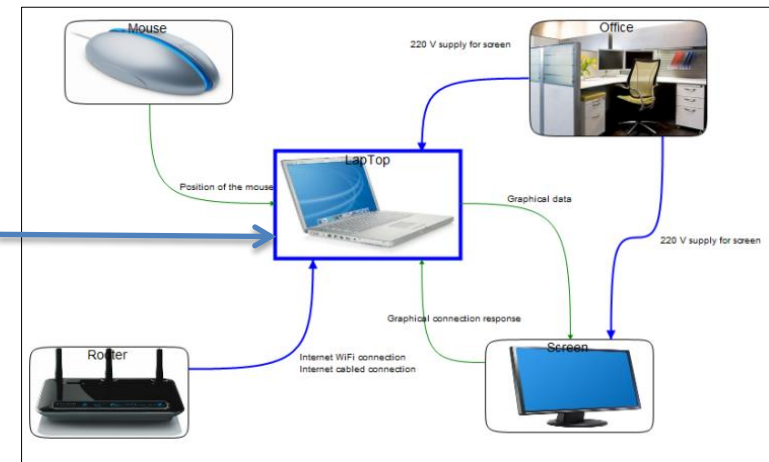
VP Test: Power testing [VP Test]			
	1. Description	2. Result	Arkild
charge with 110	Verify that the battery is not fully charged. plug the Laptop to a 110V supply. Verify that the power indicates that the battery is being charged. After 10 minutes, verify that the battery charge exceeds the starting one	NOK	VP_LTP_0007
charge with 220	Verify that the battery is not fully charged. plug the Laptop to a 220V supply. Verify that the power indicates that the battery is being charged. After 10 minutes, verify that the battery charge exceeds the starting one	OK	VP_LTP_0008
hibernate laptop	The Laptop is on. Hit the start button, then select hibernate. Wait and verify that the laptop goes to the hibernate state	OK	VP_LTP_0012
hibernate power consumption	The Laptop is on. Verify that the charge is at 100%. Unplug the charger, hit the start button, then select hibernate. After the laptop goes to the hibernate state, wait one hour, un-hibernate and check that the charge state is more than 97%	OK	VP_LTP_0013
minimum power available	Verify that the Laptop has necessary power to starts properly	OK	VP_LTP_0014

Synchronisation of ViewPoints illustrated

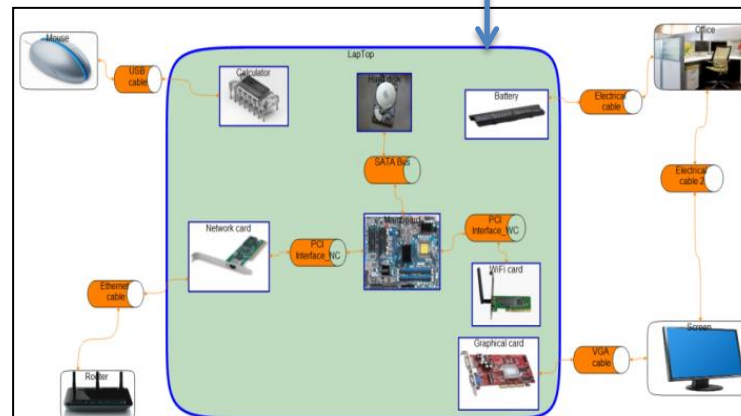
Requirements (RBS)



Functional architecture (FBS)

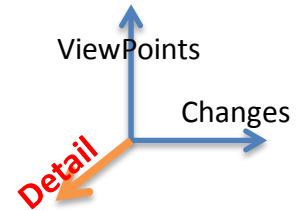


Physical architecture (SBS)

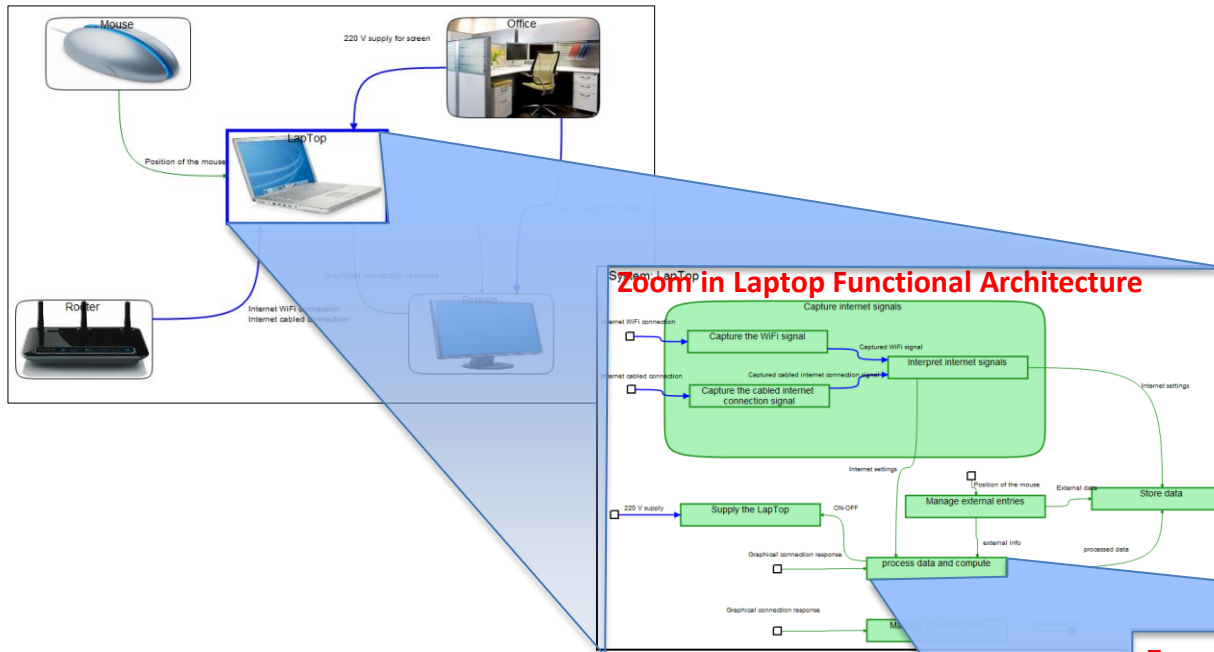


KEY DIFFERENTIATION

Refinement of ViewPoints illustrated



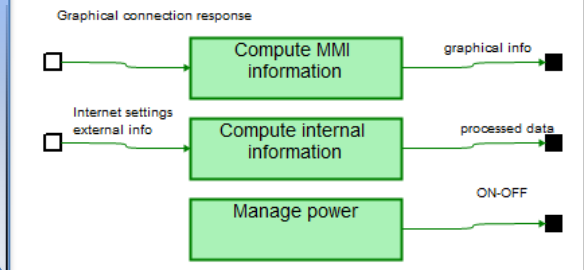
Laptop functional interface



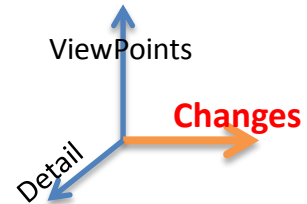
Real Time
Consistency Checks

KEY DIFFERENTIATION

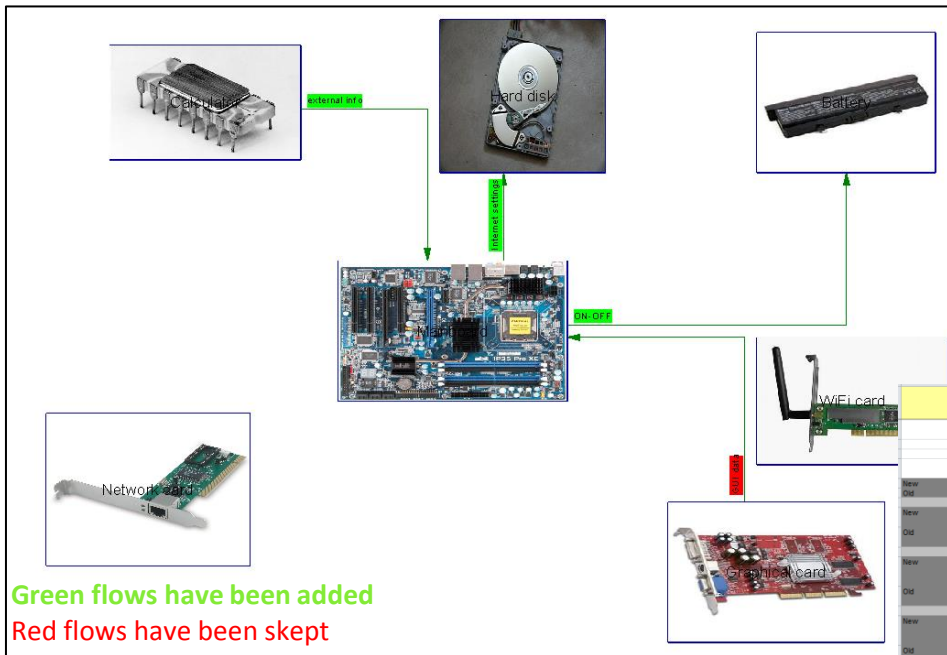
Zoom in particular function



Changes in ViewPoints illustrated



Graphical difference between two versions

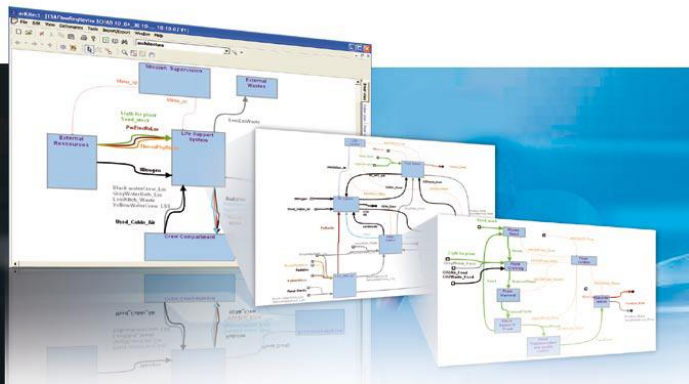


Requirements difference between two versions

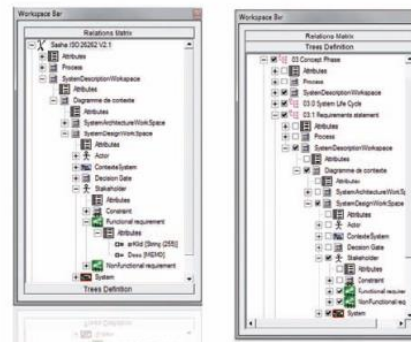
ReqId	State	Requirement type	Requirement title	Requirement description	Parent requirements or system	Children requirements	Impacted function / Software Module	Impacted component	Component Owner
Added Requirements									
REQ_LTP_0045	in analysis	Safety Requirement	Battery heating	Battery shall not overheat	REQ_LTP_0011		Supply the Laptop	Battery	
Changed Requirements									
REQ_LTP_0006	in analysis	Functional requirement	standby	The Laptop shall have a standby state	REQ_LTP_0001		Manage power	Manboard	
REQ_LTP_0008	validated	Functional requirement	password protection	each user shall be able to protect his data with a password	REQ_LTP_0007		Compute internal information	Manboard	
REQ_LTP_0011	in analysis	High level	Safety Requirements			REQ_LTP_0012, REQ_LTP_0013, REQ_LTP_0045, REQ_LTP_0015, REQ_LTP_0019			
REQ_LTP_0016	in analysis	High level	Shortcuts	Laptop shall allow user to utilise shortcuts to access programs		REQ_LTP_0017, REQ_LTP_0018, REQ_LTP_0019, REQ_LTP_0015, REQ_LTP_0016			
REQ_LTP_0017	validated	Functional requirement	desktop shortcuts go to the right place	Desktop shortcuts shall go to the right place	REQ_LTP_0016		Compute MBI information	Manboard	
REQ_LTP_0017	validated	Functional requirement	desktop shortcuts go to the right place	Desktop shortcuts shall go to the right place	REQ_LTP_0016		Compute MBI information	Manboard	
Removed Requirements									
REQ_LTP_0046	original	Functional requirement	keyboard shortcuts	the user shall be able to access programs using keyboard shortcuts	REQ_LTP_0016				

KEY DIFFERENTIATION

arKItect – The flexible technology

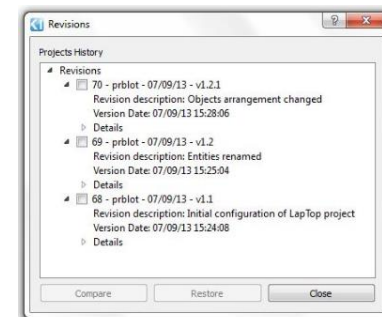


Multiscale representation, 100000 objects,
Always coherent in real-time

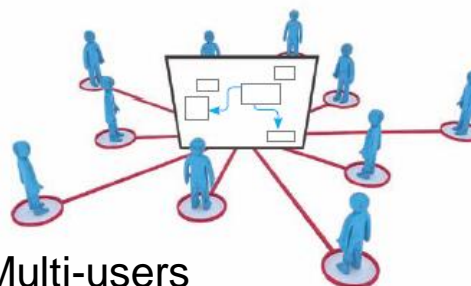
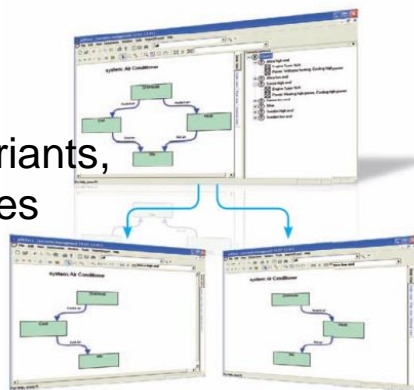


Rule and view editor, View
definitions, look & feel
Easily customized in real-time

Revision
management

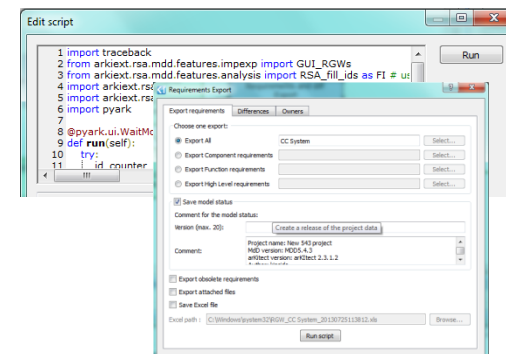


Options, variants,
Product Lines



Multi-users
Administration

Fully customizable to your own process

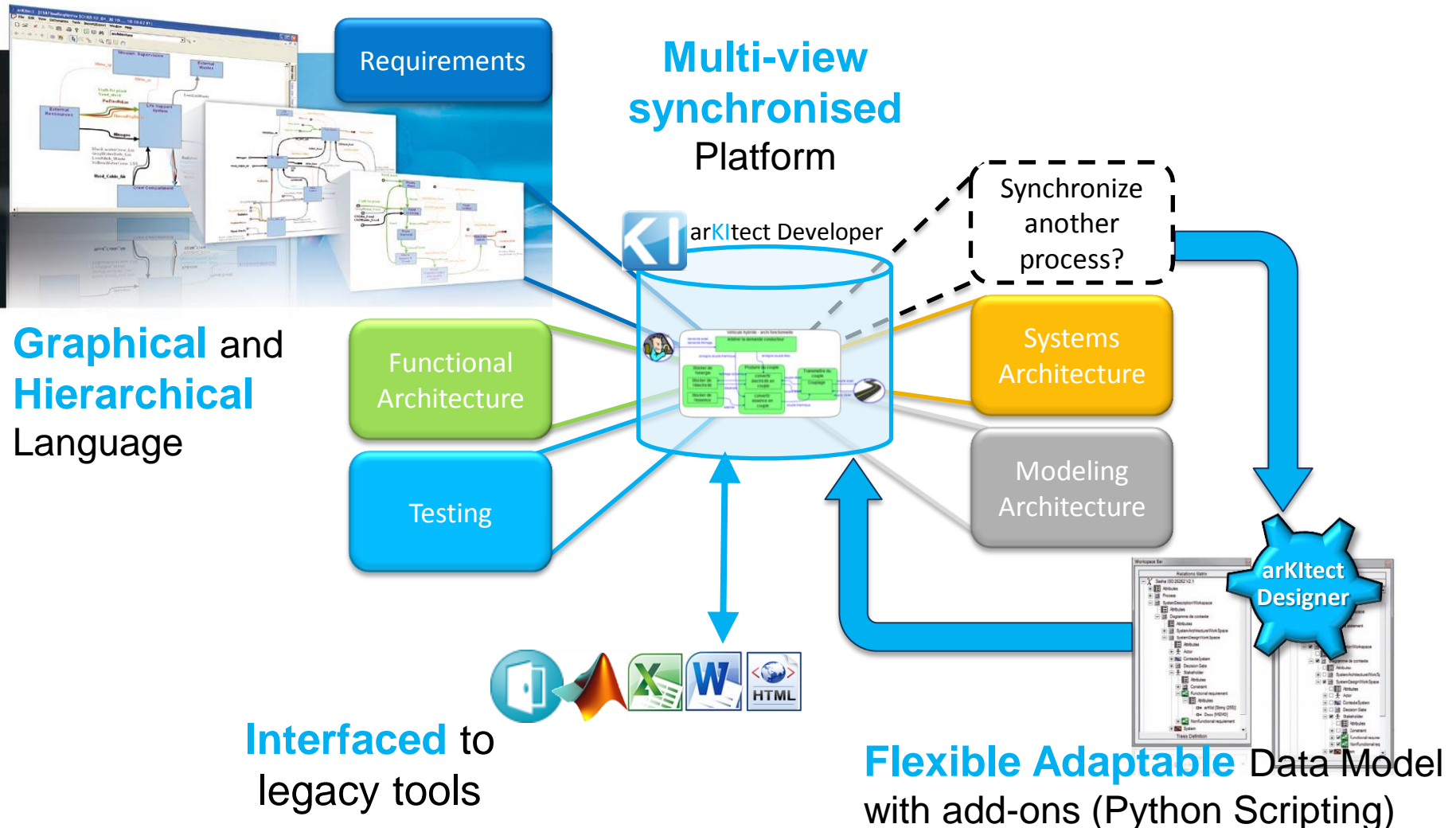


Opened(Python API)
Interfaced to legacy

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Synchronize System Engineering Processes with arKItect





Knowledge Inside
arKIitect your system

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2013