Experiences with Assessments with Process Instances - Lessons Learned with Capadv

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Experiences with Different Use of Instances

Cases

- **Case 0: Classic according to VDA**
  - The project has different sub-teams working with the same process area but having different processes, tools, methods
    - Separating base software from function software team
    - Separating in ACQ.4 different suppliers
- **Case 1: Suppliers covering different engineering process areas**
  - The project has different suppliers working in different engineering process areas and having different processes, tools, methods in the management and supporting processes
    - Separating Requirements Engineering, Design, and Testing
    - Separating different suppliers in ACQ.4
- **Case 2: Platform**
  - The same platform is used in a set of application projects
    - Example. SW lib rolled out to projects, many variants of the lib used, roll out of thze platform assessment

Case 1

The project has different suppliers working in different engineering process areas and having different processes, tools, methods in the management and supporting processes

- Suppliers cover complementary engineering processes of the project
- Suppliers have their own internal Project Management and Supporting Processes

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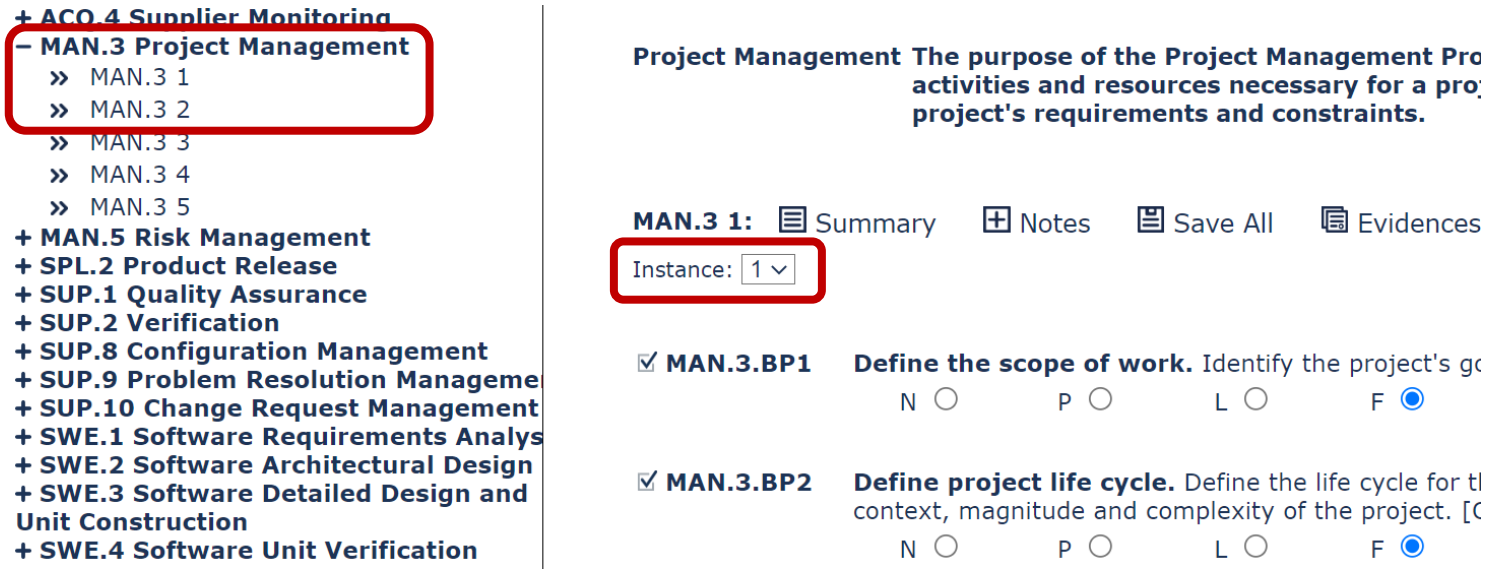

ASPICE Process	Supplier 1	Supplier 2
SYS.1	X	NA
SYS.2	X	NA
SYS.3	X	NA
SWE.1	NA	NA
SWE.2	NA	NA
SWE.3	NA	NA
SWE.4	NA	NA
SWE.5	NA	NA
SWE.6	NA	NA
SYS.4	X	NA
SYS.5	NA	X
ACQ.4	X	NA
MAN.3	X	X
MAN.5	X	X
SUP.1	X	X
SUP.2	X	NA
SUP.8	X	X
SUP.9	X	X
SUP.10	X	X
SPL.2	X	NA

- CapAdv's integrated Assessment Report Generator generates result tables for each instance
- Automated Instance Result Consolidation is supported, however not required in this case

Unit - Instance #1	1.1	2.1	2.2
ACQ.4 Supplier Monitoring	F	L	F
MAN.3 Project Management	F	L	F
MAN.5 Risk Management	F	L	F
SPL.2 Product Release	L	P	P
SUP.1 Quality Assurance	F	F	F
SUP.2 Verification	F	L	F
SUP.8 Configuration Management	F	L	F
SUP.9 Problem Resolution Management	F	L	F
SUP.10 Change Request Management	F	L	F
SYS.2 System Requirements Analysis	F	L	F
SYS.3 System Architectural Design	L	L	F
SYS.4 System Integration and Integration Test	F	P	F

Unit - Instance #2	1.1	2.1	2.2
MAN.3 Project Management	F	F	F
MAN.5 Risk Management	F	L	F
SUP.1 Quality Assurance	F	L	F
SUP.8 Configuration Management	F	L	F
SUP.9 Problem Resolution Management	L	L	L
SUP.10 Change Request Management	L	L	F
SYS.5 System Qualification Test	F	F	F

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Case 2

The same platform is used in a set of application projects

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General represents the platform and this finding is forwarded to all application projects

Project name

All Units

- + MAN.3 Project Management
- + SUP.1 Quality Assurance
- + SUP.8 Configuration Management
- + SUP.9 Problem Resolution Management
- + SUP.10 Change Request Management
- – SWE.1 Software Requirements Analysis
  - » SWE.1 1
  - » SWE.1 2
  - » SWE.1 3
  - » SWE.1 4
  - » SWE.1 5
- + SWE.2 Software Architectural Design
- + SWE.3 Software Detailed Design and Unit Construction
- + SWE.4 Software Unit Verification
- + SWE.5 Software Integration and Integration Test
- + SWE.6 Software Qualification Test
- + SYS.2 System Requirements Analysis
- + SYS.3 System Architectural Design

Notepad

Software Requirements Analysis

SWE.1 1: Summary | Notes | Save All | Evidences | Recommendations | Rules

Instance: General

SWE.1.BP1 **Specify software requirements.** Use the system requirements and the system architecture and changes to system requirements and architecture to identify the required functions and capabilities of the software. Specify functional and non-functional software requirements in a software requirements specification. [OUTCOME 1, 5, 7]

N ○ P ○ L ○ F ◉ Not App. ○ Note

Strengths:

Requirements tracing model V2.17 for
Traces in the platform and sharing requirements to application projects, links are kept
Re-Use and rollout strategy V17 with automatic support to derive the requirements, test cases, and design docu to application projects
Platform lib is structured into modules and units and requirements are linked to features. Feature list is also shared to application projects.
.... And more

Weaknesses:

Comments/Suggestions:

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Instance 1

Project name

All Units

+ **MAN.3 Project Management**
+ **SUP.1 Quality Assurance**
+ **SUP.8 Configuration Management**
+ **SUP.9 Problem Resolution Management**
+ **SUP.10 Change Request Management**
− **SWE.1 Software Requirements Analysis**
  - » SWE.1 1
  - » SWE.1 2
  - » SWE.1 3
  - » SWE.1 4
  - » SWE.1 5
+ **SWE.2 Software Architectural Design**
+ **SWE.3 Software Detailed Design and Unit Construction**
+ **SWE.4 Software Unit Verification**
+ **SWE.5 Software Integration and Integration Test**
+ **SWE.6 Software Qualification Test**
+ **SYS.2 System Requirements Analysis**
+ **SYS.3 System Architectural Design**

Software Requirements Analysis

SWE.1 1: Summary | Notes | Save All | Evidences | Recommendations | Rules

Instance: General

General
1
2

☑ **SWE.1 1 Specify software requirements.** Use the system requirements and the system architecture and changes to system requirements and architecture to identify the required functions and capabilities of the software. Specify functional and non-functional software requirements in a software requirements specification. [OUTCOME 1, 5, 7]

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You see the platform findings

Re-Use and rollout strategy V17 applied
Modules and units classified as take over or re-use, in case of re-use a variant attribute shows the delta by a filter.
The links from requirements to TCs are generated from platform and re-executed. For the new variant requirements the project is responsible.
The links to the system requirements in the application project are via the feature list links, more granular linking has been done as well.

You write additional application project specific findings

- Rating is for each instance available and aggregated according to VDA guidelines (falsified from real example)

Processes	Assessors	Attributes 1	2.1	2.2	3.1	3.2	4.1	4.2	5.1	5.2
General										
SWE.1 Software Requirements Analysis	Assessor X	L	L	L	L	L				
	Assessor Y	L	L	L	L	L				
Instance 1										
SWE.1 Software Requirements Analysis	Assessor X	L	L	L	L	L				
	Assessor Y	L	L	L	L	L				
Total										
SWE.1 Software Requirements Analysis	Assessor X	L	L	L	L	L				
	Assessor Y	L	L	L	L	L				

Thanks

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