

Exercise Implementation Proposals

Objectives:

- Understand the role of implementation proposals in reaching an agreed understanding of requirements and suitable design.
- Understand the structure of an implementation proposal.

You are a software product manager for your product or a product that fascinates you. You want to establish mutual understanding with development for the meaning of your product requirements.

Tasks:

1. Create a list of about 10 requirements for one selected future feature of your product. Use brainstorming while considering the interests of the most important stakeholders for this purpose (select the requirements appropriate for your feature if you already have requirements for your product).
2. Propose how you would implement a selected these requirements. Use the implementation proposal template given below to describe your opinion regarding the best possible solution. You may want to (but are not required to) work along the following procedure:
 - a. Design Attribute: focus on the user interface or any other design or architectural aspect that you deem important. Don't cover the whole system, but one important piece of it.
 - b. Theme (Title): give your proposal a speaking name (e.g. the name of your feature).
 - c. Requirements Attribute: select those requirements that fit into the theme you chose. Ignore the other requirements (you could address them with future implementation proposals).
 - d. Fill out the other attributes as appropriate.
3. Determine the requirements coverage (only if you already have requirements for the full product scope): how many of the known requirements did you use in your implementation proposal?
4. Reflect on the role of the various attributes contained in the implementation proposal template.
 - a. How do you identify the information to be filled in?
 - b. What is the role of each attribute in a negotiation process between product manager and project team?

Implementation Proposal Template

Implementation proposal template description

Attribute group	Attribute	Description
Basic attributes	Title	The theme addressed by the implementation proposal—a product feature, an important solution part or subsystem, or a development increment.
	Requirements	The requirements addressed by the implementation proposal. What does the proposed design imply for the customer?
	Design	The design proposed to address the requirements. What parts and functionality of the solution must be created or modified? What structure, style, and rules will be followed? What technologies will be used? What are the interfaces?
Negotiation support	Assumptions	Interpretation of the requirements in terms of preconditions that make the design meaningful.
	Impact	Impact of the design for the customer, supplier, and other stakeholders in terms of advantages, limitations, and risks.
	Dismissed alternatives	Alternative designs to address the requirements. How was each design investigated, and why was each alternative dismissed?
	Open issues	Actions required by the customer to progress with the negotiations—for example, confirm the proposal or provide more information.
Planning support	Scope	Parts of the solution that the design affects.
	Necessary activities	Activities needed to realize the design—the inputs for effort estimation and project planning.
	Effort estimate	Estimated effort to realize the design with arguments for why the supplier believes the estimate is correct.

Implementation Proposal Example

Title:	Event Logging	
Requirements:	RID-110 Log user activities, RID-130 Event subscription, RID-190 ■, RID-200 ■, RID-230 ■,	
Assumptions:	Compliance to regulation ■ needed.	
Design:	System structure (per drawing to the right). Event logger interface: Function_EL1 ■, Function_EL2 ■. Host application support functions: Function_HA1 ■, Function_HA2 ■. Event logger behavior: ■	
Impact:	Minimum ■ Kbytes memory in field device. Minimum ■ Mbytes memory in supervision device. Well-defined interfaces ease source-code integration into existing devices.	
Dismissed alternatives:	None investigated.	
Open issues:	Evaluate impact on third-party devices. Workshops for defining integration strategy and effort estimation.	
Scope:	All devices from current portfolio.	

Minimal	
Theme (Title)	
Requirements	
Design (Drawings welcome!)	
Negotiation	
Assumptions	
Impact	Advantages: Disadvantages: Risks:
Dismissed Alternatives	Alternative(s): Reason(s) for Dismissal:
Open Issues	
Planning Support	
Necessary Activities	
Effort Estimate	

