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| **High-Value Use Case – INCOSE Usability Working Group** |
| **\* Goal**  | Capture use cases |
| **\* Actors** **(Customer, Worker)** | Actor – Designer (SE), Customer (SW Engineer) |
| **\*Value Added**PV = Potential ValuePV (1-5) 5=Max ValueFreq (1-5) 5=Max Freq | Consistency of views for each design artifactPV = 1Freq = 2 |
| **Process / Diagram / Tool** |  Op Con / Use Case / SysML Tool |
| **Pre-condition** | Context of the system is understood. Have knowledge of actors and actor goals. Have a preliminary set of requirements. Can ask customer or customer proxy questions. |
| **Post-condition** | Use cases printed to document, reviewed by customer, and delivered to SW. |
| **Sequence of tasks** | 1. Review source materials
2. Capture actor, goal, …
3. Create document of use cases
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| **Group Number** | 1 |

* Goal - What is the goal of the use case? (Focus on the produced engineering artifacts and the needs of the customer)
* Actors – Who are the actors involved in this use case? Who does the work? Who is the customer?
* Value Added – What is the value added to this use case because I used MBSE as opposed to traditional methods?
* What systems engineering process, tool, and/or SysML diagram is utilized? What is the potential Value and the frequency the primary actor performs use case. Use a 1-5 scale where 1 is the minimum and 5 is the maximum.
* Pre-condition – What is the state of the tools and engineering artifacts before the use case begins. What are the inputs needed to start this use case.
* Post-condition – What is the state of the tools and engineering artifacts after the use case finishes. What are the outputs from this use case.
* Sequence of tasks - What are the tool independent tasks the primary actor does (Starts with a verb) (What SysML element(s) and/or diagram(s) is used?)

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| **High-Value Use Case – INCOSE Usability Working Group** |
| **Goal**  | Trace requirement to design, implementation, test |
| **Actors** **(Customer, Worker)** | Actor – Designer (SE), Customer (SE doing impact analysis) |
| **Value Added**PV = Potential ValuePV (1-5) 5=Max ValueFreq (1-5) 5=Max Freq | Ability to query model for un-traced requirements, ability to visualize trace links using tools like a trace matrix.PV = 2 – Assume tool has trace matrix and query mechanism.Freq = 2 |
| **Process / Diagram / Tool** |  Req / Req Diagram / Trace & Impact analysis |
| **Pre-condition** | Requirements captured in tool. Design and/or test artifacts under development. |
| **Post-condition** | Requirements traced to design and/or test artifacts as they are completed. |
| **Sequence of tasks** | Organize requirements on a requirements diagramCreate design artifact associated with organized diagramCreate trace link from implemented requirement to the associated design elementCheck for requirements trace links |
| **Group Number** | 1 |

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