

(U) Requirements Definition Package



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The Army Capabilities Integration and Development System (ACIDS) process, as the Army's implementation of JCIDS, allows for a robust review and validation of proposed capability requirements and other information relevant to development of capability solutions, ensuring that new or altered capability requirements are compatible with and collectively provide the best value to the Army and the joint force. All documents are considered "draft" until approved by the appropriate Army validation authority, and the associated approval memorandum is either provided separately or embedded in the document on the validation page.

This wiki describes a "flexible" construct for writing Requirements Definition Packages (RDPs). The RDP is a first level refinement of one or more capability requirements identified in an Information System Initial Capabilities Document (IS-ICD) or an Information System Capability Development Document (IS-CDD), and is co-developed by the operational user (or Capability Developer) and the program office (Program Manager or Product Manager). The RDP identifies the software performance requirements, while adhering to the cost/governance originally outlined in the IT Box. The RDP may also identify non-materiel changes that need to be implemented to fully realize the IS capability solution defined in the IT-Box of the parent document. The RDP is approved by the Director, Force Modernization (aka G8-FD) after Army staffing, adjudication and AROC Review Board validation. This authority will be listed on the cover of the RDP and within the governance on the top of the IT Box of the parent document. (Original Source: JCIDS Manual, refined by ACIDs and Army Business Processes).

1. Purpose:

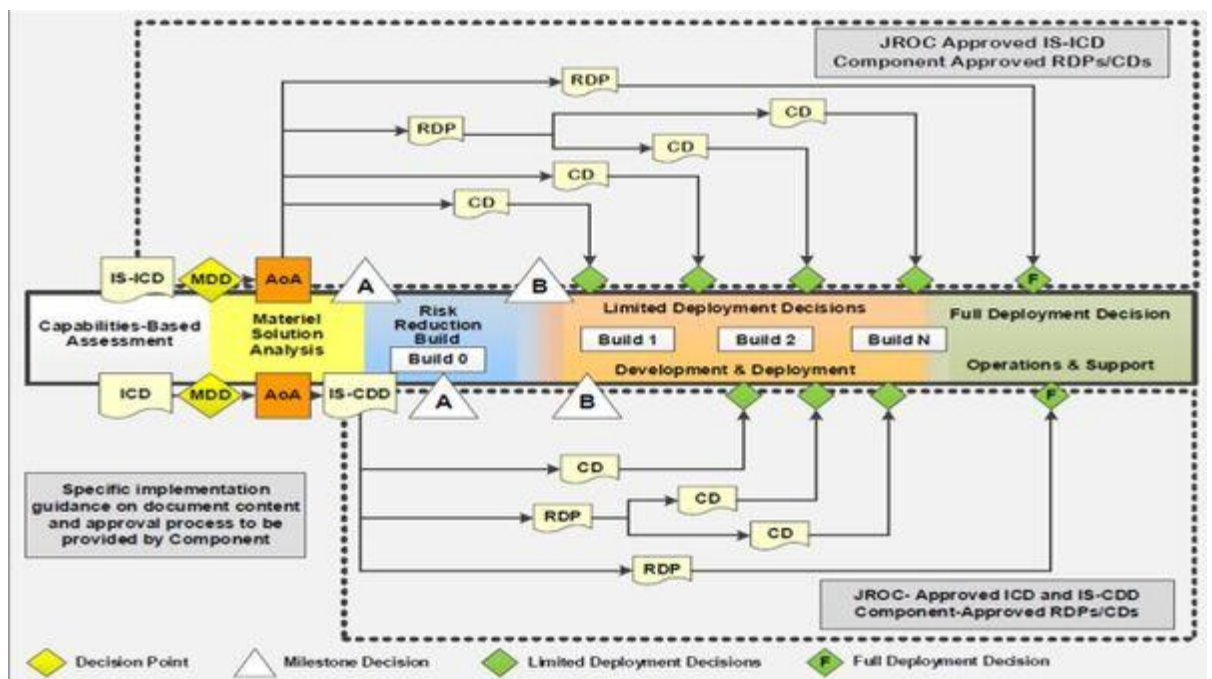


Figure 1

- The RDP is a first level refinement of one or more capability requirements identified in an IS-ICD or IS-CDD and will be referred to in this wiki as the “parent document.” The RDP identifies the requirements necessary to scope and cost the implementation of a capability solution. The parent document has resources POM’d for execution. The RDP, or generally multiple RDPs, represent a manageable resourced list of requirements for build out based on available resources. One or more RDPs together could represent the total set of capability solutions developed to satisfy the capability requirements in the parent document.
- If the parent document is an IS-CDD, an RDP may not initially be necessary if the required level of specificity for the capability solution is already contained in the IS-CDD. However, RDPs may still be used if needed to decompose the overall capability requirements of the IS-CDD into more manageable parts to facilitate the development efforts. Figure 1 presents the general flow and decomposition of requirements if an IS-CDD is the parent document.
- If an IS-ICD is the parent document, developers must write an RDP to provide sufficient detail and identify buildable requirements as IS-ICDs are limited to 10 pages in the main body. Figure 1 presents the general flow and decomposition of requirements. One or more RDPs could be required to provide greater specificity of a capability solution intended to address part or all of the capability requirements identified in the IS-ICD.
- The RDP (or equivalent) could then be used in multiple ways. It could be used to initiate an IS program to develop, test, and deliver the full capability solution defined in the RDP (or equivalent). It could also be used as a basis for defining multiple software builds of incremental capability solutions documented in something like a Capability Drop (CD). CDs will not be discussed further, but are included for reference in Figure 1 and represent a second decomposition of requirements. A CD describes the performance characteristics of a relatively small increment of a capability solution included in a software build necessary for partial deployment of the overall capability solution, which is typically developed and fielded within a short period of time.

2. RDP Development Trigger:

- The approval of the parent document (IS-ICD, IS-CDD) and issuance of a Catalog of Approved Requirements Document Number (CARDS #) is the trigger to develop and/or submit the RDP.

3. Formatting Standards:

- Software compatibility. Use the enterprise version of Microsoft Office for development (this will identify the approach and be in paragraph form).
- AFC developed RDP template should be used to ensure continuity of products generated by the Army Modernization Enterprise (AME).
- Paper size and margins. Use 8.5-inch by 11-inch pages with 1-inch margins on all sides.
- Font. For document content, use Times New Roman 12-point. For classification (header and footer) markings, use Arial 24- point bold.
 - Style. Underline paragraph headings. Use bold only for emphasis within text. Use sentence case throughout text and uppercase for titles.
- Spacing/alignment. Single-space draft and final versions. Double- space between paragraphs, bullets, and between titles and text. Left align text. Center titles.
- Format using scientific notation, no indentation.
- Page numbering. For ease of identifying sections and page counts, the first page of the body of the document should start as page one. Preface material should be indexed with small Roman numerals, and appendices and/or annexes should continue the main body numbering from 1-N for the last page of the last appendix
- Line Numbering. To support review and staffing, documents will include continuous line numbering.

4. Classification and Releasability:

- All documents containing classified information will display appropriate classification and releasability markings (overall and portion markings) IAW Reference AR 380-5.
- All RDPs that are U/FOUO should have a Releasability statement which states what entities (organizations) the RDP can be released. Additionally, the sponsor's organizational contact information must be part of that statement. The sponsoring organization's contact information must be part of the Releasability statement.

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RDP Preface information

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RDP Main Body

1. Capability Discussion

- RDP Purpose
 - The purpose of the document is to define the desired capability requirements to be achieved over a timeframe (i.e. 24 months). The capabilities listed in this Requirements Definition Package (RDP) enable what objectives from the parent document
- Operational Overview
 - Provide a refined OV-1 that addresses capabilities to be developed in the RDP. This is not a cut and paste from the approved parent document. Limit the verbiage in the OV-1 and instead include a paragraph of providing the needed context for the RDP and how it fits into the overall parent program.
- Interdependencies
 - Include a discussion on dependencies or the relationship to other RDPs. This would provide an overarching description of how the capabilities satisfied within the RDP are employed; collectively as a system of systems (e.g. RDP 4 is the third build of the software tool packages, following RDP 3, to complete the foundation in the system of system approach and provide the baseline for the development of RDPs 5, 6, and 7) or individually using a family of systems approach (e.g. The order of the RDP development uses a family of systems approach based upon highest technology readiness levels (TRL) and affordability within the limits of the parent IT Box).

2. Program Summary

- Map to parent document (column 5 of Table 2)
 - This RDP maps to XX of the XX capabilities in the parent document (i.e. XXXX IS-ICD). Provide a description on how the capabilities will be satisfied. If only a percentage of the required capability will be satisfied, provide an explanation on how the capability will be fully satisfied with follow-on efforts. Decide if further decomposition of the RDP into CDs is necessary.
- Time Horizon
 - What is the expected time duration to program, build, test/prototype and field (IOC/FUE)?

3. Required Capabilities

- Capability features/RDP requirements should be written as statements that outline what you want to accomplish and the outcome it supports.
- Provide an accurate description within a table that addresses:
 - the desired capability and what it will provide (new capability or tech insertion)/what it replaces, upgrades, or adds to?
 - where it will be used (formations and platforms)?
 - how it will be used and why it's needed (reflect on the three MDO tenets and how the capability helps solve the five problems within MDO)?
 - address the threshold/acceptable criteria of the capability to reach IOC.

- In the Table 2 EXAMPLE below, the light gray highlighted areas represent a breakdown of capability categories into features.
 - In the capability/feature column represents the features of each capability category and "what feature of the capability is provide"
 - The role assignment column further depicts where and the capability is being used
 - The features statement describes how the user intends to use the capability and why it's needed (in the form of user stories)
 - The fifth column depicts the acceptance criteria, including initial minimum values
 - The last column maps the feature to the capabilities listed in the PCTE IS-CDD (addressed in paragraph 2 above, Program Summary).

Table 3-1 RDP Capability Categories

Event Design and Build	Ability to design and build training content that meets identified training objectives in order to improve the CMF readiness level.
Assessment	Ability to assess the proficiency level of individuals and groups for readiness reporting, quality of training content, and PCTE system performance.
Scheduling and Planning	Ability to schedule range resources for training events that meet the needs of the training audience.
Access	Ability to allow and control secure access to system applications and content.
Content	Ability to store, discover, and retrieve data for instantiation, modification or re-use of training events.
Traffic	Ability to produce and modify traffic generation for developing training content that can emulate an operational network.
TOM	Ability to manage resources, monitor system performance, and resolve technical problems.
Event Control	Ability to monitor and control the training event ensuring the training audience has the necessary resources available to train to the identified training objectives.
C-OPFOR	Ability to provide OPFOR capability to increase realism of the training environment while decreasing the manual processes for creating OPFOR input for scenarios through automated event design.
Intel	Ability to provide Intel capability to increase realism of the training environment while decreasing the manual processes for creating Intel for scenarios through automated event design.
Specialized Asset Integration	Ability to interoperate with external systems in order to increase the scalability and capacity to instantiate realistic operational environments.

Table 1: Capability Bins

4. Capability Features and Table

- Capability features/RDP requirements should be written as statements outlining what you want to accomplish and the outcome it supports.
 - Is there a description of how these are written, natural language, blah, blah whatever to describe how we want these statement written?

Feature #	Capability/ Feature	Role Assignment	Feature Statement	Acceptance Criteria (Initial Minimum Value)	IS-COD Capability Mapping
Event Design and Build					
1	Event design tool via graphical user interface	Unit Training Planner Event Designer Training Audience	I want to build a new event environment that establishes blue, red, and gray space capabilities, so that custom event environments can be built using orchestrated workflows leading to a more efficient event buildout.	PCTE provides a dashboard allowing the initialization of an efficient event environment build with a series of subsequent displays to identify the environment capabilities, their interconnectivity, and internal configurations all controlled via an event environment build workflow.	4.1 1.13
2	Build from existing/previous content	Unit Training Planner Event Designer Training Audience	I want to build/modify the event environment from existing environments (without saving over existing content) to include blue, red, and gray space, so that the event can leverage existing environments and orchestrate workflows leading to more efficient event buildout.	PCTE provides a dashboard identifying existing environments available for reuse in the current event to include workflows (and associated templates) for reconfiguring environment parameters.	1.9 1.13
3	Template/standard driven auto build	Unit Training Planner Event Designer Training Audience	I want to be guided through the event environment build process with the use of templates that identify all required environment build parameters, so that I can efficiently build the event environment.	Presentation of an event environment build template for each step of the event environment build workflow.	1.13 2.3

Table 2: Capability Features

5. DOTmLPF-P Impacts

- This section summarizes the non-materiel requirements in the DOTmLPF-P areas and provides further refinement of the requirements outlined in the parent document in order to deliver and implement the operational capabilities listed in the RDP. Describe both enabling and integrating impacts of DOTmLPF-P that should be considered. This is a flexible construct, if there is a domain with no impacts, omit rather than have a subparagraph that says nothing (a la carte listing)!
 - Doctrine:
 - Will implementation of the RDP drive doctrinal changes? If yes, enumerate which publications need updating or will it drive new doctrine not in existence.
 - Organization:
 - Will implementation of the RDP require dedicated manpower in addition to units receiving the software currently have in force structure?
 - If there a companion Force Design Update (FDU) or FDU Junior being submitted to address the need for organizational change?
 - Training:
 - Training impacts in all the training domains?
 - Material:
 - Will implementation of the RDP drive other materiel requirements currently in the Army: more computers, tablets, handheld devices, phones, etc?
 - Leadership and Education:
 - Personnel
 - Facilities
 - Policy

6. Program Affordability

- Use the standard IT-Box Resources Required table to show the Lifecycle Cost Estimate (LCCE) for the RDP. An example from the PCTE RDP1 is shown below with costs broken down in two categories: software and hardware/integration.

SM BY20	Resources Required									
	FY19	FY20	FYDP					FYDP Total	Post-FYDP Total (FY26 thru FY33)	Total Life Cycle Costs (FY19 thru FY33)
			FY21	FY22	FY23	FY24	FY25			
Application & System Software Costs										
RT&E	45.6	43.3	43.5	30.8	26.1	56.6	19.0	176.1	148.2	413.4
OPA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OMA	13.6	19.9	19.7	22.6	25.1	10.6	31.5	109.5	244.8	387.8
MILPERS	0.4	0.6	0.6	0.6	0.6	0.6	0.6	3.2	5.2	9.5
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUBTOTAL Software Costs	59.9	63.8	63.9	54.1	51.8	67.9	51.2	298.8	398.2	810.7
Hardware, Refresh, System Integration Costs										
RT&E	4.4	3.4	1.6	11.0	12.8	16.6	3.8	45.8	29.9	83.4
OPA	2.9	1.5	0.0	0.0	0.0	2.8	13.4	16.2	23.8	44.5
OMA	0.4	0.4	0.4	0.4	0.4	0.2	0.6	1.9	4.5	7.1
MILPERS	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.8	1.3	2.4
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUBTOTAL Hardware/Integration Costs	7.8	5.5	2.1	11.5	13.4	19.7	18.0	64.7	59.5	137.4
OVERALL TOTAL	67.7	69.3	66.0	65.6	65.2	87.6	69.2	353.5	457.7	948.1
Notes: - All resources normalized to a standard base year reference of BY26. - The 5-Year IT Box covers periods FY19 - FY23. Due to budget constraints approximately \$21.7M rolled into FY24. IT Box costs were validated internally at PEO STRL. - FY24 - FY33 are notional costs from a Rough Order of Magnitude (ROM) based on a flat budget & increase in OMA funding due to licensing expansion to cover all 6000 Cyber Mission Force users. In addition, RTE funding was reduced as the prototype shifted into a production system. - Includes all application software, system software, software development costs, testing, and software licensing. - Includes hardware procurement, hardware tech refresh, system integration costs, and SETA/SEPM costs.										

Table 3-4

RDP Appendices

- RDPs should have the following appendices, other may be added at the sponsor's discretion.
 - Appendix A - References
 - Acronyms
 - Glossary
 - Requirements Trace to the parent document
 - If the parent document is an IS-CDD, describe:
 - Key Performance Parameters (KPP): Which KPPs from the IS-CDD are addressed?
 - Key System Attributes (KSA): Which KSAs from the IS-CDD are addressed?
 - If the parent document is an IS-ICD, describe:
 - The capability requirements the RDP addresses from the table in paragraph 3 of the IS-ICD that forms the basis for your RDP requirements.

Capability Requirement		Source/System	Current Performance	Significant Gap(s)/Overlap(s)
Operational Attribute/Metric	Initial Objective Value			
1. Capability Requirement		JCA 2.2: BA/Collection		Briefly describe the most significant gap(s) and or overlap(s) for the requirement
Attribute 1.1	Value (no TBDs)	System 1	Value (no TBDs)	
		System n	Value (no TBDs)	
Attribute 1.n	Value (no TBDs)	System 1	Value (no TBDs)	
		System n	Value (no TBDs)	
2. Capability Requirement		JCA 3.1: FA/Maneuver		Limit to one concise sentence, 15 words or less.
Attribute 2.1	Value (no TBDs)	System 1	Value (no TBDs)	
		System n	Value (no TBDs)	
Attribute 2.n	Value (no TBDs)	System 1	Value (no TBDs)	
		System n	Value (no TBDs)	
n. Capability Requirement		JCA X.x: Tier 1/Tier 2		See above
Attribute N.1	Value (no TBDs)	System 1	Value (no TBDs)	
		System n	Value (no TBDs)	
Attribute N.n	Value (no TBDs)	System 1	Value (no TBDs)	
		System 2	Value (no TBDs)	
		System n	Value (no TBDs)	

Table 3-3

Architecture

1. Update

- Does the RDP necessitate a change or update to the existing architecture in ArCADIE?

2. Revised OV-1

- Minimum requirement to describe the functionality of the RDP under development.

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