Defense Finance and Accounting Service

Financial Management Center of Excellence



Functional Requirements Description

For

Property, Plant, and Equipment

Release 9.0

May 31, 2011

Release/Version Control

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| --- | --- | --- |
| Release/Version | Date | Description of Changes |
| 6.0 | September 30, 2009 | First released version contains Enterprise Level requirements applicable to Property, Plant, Equipment, Seized Property, and Forfeited Assets. |
| 7.0 | July 30, 2010 | This release updated the functional requirements, changes to existing functional requirements and authoritative sources for Enterprise Level requirements applicable to Property, Plant, Equipment, Seized Property, and Forfeited Assets. |
| 8.0 | January 31, 2011 | This release updated the functional requirements, changes to existing functional requirements and authoritative sources for Enterprise Level requirements applicable to Property, Plant, Equipment, Seized Property, and Forfeited Assets in coordination with DFAS 7900.4-M (Blue Book) Release of January 2011. |
| 9.0 | May 31, 2011 | This release updated the functional requirements, changes to existing functional requirements and authoritative sources for Enterprise Level requirements applicable to Property, Plant, Equipment, Seized Property, and Forfeited Assets in coordination with DFAS 7900.4-M (Blue Book) Release of May 2011. |

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1. Introduction
   1. Background

Department of Defense (DoD) Directive 5118.5 identifies the Director, Defense Finance and Accounting Service (DFAS) as the principal DoD executive for finance and accounting requirements, systems, and functions. That role includes the responsibility to “Direct the consolidation, standardization, and integration of finance and accounting requirements, functions, procedures, operations, and systems within the Department of Defense.” Developing standard, consistent, and effective requirements for DoD finance and accounting operations and systems is a priority initiative for the DFAS Financial Management Center of Excellence (FMCoE). The FMCoE has assigned this complex program to its Shared Services Division (SSD), which has gathered requirements from current statutory laws, regulations, and guidance, in addition to requirements from existing and developing DoD finance and accounting systems. SSD used functional experts from other DFAS organizations to select and edit the appropriate set of requirements.

The requirements contained herein will become the basis for all new finance and accounting operations and system acquisitions across the Department, and all existing DoD finance and accounting systems will migrate to these requirements as their budgets and priorities dictate.

* 1. Document Purpose

The purpose of this document is to present the context for standard DoD Property, Plant, and Equipment requirements. That context is a description of the DoD Property, Plant, and Equipment concept of operations, its standard business practices, and its operational processes. The processes are taken from the DoD Business Enterprise Architecture (BEA) and extended, as necessary, to complete a level of detail to which the requirements can easily be assigned.

Requirements information is presented in three parts: 1) the contextual description of the requirements project and its functional area, 2) the process models for this functional area, and 3) the requirement statements, business rules and best practices for this functional area. The contextual description of this requirements project and its functional area are contained in this Functional Requirements Description (FRD). The process models, requirement statements, and business rules are presented in a separate spreadsheet.

This version of the FRD will serve as the definitive reference for Release 9.0 Property, Plant, and Equipment. It is a “living” document and will be updated as requirements change or refined.

* 1. Scope

This document establishes the context for the DoD standard functional requirements in the area of Property, Plant, and Equipment. It comprises the most current Property, Plant, and Equipment functional requirements resulting from analyses, reviews, and validations performed by Shared Services team members and Subject Matter Experts (SME). Detailed accomplishments which influenced the development of this FRD may be found in Section 3.0. A separate file (the repository listing) contains updated Property, Plant, and Equipment requirements, process model, and other related information in spreadsheet format.

The Property, Plant, and Equipment project’s purpose is to develop functional requirements and business rules consistent with commercial industry best practices and compliance requirements (laws, regulations, and policies), and to map them to implementation level processes consistent with the BEA. The Property, Plant, and Equipment project objectives are to:

* Present standard Property, Plant, and Equipment functional requirements that can be implemented for any DoD system.
* Provide requirements detailed enough so that no functional interpretation is required by system implementers.
* Provide requirements that are necessary, achievable, uniquely identifiable, singular, concise, unambiguous, complete, consistent and testable.
* Provide relevant information related to the logistical and financial management of Property, Plant, and Equipment events, enhancing system development.
  1. Definitions

As used within this document, functional requirements, business rules, and best practices are defined as follows:

Functional Requirement – A statement that describes the intended behavior of a system by describing characteristics, attributes, conditions, constraints, or capabilities to which a system must conform in order to meet a need or objective.[[1]](#footnote-1) In this document, when the word “requirement” is used, it means functional requirement.

Business Rule – A statement that defines or constrains some aspect of the business or its architecture. It describes what a business must or must not do, or it describes the rules under which the architecture or its objects behave under certain conditions. Business rules are constraints that are process/activity specific and have no system impact.[[2]](#footnote-2)

Best Practice – A [management idea](http://en.wikipedia.org/wiki/Management_fad) which asserts that there is a [technique](http://en.wikipedia.org/wiki/Technique), method, process, activity, incentive or reward that is more effective at delivering a particular outcome than any other technique, method, process, etc. The idea is that with proper processes, checks, and testing, a project can be rolled out and completed with fewer problems and unforeseen complications.[[3]](#footnote-3)

1. The Enterprise Functional Requirements Program
   1. Overview

The Enterprise Functional Requirements Program is a set of projects to develop standard functional requirements, business rules, and best practices for DoD finance and accounting operations and systems. The requirements and business rules will be architecture-driven – meaning that they will be aligned to processes in the DoD Finance and Accounting Operational Architecture, which itself is aligned with the DoD BEA (see Figure 1).



Figure 1. Requirements Development Concept

Compliance requirements, business rules, and best practices have already been developed at the DoD enterprise functional level as part of the BEA. In most cases, the compliance requirements do not contain all the functional information necessary for an acquisition program, like Defense Agencies Initiative (DAI), General Fund Enterprise Business System (GFEBS), Navy Enterprise Resource Planning (ERP) system, Defense Enterprise Accounting and Management System (DEAMS), or Business Enterprise Information System (BEIS), to properly implement and test the acquisition system. Therefore, this program develops functional requirements down to the level of detail such that acquisition programs do not need to make functional interpretations. Yet these requirements should not constrain the implementation in non-functional ways, for example by defining system-specific data element names. The Property, Plant, and Equipment functional requirements for were gathered from:

* Financial Management Systems Requirements Manual (DFAS 7900.4-M, *Blue Book*)
* DoD 7000.14-R, Financial Management Regulation (FMR):
  + Volume 4, Chapter 6
  + Volume 4, Chapter 13
  + Volume 6B, Chapter 10
  + Volume 6B, Chapter 11
  + Volume 6B, Chapter 12
* JFMIP-SR-00-4, Property Management System Requirements
* JFMIP-SR-99-14, Seized Property and Forfeited Assets System Requirements
* Defense Agencies Initiative Requirements
* Business Enterprise Architecture Version 8.0
* SFFAS-6, Accounting for Property, Plant, and Equipment
* SFFAS-8, Supplementary Stewardship Reporting
* SFFAS-23, Eliminating the Category National Defense Property, Plant, and Equipment
* SFFAS-29, Heritage Assets and Stewardship Land
* OMB Circular A-136, Financial Reporting Requirements

However, most of the requirements derived from the above are too high-level to be readily implemented by system engineers in acquisition program offices. Therefore, a large part of the effort of these requirements projects has been to refine the requirements taken from the above to bring them down to the implementation level, i.e., eliminate any need for the system engineer to make functional interpretation.

|  |
| --- |
| Requirements Projects |
| Accounts Payable (Payment Mgmt) |
| Disbursing |
| Revenue and Accounts Receivable |
| General Ledger |
| Financial Reporting |
| Cash Accountability |
| Intra-governmental |
| Inventory, Operating Materials and Supplies, Stockpile Materials |
| Property, Plant and Equipment |
| Managerial Cost Accounting |
| Human Resources and Payroll |
| Funds Control and Budgetary Accounting |
| Travel |
| Grants |
| Audit Trails and System Controls |
| Seized Assets |
| Eliminations (Intra-Governmental) |
| Field Level Reporting |
| Direct Loans |
| Guaranteed Loans |
| Benefits |
| Time and Attendance |
| Foreign Military Sales (Security Assistance Accounting)  Non-Appropriated Fund Instrumentalities |

Table 1. Requirements Functional Areas

All functional requirements will adhere to the following quality characteristics: necessary, achievable, correct, unambiguous, complete, consistent, concise, singular, implementation-free, and testable. Once approved, the enterprise functional requirements will be given to all finance and accounting system offices for implementation in their respective systems.

Because the DoD finance and accounting domain is so large, the enterprise functional requirements projects have been segmented into functional areas, similar to the chapters in “Financial Management Systems Requirements Manual”[[4]](#footnote-4).

The selected set of functional areas (i.e., requirements projects) is listed in Table 1.  The first seven projects were executed in FY07 and are considered the *Core Financial Finance and Accounting* areas.

* 1. Functional Requirements Development Methodology

This, and each of the other requirements projects went through a similar process to gather, map, write, and validate requirements. Each project developed its own detailed work plan and detailed schedule taking into consideration their scope, priorities, and available resources. The SMEs were enlisted to help select those requirements that should be standardized, and they wrote additional requirements where the level of detail of those requirements initially gathered was not sufficient. The numerical order of the tasks in Table 2 indicates the approximate sequence of events.

1. Plan Project
2. Develop Processes
3. Identify and Gather Requirements, Business Rules, and Best Practices
4. Perform Mapping
5. Perform Initial Validation
6. Validate and Write Requirements
7. Deliver Release 9.0 Requirements and Documentation to Director, Shared Services for Approval

Table 2. High Level Development Tasks

* 1. Requirement Identification Format

The Property, Plant, and Equipment requirements are uniquely identified by a combination of letters and numbers broken down into several parts. The first part is shown by 3 letters [PPE] followed by a dash (-) that identifies which functional area the requirement belongs. The first set of four-position numbers after the dash is a unique number assigned to the parent requirement. Subsequent sets of two-position numbers will be assigned to show children and/or grand children to a parental requirement. As an example, XXX-0001.01.01 requirement number will be used as a reference.

**XXX**-0001.01.01: 3 position identifier that delineates functional area

XXX-**0001**.01.01: Indicates this as requirement number 1 of the functional area

XXX-0001.**01**.01: First child of parental requirement number 1

XXX-0001.01.**01**: First child of child requirement number 1

1. Property, Plant, and Equipment Concept of Operation

In May 2009, the SSD was tasked to establish a set of functional requirements for Property, Plant, and Equipment. To accomplish this mission it was necessary to map all requirements extracted from the sources listed in section 2.1 to the current BEA model and identify any gaps if they existed.

First, the working group gathered existing Property, Plant, and Equipment functional requirements and business rules from available sources. These requirements were consolidated, reviewed and pre-validated by the working group.

Next, Property, Plant, and Equipment SMEs were invited to participate in a series of Joint Application Development (JAD) sessions to review and validate the requirements for applicability as a DoD standard in each process area. The functional requirements were defined to a level ensuring consistency of internal controls, reporting, and accounting and to make certain each functional requirement can be implemented consistently across all Enterprise Resource Planning (ERP) systems. If SMEs felt additional requirements should be written to add clarity or detail, they drafted new requirements, as needed. If issues were uncovered at any time during this development process, they were identified, logged, and worked toward resolution. Since no issues materialized, no issue papers were written and a JAD session was not held.

From the BEA diagrams, the Property, Plant, and Equipment Working Group determined the DFAS processes that were needed. The group then identified gaps within the Property, Plant, and Equipment process models and steps. The Property, Plant, and Equipment working group then mapped the standard Property, Plant, and Equipment functional requirements to the applicable process diagram. The review of processes and mapping of functional requirements to business processes served to identify:

1. gaps in the objects and related descriptions included in the diagram,
2. the need for further decomposition or changes to the BEA baseline diagram, and
3. the need for additional functional requirements to complete the standard requirements package.

The accompanying spreadsheet contains the standard functional requirements and business rules mapped to the appropriate process flows/steps.

* 1. Property, Plant, and Equipment Functional Overview

This project includes the recording and reporting of Property, Plant, Equipment, Seized Property, and Forfeited Assets financial information outside the core financial system. Functional requirements developed for Property, Plant, and Equipment are driven by operational architecture and compliance requirements. One of the features of this project is the validation of the BEA processes and their extension, where needed. As such, the business processes models defined in the BEA OV-6c model have been used as a starting point for the identification and development of more detailed Property, Plant, and Equipment business processes.

As the processes were identified, the functional requirements were mapped to them. This includes identifying the BEA process, diagram, and activity. Property, Plant, and Equipment is part of the Property and Material activity in the BEA. Property, Plant, and Equipment encompasses both Financial Visibility and Material Visibility diagrams within BEA Property and Materiel activity, the requirements in this project only impact Financial Visibility.

* 1. Property, Plant, and Equipment Practices

The requirements in the accompanying spreadsheet were developed for all systems and business operations to be compliant with the Property, Plant, and Equipment DoD financial and accounting requirements. Additionally, by complying with these requirements, systems and business operations will be compliant with the applicable laws, regulations and policies.

* 1. Release 9.0 Scope
     1. Map Requirements to BEA Processes

During Release 9.0 the Shared Services completed integration or cross-function validation of the functional requirements. In Release 9.0, requirements were mapped to the lowest level possible within the BEA architecture and, if appropriate, to multiple lower levels. Once completed, the requirements functionally linked by architectural process were identified. Shared Services integrated these requirements by reviewing, analyzing and updating the requirements based upon missing or necessary architectural and functional links. The working group gathered the business rules from the BEA.

* + 1. Review Requirements Linked by Processes

The Shared Services Branches further integrated functional requirements by identifying requirements that were touch points between functions. The teams conducted cross team reviews and updated the requirements based upon touch points between the functions.

* + 1. Validate Requirements Source Information

Authoritative Source updates to the requirements included Regulation or Policy changes received through May 2011. Shared Services updated the requirements based upon peer and Branch Supervisory reviews.

* + 1. Perform Team Quality Review of Requirements

In Release 9.0 the functional branches continuously performed internal team reviews of the requirements to ensure that all functional requirements adhered to the following quality characteristics: necessary, achievable, correct, unambiguous, complete, consistent, concise, singular, implementation-free, and testable. All requirements that were not written to the standards above were either rewritten, rejected, or transferred for management decision.

* + 1. Develop Additional Process Models

The Property, Plant, and Equipment Working Group did not develop additional process models.

* + 1. Compare Requirements to DoD Transaction Library

The Property, Plant, and Equipment requirements were not compared to the DoD Transaction Library since transactions are not posted to a trial balance in this area. The general ledger resides within the ERP and records the effects of those events.

1. Property, Plant, and Equipment Points of Contact
   1. Shared Services Division Hotline Email

The SSD has established a hotline email address which may be used to provide comments or request information regarding the use of the Property, Plant, and Equipment FRD. The Shared Services Hotline email is [fmcoesharedservices@dfas.mil](mailto:fmcoesharedservices@dfas.mil).

* 1. World Wide Web

The FMCoE, SSD has established a web site titled "Standard Finance & Accounting Requirements" which may be used to access Property, Plant, and Equipment Requirement Documentation. The web site URL is: <http://www.dfas.mil/dfas/fmcoe/sfareq.html>.

* 1. Scenario Database

In Release 4.0, Shared Services implemented a Scenario Database for writing, storing, updating and retrieving the functional requirements for mapping to various Scenarios. Requirements for all functional areas are included in the Database. Tailored Access Reports are available for staff use; however, tailored Access Reports can be made available for customer use upon request.

* 1. BEA 8.0 Architecture

Below is the link to the BEA 8.0 architecture where you can view diagrams, processes, and activity models.

<http://www.bta.mil/products/BEA_8_0/index.htm>

# Appendix 1 – Acronyms

|  |  |
| --- | --- |
| BEA | Business Enterprise Architecture |
| BEIS | Business Enterprise Information System |
| BTA | Business Transformation Agency |
| DAI | Defense Agencies Initiative |
| DEAMS | Defense Enterprise Accounting and Management System |
| DFAS | Defense Finance and Accounting Service |
| DoD | Department of Defense |
| ERP | Enterprise Resource Planning |
| FMCOE | Financial Management Center of Excellence |
| FMR | Financial Management Regulation |
| FRD | Functional Requirements Description |
| GFEBS | General Fund Enterprise Business System |
| IRM | Integration Requirements Management |
| JAD | Joint Applications Development |
| JFMIP | Joint Financial Management Improvement Program |
| OMB | Office of Management and Budget |
| PPE | Property, Plant, and Equipment |
| RDb | Requirements Database |
| SFFAS | Standard Federal Financial Accounting Statements |
| SME | Subject Matter Expert |
| SSD | Shared Service Division |

1. SSD Roadshow Presentation [↑](#footnote-ref-1)
2. DoD Architecture Framework, Vol. II [↑](#footnote-ref-2)
3. Wikipedia (www.wikipedia.com) [↑](#footnote-ref-3)
4. Formally, this document is entitled DFAS 7900.4-M, Financial Management Systems Requirements Manual. Informally, this book is sometimes referred to as the *Blue Book*. [↑](#footnote-ref-4)