DOD SPECIFICATIONS FOR INTERACTIVE ELECTRONIC TECHNICAL MANUALS (IETM)

Status Report on Draft Specifications and Handbooks Developed by the Tri-Service Working Group for IETMs

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PRESENTATION

- Working Group Task and Members
- Proposed Products
- Current POA&M
- 3 Major Weapons Systems Using IETM Specs
TRI-SERVICE WORKING GROUP
FOR IETM SPECIFICATIONS

• Chartered in August 1989 under DODINST 4151.9 TM Technology Exchange Subcommittee

• Single Task - Develop IETM Specifications

• Chaired by Navy

• Membership:

  Army - CECOM (TMDE)
  Navy - David Taylor Research Center (1223)
  Air Force - AFLC (MMD)
SOURCE MATERIAL FOR INITIAL IETM SPECS

Primary Sources for June 1990 Version:

Four DTRC Navy Specifications (Oct 1988)

DTRC - Feb 1990 Draft of Specs

A-12 - (GD Draft March 1989)

ATF - (AFHRL Draft 9/89 and later updates of CDM)

Army IETM Presentation Style Guide - Feb 90

DoD/AIA PTM Specs - (Preliminary Drafts of Authoring and Presentation/Delivery Specs)
PROPOSED DOD SPECIFICATION SUITE FOR Interactive Electronic Technical Manuals (IETMs)

THREE SPECIFICATIONS:

- GENERAL CONTENT, STYLE, FORMAT, AND USER-INTERACTION SPECIFICATION
- REVISABLE SOURCE DATA SPECIFICATION
- QUALITY ASSURANCE SPECIFICATION
PROPOSED DOD SPECIFICATION SUITE FOR Interactive Electronic Technical Manuals (IETMs)

TWO HANDBOOKS:

• VIEW-PACKAGE HANDBOOK FOR THE PREPARATION OF INDIVIDUAL VIEW PACKAGE SPECIFICATIONS (Content Req't and Data Package for the Actual IETM)

• ELECTRONIC DISPLAY SYSTEM HANDBOOK (H/W and S/W Description and Architecture)
GENERAL CONTENT, STYLE, FORMAT, AND USER-INTERACTION SPECIFICATION

General Content and Style Requirements

Standard Index and Admin Info
Standard Text Style
Standard Graphic Style
Standard Prompt Style
Standard Precautionary Information Style
Standard Display Formats
STANDARD GRAPHICS USER-INTERFACE

• Determines Most User-Interaction Features
• Implementable in Commercial Packages
  MOTIF, OPEN LOOK, WINDOWS
• Standardized Interaction-Function Dictionary
  Can be Hard or Soft Keys, Select Buttons
• Custom Features Restricted to Client Area
• Common "Look-and-Feel" among DOD IETMs
STANDARD DISPLAY TEMPLATES

TM Information displayed in Window

- Client area of Standard User Interface
- All Validated TM functions in Client-Area Window
- Header Bar and Menu Bar
  (2-Line Header Option with Menu Bar Toggle)
- Message Bar and Footer Bar with TM Functions
- Display of Coordinated Text and Graphics
REVISABLE IETM DATA BASE

Describes Generic Data Structure
  Nodes with Links, Attributes, Prompts
Standard Data-Element Description and Names
Specific Attributes Specified for Each Data-Entity
Specifies Basic Linkages (Relationships)
  Links Steps Together, Steps To Graphics
Steps to Procedures, Cross References, etc.
QUALITY ASSURANCE PROGRAM

QA Plan Prepared by Contractor
Approved and Made Part of Contract
Covers Data Base Generation to End Product
Validation on User Delivery Device
Sets up QA Organization outside of IETM Authors
QA PROGRAM PLAN REQUIREMENTS

Written Operating Procedures
Guidance and Quality Planning Conferences
Contractor Quality Reviews
In-Process Reviews
Validation Plan
Verification Support Plan
ELECTRONIC DISPLAY SYSTEM

Navy Only (at this Time)

Hardware and Software Functional Description

Network Server/Library Devices

Networked Work-Center Devices

Down-loadable Portable Devices

Shopping List Handbook with Suggested Requirements
VIEW PACKAGE (VP) HANDBOOK

View Package is Computer Processable Form of IETM
Describes Process of Creating an VP from Data Base
  • Extraction
  • Compilation
  • Formatting
Describes How to Write a VP Acquisition Spec
  • Specify Functional Requirement & User Device
  • Specify Requirements for Preparing View Package
MAJOR MILESTONES

First Unrestricted Distribution - 1 June 1990
[Authored by DTRC, AFLC, AFHRL]

Comments Received from Government and Industry Aug-Oct 90
ORGANIZATIONS SUBMITTING COMMENTS

PM-TMDE for Army
Air Force ATF Program
Navy A-12 Program (GD & McAir)
Navy AEGIS Program Manager
DoD/AIA PTM Industry CALS Working Group
NIST (via OSD/CALS)
DOD WORKING GROUP FOR IETMs - POA&M
(as of Dec 90)

Initial Meeting at DTRC. Develop Initial POA&M. 12 Jul 89
Outline and Description for IETM Docs 8 Sept 89
Develop Plan for Consensus Specs; Receive Draft
A-12 and ATF Specs; Army Style Guide 12 Oct 89
Working Meetings (DTRC and AFHRL) Oct 89-May 90
1st Draft of Initial Set of IETM Specs 1 Jun 90
Delivered Draft IETM Specs to DoD CALS 4 Jun 90
Industry and Government Review of Initial Specs Jun-Oct 90
Working Meetings to Review/Revise Specs Oct 90-Mar 91
Distribute Revised Set of Specs (CGSFUI,DB,QA) 1 Apr 91
MAJOR WEAPON SYSTEMS USING SPECS

- NAVY A-12
- AIR FORCE ATF
- ARMY ABRAMS TANK
NAVY'S A-12 AVENGER

- Demonstration based on Earlier Version of Specs
- Developing Prototype to Validate and Mature Specs
- Will Develop View Packaging Procedures
- Successful Demo will lead to Production Buy
- Production will be to DoD IETM Specs
AIR FORCE ADVANCED TACTICAL FIGHTER

- Aug 90 AF Version of Specs included in Draft RFP
- Contractors will use in preparing Proposals
- Air Force committed to full paperless IETM for ATF
ARMY ABRAMS TANK

- Developing Production IETM System
- Using AF CDM Authoring System for Data Base
- Using Army IETM Style Guide for Presentation