

# **DOD SPECIFICATIONS FOR INTERACTIVE ELECTRONIC TECHNICAL MANUALS (IETM)**

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

**Presented by:           Eric L. Jorgensen  
                              David Taylor Research Center  
                              Department of the Navy**

**5 DEC 1990**

# PRESENTATION

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- **Working Group Task and Members**
- **Proposed Products**
- **Current POA&M**
- **3 Major Weapons Systems Using IETM Specs**

# **TRI-SERVICE WORKING GROUP FOR IETM SPECIFICATIONS**

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- **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)**

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## **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**

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## **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

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- **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

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## 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

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**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**

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**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**

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**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)**

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**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**

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**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**

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**First Unrestricted Distribution - 1 June 1990**

**[Authored by DTRC, AFLC, AFHRL]**

**Comments Received from Government and Industry Aug-  
Oct 90**

# **ORGANIZATIONS SUBMITTING COMMENTS**

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**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)**

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

# MAJOR WEAPON SYSTEMS USING SPECS

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- **NAVY A-12**
- **AIR FORCE ATF**
- **ARMY ABRAMS TANK**

# NAVY'S A-12 AVENGER

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- **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**

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- **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

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