S1000D and Multimedia

S1000D Webinar Series, Session 5
SDL Structured Content Technologies
Our Presenter Today

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Unified and Intelligent Product Information
Objectives

- Introduce the concept of Multimedia within the context of S1000D
- Explain how S1000D supports various types of Multimedia
  - 3d Files – Light Weight 3d Models
  - Vector Graphics – SVG and CGM
  - Animation – Right Hemisphere, Flash, MPEG, MP4
  - Raster Graphics and Raster Image Maps
  - Sound - MP3
  - Hot Spotting Techniques
- Demonstrate how Multimedia Files make Interactive Electronic Technical Publication (IETP) easier to understand
S1000D Multimedia
  • Why Use Multimedia?

Types of Multimedia
  • Locator Graphics
  • Hot Spots and Animations
  • Sounds
  • 3d Files

Authoring and Publishing Multimedia

Demonstration
  • Multimedia Mark Up
    • XML Mark Up examples
Supporting the Technician in the field

- A picture is worth a thousand words
- Reduction of errors during maintenance due to concise interactive illustrations and multimedia
- Information retention and just-in-time training
- Graphical navigation
- In countries where English is not the primary language technicians can follow intuitive interactive illustrations and rely less upon the written word increasing technician effectiveness

Cutting Costs

- Intelligent Interactive graphics and media objects reduce the amount of technical authoring narrative needed for support of complex tasks and procedures
- Reduction in narrative text leads to fewer written words increasing author productivity while reducing the cost of localization
Reduction In Downtime

- Procedures and tasks are executed more efficiently
- Leads to fewer repairs or false pulls as a result of executing the task/procedure correctly the first time
Creation / Authoring Tool Requirements

- Defined best practices
- Easy hot spotting
- Deriving additional value from formats (videos from 3D)

Viewer Requirements

- Utilization of 3d Technology
  - Interactive callouts
  - Step Driven Animation
  - Zoom, Rotate, Explode on demand
  - Ability to change views (shaded, wireframe,)
  - API is critical

- Plugins, Viewers and Sound Players
  - Defined as part of Project
  - Cost and Distribution Rights are critical
S1000D Multimedia Practices

**S1000D Spec on Multimedia**

- Objects used to support presentation of Textual Data and must be considered secondary and not used in place of verified text.

- Recommended that all multimedia objects are built in individual parts. A portion of a media object that carries out a specific function, eg sounds, images, action codes or video sections, can be used alone or combined with other parts.

- Provide a visual and clear Indication that the media object is loading and status of project.

- Original material must be maintained in it’s native form for reusability.
Hot Spotting

Hot Spots – Graphic to Graphic

- Simple Linking to and from graphic to graphic
- Extra detail
- Graphically drill down
- Wire diagram navigation
Hot Spots – Graphic to Text

- Immediate retrieval of part / item information from an illustration
  - Link into online parts ordering systems
- Link to sections or steps from overview graphic
Hot Spots – Text to Graphic

- Graphic to text linking capabilities for retrieval of part/item information from an illustration
- Allows immediate highlight of graphic callout or graphic object
  - Flash and highlight the selected object
  - Zoom in on the selected object view
  - Play a step animation
Graphic Navigation

- Use flash to drive rapid, intuitive navigation
- Drill down from system to sub-system, down to procedures and tasks
- Synchronizes with main navigation elements
LiveContent use Flash’s API to register mouse-overs and mouse clicks to drive navigation
LiveContent clicking on a link within the locator graphic opens sub-system graphic or opens a document on the table of contents.
Image Maps

- Provides authors ability to utilize simple images and create hot spots without specialized graphics
  - Utilizes simple, raster images (JPG, PNG, GIF)
  - Interactivity without requiring a browser plugin
Hotspot Markup

Coords attribute
Assigns position of Hotspot on graphics
Audio can be a sound track, audible effect, or pure narrative heard to support, warn, and clarify procedure or diagnoses steps and actions

- Natural Sounds to clarify result of actions
  - *Bearing working well versus bearing making a squeaking noise*
- Audio that will enhance video, adding information required in performing the desired actions
- User controlled audio narration from validated S1000D DM’s to enhance user understanding
- Aural warnings and audible alarms
  - *Flight deck*
  - *Procedural crew*
Video – Definition

- Video in S1000D Issue 4.0.1 means real life moving images of:
  - Equipment actions
  - Procedural steps
  - Captured live events
- Generally linked not embedded within other media objects
Aberdeen reports their Best-in-Class companies have experienced significant performance achievements over the past 24 months.

- **19%** increase in product revenue
- **14%** increase in lead conversion/win rate
- **12%** increase in Mean Time Between Repairs
- **7%** decrease in total service costs
Benefits of 3D Graphics in S1000D
Deliverables

Tell a Better Story
- Animations, Materials, Metadata, Interactive
- View any Angle, Render Modes, Cross-Section, Measure

Reduces Repair Time & Costs
- Simplifies complex tasks & processes
- Easier to understand & comprehend
- Higher retention of information from interactive 3D content

Reduces Localization Costs
- Better graphical content delivered = less text written & translated!

Enables Change Management
- Allows easy updating of content when changes occur in Engineering
- Auto updating if connected to original Engineering data source.
Deep View control embedded with LiveContent IETP Viewer

- All the power of Deep View (rotate, cross-section, transparency)
- Integration between Right Hemisphere Deep View and Live Content IETP integrates the text and 3D model steps
- Deep View API exposes model, scene, and part metadata to LiveContent
Demonstration
For S1000D specification training or for more information…

- Visit us on the web: www.sdl.com/xml
- Email: Eric Hartford: ehartford@sdl.com

View a recording of the other S1000D webinars in the series…

- Introduction to S1000D Concepts
- S1000D Content Workflow
- S1000D Applicability
- S1000D and IETPs

All recordings are located online
Questions?