SDL

Your Content
Their Language

S1000D and Multimedia

S1000D Webinar Series, Session 5

SDL Structured Content Technologies

Our Presenter Today

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SDL Structured Content Technologies

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Right Hemisphere

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**

Agenda

- **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*

Why Use Multimedia in S1000D

- **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

Why Use Multimedia in S1000D

- **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

Multimedia Authoring and Publishing

- **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

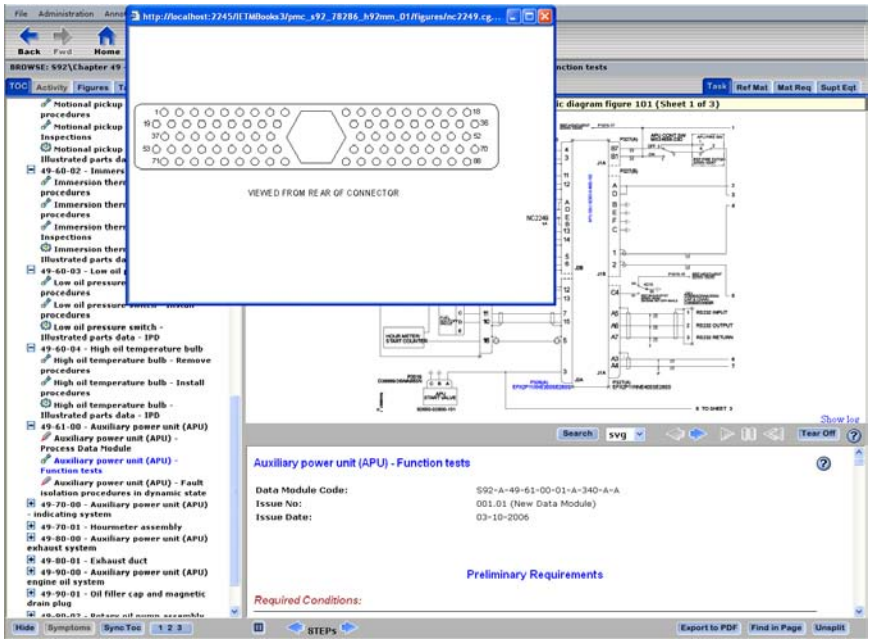
S1000D Spec on Multimedia

- 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

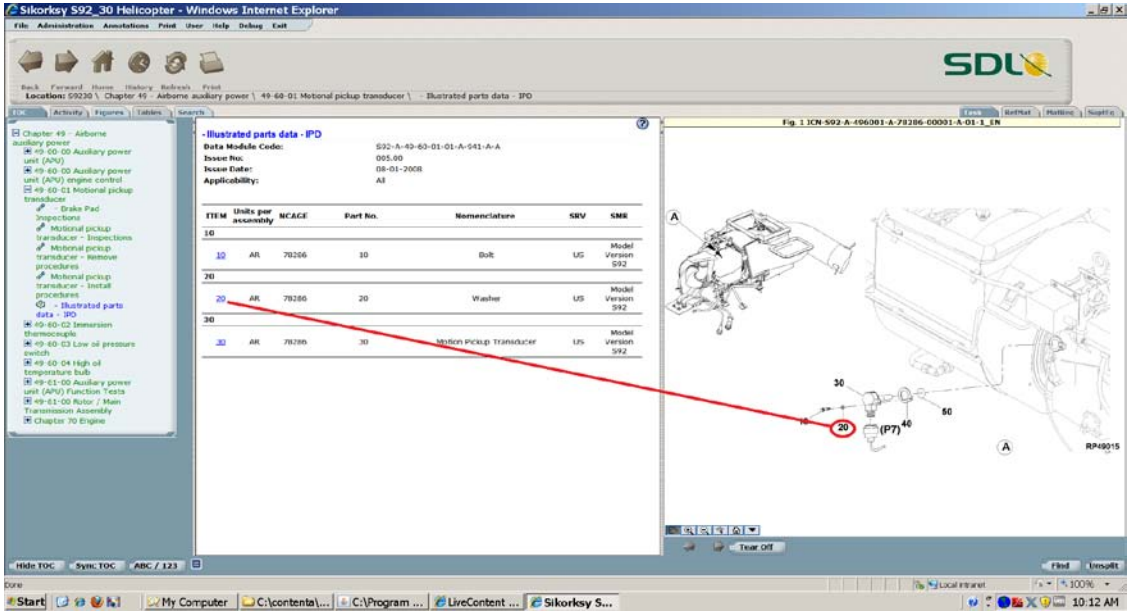
- Simple Linking to and from graphic to graphic
- Extra detail
- Graphically drill down
- Wire diagram navigation



Hot Spotting

Hotspots – Graphic to Text

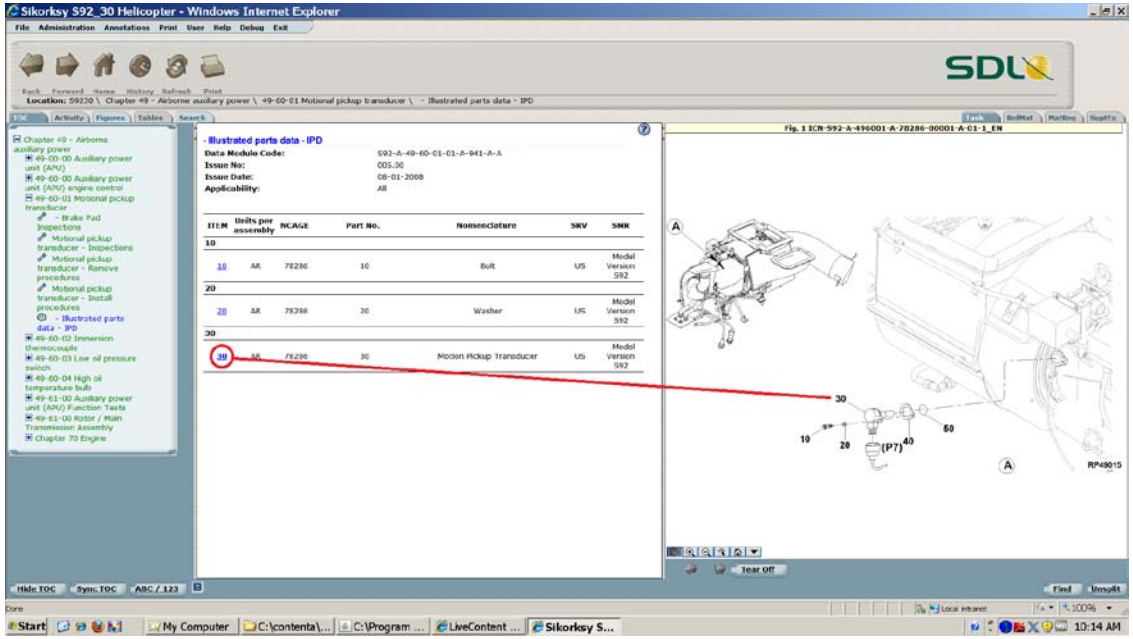
- Immediate retrieval of part / item information from an illustration
  - *Link into online parts ordering systems*
- Link to sections or steps from overview graphic



Hot Spotting

Hot Spots – Text to Graphic

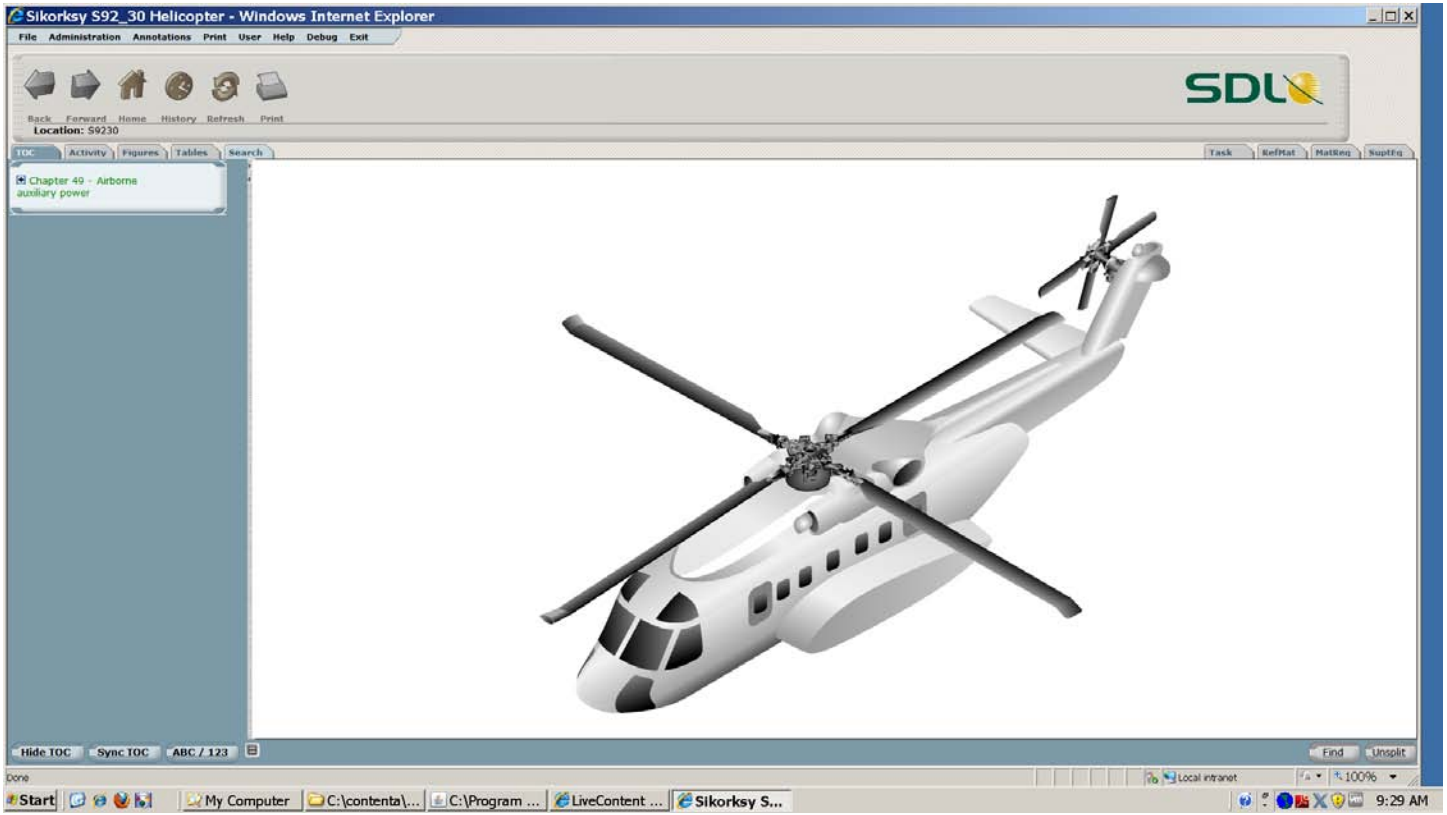
- Graphic to text linking capabilities for retrieval of part/item information from an illustration
- Allows immediate highlight of graphic callout or graphic object
  - *Flash and highlight the selected object*
  - *Zoom in on the selected object view*
  - *Play a step animation*



Locator Graphic

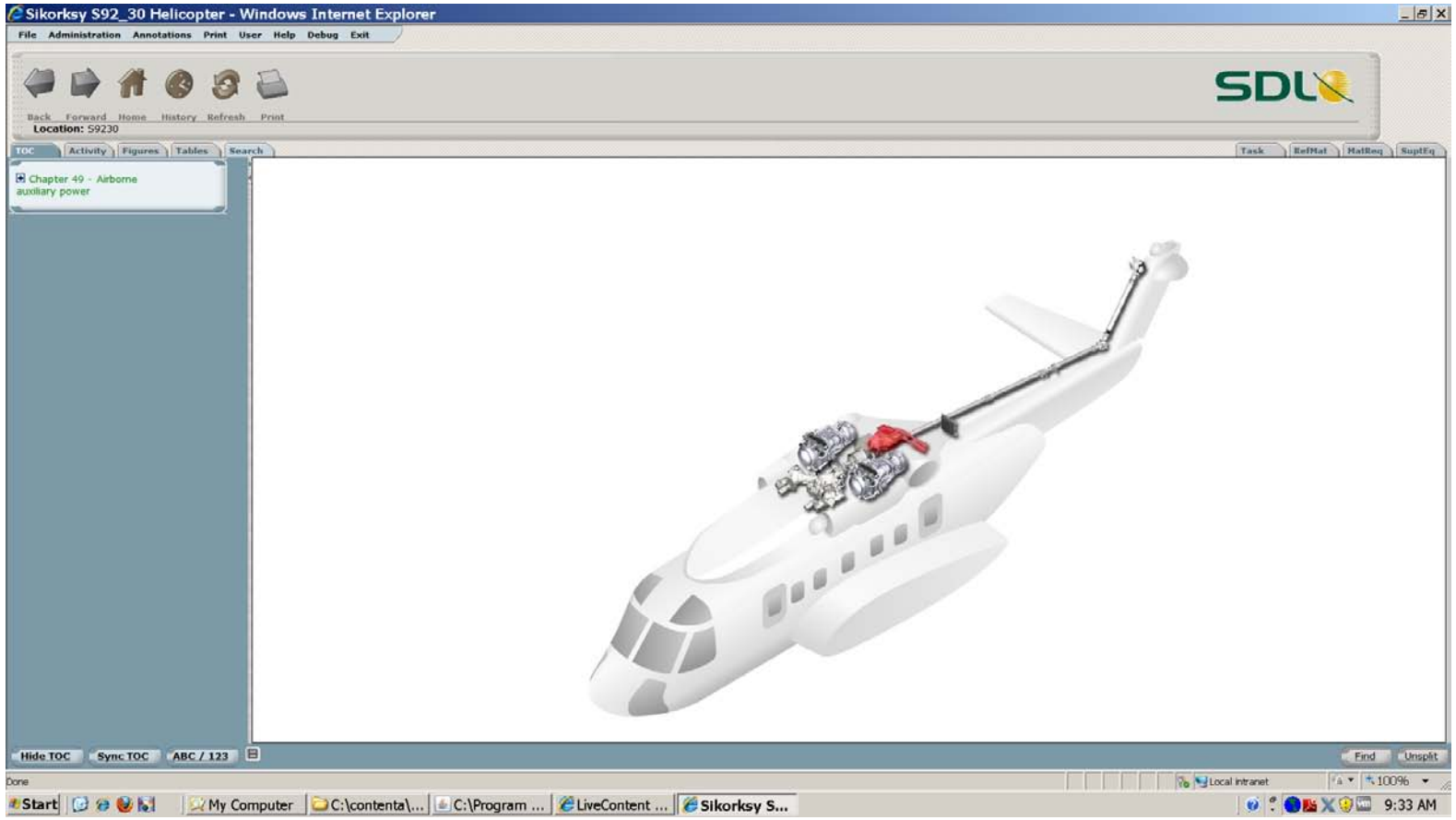
Graphic Navigation

- Use flash to drive rapid, intuitive navigation
- Drill down from system to sub-system, down to procedures and tasks
- Synchronizes with main navigation elements



Locator Graphic

- **LiveContent use Flash's API to register mouse-overs and mouse clicks to drive navigation**



Locator Graphic

- **LiveContent clicking on a link within the locator graphic opens sub-system graphic or opens a document on the table of contents**

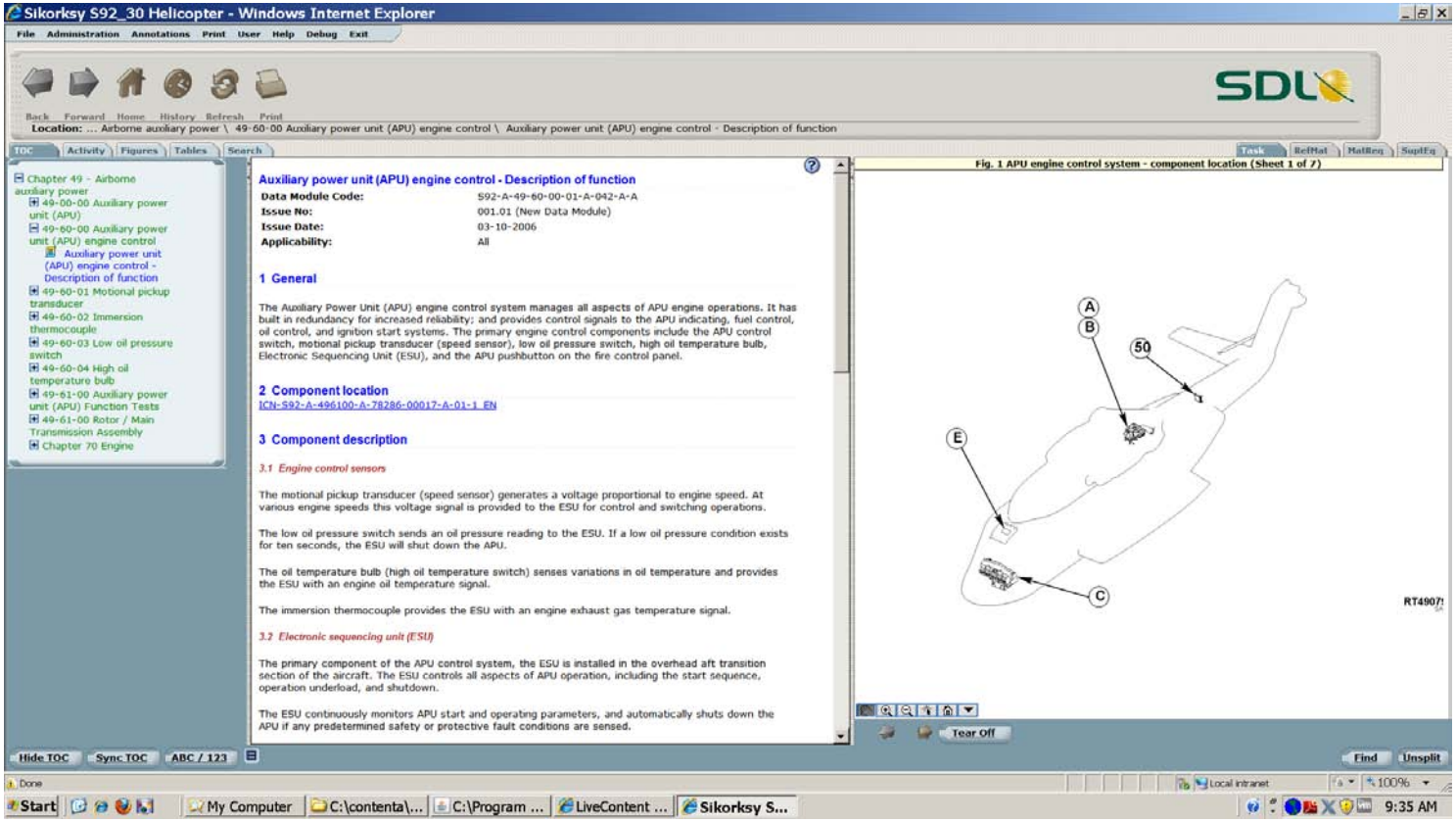
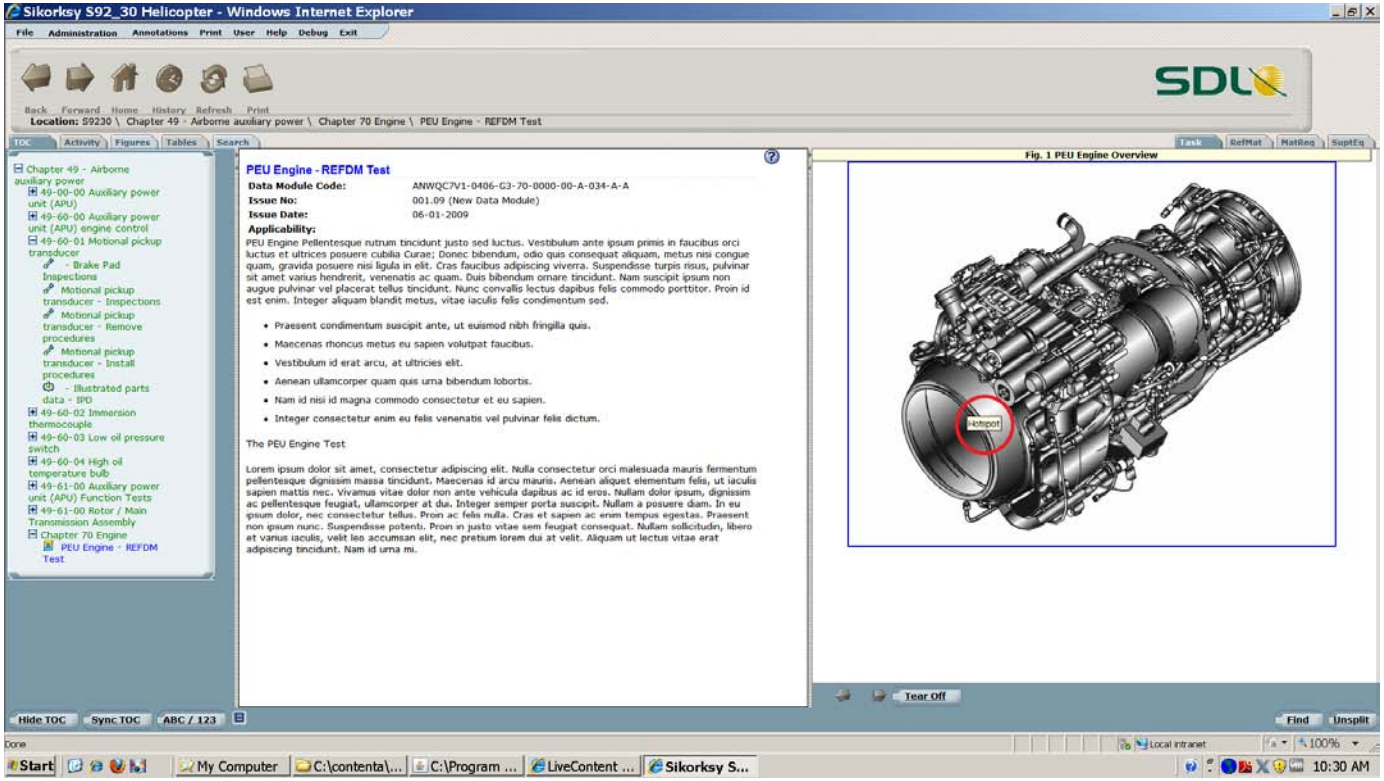


Image Maps

- **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



Raster Graphics and Image Maps

Hotspot Markup

Coords attribute
Assigns position of
Hotspot on graphics

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2V276-00002-A-01-1">
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<discode>01</discode>
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<incodev>A</incodev>
<itemloc>A</itemloc>
</avee>
</refdm>
</hotspot>
</graphic>
```

Audio

- **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 sqeaking 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

Video – Definition

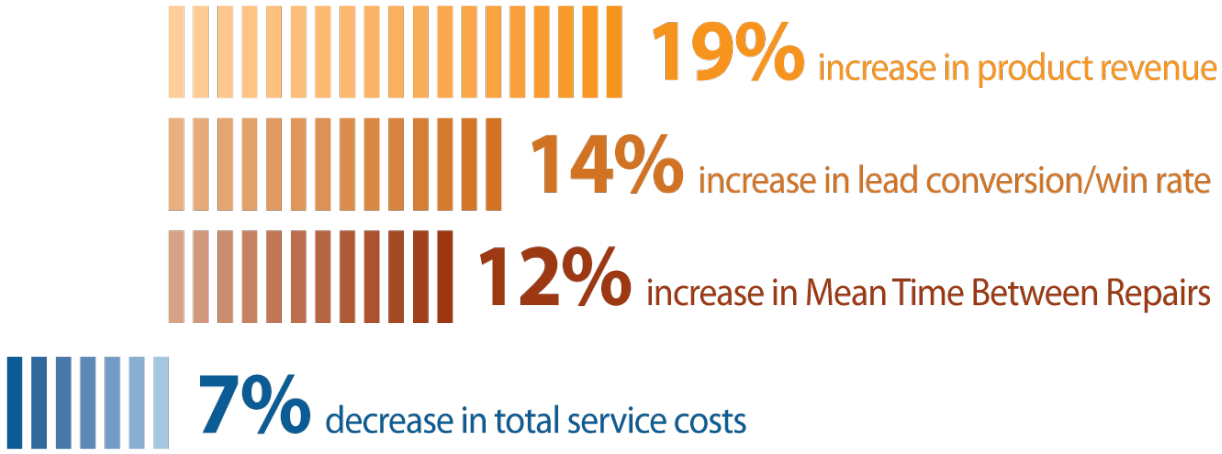
- Video in S1000D Issue 4.0.1 means real life moving images of
  - *Equipment actions*
  - *Procedural steps*
  - *Captured live events*
- Generally linked not embedded within other media objects

Study - Value of 3D Models!

Visualization and the Enterprise Value of 3D Product Models!

Aberdeen Group
A Harte-Hanks Company

BEST-IN-CLASS



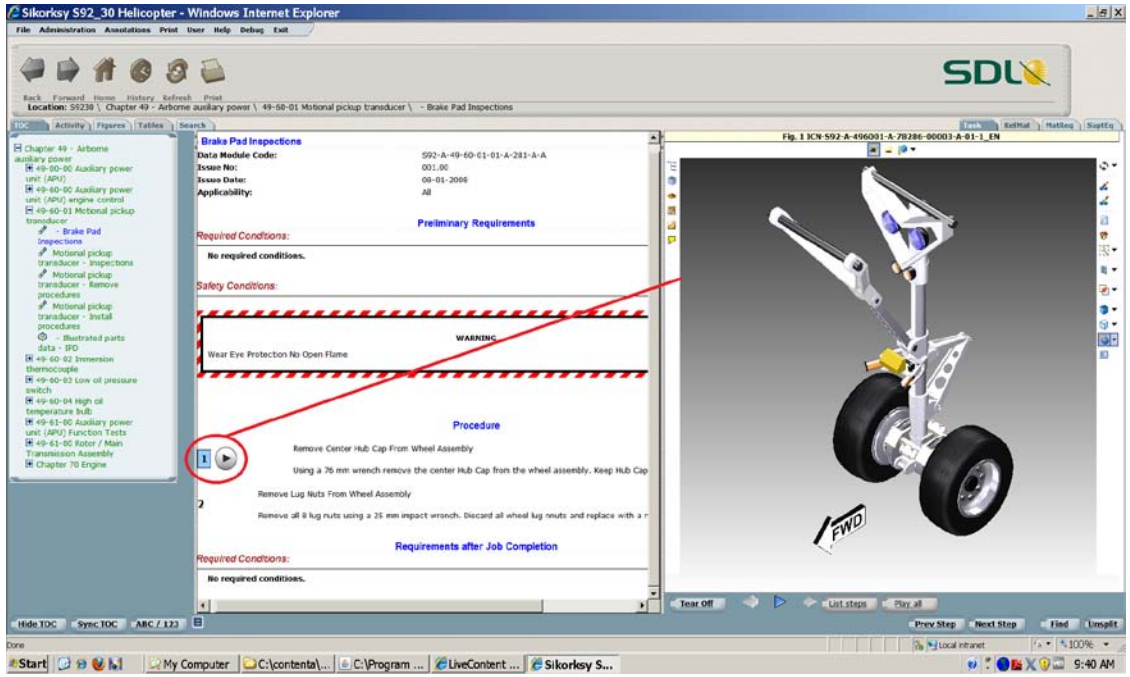
Aberdeen reports their Best-in-Class companies have experienced significant performance achievements over the past 24 months.

Benefits of 3D Graphics in S1000D Deliverables

- **Tells 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.

Right Hemisphere

- **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



SDL Your Content Their Language

Demonstration

For Additional Information

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
http://www.sdl.com/en/xml/resources/recorded-webinars/

Questions?

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