Minimum requirements, per section 8.2 of Elearning Asset Development Guide

1. Visual elements are appropriately described through ALT tags or D-links. (See Section 5.4)
2. All screen elements have a designated tab order that allows for meaningful “within page” navigation that does not require use of a mouse and that lead a screen reader through the text appropriately.
3. Where necessary, alternative pages may be programmed to allow for comparable learning experiences (for example, providing a series of fill in the blank questions as an alternative to a drag/drop exercise).
4. Screen text and color choices provide good contrast, clarity, and readability. (See Section 5.6)
5. Audio and video files are supported with the appropriate controls and are aligned with accessible text. (See Section 5.7)

JAWS for Monika

In last project, had to communicate with Atlas Pro – e.g., so that the menu would appear in Atlas. In current design, don’t need to do that.



Minimum specs – from section 3.2.1 of the Elearning Asset Development Guide

### 3.2.1 Courseware System Requirements

### Elearning assets should be developed in accordance with the following minimum specifications for learners’ computers.

### Windows XP Service Pack 3

### Internet Explorer 7.0-8.0

### Browser Settings:

### Pop-up blockers disabled

### Cookies enabled at medium-low security level

### Java Runtime Environment: Enabled, version 1.3 or above - AJAX has replaced the necessity for Java. If students are still unable access their courses successfully, it is recommend that they have at least version 1.5.0 update 7 or higher, with the exceptions of 1.6.0\_01 and 1.6.0\_10

### Adobe Flash Player Version 10.3+

### Windows Media Player 11+

### Adobe Acrobat Reader Version 9.4.4+

### Microsoft Office 2003 SP3

1. Adobe Shockwave Player 11+
2. Apple Quicktime 7.6.8

### Intel Pentium 4 Processor (1.6-2.4 GHz) or faster

### 40GB of available hard disk space

### 1 GB of RAM

### Screen Settings for Color Monitor:

### 1024 x 768 minimum resolution

### Font size or DPI set to normal or small

### Internet Connection: 56 kbps+ (1.5 Mbps recommended)

### 16 bit Sound Card and Speakers

### Print file sizes should not exceed 10 Mb per file.

### 4.4.1: Continuous Learning Module Screen Design Parameters

Table 1 presents general design parameters that DAU relies upon to assess the visual quality of a continuous learning module.

|  |  |
| --- | --- |
| Monitor and Module Resolutions | Optimize screen resolution to the 1024 x 768 mode. |
| Templates/Scheme | Keep the design simple and the look consistent. Templates must reflect DAU branding and approved lay-out. |
| Scrolling | On all pages the content, including the header and necessary graphics, must fit within the content area of the screen. Course pages should not scroll. Text and graphic sizes should not be reduced below 11 points simply to eliminate scrolling. |
| Consistent Navigation | Present visual and functional confirmation of student’s whereabouts and options for navigating through the site, via graphical design, navigation buttons, or uniformly placed hypertext links. Include basic links (next, back) on every page of the module |
| Page Numbering | All pages within a SCO should be numbered. At the start of each SCO, numbering must start again from one. The format for page numbering must be: page X of Y. |
| Learner Controlled, Supplemental Content | Links that reveal extra information on a single page save the learner effort when supplementary materials are necessary or desirable. References, external resources, and glossary terms are also presented in this fashion. |
| Knowledge Reviews | True/false, fill in the blank, and multiple choice review items are standard forms of interaction with feedback. These interactions are presented regularly throughout courseware. The use of case studies for resolving complex problems may apply if the instructional goals of the module demand such activities. Additional review item formats may be created so long as they comply with the standards established in this document. |
| Content Organization | Keep information organized and chunked. Separate chunks of information with links or pages. Present only one concept, procedure, or item of instruction per screen. (Only include other items when used on an introductory or summary page.) |
| General-to-specific Content Presentation | Start simple and build in complexity as the material is presented. |
| Objectives | Create three or four instructional objectives per lesson that are obtainable within the scope of the lesson or module. |

*Table 1: CLM Parameters*

When designing courseware for the CLC, the instructional content screen must contain elements that provide the learner with information about the module and a number of navigational controls and aids that allow students to navigate through the module and access references and glossary items easily. All main courseware screens must contain three primary areas:

* **Module Navigation Toolbar**: the Module Navigation bar allows the student to navigate the module using the “Back,” “Next” buttons. It may also provide “Quick References” or other functions within the module.
* **Main Viewing Area**: this area will contain text, graphics, animations, and interactions. Each page of the content displayed in the main viewing area will have a title stating the topic of the content. Figure 1.0 (below) provides an example of the main viewing area.
* **Table of Contents**: the Table of Contents is generated by the Learning Management System (Atlas). The Module Branding Top Bar provides a “Hide Table of Contents” button that allows the student to close the table of contents to provide more space in the Main Viewing Area.

*ALT Tag Text Rules*

* ALT tags are appropriate when a graphic can be described completely in fewer than 10 words. Otherwise, a D-link must be available to the learner.
* ALT tags are not summaries or general descriptions that fail to convey the instructional meaning of a visual and should never be substituted for a D-link merely for expediency.
* Capitalize the first letter of the first word only.
* Do not use quotations in the ALT text as quotation marks have a coding attribute in HTML that will affect what shows on the HTML page.
* If for any reason an ALT tag value should be null, enter an empty character string consisting of double quotation marks, “”, so that a screen reader will ignore the ALT tag portion of the HTML.

*D-Link Rules*

Any visual that conveys learning content that is not otherwise described completely by on-screen text and cannot be adequately described by an ALT tag must be supported by a D-Link. These types of visuals are often complex instructional elements such as data displays, process diagrams, graphs, charts, and tables.

A D-link is typically placed on the courseware screen just below the visual element. It opens a pop-up window that must contain a thorough, complete description of the graphic containing all instructional details evidenced by the visual. D-link descriptions are not overviews or summaries: they serve to provide the exact same information to a learner with visual impairments as the graphic provides to the unimpaired learner.

GUIDANCE: Consider using HTML generated tables with appropriate row, column, and cell headers instead of image files for those instances in which the content is a data display or table. Screen readers can vocalize the content of HTML tables, and developers are not required to program a D-link.

## 5.6 Colors and Fonts

The suggested base color(s) for all text is black. This convention includes page titles and content text. The content text should be no smaller than 10 pt so that the learner can read it easily. The size and type of font should not be changed on any single page for the same page element so that these elements remain consistent and ensure usability. If a different font or size is desired for an element (such as module content or headers), then this change should be applicable to the entire module and not adversely affect readability or usability.

The background color, unless occupied by a background graphic, is white.

Color changes of text may be used to indicate emphasis; however the emphasis must also be indicated in another way, such as putting text in bold. (Bold text also triggers a screen reader to inform the student that this text is emphasized on the screen.)

Table 5.0 defines the base styles suggested for all courseware. Note that these are suggested colors and fonts. Changes may be made if the readability or usability of the courseware screens are not adversely affected.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Styles** | **Font** | **Size** | **Color** | **Alignment** | **Attribute** |
| **Module Content** | | | | | |
| Content | Arial | 10–12 pt | black (#000000) | default | default |
| Navigation | Arial | 10–12 pt | black (#000000) | default | bold |
| Main Title | Arial | 14–18 pt | black (#000000) | default | bold |
| Subtitle | Arial | 10–12 pt | black (#000000) | default | bold, italic |
| Directions | Arial | 10–12 pt | black (#000000) | default | bold |
| Popup Link | Arial | 10–12 pt | blue (#000099) | default | underlined |
| Reference Link | Arial | 10–12 pt | blue (#000099) | default | underlined |
| Glossary Item Link | Arial | 10–12 pt | blue (#000099) | default | underlined |
| Popup, reference, glossary rollover state | Arial | 10–12 pt | light blue (#0000ff) | default | underlined |
| Link | Arial | 10–12 pt | dark blue (#00008B) | default | underlined |
| Link on rollover | Arial | 10–12 pt | light blue (#0000ff) | default | underlined or other secondary method for viewing |
| Feedback text: correct | Arial | 10–12 pt | black (#000000) | default | italic |
| Feedback text:  incorrect | Arial | 10–12 pt | black (#000000) | default | italic |
| Knowledge Review/ Practical exercise:  main header | Arial | 10–12 pt | black (#000000) | default | bold |

Table 5.0 - HTML Formatting Conventions

### 

GUIDANCE: Designers must be sensitive to color-blindness and other prevalent visual challenges when selecting fonts, colors, and styles for text. Color alone should never be the sole indication of emphasis or meaning.

Written text for all audio (in the form of caption text) – but no comprehensive printable script

Will someone on their end have JAWS or some other screen reader to test?

Delivered in a SCORM 2004 package ?????– though will not be communicating with an LMS so no resume functionality, no data capture