



System Coordination Office's
Best Management Practices
For
Incorporating Electronic Information Technology
Section 508 into IT Projects



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1.0 Purpose

This document provides project managers with uniform requirements and specific instructions relating to information technology disability accessibility for each phase and stage of an IT development project. These guidelines may change as experience is gained and the process undergoes continuous improvement and/or when additional guidance is issued.

The System Coordination Office (SCO) WO-570D, has developed a set of best management practices that provide project managers with guidance improving overall project management within the Bureau. This guide is part of the overall set of project management best management practices that have been developed by the SCO.

The Rehabilitation Act Amendments (Section 508): On August 7, 1998, President Clinton signed into law the Rehabilitation Act Amendments of 1998, which covers access to federally funded programs and services. The law strengthens section 508 of the Rehabilitation Act and requires access to electronic and information technology provided by the Federal government. The law applies to all Federal agencies when they develop, procure, maintain, or use electronic and information technology. Federal agencies must ensure that this technology is accessible to employees and members of the public with disabilities to the extent it does not pose an "undue burden." Section 508 speaks to various means for disseminating information, including computers, software, and electronic office equipment. It applies to, but is not solely focused on, Federal pages on the Internet or the World Wide Web. It does not apply to web pages of private industry.

The law also provides a complaint process under which complaints concerning access to technology will be investigated by the responsible Federal agency.

2.0 Applicability

All Projects working on the national level that have been approved by the Information Technology Investment Board (ITIB) will be evaluated based on their conformance to these guidelines.

Section 508 of the Rehabilitation Act of 1973, as amended 29 U.S.C. 794

When developing, procuring, maintaining, or using electronic and information technology, each federal department or agency, including the united states postal service, shall ensure, unless an undue burden would be imposed on the department or agency, that the electronic and information technology allows, regardless of the type of medium of the technology

Individuals with disabilities who are Federal employees to have access to and use of information and data that is comparable to the access to and use of the information and data by Federal employees who are not individuals with disabilities; and

Individuals with disabilities who are members of the public seeking information or services from a Federal department or agency to have access to and use of information

and data that is comparable to the access to and use of the information and data by such members of the public who are not individuals with disabilities.

3.0 Management Objective

Communicating the status of your project is an important and critical component to the success of your project. These guidelines will cover both your project status reviews with the Project Sponsor as well as reviews by the ITIB.

The objective is to establish a standardized, repeatable process for Section 508 practices. This includes direction for each Project Manager to follow the same format so the amount of time to prepare, present, and review project status is held to the absolute minimum. With a standardized format, the Project Manager, Project Sponsor, SCO, and ITIB will be able to quickly evaluate the project status with Section 508 compliance.

4.0 Introduction

This section provides a baseline to ensure projects are following the Information Technology Disability Accessibility Requirements for Web based intranet and Internet information and applications. Below is a recommended Section 508 website to guide the appropriate individuals developing projects.

<http://www.access-board.gov/sec508/guide/index.htm>

Background: In 1998, Congress amended the Rehabilitation Act to require federal agencies to make their electronic and information technology accessible to people with disabilities. Section 508 of the Rehabilitation Act, as amended, requires agencies to give disabled employees and members of the public access to the technology that is comparable to the access available to others. This law applies to all federal agencies when they develop, procure and maintain or use electronic and information technology.

The BLM must ensure this technology is accessible to employees and the public in order to eliminate barriers and encourage development of technologies that will help achieve these goals. Evaluation and modification of the BLM web pages is just one step in the process to become Section 508 compliant.

4.1 Select Phase

4.1.1 Business Case Development Stage

In the business case stage the project manager describes how the project will utilize the assistive technology software or hardware meeting the requirements of Section 508.

Assistive Technology: Any item, piece of equipment, or system, whether acquired commercially, modified, or customized, that is commonly used to

increase, maintain, or improve functional capabilities of individuals with disabilities.

Identify the roles and responsibilities of subject matter experts during the project development.

4.1.2 Project Plan Development and Review Stage

Successful Implementation of applications and Section 508 requires the project managers to identify roles and responsibilities of the subject matter expert in the project plan.

Project Mangers should understand the Laws, regulations and requirements of Section 508 and how they will apply business operations and processes in the project plan

Identify Section 508 costs for IT investment strategies.

Electronic and Information Technology (EIT): Any equipment or interconnected system or subsystem of equipment, that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information. The term information technology includes computers, ancillary equipment, software, firmware and similar procedures, services (including support services), and related resources.

4.1.2 System/Services Acquisition Stage

Section 508 Procurement Process

Although the Acquisition Plan is approved, it is continually updated as necessary during the Project Plan Development and Review Stage and the Project Definition Stage.

Identify hardware and software needed to comply with Section 508 for development and testing.

Upon procurement of hardware and software request for compliance from vendor should be supplied before acquisition.

When procuring a product, if an agency determines that compliance with any provision of this part imposes an undue burden, the documentation by the agency supporting the procurement shall explain why, and to what extent, compliance with each such provision creates an undue burden.

When procuring a product, each agency shall procure products that comply with the provisions in this part when such products are available in the commercial marketplace or when such products are developed in response to a Government solicitation. Agencies cannot claim a product, as a whole is not commercially available because no product in the

marketplace meets all the standards. If products are commercially available that meet some but not all of the standards, the agency must procure the product that best meets the standards.

This part applies to electronic and information technology developed, procured, maintained, or used by agencies directly or used by a contractor under a contract with an agency which requires the use of such product, or requires the use, to a significant extent, of such product in the performance of a service or the furnishing of a product.

The following website "The Road to Accessibility" provides information leading to the partnership between the federal government and industry providing a service of procurement staff and vendors.

<http://www.section508.gov/>

4.2 Control Phase

4.2.1 Project Definition Stage

The Workforce Investment Act of 1998, Public Law 105-220, was enacted on August 7, 1998. Title IV of the Act is the Rehabilitation Act Amendments of 1998. Subsection 408(b) amended section 508 of the Rehabilitation Act of 1973 (29 U.S.C. 794d). Subsection 508(a)(1) requires that when Federal departments or agencies develop, procure, maintain, or use EIT, they must ensure that the EIT allows Federal employees with disabilities to have access to and use of information and data that is comparable to the access to and use of information and data by other Federal employees. Section 508 also requires that individuals with disabilities, who are members of the public seeking information or services from a Federal department or agency, have access to and use of information and data that is comparable to that provided to the public without disabilities. Comparable access is not required if it would impose an undue burden.

4.2.3 System Design Stage

This stage should include requirements to meet the Section 508 electronic guidelines. The requirement analysis process will focus on satisfying the views using assistive software. Identify how the application plans to build the system using recommended code for using assistive software.

<http://www.access-board.gov/sec508/guide/1194.22.htm>

4.2.4 Development or Construction Stage

The Project Manager ensures the developer monitors and builds the application using recommended code for the use of assistive technology software compatibility.

4.2.5 User/System Acceptance Testing Stage

The developers must test the system validating the assistive software for functionality and quality. The Project Manager will be required to incorporate a test process in their project plan ensuring disability accessibility to the system.

To assist the Project Managers with development and compliance, test sites with screen reader technology are available. Please check with your state office or with the National Configuration Test Lab (NCTL). The form maybe filled out and submitted to the System Engineering Test Lab. The following website contains the form and examples.

http://web.blm.gov/nirmc/testlab/test_lab_forms.htm

4.3 Transition and Deployment Stage

4.3.1 Evaluation Phase

The responsibility of the system owner/manager and or user representative is to coordinate any changes to the final documentation or software with all affected parties.

4.3.2 Operations and Maintenance Stage

It is the responsibility of the system owner/manager, user representatives and the developer to comply with section 508 during all changes/modifications, upgrades and re-engineering phases of the project.

When developing, procuring, maintaining, or using electronic information and technology, the Sponsors and Project Managers shall ensure that the products comply with the Final Standards Implementing Section 508.

5.0 Roles and Responsibilities

System Coordination Office (WO-570D) Manager - Oversees all projects or efforts being managed as projects that have been approved or are being tracked by the ITIB.

The Project Manager is responsible for preparing and presenting all project status reviews with the Project Sponsor and providing the required information for the ITIB reviews. The Project Manager ensures that the project is developed in compliance of 508 Final Standards.

Appendix-1

How to Make Web Pages 508 Compliant

- Images and animations. Use the alt attribute to describe the function of each visual.
- Image maps. Use client-side MAP and text for hot spots.
- Multimedia. Provide captioning and transcripts of audio, and descriptions of video.
- Hypertext links. Use text that makes sense when read out of context. Avoid click here.
- Page organization. Use headings, lists, and consistent structure. Use Embedded Cascading Style Sheets for layout and style where possible.
- Graphs and charts. Summarize or use the long descriptive attribute.
- Scripts, applets, and plug-ins. provide alternative content in case active features are inaccessible or unsupported.
- Frames. Use NO FRAMES option and meaningful titles.
- Tables. Make line-by-line reading sensible. Summarize.
- Check your work. Validate. Go to:
<http://bobby.watchfire.com/bobby/html/en/index.jsp>

Appendix-2

Final Standards

1194.22 Web-based intranet and internet information and applications.

- (a) A text equivalent for every non-text element shall be provided (e.g., via alt, longdesc, or in element content).
- (b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.
- (c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.
- (d) Documents shall be organized so they are readable without requiring an associated style sheet.
- (e) Redundant text links shall be provided for each active region of a server-side image map.
- (f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.
- (g) Row and column headers shall be identified for data tables.
- (h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.
- (i) Frames shall be titled with text that facilitates frame identification and navigation.
- (j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.
- (k) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.
- (l) When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by assistive technology.
- (m) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with §1194.21 (a) through (1).
- (n) When electronic forms are designed and to be completed on-line, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.
- (o) A method shall be provided that permits users to skip repetitive navigation links.
- (p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.