

# GOVERNMENT OF JAMAICA

## WEB STANDARDS COMPLIANCE MANUAL

Published: Monday, September 17, 2007  
GOJ\_Web Standards\_v2-2

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# 1 OVERVIEW

One of the key Strategic Objectives of the GOJ, as outlined in Chapter 8 – Technology, Ministry Paper No. 56, dated September 2002 and entitled “Government at your service – Public Sector Modernization, Vision and Strategy 2002 – 2012”, is the provision of 24 hour public service on demand to citizens and other customers. The Internet, through the World Wide Web (WWW or Web), is one of the avenues for implementing this ideal.

“Thanks largely to the efforts of the World Wide Web Consortium (W3C), Internet accessibility has become a global issue that commands the attention of software and system designers during the development phase.”<sup>1</sup> The standards outlined in this document are aligned to the W3C Web Content Accessibility Guidelines (WCAG), developed by the W3C and closely follow the Common Look and Feel (CLF) Standards developed by the Treasury Board of Canada ([http://www.tbs-sct.gc.ca/clf-nsi/index\\_e.asp](http://www.tbs-sct.gc.ca/clf-nsi/index_e.asp)).

The standards outlined in this document represent a customisation of the Canadian CLF Standards to fit the Jamaican environment. Other standards have also been reviewed and, where appropriate, used as guideposts in drafting this document.

The standards outlined in this document are intended to be both the de facto and de jure standards for GOJ Websites.

## 1.1 Audience

This document is intended to support those responsible for the planning, implementation, and maintenance of GOJ websites.

It is expected that as developers and users become more proficient at applying new technologies to Internet usage and as existing technologies change; these standards will evolve over time. Thus, this document should be seen as the first in a perpetual series of such documents, where each will improve upon the preceding one.

## 1.2 Related Documents

The GOJ Web Standards are broken into three documents: the Web Standards Compliance Manual, the Web Standards Implementation Guide, and the Web Standards Testing Guide.

The Web Standards Compliance Manual (WSCM) defines the rules that sites must follow in order to be considered Standards Compliant. Various compliance categories and levels are defined and the individual rules are revised and expanded upon as user expectations and technology evolves over time.

The Web Standards Implementation Guide (WSIG) provides an in-depth explanation of the reasoning and recommended approaches to meet the standards. This guide also provides links to online resources and templates that will accelerate the development and remediation of sites to meet the standards.

The Web Standards Testing Guide (WSTG) documents tools and techniques to validate sites subject to the standards.

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<sup>1</sup> Text taken from CLF for the Internet ([http://www.cio-dpi.gc.ca/clf-nsi/inter/inter-01-01\\_e.asp](http://www.cio-dpi.gc.ca/clf-nsi/inter/inter-01-01_e.asp)) produced by the Treasury Board of Canada Secretariat

## 1.3 Compliance Categories

The standards have been broken into two categories:

- **2.0 - Visual Identity Standards**  
The Visual Identity Standards represent the easiest to attain of the compliance categories and focus entirely on the presentation or “look and feel” of the site.
- **3.0 - Technical Standards**  
The Technical Standards category represents the baseline expected in order to meet the accessibility and other common technical standards agreed to by the GOJ.

## 1.4 Sites Subject to Standards

- All web sites under the Government of Jamaica domain (.gov.jm) must adhere to these standards.
- Sites produced on behalf of the Government of Jamaica should address all relevant areas of the Technical Standards ([Section 3](#)).

### 1.4.1 Collaborative Arrangements or Strategic Alliance Standards

GOJ institutions participating in collaborative arrangements with other levels of government or the private sector face additional challenges in ensuring identity, presence and visibility. Web sites are perhaps one of the most contentious applications as space for identification is often limited and the party hosting the Web site maintains creative control of the Web site.

Note that GOJ institutions must display the Jamaican flag thereby achieving a visual presence and balance between the government and its partners. One example might be a portal or gateway site. In other collaborative arrangements, the GOJ institution may have a lead responsibility. The institution may have funded the design, development and implementation of the site and may host the site server. Other participants may play a minor or limited role, for example as information sources. For such sites, the gov.jm domain name should be used and the CLF standards should fully apply.

## 2 VISUAL IDENTITY STANDARDS

These standards are designed to assist in creating a common look, navigation experience and feel for all GOJ Websites regardless of the services rendered through them.

### 2.1 Page Layout Guidelines

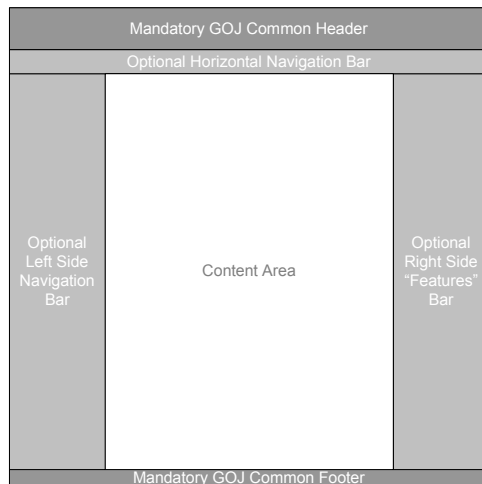
GOJ Web sites should adhere to common layouts where possible.

Requirement: Recommended

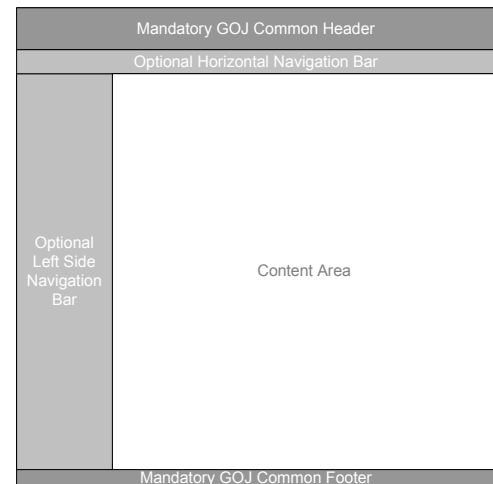
Rationale: Layouts consist of the following areas:

1. **GOJ Common Header** – Mandatory on all GOJ Web sites
2. **GOJ Common Footer** – Mandatory on all GOJ Web sites.
3. **Horizontal Navigation Bar** – Recommended for site-wide major section navigation
4. **Left hand Navigation Bar** – Recommended for section specific navigation.
5. **Right Hand “Feature” Bar** – Recommended for content features, page based navigation and links to resources and features.
6. **Content Area** – primary area for content, this area can be subdivided into smaller columns as required however best practices for Web design and typography should be adhered to.

Examples: Sample Layouts



3 Column Layout



2 Column Layout

Layout structures:

- Three Column Layout – The Three column layout is recommended for home and section pages where additional navigation features and links may be required.
- Two Column Layout – The Two column layout is recommended for pages with large amounts of content, both textual and visual.

- One Column Layout – A One column layout (not shown) may be used in certain circumstances where there is little need for navigation and an emphasis on content.

Sample Page Layout and Design using the 3 Column Grid and common Header and Footers.

**Ministry of 'X name'** Government of Jamaica 

Home | About Us | Contact Us Search | jamaica.gov.jm

---

**Pellentesque Portor**

- Luctus metus
- Suspendisse vel mauris
- Nam iaculis consectetur
- Duis adipiscing felis
- Aliquam erat volutpat

**Sed Adipiscing Arcu**

- Nulla hendrerit
- Nulla id interdum dapibus

**Misem Egestas**

- Venenatis diam lectus
- Suspendisse at dolor




## Sed placerat dictum est.

Aenean vitae nulla faucibus nulla auctor


### Welcome to the Ministry of Lorem Ipsum

Introductory Text. Ut interdum, ipsum et dictum tempus, turpis eros semper est, facilisis egestas dolor ligula id pede. Cras elementum sapien ut nisi. In aliquam sem eu massa. Curabitur ante massa, sodales at, fermentum nec.

#### Latest News



Ut interdum, ipsum et dictum tempus, turpis eros semper est, facilisis egestas dolor ligula id pede... [read more >>](#)



Cras elementum sapien ut nisi. In aliquam sem eu massa. Curabitur ante massa, sodales at, fermentum nec... [read more >>](#)



Ulla rutrum lacus quis nisi. Aenean vitae nulla faucibus nulla auctor dignissim. Vestibulum rutrum lobortis nisl. [read more >>](#)



Ut interdum, ipsum et dictum tempus, turpis eros semper est, facilisis egestas dolor ligula id pede... [read more >>](#)

#### Our Ministers



**Luctus metus**  
Suspendisse vel mauris nam iaculis consectetur... [read more >>](#)



**Duis adipiscing felis**  
Suspendisse vel mauris nam iaculis consectetur... [read more >>](#)

Important Notices | Help | © 2007, Government of Jamaica. All Rights Reserved
Last modified: June 7, 2007

References: See the GOJ, 3 and 2 Column Templates provided as additional resources.

## 2.2 GOJ Common Menu Bar

### 2.2.1 GOJ Common Menu Bar

All GOJ Web pages must include the common menu bar, placed at the top of every Web page, to facilitate navigation through and between GOJ sites. The GOJ menu options must appear in this order and include:

Left aligned: Home | About Us | Contact Us

Right aligned: Search | jamaica.gov.jm



Requirement: Mandatory

Rationale: The colour of the menu bar can be modified to accommodate the ministry or agency. The navigation links and dividers must be in a high contrast colour and must all be the same colour.

### 2.2.2 Home

All GOJ sites must have a “Home” link that will return the user to the main page of the local institutional site.

### 2.2.3 About Us

All GOJ sites must have an “About Us” link to a page with descriptions of the institutional mandate.

Requirement: Mandatory

Rationale: The jamaica.gov.jm link must link to <http://jamaica.gov.jm/> and have a title attribute which reads “Government of Jamaica Main Site”

### 2.2.4 Contact Us

All GOJ sites should provide relevant contact information, including information that could accommodate those with disabilities or special needs. The contact information provided should be in the context of where a user is on the Web site.

- Institutions should establish service standards or refer to existing institutional service standards. Service standards should be provided to the user up front so that they understand the process and know what to expect, i.e. response time for service delivery.
- Ensure proper implementation of acknowledgements

### 2.2.5 Search

All GOJ sites must be search enabled.

- This button should link to search and retrieval systems that enable users to obtain information on a particular subject on any GOJ Web site.

- Provide detailed help on how to search the information on your site with examples of how to conduct both a simple and an advanced search.
- Provide links to the other levels of searching within your institution e.g. Department or Agency.

## 2.2.6 Pages Exempt from Common Menu Bar

CLF Standards are mandatory on all HTML navigation pages of GOJ Web sites.

In the case of downloadable versions of documents that are in non-HTML formats such as .doc, .rtf, .pdf, .txt, .wpd, the implementation of the menu bars is not required.

## 2.3 Common Footer

All GOJ Web pages must include the common footer, placed at the bottom of every Web page, to facilitate access to key information.

Important Notices | Help | © 2007, Government of Jamaica. All Rights Reserved

Last modified: June 7, 2007

Requirements: Mandatory

Rationale: It is useful to establish a standard marker that signifies users have reached the end of any given Web page. A Standard GOJ Footer will ensure that common utilities and source for information.

The GOJ menu footer must include:

**Left aligned:** Important Notices | Help | YEAR, Government of Jamaica, All Rights Reserved

**Right Aligned:** Last Modified Date

### 2.3.1 Important Notices

A standard hyperlink reading “Important Notices” must be located at the bottom of each Web page on every GOJ site. The “important notices” page must feature plain language information about rights, responsibilities and legal obligations associated with using materials found on GOJ Web sites

Requirements: Mandatory

Rationale: Generally, these standards take the position that material on GOJ Web sites has been posted to support information dissemination through free public access. Without overburdening end-users, institutions should demonstrate their compliance with the many policies and procedures that govern information dissemination through electronic media.

Important Notices should consist of the following sections:

- Hyperlinking Notice
- Copyright / Permission
- Privacy Notice

### 2.3.1.1 Hyper linking Notice

All GOJ Web sites must include a Hyperlinking notice within the Important Notices link at the bottom of all GOJ Web pages.

Requirement: Mandatory

Rationale: The GOJ must absolve itself of responsibility for sites that are beyond its control by clearly stating that the links to external sites are provided solely for the convenience of the users.

Example: "Links to Web sites not under the control of the Government of Jamaica (GOJ) are provided solely for the convenience of users. The GOJ is not responsible for the accuracy, currency or the reliability of the content. The GOJ does not offer any guarantee in that regard and is not responsible for the information found through these links, nor does it endorse the sites and their content."

### 2.3.1.2 Copyright / Permission

All GOJ Web sites must include a Copyright / Permission notice within the Important Notices link at the bottom of all GOJ Web pages.

Requirement: Mandatory

Rationale: Anyone wishing to reproduce materials from an institutional Web site requires permission. Instead of responding to individual requisitions for permission, institutions should provide a notice to the public indicating the terms and conditions on which the materials on the site may be reproduced without further permission from the author institution. In fact, a copyright notice without a permission notice leaves the user in the position of not being able to reproduce the materials without infringement of copyright (subject to the fair dealing exceptions for private study and research).

In exceptional circumstances, institutions may wish to prohibit reproduction of some materials posted on their sites (i.e. priced publications that have been made available over the Internet). Such institutions should carefully examine their reasons for prohibiting the commercial redistribution of these materials. If the institution's primary interest is in facilitating the widest possible dissemination of its information, commercial redistribution should not be prohibited. Rather, commercial redistributors should be required to attach a notice to their reproductions to the effect that the materials are available in their original form from a GOJ Web site.

Finally, it is important to consider adequate protection for third-party copyright materials and graphical elements on GOJ Web sites. Generally, it is preferable for institutional Web sites to provide links to the third-party materials, rather than host them directly. An institution that hosts non-governmental copyright materials that are subject to prohibitions on reproduction really has no meaningful way of ensuring that the third-party copyright is respected. In such cases, a "third-party copyright" notice should be provided that indicates the conditions for reproduction of non- governmental copyrighted content.

### 2.3.1.3 Privacy Notices

All GOJ Web sites must adapt the following Privacy Notices within the Important Notices link at the bottom of all GOJ Web pages.

Requirement: Mandatory

Rationale:

The Privacy Notice assures end-users that information automatically acquired through a visit to any GOJ site will not be used other than for the express purposes of Web maintenance and security.

All GOJ Web sites must include a Privacy Notice Statement, whenever Web pages provide an opportunity for users to input personal information to ensure that they are informed of the conditions under which their personal information will be protected.

One of the differences between electronic communications and paper-based communications is that it may not be obvious to the individuals involved whether or not personal information is being collected in the course of any specific interaction. For these reasons, every Web site must include a Privacy Notice, even if no personal information is collected through that site.

A statement must actually appear next to the text requiring the personal information, for example an application form or survey, etc. informing individuals how the personal information will be used, which parts of the form are discretionary or mandatory, how long the personal information will be kept, where it will be kept (which Personal Information Bank) and how they can obtain access to their information.

**Privacy Notice Must Include:**

Identification of the organization and how it can be contacted, including the name or position title of the person to contact with any Web site privacy concerns.

- A statement explaining that should the user choose to provide personal information through e-mail or other means, such information will only be used for the specific purposes for which it has been provided (e.g. to respond to a specific request), or where required by law, how long it is kept, where it is kept and how to obtain access and request corrections.
- A statement that non-identifiable or statistical information may be collected for audit purposes, for use in maximising effectiveness, or for another purpose specified here, if this is the case.
- An explanation of any security use of information for purposes such as tracking suspected intrusions or the source of a computer virus, or controlling access to the system
- A statement concerning whether cookies, or any other data, are placed on the user's machine, and how they are used
- A description of any privacy-enhancing technologies in use or available for use such as the Public Key Infrastructure (PKI) or Secure Socket layer (SSL)

**Privacy Notice Should Include:**

- Links to other sites not covered by this privacy policy
- Any specific institutional policy on collecting information from children online
- Institutions should also remind users that, unless specifically noted otherwise, neither electronic systems or e-mail are secure information transmission methods, and that it is not recommended that sensitive personal information be transmitted electronically.

The Privacy Notice must provide enough detail to allow users to understand what information will be collected and when, and to make an informed decision concerning whether to remain at the site.

In some circumstances institutions may use an outside service provider as a Webmaster, and may provide a link for sending a message to the Webmaster. In those circumstances, the outside service provider must be under a contractual obligation to treat any personal information as though it were covered by the Privacy Notice as established by these

standards. In addition, the institution must make it clear to users that they are sending information outside the institution.

### Privacy Notice Statement Checklist

Indicate:

- That all personal information provided is protected under the Privacy Notice as established by these Standards
- Under what authority the personal information is being collected
- Why the personal information is being collected
- What personal information is collected automatically
- On input forms, which parts are mandatory and which are discretionary
- How the personal information is being collected automatically
- How long the personal information will be kept
- When the cookie will expire if cookies are used
- How users can gain access to their personal information
- How users can correct their personal information
- Contact information

## 2.3.2 Help

All GOJ web sites must have a Help Page

Requirement: Mandatory

Rationale: Help pages provide users with assistance in order to ensure that they are able to use your web site as intended. Help pages should include:

1. Provide an overview of any Accessibility features that are available on your site. e.g. Access Keys, personalization.
2. Describe what formats are available throughout your site (for example, PDF files).
3. Provide a link to technical help for problems with the Web site or for users who are having problems accessing information on the Web site, i.e. link to webmaster's e-mail.
4. Provide a link to the "Contact Us" page on the Web site.
5. Provide site-specific help information as well links to the institution's more general help.

## 2.3.3 Date Indicator

All GOJ Web pages must have a date indicator to signal to users that they have reached the end of that page and to signify the currency of the content.

Requirement: Mandatory

Rationale: All currency indicators must use the ISO standard for all-numeric date display (YYYY-MM-DD) or the GOJ standard for all alpha numeric date display (DDth/st/nd/rd MMMM YYYY) and use one of the following formats: Date published, Date modified, or Last updated.

The date indicator informs the users of the date of the original posting (issuance or publication) to the Web site or the date of last update (modification) of the resource. Because of its positioning at the bottom of the page, the date indicator can also signal to the users that they have reached the end of that page.

As GOJ sites are increasingly used to obtain valid, accurate and up-to-date information for personal and professional use, it is vitally important that GOJ institutions provide clear date indicators for the resources placed on their Web sites.

The standard provides for two kinds of dates: "Date published" and "Date modified". The dates must be represented in the ISO all-numeric date standard YYYY-MM-DD. The two dates are defined as follows:

- "Date published" is the date of formal issuance (i.e., posting to the Web site) of the resource.
- "Date modified" is the most recent date on which the document was substantially changed and re-posted to the Web site. "Last updated" is alternative wording. Use of "Date modified" is preferred.
- Either 'Date published' or 'Date modified' must be used, as applicable in accordance with the definitions above.

## 2.4 Disclaimers

Where externally sourced information, i.e., third-party information, is hosted on the institutional Web site, a liability disclaimer must be directly attached to the externally sourced information and should describe the type of information to which the disclaimer applies, i.e., databases, documents.

Requirement: Mandatory

Rationale: Institutions that choose to host or make links to externally sourced information on their Web sites may want to protect themselves from liabilities associated with the accuracy or reliability of such information.

However, institutions are cautioned against the overuse of disclaimers as they have the tendency to discredit the product and the information source.

If a disclaimer is used it must be directly attached to the externally sourced information and must describe the information to which the disclaimer applies.

Examples: The following are examples of disclaimers:

- Third party information hosted on the institutional Web site:

This information has been provided by an external source. Although every effort has been made to ensure the accuracy, the currency and the reliability of the content, [name of institution] does not offer any guaranty in that regard.

- For links to other Web sites not under the control of the institution:

This link is provided solely for the convenience of [department] Web site users. [Institution] is not responsible for the information found through this link.

## 2.5 Institutional Menus

GOJ institutions are free to develop additional secondary menu systems as required. Institutions with many Web sites or many levels of content may need this additional navigation assistance. Such secondary menus

may be located in the left column of Content Pages. They may incorporate a more graphic or visually thematic approach to displaying navigation options than is used in the mandatory menu. Secondary menus should be designed with the appropriate attention to accessibility concerns and should visually complement overall Web page layout.

## 2.6 Logos and Symbols

GOJ Web sites must not display third-party icons, symbols or logos that represent the products and services of private enterprises or individuals apart from exemptions made within the context of collaborative arrangements and the use of approved symbols for government-wide use.

Requirement: Recommended

Rationale: The GOJ disallows the creation or continuance of unfair competitive advantage in the private sector through the endorsement of private interests. As well, the GOJ must be sure to avoid making or implying an endorsement of an individual, company, organization or product.

Trademarks, logos, professional certifications, special file formats, and software plug-ins may be important to a specific audience; however, use of associated icons can be perceived to constitute an endorsement.

Otherwise, the use of symbols and logos is allowed in collaborative arrangements.

## 2.7 Formatting Guidelines

All GOJ Web sites should incorporate Cascading Style Sheets (CSS) or similarly sized tables to achieve consistent presentation of content.

Requirement: Formatting Guidelines are not mandatory with respect to this policy but are provided to help institutions carry out government policy efficiently and effectively.

Rationale: Once a majority of users use browsers that support CSS-2, the following style sheet techniques should be used to control layout and presentation.

1. Use style sheets for text formatting rather than converting text to images. For example, stylised text on a coloured background can be created with style sheets instead of as an image. This provides flexibility for people to view the text in a form that is most readable to them including magnified, in a particular colour combination such as white on black, or in a particular font.
2. Use style sheets rather than invisible or transparent images to force layout.
3. Use style sheets instead of deprecated presentation elements and attributes that control visual presentation (elements {BASEFONT, CENTER, FONT, S, STRIKE, and U}. attributes {"align," "background," "bgcolor," "colour," and "face"}). Authors are encouraged to use elements (such as strong, em, h1, h2, abbr, etc.) that add structure to documents.

Until then tables (to control layout) and bit-mapped text (for special text effects) may be used with alternative pages as necessary. <http://www.w3.org/WAI/GL/19980624txt.htm>

Use Cascading Style Sheets only where the CSS techniques in question are known to have adequate browser support. Each new release of the major graphical browsers includes more and better support for the CSS guideline. Many CSS commands especially for font effects, simple margins etc., have been well supported since level 4 graphical

browsers. More advanced CSS support is being developed. CSS markup must be used to replace the deprecated <FONT> tag in any case.

Following these 6 steps should minimize the need for testing multiple platform / browser combinations and will ensure your content is served.

1. Design to the W3C Priority 1 and 2 Checkpoints and CLF Standards.
2. Validate pages to XHTML 1.0 Transitional as a minimum.
3. Use style sheets.
4. Test pages in a browser with style sheets disabled.
5. When a client notifies you of an issue regarding access to content, then test against the specific issue and improve or solve it.

Examples: N/A

Reference: W3C Cascading Style Sheets (easy reference <http://www.w3.org/Style/CSS/>) or W3C CSS Validator (easy reference <http://jigsaw.w3.org/css-validator/>)

## 2.8 Web Site Design

All Web sites must be professionally designed and must be developed from an end user's point of view.

Requirement: Mandatory

Rationale: Effective design results from careful consideration of several elements: colour, space, imagery, typography and layout. While Web technologies offer new opportunities for creativity, there are distinct benefits to be gained in communication, identification, navigation and content through standardization of some design elements. When applied across a large group of related Web sites, design standards increase visual recognition by end-users and lead to stronger associations between various GOJ institutions.

In keeping with good design principles, the common look and feel Web page layout guidelines observe practices developed to maintain consistent, professional and highly cognitive relationships between all elements on each Web page.

Effective use of space is crucial to good information design. Effective use of white space in the left-hand column, along with a fixed width for content space, reinforces visual recognition of GOJ sites. Consistent use of labels, line width, Web page layout, etc., will further enhance visual recognition of GOJ sites and make it easy for users to locate exactly what they are looking for. Carefully coded Cascading Style Sheets are the most efficient means of achieving this standard, but simply coded tables may also be used to establish placement of elements.

Example: N/A

References: Accessibility Standard 3.1.7

## 2.9 Contact Information

### 2.9.1 Contact Information

All GOJ Web sites must provide users with a means of contacting institutions / individuals via electronic mail options.

Requirement: Mandatory

Rationale: While GOJ and affiliated Web sites are an excellent means of providing information to Jamaicans and the world at their convenience, it is important that individuals also be given the opportunity to contact a specific institution, operational area or individual when they need additional information or support. Electronic mail is an effective alternative to personal contact via the telephone or in-person visits, but it has inherent challenges.

Example: The e-mail address supplied as a link from the 'Contact' button on the common menu bar is one means users have to contact the institutional Web site. Another means would be a feedback form provided under the 'Help' button located on the same common menu bar.

When personal information is being collected, users must be informed of their rights and responsibilities and the obligations of the institution regarding its protection. Although e-forms generally represent a separate page on Web sites, they are subject to the same CLF standards regarding the identification of the institution and accessibility requirements.

## 2.9.2 E-mail

Institutions must include appropriate identification information in all electronic correspondence.

Requirement: Mandatory

Rationale: By standardizing the look and feel (content and format) of electronic forms on all GOJ Web sites, this initiative will make it easier for individuals using electronic media to make contact with public servants from any institution. Emails should include the following contact information: Name, Title, Ministry/Agency, Physical Address, Telephone, Facsimile, Email Address and URL

In situations in which e-mail is sent not by a specific individual, but rather by a service or program office (i.e. [Webmaster@webmaster.com](mailto:Webmaster@webmaster.com)) institutional contact information should still be made available.

Example: John Doe  
Web Master

Central Information Technology Office  
2nd Floor PCJ Building  
36 Trafalgar Road, Kingston 10, Jamaica, W.I.

Tel (876) 960-1009 x16  
Fax (876) 908-0563

[jdoe@cito.gov.jm](mailto:jdoe@cito.gov.jm)  
[www.cito.gov.jm](http://www.cito.gov.jm)

Or Institutional:

Web Master

Central Information Technology Office  
2nd Floor PCJ Building  
36 Trafalgar Road, Kingston 10, Jamaica, W.I.

Tel (876) 960-1009  
Fax (876) 908-0563

[webmaster@cito.gov.jm](mailto:webmaster@cito.gov.jm)  
[www.cito.gov.jm](http://www.cito.gov.jm)

### 2.9.3 Forms

Forms should include fields for the user's name, E-mail address and mailing address, as well as a field where they can input comments, questions, or requests for information. As well, users should be given the opportunity to indicate their preferred method of receiving a response.

Requirement: Recommended

Rationale: The use of mailto tools has become a widely used convention on the Web and is an excellent means of enabling end-users to make quick comments about specific Web pages or topics. These tools offer a number of benefits in that users do not have to input their personal information because the message header automatically includes their addressing information, a date stamp and various other pertinent information. They can also easily be tailored to include the URL of the originating Web page in the subject line.

Mailto tools also have several disadvantages. Firstly, the client's browser must be configured to send E-mail (most systems are configured in this manner), and because all text is free-text input, it cannot be validated. The tool lacks an automatic confirmation or acknowledgement function, meaning there is no way to inform users that their correspondence has been received. To facilitate universal accessibility, the Internet address that MAILTO responses will be delivered to should be made visible for users who cannot utilize this function. Although this will open up that address to SPAM, the risk is unavoidable.

HTML forms are not, in and of themselves, inaccessible. What the programmer / page author does with them determines the accessibility of the end product.

Elements of an inaccessible form:

- Complex visual layout and placement of controls and fields
- Badly explained requirements
- Field / control labels separated from and not clearly associated with their controls
- Client-side scripting to perform entry validation or completion
- No alternative method of posting information provided (e.g. no e-mail contact provided, no phone number to call for help, etc.)
- Elements of an accessible form:
  - Simple (e.g. single column) layout of controls and entry fields
  - Clear (meaningful) explanations or labels associated with fields and controls
  - Appropriate use of HTML mark-up specifically intended to enhance accessibility (e.g. LABEL, OPTGROUP, etc.)
  - Server-side verification and validation of data entry
  - Provision of alternate methods of contact/submission

The oldest assistive technologies can handle well-designed HTML forms. The trick is to get page designers to keep them simple and on the server-side.

## 2.10 Domain Naming

### 2.10.1 Primary Domain

A GOJ institution's primary site and any related sub-sites must use a .gov.jm domain designation. This includes sites that could be described as primarily related to program delivery and / or the provision of corporate information.

Requirement: Mandatory

Rationale: Sites with a .gov.jm domain name must apply all mandatory GOJ Web Standards. The .gov.jm domain is meant to apply to GOJ institutional Internet Web sites, though it is not meant to necessarily apply to all possible Web sites with which a GOJ institution is involved.

### 2.10.2 Formatting of Domain Names

Government of Jamaica domain names must adhere to the following domain naming convention:

[www.organization.gov.jm](http://www.organization.gov.jm)

Requirement: Recommended

Rationale: Organizations that consist of several sub-organizations may have multiple domain names. These domains may be used to define the sub-organizations and thus permit the reorganization of the domains without incurring dramatic changes throughout the ministries or departments.

Example: The Ministry of Tourism, Entertainment and Culture's domain would be: [www.mtec.gov.jm](http://www.mtec.gov.jm) while the sub components of Tourism, Entertainment and Culture may each maintain their own domains of: [www.tourism.gov.jm](http://www.tourism.gov.jm), [www.entertainment.gov.jm](http://www.entertainment.gov.jm), and [www.culture.gov.jm](http://www.culture.gov.jm).

### 2.10.3 Collaborative Arrangements or Strategic Alliances

GOJ organizations must ensure that Web sites that represent a collaborative arrangement acknowledge their participation by prominently displaying the Jamaican Flag according to the regulation governing its use, on each Web page pertaining to the collaboration, thereby achieving a visual presence and balance between the government and its partners.

Requirement: Mandatory

Rationale: Collaborative sites with others, such as NGOs, municipal governments, the private sector, etc. should have a different domain designation than gov.jm, such as .jm, .org.jm or .com.jm (e.g. <http://www.portmoremunicipality.org.jm>). On these sites, appropriate GOJ Web Standards as they relate to the technical standards still apply to the GOJ contribution.

## 3 TECHNICAL STANDARDS

These standards explain how to make Web content universally accessible to all users, including those people with disabilities, regardless of the user agent they are using (e.g., desktop browser, voice browser, mobile phone, automobile-based personal computer, etc.) or constraints they may be operating under (e.g., noisy surroundings, under- or over-illuminated rooms, in a hands-free environment, etc.). Adhering to these standards will also help people and search engines find information on the Web more quickly.

These standards should not discourage content developers from using images, video, etc., but rather explain how to make multimedia content more accessible to a wide audience. Any person should be able to obtain content, regardless of the technologies they use or the physical challenge, if any, faced by them.

All GOJ Websites must conform to the mandatory standards to ensure the site can be easily accessible by the widest possible audience.

### 3.1 Mandatory Standards

#### 3.1.1 Text Equivalents

Provide a text equivalent for every non-text element.

Requirement: Mandatory

Rationale: Text equivalents are necessary for all users who cannot or choose not to browse graphic, video or audio information. Text equivalents are also used by search engines. They describe the purpose and function of all non-text content, including images, text graphics, symbols, image maps, animations, applets, objects, ASCII art, frames, scripts, graphical bullets, spacers, graphical buttons, sounds, stand-alone audio files, video audio files and video clips.

Example: "alt" tags, "longdesc", or in element content. for images, graphical representations of text (including symbols), image map regions, animations (e.g., animated GIF's), applets and programmatic objects, ASCII art, frames, scripts, images used as list bullets, spacers, graphical buttons, sounds (played with or without user interaction), stand-alone audio files, audio tracks of video, and video.

Reference: W3C Checkpoint 1.1

#### 3.1.2 Server-Side Image Maps

Provide redundant text links for each active region of a server-side image map.

Requirement: Mandatory

Rationale: Some user-agents, such as text-only browsers, do not recognize server-side image maps. The links hidden in the server-side image map must also appear as a set of text links on the same page.

Example: The links hidden in the server-side image map must also appear as a set of text links on the same page.

Reference: W3C Checkpoint 1.2

### 3.1.3 Colour

Ensure that all information conveyed with colour is also available without colour, for example from context or markup.

Requirement: Mandatory

Rationale: People with colour deficits and those using monochrome displays must be able to access all information on the Web site. This includes text, images and navigation directions

When designing a document or series of documents, content developers should strive first to identify the desired structure for their documents before thinking about how the documents will be presented to the user. Distinguishing the structure of a document from how the content is presented offers a number of advantages, including improved accessibility, manageability, and portability.

Identifying what is structure and what is presentation may be challenging at times. For instance, many content developers consider that a horizontal line communicates a structural division. This may be true for sighted users, but to unsighted users or users without graphical browsers, a horizontal line may have next to no meaning. For example, in HTML content developers should use the HTML heading elements (h1-h6) to identify new sections. These may be complemented by visual or other cues such as horizontal rules, but should not be replaced by them.

Example: N/A

Reference: W3C Checkpoint 2.1

### 3.1.4 Colour Contrast

Ensure that foreground and background colour combinations provide sufficient contrast when viewed by someone having colour deficits or when viewed on a monochrome screen.

Requirement: Mandatory

Rationale: All text and images that convey information must be visible when viewed by someone having colour deficits or when viewed on a monochrome display.

Example: CSS Technique - Use numbers, not names, for colours:

```
h1 {colour: #808000}
```

```
h1 {colour: RGB (50%,50%,0%)}
```

**Deprecated example.**

```
h1 {colour: red}
```

Reference: W3C Checkpoint 2.2

### 3.1.5 Bitmap Images

When an appropriate mark-up language exists, use mark-up rather than images to convey information.

Requirement: Mandatory

Rationale: Bitmapped graphics used in place of text present accessibility problems because the text will be distorted when magnified.

Text in images may be used if:

- the text is serving a graphical function, as in the case of a logo;
- the text effect cannot be achieved with a cascading style sheet; and
- if a text equivalent is provided for the image.

Example: N/A

Reference: W3C Checkpoint 3.1

### 3.1.6 Valid Documents

Create documents that validate to published formal grammars.

Requirement: Mandatory

Rationale: All GOJ websites must validate against XHTML 1.0 Transitional or higher

Validating to a published formal grammar and declaring that validation at the beginning of a document lets the user know that the structure of the document is sound. It also lets the user agent know where to look for semantics if it needs to.

Design documents for compatibility and accessibility. Choose W3C-approved technologies, use languages to specification and apply standard software conventions to control the behaviour and activation of user interface components. By using mark-up according to specification, content developers promote consistency, compatibility and accessibility, and maximize the effectiveness of indexing tools, search engines and navigation tools.

Example: N/A

Reference: W3C Checkpoint 3.2

### 3.1.7 Style Sheets

Use style sheets to control layout and presentation.

Requirement: Mandatory

Rationale: Cascading Style Sheets (CSSs) separate style from mark-up and allow precise control over fonts, spacing, numbering, alignment and positioning of text and other content elements. This prevents the misuse of HTML tags, reduces the size of files, enhances the usability of reading browsers and allows users to override author styles through a user style sheet. CSSs also support aural style sheets that specify properties such as volume and background sounds. Because some browsers either do not support or do not implement CSSs consistently, developers must verify CSS styles through a tool such as the W3C CSS Validator and ensure that documents and presentation features are accessible when style sheets are turned off or not supported.

Example: N/A

Reference: W3C Checkpoint 3.3

### 3.1.8 Units

Use relative rather than absolute units in mark-up language attribute values and style sheet property values.

Requirement: Mandatory

Rationale: All sizes in style sheets and attributes must use either percentages or “em”

Pixels, points and other absolute dimensions are only allowed for media such as a print style sheet

It is recognized that one exception to this rule is permissible – the width of a page container or the width of a column within the page container may be defined using fixed units

Example: N/A

Reference: W3C Checkpoint 3.4

### 3.1.9 Headings

Use header elements to convey document structure and use them according to specification.

Requirement: Mandatory

Rationale: The proper use of headings helps separate content from structure, which is one of the core techniques of Web site accessibility. Heading elements must not be used only to create formatting effects. Heading level increments must be used correctly and in order. User-agents navigating documents through headings look for heading mark-up to create an outline of a page. If headings are used incorrectly, the outline will be confusing. Use CSS for general font sizing and effects.

Long documents are often divided into a variety of chapters, chapters have subtopics and subtopics are divided into various sections, sections into paragraphs, etc. These semantic chunks of information make up the structure of the document.

Sections should be introduced with the HTML heading elements (H1-H6). Other mark-up may complement these elements to improve presentation (e.g., the HR element to create a horizontal dividing line), but visual presentation is not sufficient to identify document sections.

Since some users skim through a document by navigating its headings, it is important to use them appropriately to convey document structure. Users should order heading elements properly. For example, in HTML, H2 elements should follow H1 elements, H3 elements should follow H2 elements, etc. Content developers should not “skip” levels (e.g., H1 directly to H3). Do not use headings to create font effects; use style sheets to change font styles for example.

Example: Note that in HTML, heading elements (H1 - H6) only start sections, they don't contain them as element content. The following HTML mark-up shows how style sheets may be used to control the appearance of a heading and the content that follows:

```
<head>
<title>Cooking techniques</title>
<style type="text/css">
/* Indent heading and following content */
div.section2 { margin-left: 5% }
</style>
</head>
<body>
<h1>Cooking techniques</h1>
... some text here ...
<div class="section2">
<h2>Cooking with oil</h2>
... text of the section ...
</div>
<div class="section2">
<h2>Cooking with butter</h2>
... text of the section ...
</div>
```

Reference: W3C Checkpoint 3.5

### 3.1.10 Lists

Mark up lists and list items properly.

Requirement: Mandatory

Rationale: The HTML list elements DL, UL, and OL should only be used to create lists, not for formatting effects such as indentation.

Ordered lists help non-visual users navigate. Non-visual users may “get lost” in lists, especially in nested lists and those that do not indicate the specific nest level for each list item. Until user agents provide a means to identify list context clearly (e.g., by supporting the ‘:before’ pseudo-element in CSS2), content developers should include contextual clues in their lists.

For numbered lists, compound numbers are more informative than simple numbers. Thus, a list numbered “1, 1.1, 1.2, 1.2.1, 1.3, 2, 2.1,” provides more context than the same list without compound numbers, which might be formatted as follows:

1.
  - 1.
  2.
    - 1.
  - 3.
2.
  - 1.

and would be spoken as “1, 1, 2, 1, 2, 3, 2, 1”, conveying no information about list depth.

Example: CSS1 and CSS2 allow users to control number styles (for all lists, not just ordered) through user style sheets.

The following CSS2 style sheet shows how to specify compound numbers for nested lists created with either UL or OL elements. Items are numbered as “1”, “1.1”, “1.1.1”, etc.

```
<!-- Code-->  
<style type="text/css">  
ul, ol { counter-reset: item }  
li { display: block }  
li:before { content: counters(item, "."); counter-increment: item }  
</style>  
<!-- End Code-->
```

Until either CSS2 is widely supported or user agents allow users to control rendering of lists through other means, authors should consider providing contextual clues in unnumbered nested lists. Non-visual users may have difficulties knowing where a list begins and ends and where each list item starts. For example, if a list entry wraps to the next line on the screen, it may appear to be two separate items in the list. This may pose a problem for legacy screen readers.

Reference: W3C Checkpoint 3.6

### 3.1.11 Quotations

Mark up quotations. Do not use quotation markup for formatting effects such as indentation.

Requirement: Mandatory

Rationale: `<blockquote>` must not be used for formatting effects such as indentation. A screen reader, for example, interprets a `<blockquote>` as a verbatim quotation. This can cause the user to misinterpret the content of the text.

Example: N/A

Reference: W3C Checkpoint 3.7

### 3.1.12 Natural Languages

Clearly identify changes in the natural language of a document's text and any text equivalents (e.g., captions).

Requirement: Mandatory

Rationale: If you are using another language in the document, indicate the change through markup (e.g. "lang" attribute in HTML; "xml:lang" in XML). The markup is used by Braille readers, reader browsers and translating machines to interpret and render natural language characters, pronunciation and translation. Changes in language include the "Language Choice" button on GOJ Welcome pages and on the Common Menu Bar.

Identifying changes in language are important for a number of reasons:

1. Users who are reading the document in Braille will be able to substitute the appropriate control codes (markup) where language changes occur to ensure that the Braille translation software will generate the correct characters (accented characters, for instance). These control codes also prevent Braille contractions from being generated, which could further confuse the user. Braille contractions combine commonly used groups of characters that usually appear in multiple cells into a single cell. For example, "ing" which usually takes up three cells (one for each character) can be contracted into a single cell.
2. Similarly, speech synthesizers that "speak" multiple languages will be able to generate the text in the appropriate accent with proper pronunciation. If changes are not marked, the synthesizer will try its best to speak the words in the primary language it works in. Thus, the French word for car, « voiture » would be pronounced "voter" by a speech synthesizer that uses English as its primary language.
3. Users who are unable to translate between languages themselves, will be able to have unfamiliar languages translated by machine translators.

Example: `<p>And with a certain`

Reference: W3C Checkpoint 4.1

### 3.1.13 Table Headers

For data tables, identify row and column headers.

Requirement: Mandatory

Rationale: The proper mark-up of tables, including rows, data cells and nested tables, is required to ensure that tables are read correctly by browsers and devices. Screen readers, for

example, use mark-up to correctly interpret both the structure of the table and the relationships between headings, columns, rows and data.

**Example:** This example shows how to associate data cells (created with TD) with their corresponding headers by means of the “headers” attribute. The “headers” attribute specifies a list of header cells (row and column labels) associated with the current data cell. This requires each header cell to have an “id” attribute.

```
<table border="1"
summary="This table charts the number of cups of coffee consumed by
each senator, the type of coffee (decaf or regular), and whether
taken with sugar.">

<caption>Cups of coffee consumed by each senator</caption>
<tr>
<th id="header1">Name</th>
<th id="header2">Cups</th>
<th id="header3" abbr="Type">Type of Coffee</th>
<th id="header4">Sugar?</th>
<tr>
<td headers="header1">T. Sexton</td>
<td headers="header2">10</td>
<td headers="header3">Espresso</td>
<td headers="header4">No</td>
<tr>
<td headers="header1">J. Dinnen</td>
<td headers="header2">5</td>
<td headers="header3">Decaf</td>
<td headers="header4">Yes</td>
</table>
```

A speech synthesizer might render the preceding table as follows:

**Caption:** Cups of coffee consumed by each senator

**Summary:** This table charts the number of cups of coffee consumed by each senator, the type of coffee (decaf or regular), and whether taken with sugar.

**Name:** T. Sexton, **Cups:** 10, **Type:** Espresso, **Sugar:** No

**Name:** J. Dinnen, **Cups:** 5, **Type:** Decaf, **Sugar:** Yes

**Reference:** W3C Checkpoint 5.1

### 3.1.14 Avoid Tables for layout

Do not use tables for layout unless the table makes sense when linearized. Otherwise, if the table does not make sense, provide an alternative equivalent (which may be a linearized version).

**Requirement:** Mandatory

**Rationale:** Style sheets must be used for layout and positioning of content elements. However, when it is necessary to use a table for layout, the contents of the table must be understood when the cells become a series of paragraphs.

**Example:** N/A

**Reference:** W3C Checkpoint 5.3

### 3.1.15 Avoid Tables for Format

If a table is used for layout, do not use any structural mark-up for the purpose of visual formatting.

**Requirement:** Mandatory

Rationale: Style sheet mark-up must be used for layout, positioning and formatting of text in cells. Do not use table elements that are intended to convey semantic meaning simply to emphasize text. The inappropriate use of table elements, such as <TH>, may cause unexpected results in some Web devices.

Example: The TH (table header) element is usually displayed visually as centred, and bold. If a cell is not actually a header for a row or column of data, use style sheets or formatting attributes of the element.

Reference: W3C Checkpoint 5.4

### 3.1.16 Order Style Sheets

Organize documents so they may be read without style sheets. For example, when an HTML document is rendered without associated style sheets, it must still be possible to read the document.

Requirement: Mandatory

Rationale: Some browsers either do not support or do not implement CSSs consistently. Developers must verify CSSs through a tool such as the W3C CSS Validator and ensure that documents and presentation features are accessible when style sheets are turned off or not supported.

Example: See <http://www.w3.org/TR/WCAG10-CSS-TECHS/#style-transform-gracefully> for examples.

Reference: W3C Checkpoint 6.1

### 3.1.17 Update Dynamic Content

Ensure that equivalents for dynamic content are updated when the dynamic content changes.

Requirement: Mandatory

Rationale: Text descriptions of dynamically changing visual items, e.g. a timed series of images depicting a tourist attraction, must be kept up to date and synchronized with the content.

Example: N/A

Reference: W3C Checkpoint 6.2

### 3.1.18 Programmatic Objects

Ensure that pages are usable when scripts, applets, or other programmatic objects are turned off or not supported. If this is not possible, provide equivalent information on an alternative accessible page.

Requirement: Mandatory

Rationale: Programmatic objects include scripts, applets, and other plug-ins that provide content and navigation features on the page. Redundant functionality must be provided through HTML or equivalent.

Example: N/A

Reference: W3C Checkpoint 6.3

### 3.1.19 Event Handlers

For scripts and applets, ensure that event handlers are input device-independent.

Requirement: Mandatory

Rationale: Use the <NOSCRIPT> element to ensure that all users have access to the information that would be provided if their Web device does not support event triggers.

Do not write event handlers that rely on mouse coordinates since this prevents device-independent input.

Example: N/A

Reference: W3C Checkpoint 6.4

### 3.1.20 Accessible Dynamic Content

Ensure that dynamic content is accessible or provide an alternative presentation or page.

Requirement: Mandatory

Rationale: An alternative presentation for dynamic content, including frames and scripts that cause changes, is required to make Web pages accessible. In the case of frames, the source of each frame must be in HTML or in another W3C-approved language. For scripts, <NOSCRIPT> elements are needed. Where scripts are implemented, use the <NOSCRIPT> element.

Example: The LINK element may also be used to designate alternative documents. Browsers should load the alternative page automatically based on the user's browser type and preferences. For example, use the LINK element as follows:

User agents that support LINK will load the alternative page for those users whose browsers may be identified as supporting "aural", "Braille", or "tty" rendering.

```
<!-- Begin Code -->
<HEAD>
<TITLE>Welcome to the Virtual Mall!</TITLE>
<LINK title="Text-only version"
rel="alternate"
href="text_only"
media="aural, Braille, tty">
</HEAD>
<BODY><P>...</BODY>
<!-- End Code -->
```

Reference: W3C Checkpoint 6.5

### 3.1.21 Flickering

Avoid causing the screen to flicker.

Requirement: Mandatory

Rationale: A flickering or flashing screen may cause seizures in users with photosensitive epilepsy and content developers should thus avoid causing the screen to flicker. Seizures can be triggered by flickering or flashing in the 4 to 59 flashes per second (Hertz) range with a peak sensitivity at 20 flashes per second as well as quick changes from dark to light (like strobe lights).

Example: N/A

Reference: W3C Checkpoint 7.1

### 3.1.22 Blinking

Users must be provided with a mechanism on the page or through a CSS to stop content from blinking.

Requirement: Mandatory

Rationale: Until user agents allow users to control blinking, avoid causing content to blink (i.e., change presentation at a regular rate, such as turning on and off).

Example: N/A

Reference: W3C Checkpoint 7.2

### 3.1.23 Moving Content

Avoid movement in pages.

Requirement: Mandatory

Rationale: Screen readers are unable to read moving text. People with physical disabilities might not be able to move quickly or accurately enough to interact with moving objects. Provide a mechanism within a script or applet to allow users to freeze motion. Movement created through CSS scripting allows users to turn off or override movement more easily.

Note. The BLINK and MARQUEE elements are not defined in any W3C HTML specification and should not be used.

Example: N/A

Reference: W3C Checkpoint 7.3

### 3.1.24 Auto-Refreshing Pages

Do not create periodically auto-refreshing pages.

Requirement: Mandatory

Rationale: The automatic refreshment of pages can be disorienting to users. Alternatives include using the server to generate HTTP-appropriate redirection codes or providing a static page that informs users that they should refresh the page often or that they should go to the URL of the updated page.

Example: N/A

Reference: W3C Checkpoint 7.4

### 3.1.25 Redirected Pages

Do not use mark-up to redirect pages automatically. Instead, configure the server to perform redirects.

Requirement: Mandatory

Rationale: The automatic refreshment of pages can be disorienting to users. Alternatives include using the server to generate HTTP-appropriate redirection codes or providing a static page that informs users that they should refresh the page often or that they should go to the URL of the updated page.

Example: Content developers sometimes create pages that refresh or change without the user requesting the refresh. This automatic refresh can be very disorienting to some users. Instead, in order of preference, authors should:

- i. Configure the server to use the appropriate HTTP status code (301). Using HTTP headers is preferable because it reduces Internet traffic and download times, it may be applied to non-HTML documents, and it may be used by agents who requested only a HEAD request (e.g., link checkers). Also, status codes of the 30x type provide information such as “moved permanently” or “moved temporarily” that cannot be given with META refresh.
- ii. Replace the page that would be redirected with a static page containing a normal link to the new page.

#### Deprecated Example

The following HTML example (using the META element) forwards the user from one page to another after a timeout. However, users should not redirect users with this mark-up since is non-standard, it disorients users, and it can disrupt a browser’s history of visited pages.

```
<head>
<title>Don't use this!</title>
<meta http-equiv="refresh" content="5;
http://www.example.com/newpage">
</head>
<body>
<p>If your browser supports Refresh, you'll be transported to our
<a href="http://www.example.com/newpage">new site</a> in 5 seconds,
otherwise, select the link manually.
</body>
```

Reference: W3C Checkpoint 7.5

### 3.1.26 Embedded Objects

Make programmatic elements such as scripts and applets directly accessible or compatible with assistive technologies

Requirement: Mandatory

Rationale: When an embedded object, such as a video object control panel, has its own interface, the interface must be accessible. If the interface of the embedded object cannot be made accessible, an alternative form of the content of the object must be provided.

Example: N/A

Reference: W3C Checkpoint 8.1

For further information about accessible interfaces, please consult W3C’s User Agent Accessibility Guidelines (<http://www.w3.org/TR/WAI-USERAGENT/>) and Authoring Tool Accessibility Guidelines (<http://www.w3.org/TR/WAI-AUTOOLS/>).

### 3.1.27 Client-Side Image Maps

Provide client-side image maps instead of server-side image maps except where the regions cannot be defined with an available geometric shape.

Requirement: Mandatory

Rationale: Client-side image maps can be made accessible by using “alt” attributes for all links within the map. Server-side maps are not accessible to all users.

When a server-side image map must be used, content developers should provide an alternative list of image map choices. There are three techniques:

- Include the alternative links within the body of an OBJECT element.
- If IMG is used to insert the image, provide an alternative list of links after it and indicate the existence and location of the alternative list (e.g., via that “alt” attribute).

If other approaches don’t make the image map accessible, create an alternative page that is accessible.

Server-side and client-side image maps may be used as submit buttons in Forms.

Example:

```
<a href="http://www.example.com/cgi-bin/imagemap/my-map">  
</a>  
<p>[<a href="reference.html">Reference</a>]  
[<a href="media.html">Audio Visual Lab</a>]
```

Reference: W3C Checkpoint 9.1

### 3.1.28 Element Interfaces

Ensure that any element that has its own interface can be operated in a device-independent manner.

Requirement: Mandatory

Rationale: Authors must not assume that all users will be using the same input device. Input devices include pointer devices, keyboards, Braille devices, head wands, microphones and others. Output devices may include monitors, printers, speech synthesizers and Braille devices. In practice, ensure that users can interact with all elements using a keyboard because most input devices provide controls that mimic keyboard inputs.

Example: If an interface object, e.g. a multi-media player is imported into a page, it must be accessible to a keyboard, or an accessible alternate must be provided.

Reference: W3C Checkpoint 9.2 and W3C Checkpoint 8.1

### 3.1.29 Design for Device-independence

For scripts, specify logical event handlers rather than device-dependent event handlers.

Requirement: Mandatory

Rationale: An event-handler invokes a script when a certain event occurs (e.g. the mouse moves, a key is pressed, the document is loaded, etc.). In XHTML, event handlers are attached to elements via event handler attributes (the attributes beginning with “on”, as in “onkeyup”).

What happens when an event occurs depends on the script the page author has created. Some produce purely decorative effects such as highlighting an image or changing the color of an element’s text. Others produce much more substantial effects, such as carrying out a calculation, providing important information to the user, or submitting a form. For scripts that do more than just change the presentation of an element, content developers should do the following:

Use application-level event triggers rather than user interaction-level triggers. In XHTML, application-level event attributes are “onfocus”, “onblur” (the opposite of “onfocus”), and “onselect”. Note that these attributes are designed to be device-independent, but are implemented as keyboard specific events in current browsers.

Otherwise, if you must use device-dependent attributes, provide redundant input mechanisms (i.e., specify two handlers for the same element):

- Use “onmousedown” with “onkeydown”
- Use “onmouseup” with “onkeyup”
- Use “onclick” with “onkeypress”

Note that there is no keyboard equivalent to double-clicking (“ondblclick”) in HTML 4.0

Example: <http://www.w3.org/WAI/wcag-curr/sam71-0.htm>

Reference: W3C Checkpoint 9.3

### 3.1.30 Pop-up and New Windows

Do not cause pop-ups or other windows to appear and do not change the current window without informing the user.

Requirement: Mandatory

Rationale: Pop-up windows are not accessible to non-visual browsers. All users are disoriented when displays or other outputs change suddenly. Users must be able control changes.

Example: N/A

Reference: W3C Checkpoint 10.1

### 3.1.31 Labels and Form Controls

Ensure that the label for a form control is properly positioned.

Requirement: Mandatory

Rationale: Non-visual users need to associate a control label with the control mechanism. Labels must be positioned on the same line as the control when there are two or more controls on a single line. Labels must be positioned on the line before the control when there is only one control on a line.

- Text labels for checkboxes and radio buttons must immediately follow the form element.
- Text labels for text fields must immediately precede the form element
- Buttons must be labelled using the value attributes or enclosed text

Example: The following example shows how a label and form control may be implicitly associated with mark-up:

```
<label for="firstname">First name:
<input type="text" id="firstname" tabindex="1" />
</label>
```

Reference: W3C Checkpoint 10.2

### 3.1.32 W3C Technologies

Use W3C technologies when they are available and appropriate for a task and use the latest versions when supported.

Requirement: Mandatory

Rationale: The W3C provides extensive information about technologies recommended and under review. Use technologies to specification, even if browsers do not currently support some elements. They are likely to be supported in future versions.

Example: Do not use .doc, .rtf, .pdf, .txt, .wpd, or other formats unless an equivalent W3C technology based format, such as xhtml, is available

Reference: W3C Checkpoint 11.1

### 3.1.33 Deprecated Elements

Avoid deprecated features of W3C technologies.

Requirement: Mandatory

Rationale: Deprecated (outdated) techniques and attributes, such as the <FONT> attribute, may cause accessibility problems with new browsers.

Example: **Deprecated HTML tags and their replacements:**

Deprecated	Replacement
<applet>	<object>
<basefont>	CSS
<center>	CSS (text-align: center)
<dir>	<ul>
<font>	CSS
<isindex>	<form>
<menu>	<ul>
<s>	CSS
<strike>	CSS
<u>	CSS

#### Deprecated HTML attributes

Attribute	Deprecated if used in
align	<caption>, <img>, <table>, <hr>, <div>, <h1..6>, <p>

alink	<body>
background	<body>
bgcolor	<body>, <table>, <tr>, <td>, <th>
clear	 
compact	<ol>, <ul>
color	<basefont>, <font>
border	<img>, <object>
hspace	<img>, <object>
link	<body>
noshade	<hr>
nowrap	<td>, <th>
size	<basefont>, <font>, <hr>
start	<ol>
text	<body>
type	<li>
value	<li>
vlink	<body>
width	<hr>, <pre>, <td>, <th>
vspace	<img>, <object>

Reference: W3C Checkpoint 11.2

### 3.1.34 Accessible Equivalents

If, after best efforts, you cannot create an accessible page, provide a link to an alternative page that uses W3C technologies, is accessible, has equivalent information (or functionality), and is updated as often as the inaccessible (original) page.

Requirement: Mandatory

Rationale: Content developers should only resort to alternative pages when other solutions fail because alternative pages are generally updated less often than “primary” pages. An out-of-date page may be as frustrating as one that is inaccessible since, in both cases, the information presented on the original page is unavailable. Automatically generating alternative pages may lead to more frequent updates, but content developers must still be

careful to ensure that generated pages always make sense, and that users are able to navigate a site by following links on primary pages, alternative pages, or both. Before resorting to an alternative page, reconsider the design of the original page; making it accessible is likely to improve it for all users.

Example: N/A

Reference: W3C Checkpoint 11.4

### 3.1.35 Frames

Frames are not allowed for GOJ websites

Requirement: Mandatory

Rationale: Frames are an example of non-sequential text, which can create interpretation problems for individuals using assistive technologies and for advanced multi-modal systems. Frames present additional problems when trying to ensure that organizational identification and GOJ Identifiers remain attached to content when located via search engines. Frames can also prevent users from easily bookmarking specific Web site content.

Example: N/A

Reference: W3C Checkpoint 12.1

### 3.1.36 Information Blocks

Divide large blocks of information into more manageable groups where natural and appropriate.

Requirement: Mandatory

Rationale: Large blocks of information, including lists and controls, must be divided into natural groupings through the use of XHTML mechanisms. Groupings can improve the navigability and comprehension of the document.

Example: Use FIELDSET to group form controls into semantic units and describe the group with the LEGEND element.

- Use OPTGROUP to organize long lists of menu options into smaller groups.
- Use tables for tabular data and describe the table with CAPTION.
- Group table rows and columns with THEAD, TBODY, TFOOT, and COLGROUP.
- Nest lists with UL, OL, and DL.
- Use section headings (H1 - H6) to create structured documents and break up long stretches of text.
- Break up lines of text into paragraphs (with the P element).
- Group related links.

All of these grouping mechanisms should be used when appropriate and natural, i.e., when the information lends itself to logical groups. Content developers should not create groups randomly, as this will confuse all users.

Reference: W3C Checkpoint 12.3

### 3.1.37 Control Labels

Associate labels explicitly with their controls.

Requirement: Mandatory

Rationale: Non-visual users must be able to associate a control label with the appropriate control mechanism, so all controls must be labelled.

Example: A label is implicitly associated with its form control either through mark-up or positioning on the page. The following example shows how a label and form control may be implicitly associated with mark-up.

```
<label for="firstname">First name:
<input type="text" id="firstname" tabindex="1">
</label>
```

Reference: W3C Checkpoint 12.4

### 3.1.38 Link Targets

Clearly identify the target of each link.

Requirement: Mandatory

Rationale: A link text must make sense when read out of context, either on its own or as a sequence of links. Link text must also be clear. For example, use the text "information about version 4.3" instead of "click here".

If more than one link on a page shares the same link text, all those links should point to the same resource.

If two or more links refer to different targets but share the same link text, distinguish the links by specifying a different value for the "title" attribute of each A element.

Example: 

```
<a href="my-doc.html">My document is available in HTML</a>,
<a href="my-doc.pdf" title="My document in PDF">PDF</a>,
<a href="my-doc.txt" title="My document in text">plain text</a>
```

Reference: W3C Checkpoint 13.1

### 3.1.39 Metadata

Provide metadata to add semantic information to pages and sites.

Requirement: Mandatory

Rationale: Metadata provides information about Web resources, improving accessibility and assisting with Search Engine Optimization. The following core META items must be included with all pages: Title, Description and Keywords. Additional META items may be included as required.

Example: N/A

Reference: W3C Checkpoint 13.2

### 3.1.40 Navigation

Use navigation mechanisms in a consistent manner.

Requirement:	Mandatory
Rationale:	A consistent style of presentation on each page allows users to easily find navigation buttons between pages, as well as find the primary content for each page. While this helps make it easier for everyone, it especially benefits people with learning and reading disabilities. Making it easy to predict where the needed information is found on each page will increase the likelihood that it will be found.
Example:	N/A
Reference:	W3C Checkpoint 13.4

### 3.1.41 Writing Styles

Use the clearest and simplest language appropriate for a site's content.

Requirement:	Mandatory
Rationale:	Clear and accurate language for body text, heading and links will make it easier for everyone to use the site, including people using screen readers and those with reading and cognitive disabilities.
Example:	The W3C provides several tips regarding writing styles in Core Techniques for Web Accessibility Guidelines 1.0 ( <a href="http://www.w3.org/TR/WCAG10-CORE-TECHS/#writing-style">http://www.w3.org/TR/WCAG10-CORE-TECHS/#writing-style</a> ).
Reference:	W3C Checkpoint 14.1

### 3.1.42 Design for Device Independence

Use features that enable activation of page elements via a variety of input

Requirement:	Mandatory
Rationale:	<p>Device-independent access means that the user may interact with the user agent or document with a preferred input (or output) device - mouse, keyboard, voice, head wand, or other. If, for example, a form control can only be activated with a mouse or other pointing device, someone who is using the page without sight, with voice input, or with a keyboard or who is using some other non-pointing input device will not be able to use the form.</p> <p>Note: Providing text equivalents for image maps or images used as links makes it easier for users to interact with them without a pointing device.</p> <p>Generally pages that allow keyboard interaction are also accessible through speech input or a command line interface.</p>
Example:	N/A
Reference:	<a href="http://www.w3.org/WAI/wcag-curric/chk10-0.htm">http://www.w3.org/WAI/wcag-curric/chk10-0.htm</a>

### 3.1.43 Document Technologies

HTML and other W3C recommended (standard) languages must be the primary format for all documents on GOJ Websites.

Requirements:	Mandatory
---------------	-----------

**Rationale:** In cases where the document cannot be represented in html, users should be given information on how to obtain alternate versions, e.g., print, Braille, audio, etc. Portable Document Format minimum version 2.1 should only be used as an alternate format.

Simply using W3C languages for mark-up or application design does not mean that Web content will be naturally accessible: using W3C languages does however allow developers to use standard methods to ensure the accessibility of your products.

Current W3C technologies

- MathML - for mathematical equations
- HTML, XHTML, XML - for structured documents
- RDF - for meta data
- SMIL - to create multimedia presentations
- CSS and XSL - to define style sheets
- XSLT - to create style transformations
- PNG - for graphics (although some are best expressed in JPG, a non-W3C spec)

#### 3.1.44 Alternate Formats

Web pages that offer information in alternate formats must include a text indication of the file type that provides a hyperlink to a site where the necessary software can be obtained.

**Requirement:** Mandatory

**Rationale:** The first format encountered by a browser should be the most accessible format (usually, accessible HTML), however, if the information is presented in other formats, the content provider should clearly indicate what those formats are and if possible, include a link to a site where the visitor can download an appropriate viewer or “plug-in” application. If an accessible version of a plug-in is also known to be available, then a note and a link to that product should also be included.

**Example:** N/A

**Reference:** N/A

## 3.2 Recommended Standards

### 3.2.1 Auditory Descriptions

Provide an auditory description of the important information of the visual track of a multimedia presentation.

**Requirement:** Recommended

**Rationale:** Auditory descriptions provide information about the actions, body language, graphics, and scene changes through pre-recorded human voices or synthesized voices. The auditory descriptions are usually fit within natural pauses in the audio track and must be synchronized with the visual track.

**Example:** Here’s an example of a collated text transcript of a clip from “The Lion King”. Note that the Describer is providing the auditory description of the video track and that the description has been integrated into the transcript.

Simba: Yeah!

Describer: Simba races outside followed by his parents. Sarabi smiles and nudges Simba gently toward his father. The two sit side-by-side, watching the golden sunrise.

Mufasa: Look Simba, everything the light touches is our kingdom.

Simba: Wow.

Reference: W3C Checkpoint 1.3

### 3.2.2 Synchronize Equivalents

For any time-based multimedia presentation (e.g., a movie or animation), synchronize equivalent alternatives (e.g., captions or auditory descriptions of the visual track) with the presentation.

Requirement: Recommended

Rationale: Text equivalents for the audio tracks of multimedia presentations are used by screen readers, search engines and people accessing the Web site without the aid of a sound system. The text equivalents can be: text transcripts of dialogs and sounds; a set of captions describing actions; or a collated text combining a dialog transcript and captions. Transcripts, captions and collations must be synchronized with the action.

Some media formats (e.g., QuickTime 3.0 and SMIL) allow captions and video descriptions to be added to the multimedia clip. SAMI allows captions to be added. The following example demonstrates that captions should include speech; as well as other sounds in the environment that help viewers understand what is going on.

Example: Captions for a scene from "E.T."

The phone rings three times, then is answered.

[Phone rings]

[ring]

[ring]

Hello?"

Reference: W3C Checkpoint 1.4

### 3.2.3 Table Structure

For data tables that have two or more logical levels of row or column headers, use markup to associate data cells and header cells.

Requirement: Recommended

Rationale: To clarify the meaning of data in complex tables, use markup elements to associate individual data cells with their respective row and column headers.

Example: Refer to <http://www.w3.org/TR/WCAG10-HTML-TECHS/#identifying-table-rows-columns> for more complex examples.

Reference: W3C Checkpoint 5.2

## 4 BEST PRACTICES

### 4.1 Proper Web Site Design

All Web sites must be designed and developed from a user's point of view and testing is a necessary part of the process. Coherent presentation of content is intrinsically linked to layout, typography, graphic standards, and the use of symbols and measurement specifications that can be applied to all GOJ Web pages, regardless of their function, to establish a standard framework.

Minimalism is a good practice in designing Web sites. Graphic files should be as small as possible to facilitate rapid delivery via any end-user technology and should include text equivalents to ensure all users can obtain a description of what the graphic contains and what purpose it serves. Users should be warned of large file sizes and non-standard formats. Navigational aids, such as buttons and links, should be well designed and easy to use.

It is recommended that GOJ Web sites minimize non-essential visual information. Where visual images are used, they must be accompanied by appropriate ALT Text tags to ensure that all users are provided with information about what the images represent and can identify the target (or destination) of images that act as links. ([See Standard 3.1.1](#))

GOJ institutions are free to use Web and multimedia technologies to enhance content, on the condition that all elements are universally accessible. Web developers and content providers can maintain alternate versions of content that offer demonstrations of advanced technologies, alternate formats or interactive multimedia components. These must be presented as secondary content and must incorporate appropriate hyperlinks if users are expected to download software or plug-ins to operate multimedia components. ([See Standard 3.1.32](#))

#### 4.1.1 Imagery

Well-designed and carefully placed images can improve the visual appeal and information content of Web sites. However, the time it takes to display large images may drive users away from the site. Many users choose to turn off their display options; others, including individuals with certain disabilities or those with non-graphical browsers, cannot view images at any time. Therefore, imagery should be kept to a minimum on GOJ Web pages. In addition, all images (graphics, photographs, icons, etc.) should be accompanied by descriptive text equivalents to ensure all users can obtain the same information. It is critical to indicate when images act as links to other Web pages of the site or to other sites. Web developers may choose to use thumbnail images as a link to enable users to view larger versions, and should include information regarding the file size and format. ([See Standard 3.1.1](#))

#### 4.1.2 Animated or Scrolling Images and Text

Various simple mechanisms can be used to add an element of motion to either text or graphics, thereby enhancing the look, adding a degree of entertainment, or serving some other legitimate purpose within the context of a particular Web site. The World Wide Web Consortium (W3C) Web Content Accessibility Guidelines do not ban the use of animated or scrolling images and text, but do provide specific instructions on how they can be implemented without having a negative impact on accessibility. When used, these elements should not self-activate; rather, they should be user-controlled, meaning both activation and deactivation are dependent upon specific requests from the user. In addition, text equivalents must be provided via ALT text or LONGDESC tags. If there is any doubt as to the value of an animated or scrolling text or image, it should be removed from the site. ([See Standard 3.1.1](#))

### 4.1.3 Text Elements

Like visual elements, Web site texts should be simple and concise. Content should fit within one or two screens, since users are reluctant to scroll endlessly through documents. Font sizes are limited to a single size for each heading level, and a single size for body text. Users should be warned of large file sizes and non-standard formats. Developers should structure information so that it is relatively easy to update.

### 4.1.4 Typography

Typography choices can enhance or detract from the overall visual appeal of a site. Although user display preferences in individual browsers have ultimate control over text presentation and fonts are displayed as coded only when browsers are set to the default preference, there are benefits to be gained through consistent font presentation.

### 4.1.5 Layout

Web page layout is an integral part of Common Look and Feel. Some common styles of Web page design create barriers for individuals using assistive devices and non-graphical technologies. Such barriers to accessibility can be avoided through thoughtful Web page design in accordance with Accessibility and W3C guidelines.

Accessibility is not the only issue with respect to layout. Beyond the common menu bars and identification, a common approach to organizing site content plays a major role in visually unifying the various government Web sites. The simple fixed columnar arrangement provides for third level navigation requirements, creative themes, and a body text line-length that is easy to read on-screen. This layout anchors, in fixed space, the graphic elements which identify the site as a government site and ensures that the consistent presentation of the site content works together with the mandatory graphic elements.

It is the responsibility of individual Web developers with (or those contracted by) the GOJ to ensure Web sites are designed to be universally accessible. Information on how to use tables effectively for the layout of images or data presentation is provided from the World Wide Web Consortium Web site (<http://www.w3.org/TR/UAAG10-TECHS/#tech-table-summary>). (See 3 Technical Standards).

## 4.2 Techniques to improve accessibility

### 4.2.1 Technique 1 - Include a statement

If, in spite of your best efforts, you are unable to make any document or page accessible, the following is an example of explanatory text you can use to meet the requirements of the Technical Standards. Please note that this technique should be used only as a last-resort as it is contrary to the spirit of the policy that is intended to make all Web content widely accessible.

Include a statement on the same page and preceding the inaccessible element to this effect (some optional language is enclosed between square brackets):

- *If the following* [information, content, document, application, form, interactive questionnaire, animation, multimedia presentation or whatever it may be] *is not accessible to you, please contact* [name, e-mail, phone number, mailing address or other appropriate contact information] *for* [assistance, explanations, alternate formats such as regular print, large print, Braille, audio cassette or other appropriate format]

### 4.2.2 Technique 2 - Accessible mark-up

Another way to provide similar information in a Web page is to include it as the content of the <OBJECT>, <APPLET> (deprecated), <NOSCRIPT>, or <NOEMBED> elements:

The following is an example of accessible mark-up you can use to meet the Technical Standards.

```
<object data="http://mysite.com/finance_calculator.class"
type="application/java" > Note: If your system cannot run this
Financial Calculator program (a Java application) please contact
the ICT Office at (876) 929-8990 for assistance. </object>
```

Note that <EMBED> and <NOEMBED> are not included the HTML standard, and <APPLET> is deprecated as of HTML 4.0.

The information placed between the start and end tags of the <OBJECT> element will be displayed on browsers that either don't support Java, or that don't support <OBJECT>.

### 4.2.3 Technique 3 - Accessibility notice

Finally, if you resort to using such techniques, you should also place a note in the "Help" pages associated with your site. Something like this would be appropriate:

***Accessibility Notice:** While every reasonable effort has been made to ensure the accessibility of this site, some content or services found here might be inaccessible to some visitors. In those circumstances, the contact information for someone who can assist you has been provided.*

However, what you should first do in any case is make an effort to create an accessible alternative (using accessible mark-up) and include it as the content of the element - or less desirably, on a separate page - instead of resorting to the above disclaimers.

### 4.2.4 Technique 4 - Converting legacy and PDF documents

Documents held in legacy PDF stores should be converted to an accessible format.

Rationale: Conversion of Legacy Documents to PDF.

New files created in PDF must also be provided in an accessible format.

Legacy Documents already in PDF Format.

Departments should start identifying the PDF documents that are most frequently accessed and develop a strategy for converting them to W3C accessible formats.

## 4.3 Accessible pop-up windows and menus

To make your pop-up windows accessible to people who do not use a mouse to navigate, add the event triggers "onFocus" and "onBlur" to make the effect available to keyboard users.

Please note that client-side scripted pop-up windows may be partly or totally inaccessible to some users. Some users of screen-readers may be unaware that new windows have appeared, or may be confused by their sudden appearance. Also, people who have disabled script support or whose browsers do not support scripting will not "get the message". Where practical, use accessible server-side techniques to provide important messages.

### 4.3.1 Examples of how to create accessible menus

"Drop-down" or "rollover" menus created with client-side scripting can be made accessible to browsers that don't support client side scripting by adding a <NOSCRIPT> block that duplicates the content or functionality of the scripted menu. As well, you must ensure that the event-trigger you use is device independent.

In this example taken from a main page, the code is extracted from the "Newsroom" button on a site. Additional event triggers were not added to provide an example of the use of the NOSCRIPT block.

How to: The URL's and link-text are simply copied and pasted from the script declaration on the page, then added as plain HTML (UL list) to a NOSCRIPT block in the table cell containing the button:

```
<a onfocus="popUp('elMenu6')" onblur="popDown('elMenu6')"
href="http://www.gov.jm/newsro.htm"></a>
<noscript>
<ul>
<li><a href="/newsro.htm">Update-Main page</a><br></li> <li><a
href="/news/">News Releases</a><br></li>
<li><a href="/speech/">Speeches</a><br /></li>
<li><a href="/publications.htm">Publications</a><br /></li>
<li><a href="/newsflash.htm">News flash</a><br /></li>
<li><a href="/comingevents.htm">Coming events</a><br /></li>
<li><a href="/issues.htm">Major issues</a><br /></li>
<li><a href="/archives.htm">update archive</a><br></li> <li><a
href="/media.htm">Multimedia</a><br /></li>
<li><a href="/_ind.nsf/subscribe">Subscribe</a><br /></li>
</ul>
</noscript>
```

- This was tested with a non-JavaScript browser (Lynx) and Netscape (4.6) with Javascript disabled and functions correctly.
- The page looks odd in Netscape with Javascript off, but the functionality is available to users.
- The <NOSCRIPT> block is ignored (and not displayed) by IE (5.5) and Netscape (4.6) with Javascript enabled.

### 4.3.2 Accessibility across platforms

To ensure accessibility across platforms; make sure that a list of links similar to the one in the pull-down menu (or <NOSCRIPT> block) is available on the destination page of the main link.

In other words, be sure that the pull-down menu (and <NOSCRIPT> block) is not THE ONLY way to get to the sub-links.

The reason: Graphical browsers that support scripting may never see the pulldown menu because assistive technologies do not recognize it and it may never see the <NOSCRIPT> alternative because it is not made available by script aware browsers.

## 4.4 Hyperlinking Policies

As a general rule, it is not necessary to have a linking agreement or to obtain permission when establishing a link to another site. Also, as a general rule, the GOJ reserves the right to refuse or to terminate links without notice.

These best practices should be applied to all links on Web sites, irrespective of the document format (e.g. HTML, PDF, RTF, etc.):

### 4.4.1 Linking from GOJ Web sites

Where appropriate, GOJ institutions are encouraged to use lists of links rather than embedded or contextual links. This method of displaying information improves the overall accessibility of the page. A links page or page with a separate list of links should provide a link to the Hyperlinking Notice in the Important Notices section. It should be preceded by a statement such as: "For further information on the [name of institution]'s hyperlinking practices, please refer to the Hyperlinking Notice."

GOJ institutions should develop a set of criteria for linking to and from their Web sites. Once established, these criteria should be applied consistently to all of the institution's Web sites and may be published for reference by the public. A sample set of Criteria for Hyperlinking follows, and GOJ institutions are encouraged to adapt it for use on their Web sites in consultation with their legal counsel. Institutions should

seek to ensure that the process and criteria are objective, bias-free, based on relevant considerations, and are rationally tied to the purpose of the website and to the mandate of the institution. Relevant considerations include such things as:

- Content of the site
- Mandate of the institution
- Non-endorsement
- Non-advertising
- Non-commercial products
- Unfair competitive advantage
- Use of texts links

Links to non-GOJ Web sites, particularly when they are interspersed throughout the site, should be referenced in a clear way to a directive or information that explains that the user is leaving a GOJ Web site. This can be accomplished by using the "TITLE" attribute in the HTML link tag.

Example: `<a href="http://www.nongovernmentofjamaicasite.com" title="Link to a non-Government of Jamaica site - For more information on the [name of institution]'s hyperlinking practices, please refer to the Hyperlinking section of the Important Notices at the bottom of this page.">nongovernmentofjamaicasite.com</a>` Example:  
nongovernmentofjamaicasite.com

Note: The above solution may not work in all browsers.

GOJ institutions should not load the content of other Web sites, be they GOJ or non-GOJ, into the frames associated with their site unless a hyperlinking agreement exists. Since users are not necessarily aware that they have been linked to another site, framing in this manner may generate complaints of copyright and trademark infringement.

Deep linking refers to the practice of providing a link to internal pages of another Web site, bypassing the home or splash page of the site to which the link is created. As a general rule, an agreement is not required to create a deep link from a GOJ to a non-GOJ Web site; however, you should consider hyperlinking to home pages or obtaining permission before deep linking to private sector or commercial Web sites under the following circumstances:

- When the site owner, by notice on the Web site, prohibits deep linking without permission; or
- When bypassing the site's home page by navigating to a specific sub-page will result in a loss of advertising opportunities and revenue.