AccMonitor

High Tech Center Training Unit

Of the California Community Colleges at the
Foothill-De Anza Community College District

21050 McClellan Road
Cupertino, CA 95014
(408) 996-4636

http://www.htctu.net

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AccMonitor

Publisher

HiSoftware Incorporated
6 Chenell Drive Suite 280
Concord, NH 03301
USA
Toll-Free: 888-272-2484
Technical Support: 603-229-3055
http://www.hisoftware.com

Retail Cost

Depends on number of webs to evaluate - AccMonitor for two webs: $1295. Prices as identified via website. California Community Colleges are covered under license through HTCTU (see the HTCTU for more information).

System Requirements

1. A PC-based computer running Windows NT 4.0 with Service Pack 4/2000/XP. Internet Explorer also recommended.

2. Recommended 128 MB RAM or greater.

3. 30 MB of Hard Disk space required. Additional memory necessary for database sets.

Description

AccMonitor is a tool that allows for the evaluation and assessment of web-based materials. AccMonitor can crawl (or spider) through large scale websites and identify accessibility and usability errors and provide updates via e-mail or through a web-based interface. AccMonitor also contains functionality for repairing web content, such as alternative text for images, across websites with a few simple procedures (Note: the repair function does not make corrections to web pages evaluated via the Web). AccMonitor can be installed on single Windows-based server or run from a desktop machine.

Additional tools are available from the HiSoftware website depending on your license agreement. These additional tools are described at the end of this manual under the **Other Tools** heading.

Getting Started

Install the AccMonitor to a local PC or a webserver depending on the type of functionality you desire. Once you have installed the application, you will need to enter the license key code that unlocks the features of the application (see below). Once you have entered the license key, you should register the application at the HiSoftware website: (http://www.hisoftware.com/register.htm).

AccMonitor Setup Wizard

After beginning the application, you may be asked several questions that determine how the AccMonitor application will be configured for your use - these settings can be changed later if necessary. For general use of AccMonitor, select the following radio button options:

1. Choose the "Section 508 Report Mode (US Only)

2. Choose "Summary Only (Graphs are generated for summary reports)

These settings can be changed for individual websites at a later point.

Installing the License Key

1. Select **Action** from the menu bar.

2. Select **Licenses**.

3. Select **Add Web License…**.

4. Enter the correct Company Name and License Key code. Incorrectly entering this information will not validate the application and you will only be able to evaluate a set number of files.

5. Select **OK** and return to the application.

Running Verifications

AccMonitor provides the ability to run two different types of verifications on the Web content. By running a verification on the selected files, AccMonitor will identify the pages with accessibility violations and provide a summary report. This is an instantaneous "snapshot" of the accessibility of the current set of pages. The second method is to have AccMonitor installed on a webserver, thus providing additional functionality to select which files are scanned for accessibility errors and if the pages can be automatically repaired.

Internet-Based Webs

When creating a new web, it is necessary to choose between an Internet-based Web or File-based Web. AccMonitor will process and crawl an Internet-based Web in a similar

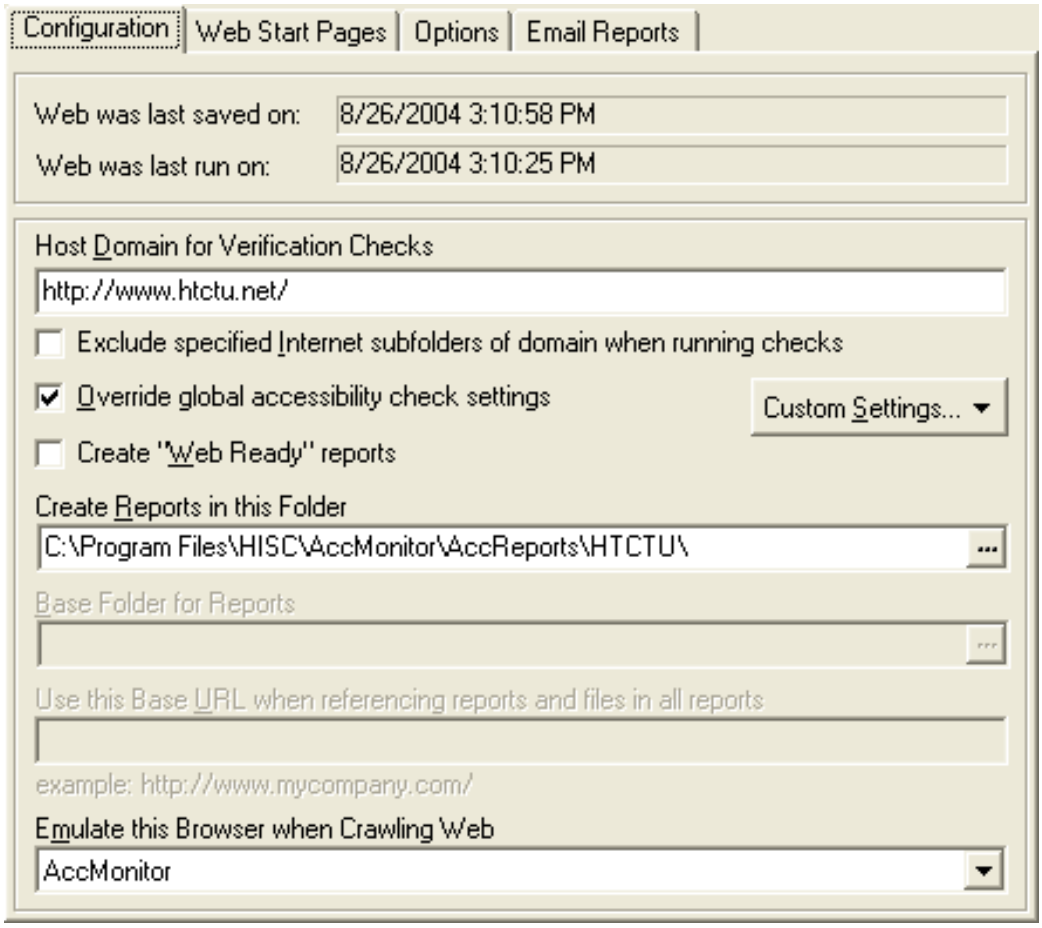
fashion as a search engine or user experiencing the website with a browser. In other words, content that is located in secured directories would not be accessed or web pages that are "assembled" from templates would be viewed in their final form.

The advantage of the Internet-based Web is that the AccMonitor tool does not have to be installed on the webserver, and instead can be installed on a single PC that has Web access. This may be useful if using non-IIS webservers or if there is a desire to only evaluate content that the user would experience.

Creating an Internet-based Web

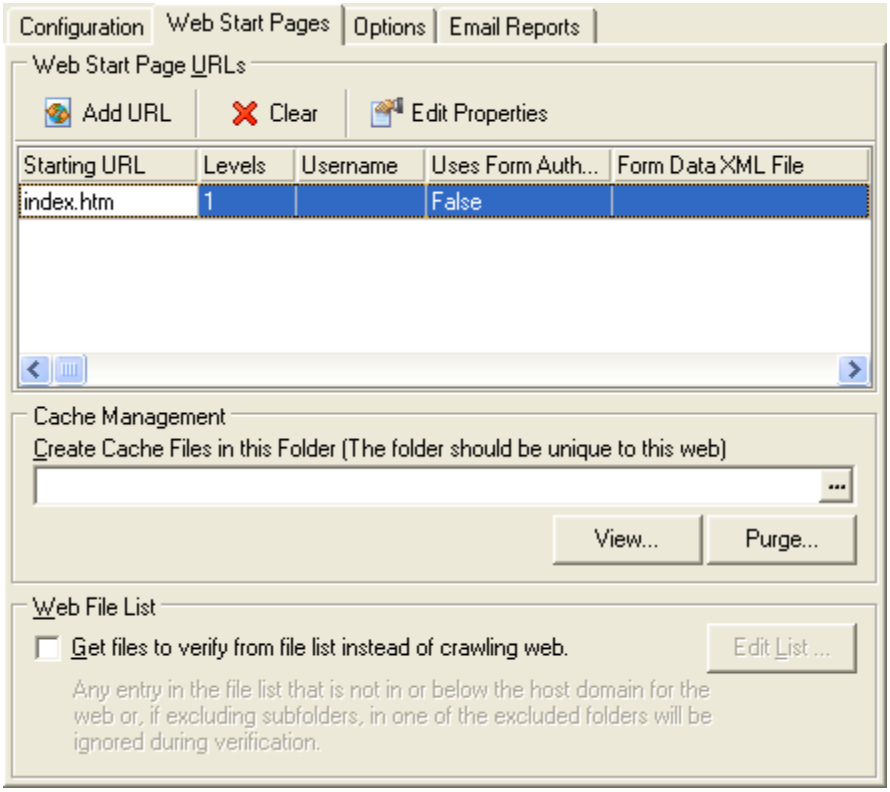
1. Select **Action** from the menu bar, choose **Webs** and select **New…**. Choose the radio button next to "Internet-based Web".

2. Under the "Host Domain for Verification Checks" edit box, enter the full URL of the website you wish to evaluate. If you wish to exclude specific subfolders (i.e., sub-directories), check the checkbox marked "Exclude specific Internet subfolders of domain when running checks". This will prevent AccMonitor from evaluating content in those sub-directories. You will then have an opportunity to enter the specific sub-directory in the **Excluded Folders** tab.

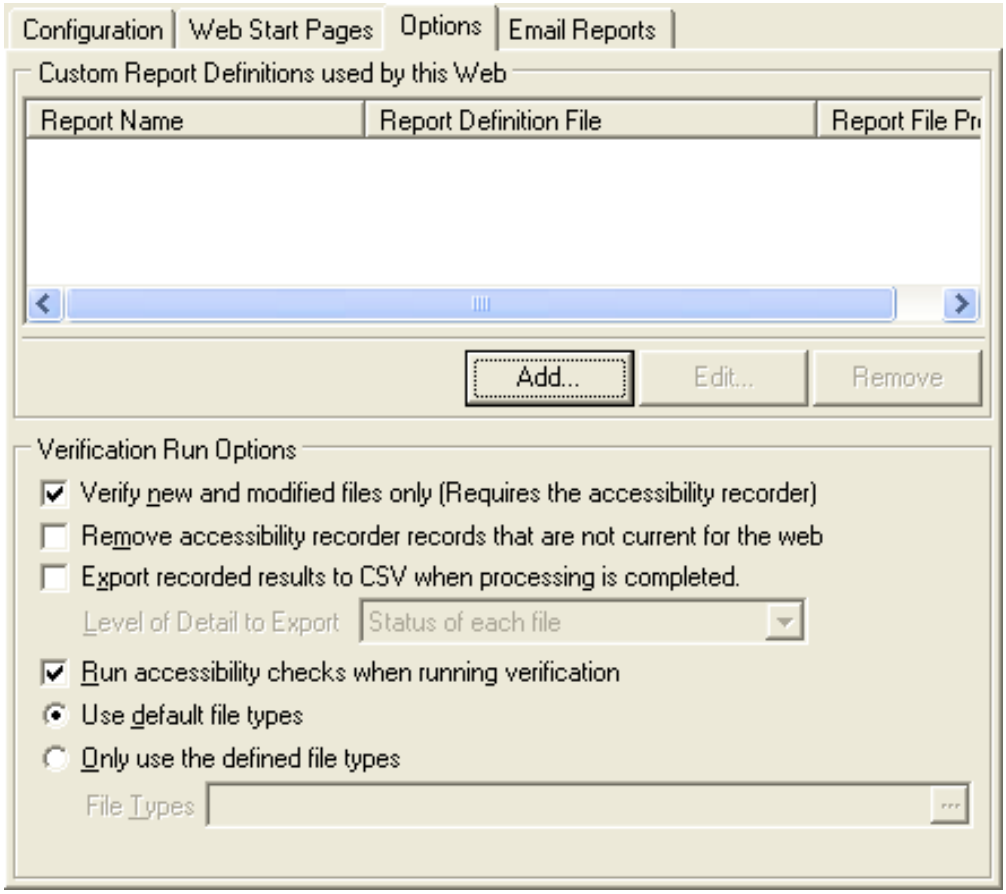


3. Under "Create Reports in this Folder", identify the location on your computer (or networked drive) where you wish the reports to be created. Press the "**…**" button (or press **F4**) and select the appropriate file location. **NOTE:** It is recommended to create a folder for specific webs or all content will be delivered to the folder marked "AccReports".

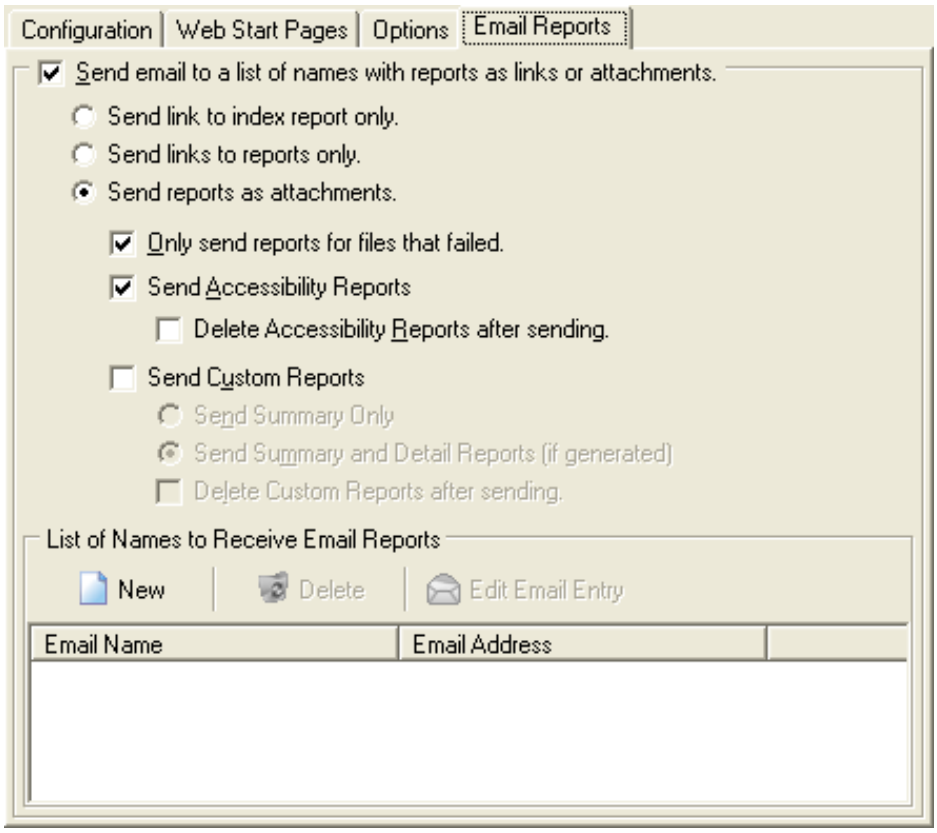
4. Under the "Web Start Pages" tab, select the **Add URL** button to identify the main starting page of your website (e.g., index.htm, etc.). You can also identify how many levels you wish AccMonitor to evaluate.



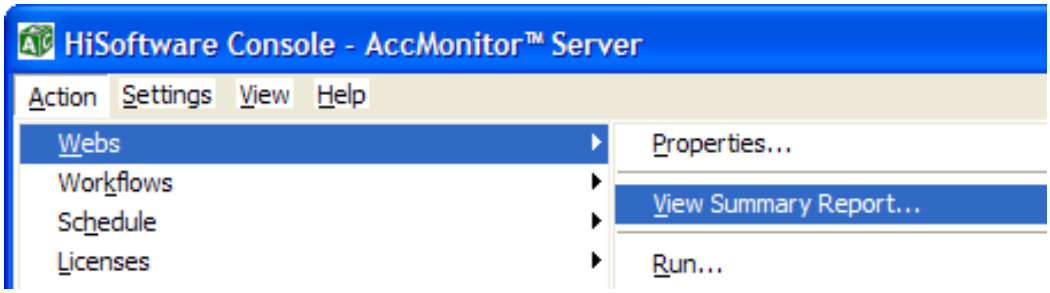
5. Under the "Options" tab, you can identify additional report types by selecting the **Add…** button. For example, these reports may analyze the quality of alternate text available on the website. It is recommended that you check the checkbox marked "Verify new and modified files only" as this can help increase the speed of evaluating content.



6. Under the "E-mail Reports" tab, you can choose if you wish e-mail to be sent to a list of users with the evaluation reports. If you choose one of the **Send link** options, you will need to ensure that the reports are being created in a folder that can be delivered from a webserver (under the "Configuration" tab). Otherwise, select **Send reports as attachments** to deliver e-mail to the specified users with the evaluation reports of the website. To identify the e-mail list, select the **New** button and enter the appropriate e-mail information. **NOTE:** See the **SMTP Settings** section for more information.



After the Internet-based Web has been run, you can view the report. Choose **Action** from the menu bar and select **Webs**. Select **View Summary report** to view the evaluation summary of the website in question.



Viewing AccMonitor Reports via the Web (Internet-based Web)

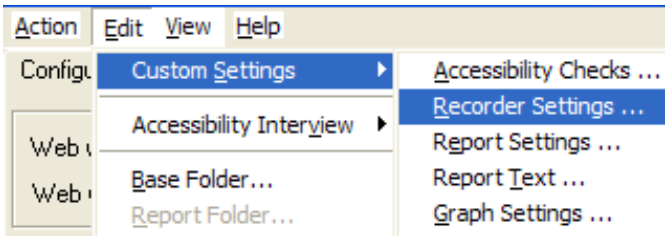
If there is a need to make the AccMonitor evaluation available via the Web, one method is to create the report and then FTP or copy the content to a folder on your webserver. This will allow individuals to open the website evaluation summary from a web browser.

1. Begin the process of creating an Internet-based Web as listed in the previous directions.

2. In the "Configuration" tab, select the checkbox marked **Create "Web Ready" reports**. Enter the base folder location under **Base folder for Reports**. This can be either a networked drive or a location on the local computer (e.g., C:\WebReports).

3. Provide the base URL of the website you are evaluating under **Use this Base URL…**. Make sure to include the http:// part of the URL.

4. You will also need to include this information for the Accessibility Recorder. Select **Edit** on the menu bar, choose **Custom Settings**, and select **Recorder Settings**.



5. Under the **Report Publish Location**, enter the same value as entered in the **Base folder for Reports**.

6. Under the **Report Publish URL**, enter the same value as entered in the **Use this Base URL…** in step 3.

7. After you have set up this information, make sure to save the web definition.

Once this process is complete and the web definition has been run, you will need to upload the folder named **AccReports** to the root folder on your webserver. The **AccReports** folder will be a subfolder of the **Base Folder for Reports** folder.

You can then access the completed web evaluation by visiting the following URL:
http://www.base_url.com/AccReports/WebName/WebName_fndx.htm

File-Based Webs

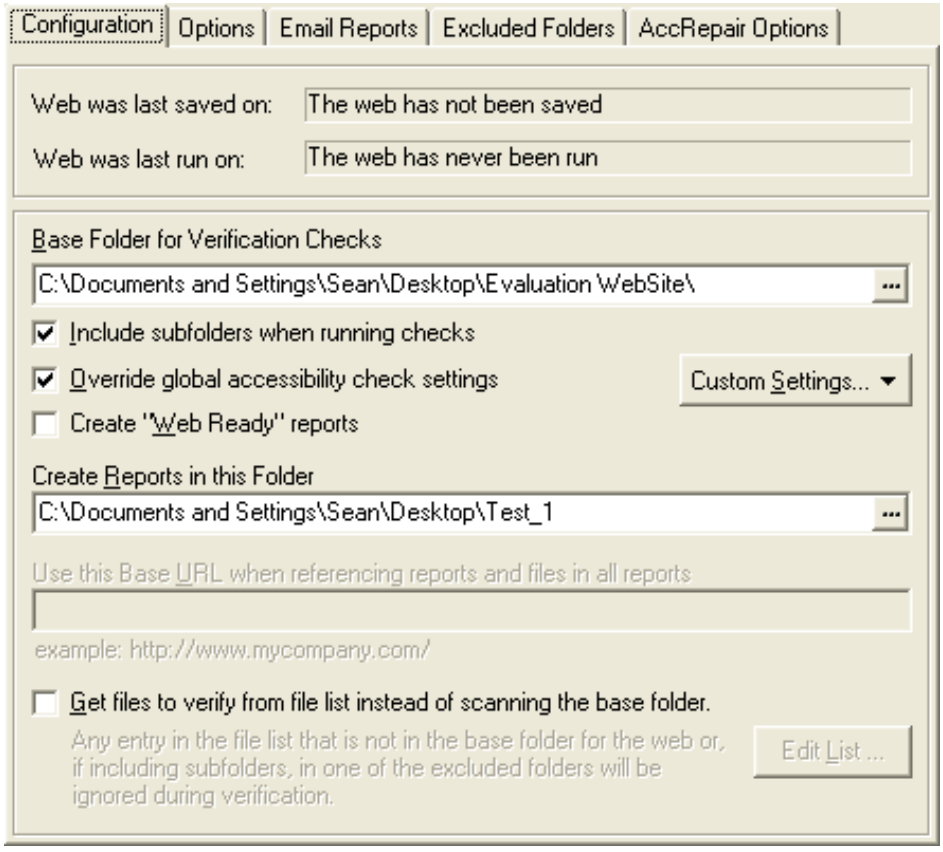
A File-based Web is a web that AccMonitor is able to access via a networked drive or directly on the webserver. Rather than "crawling" the website (as in an Internet-based Web), the File-based Web directly access content through the file directory structure.

The advantage to such a web is the ability to have AccMonitor make accessibility changes to content using AccRepair, test pages that may not be available through regular HTTP requests, or analyze pages that are not directly hyperlinked from one page to another. Additionally, the use of a File-based Web provides the potential to evaluate individual pages, rather than evaluating completed web pages (in the case of template files).

Creating a File-based Web

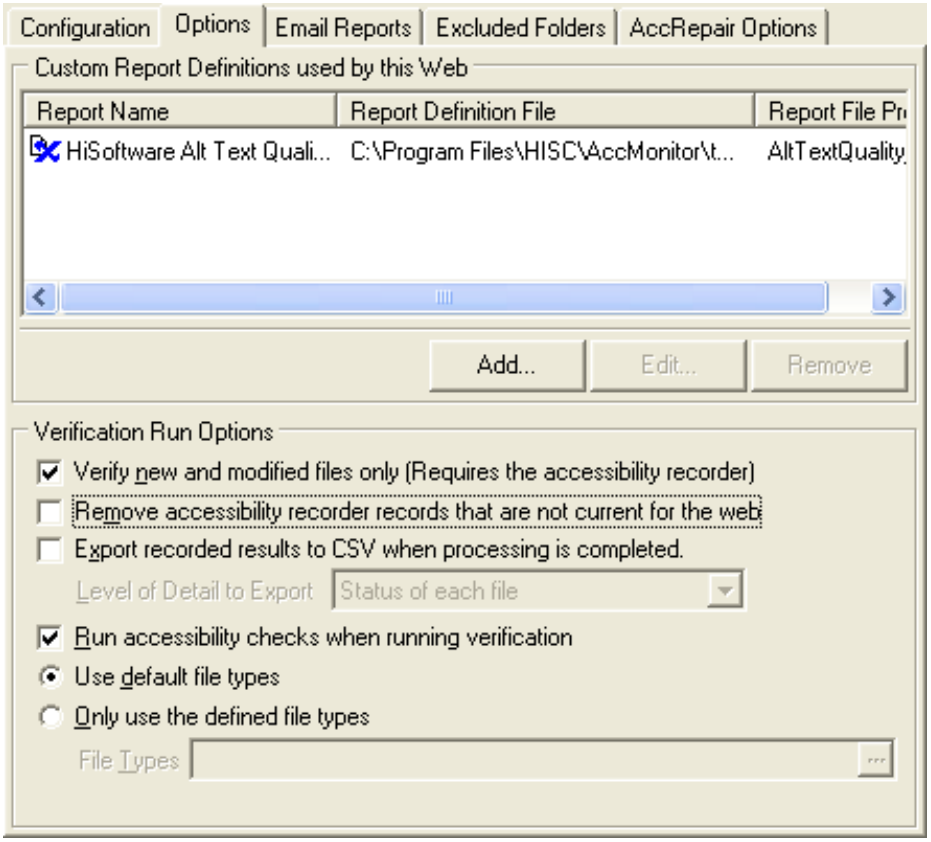
1. Select **Action** from the menu bar, choose **Webs** and select **New…**. Choose the radio button next to "File-based Web".

2. Under the **Configuration** tab, enter the base folder for the content you wish to evaluate. For example, if you are on a Windows server, then the root web would be C:\Inetpub\wwwroot. Select the checkbox **Include subfolders when running checks** if you wish to evaluate the content within the website.



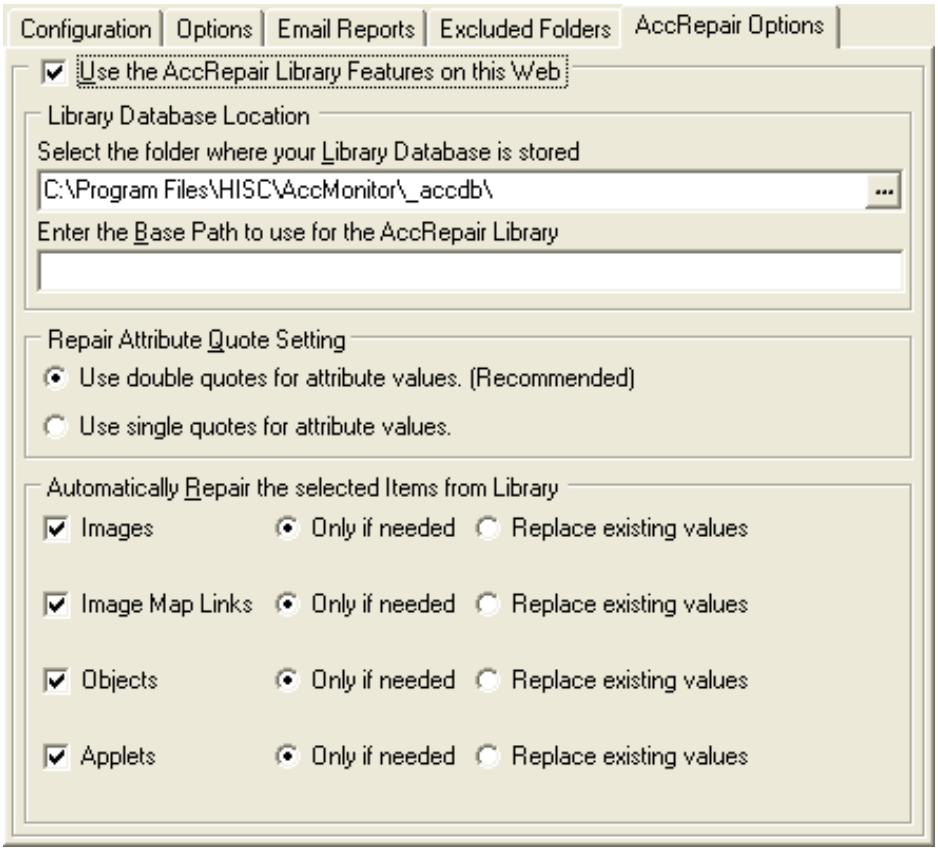
3. Under "Create Reports in this Folder", identify the location on your computer (or networked drive) where you wish the reports to be created. Press the "**…**" button (or press **F4**) and select the appropriate file location. **NOTE:** It is recommended to create a folder for specific webs or all content will be delivered to the folder marked "AccReports".

4. Under the "Options" tab, you can identify additional report types by selecting the **Add…** button. For example, these reports may analyze the quality of alternate text available on the website. It is recommended that you check the checkbox marked "Verify new and modified files only" as this can help increase the speed of evaluating content.

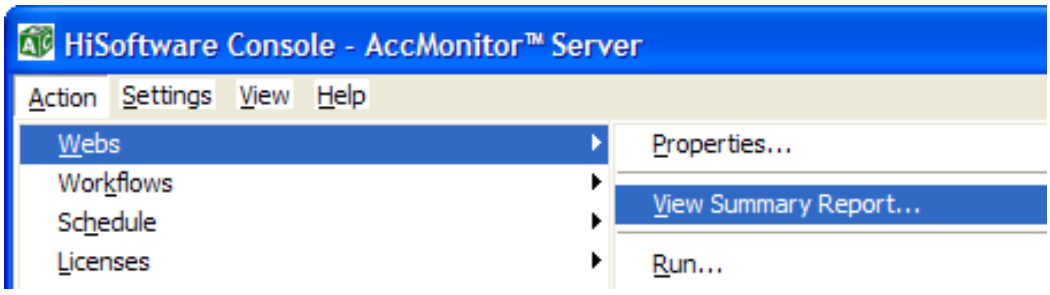


5. Under the "E-mail Reports" tab, you can choose if you wish e-mail to be sent to a list of users with the evaluation reports. If you choose one of the **Send link** options, you will need to ensure that the reports are being created in a folder that can be accessed from a webserver (under the "Configuration" tab). Otherwise, select **Send reports as attachments** to deliver e-mail to the specified users with the evaluation reports of the website. To identify the e-mail list, select the **New** button and enter the appropriate e-mail information. **NOTE:** See the **SMTP Settings** section for more information.

6. If you wish to make repairs to the web content evaluated by AccMonitor, choose the **AccRepair Options** tab and select the checkbox "Use the AccRepair Library Features on this Web". Leave the default values selected. Review the section on the AccRepair Library on how to "preload" the AccRepair Library and automatically fix errors.



After the Internet-based Web has been run, you can view the report. Choose **Action** from the menu bar and select **Webs**. Select **View Summary report** to view the evaluation summary of the website in question.



Viewing AccMonitor Reports via the Web (File-based Web)

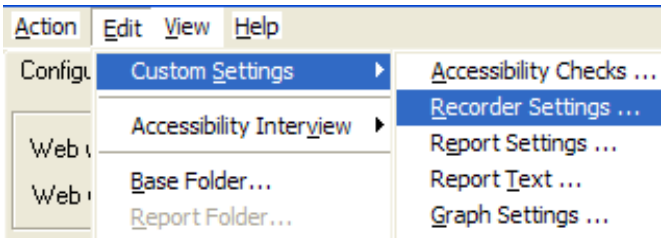
To view the AccMonitor evaluation directly from your web browser (through your website), you will need to make a few alterations to the **Configuration** tab in the File-based Web. This assumes that you have installed AccMonitor on your webserver (or can access the wwwroot directory from a networked drive).

1. Begin the process of creating an File-based Web as listed in the previous directions.

2. In the "Configuration" tab, select the checkbox marked **Create "Web Ready" reports**. Enter the base folder location under **Base folder for Verification Checks**. This will typically be the root folder location of your website (e.g., C:\Inetpub\wwwroot\).

3. Provide the base URL of the website you are evaluating under **Use this Base URL…**. Make sure to include the http:// part of the URL. This will simply be the main URL to the homepage of your site.

4. You will also need to include this information for the Accessibility Recorder. Select **Edit** on the menu bar, choose **Custom Settings**, and select **Recorder Settings**.



5. Under the **Report Publish Location**, enter the same value as entered in the **Base folder for Verification Checks**.

6. Under the **Report Publish URL**, enter the same value as entered in the **Use this Base URL…** in step 3.

7. After you have set up this information, make sure to save the web definition.

Once this process is complete and the web definition has been run, you can view the content through a web browser. Access the completed web evaluation by visiting the following URL:
http://www.base_url.com/AccReports/WebName/WebName_fndx.htm

NOTE: It is also possible to set up the File-based Web in such a way to evaluate the web content and then FTP or manually upload the AccReports file to your webserver. Follow the directions in the section **Viewing AccMonitor Reports via the Web (Internet-based Web)**.

The AccRepair Library

The AccRepair Library provides a tool for developer to improve website accessibility changes if they already are aware of the inaccessible content. In other words, if the use of "spacer" images is used throughout the site, then it is possible to introduce the correct changes into the AccRepair Library before beginning an evaluation process. This provides the opportunity to "pre-load" the automatic fixes to speed the retrofit of content.

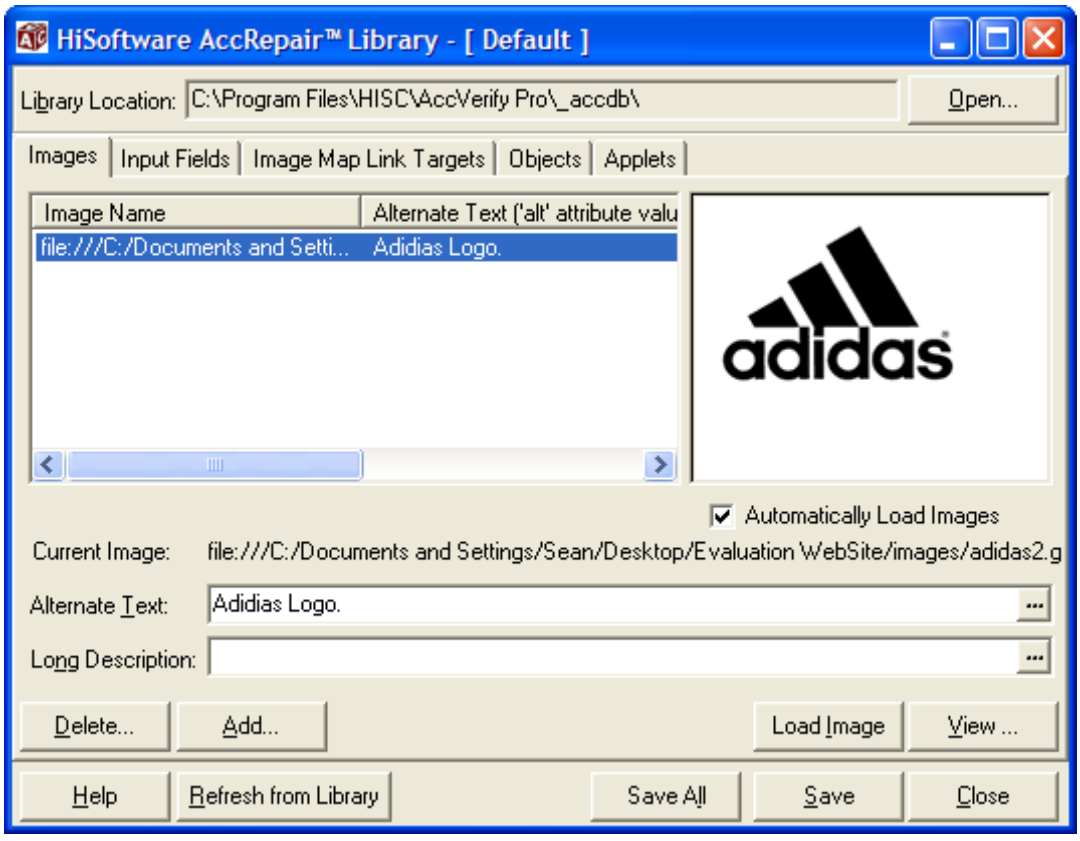
The AccRepair Library will accept fixes that reflect Images, Form Fields, Image Map Links, HTML Objects, and Applets. For each type of HTML information, you will need to know the specific attributes for each particular instance of code.

1. Go to the **Start menu** and choose the HiSoftware AccMonitor Server menu and then choose the Tools menu. Select AccRepair Library.

2. To "pre-load" image information, select **Add** in the lower left of the application.

3. Identify the path of the file name in the **Image File Name** field. Enter the appropriate amount of alternative text for the image in the **Alternative Text** field. If the image requires a longer description, enter the file name of the long description tag in the **Long Description** field.

4. Press **Save** to save the information to the AccRepair Library.



The appropriate information has now been entered into the AccRepair Library. When the specific web is run through AccMonitor, the data in the AccRepair Library will automatically repair the HTML violations.

SMTP Settings

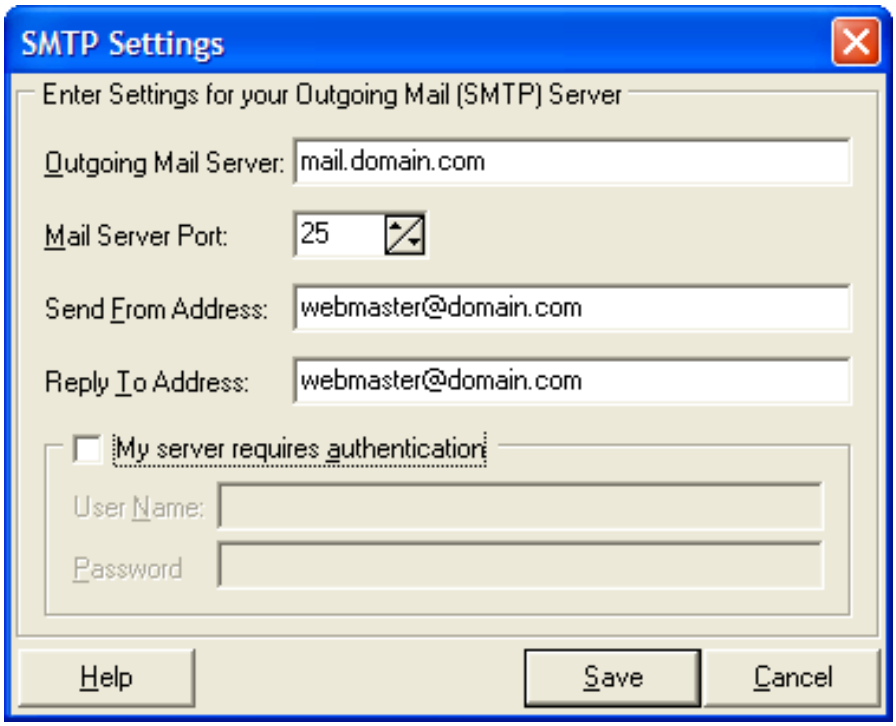
The SMTP settings are necessary if you wish AccMonitor to e-mail the reports (or links to the reports) to specified users. Each individual web can have its own set of e-mail recipients.

1. Select **Settings** from the menu bar, choose **System**, and then select **SMTP Settings**.

2. Identify the "Outgoing Mail Server", the "Send from Address", and the "Reply to Address".

3. If your SMTP server requires authentication (e.g., you need to have permission), specify that information in the User Name and Password fields.

4. Click the **Save** button to save the settings.



List Editor

The List Editor allows the AccMonitor administrator to set the specific file types that AccMonitor will evaluate or utilize during the assessment process. Additionally, it is possible to identify specific file types (or file names) in the List Editor such that AccMonitor will not identify an error when there really is no error.

For example, it is possible to identify alternative text as null (i.e., alt="") for images that are used for decorative purposes (e.g., spacer images). However, AccMonitor will identify these as potential errors and warn the administrator that there may be a problem. Rather than receiving a high number of warnings, it is possible to identify the specific file names such that these "false positive" errors are kept to a minimum.

To make changes to the List Editor, select **Settings** from the menu bar, and choose **List Editor**. Before closing the List Editor, if you have added or deleted any content, make sure to save the list (under **File** and **Save** on the List Editor menu). The following list types tend to be the most commonly changed.

Link Report File Extension
This identifies the different file extensions that were identified on your website. If the evaluation criteria included the link report, then the total number of these specific file types would be identified on your system.

Link Phrases for Link Report
The link phrases list evaluates the various link phrases on a web page and reports the total number of times the specific phrase was used. For instance, often times a web page will have a number of "Click Here" links. This is vague for user's of assistive computer technology as it does not provide any direction to where the link will take them. By adding phrases to this list, you can identify the number of times a specific phrase is used throughout a website.

Image Warning Exception
The Image Warning Exception provides the AccMonitor administrator with a method of identifying specific files that may trigger a "Warning" or "No" value during an accessibility evaluation. For instance, if the web page contains a number of spacer images with the file name spacer.gif, then it is necessary to have a null alternative text tag (i.e., alt=""). AccMonitor may still flag this as a Warning in the default report or in a Site Quality report and suggest you check to insure that the alternative text provided is sufficient. This can cause an excessive number of "Warnings" and reduce the clarity of the final report.

One solution is to add the file names to the Image Warning Exception list that the developer knows are correct (e.g., spacer.gif, bullet.gif, etc.). In this way, you will reduce the number of "false positive" errors and streamline the reporting process based on content that is truly incorrect.

Web Document File Extensions
The Web Document File Extensions provide a complete list of the file extension types the AccMonitor will recognize and evaluate. Most of the file types currently being used on webservers are listed, but you may find situations where additional file types are necessary. For instance, if you wish AccMonitor to review page content within an Oracle database or other database, if you have created a set of pages with different file extensions, or a new file extension is utilized on the Web, then you can add the file extension to this list and AccMonitor will recognize the file.

Customizing the Report Text

AccMonitor provides the option to customize the Verification Checklist report text. Instead of providing feedback that replicates the legal description of the US Section 508 Standards, it is possible to provide feedback that is pertinent to the needs of the evaluator.

For example, instead of having AccMonitor report:

"A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content)" – checkpoint A of the US Section 508 Standards.

the report could read:

"Make sure to provide a good alternative text description for any images, applets, or form input fields."

If the individual evaluating the web content does not understand the technical checkpoints of the US Section 508 Standards, then it is possible to customize these reports to be more user-friendly.

1. Select **Settings** from the menu bar, choose **Options**, and choose **Report Settings**.

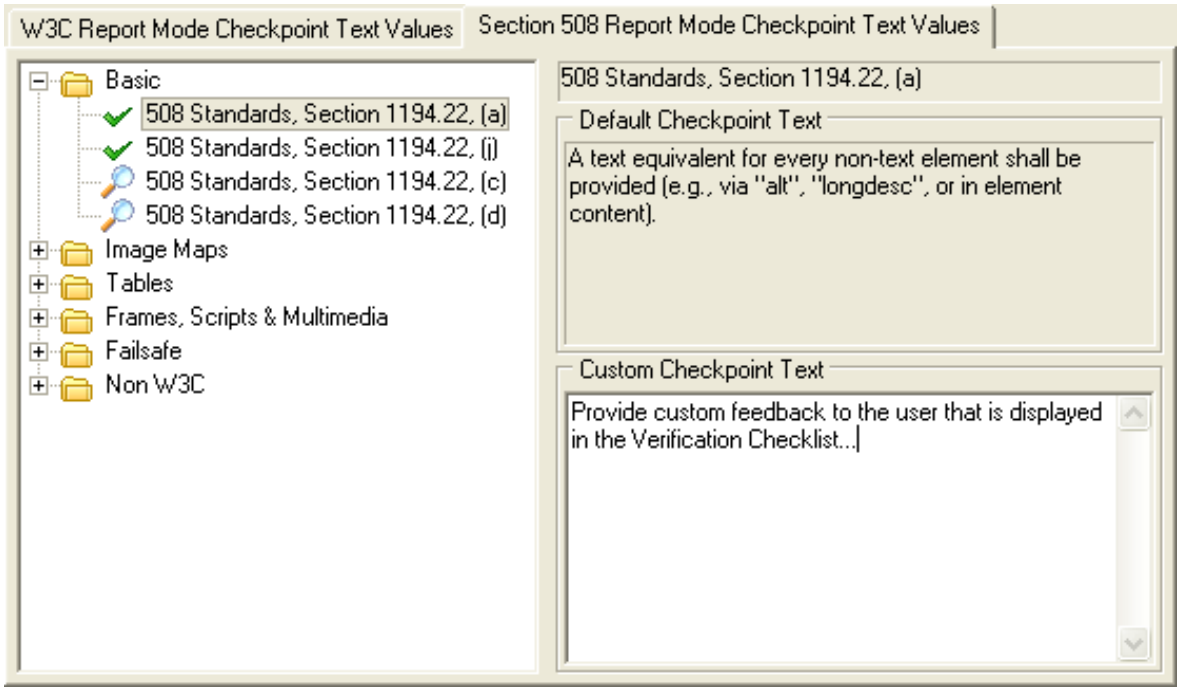
2. Select the **Advanced** tab, and click on the **Customize Report Text** button.

3. In the left frame, choose one of the folders (e.g., Basic, Image Maps, Tables, etc.) and select the specific US Section 508 checkpoint that you wish to modify.

4. In the lower right frame, you can directly edit the original checkpoint language to suit the needs of your organization. When you have completed the revision, select the **Save** button.

5. To reset the specific checkpoint back to the default language, press the **Use Default** button. This will only reset the specific checkpoint you are currently viewing.

6. To reset all the checkpoints, press the **Reset All** button. This will reset all the checkpoints back to the original US Section 508 language (or W3C checkpoint language).



Improving the Crawl of AccMonitor

AccMonitor uses a "crawling" mechanism to search out web pages in the specified website and return the values to the user. This crawling function can be manipulated to provide enhanced functionality and minimize the total time it takes to search through a website.

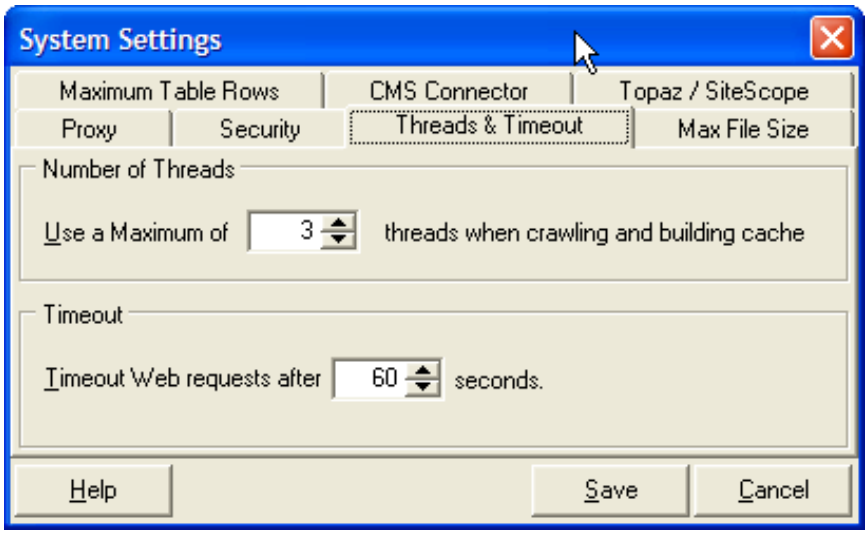
Computer systems with a P4 processor running at 2.0+ GHz, can take advantage of a higher number of "crawling threads", whereas lower end machines should leave the total number of "crawling threads" at the default value (default is three crawling threads). It is not recommended to go above a total of 16 "crawling threads".

1. Select **System** from the menu bar and choose **System Settings**.

2. Select the **Threads & Timeout** tab.

3. Under the "Number of Threads" heading, identify the total number of threads to use when crawling or building web cache. For high end machines, a value of 10 produces good results.

4. Under the "Timeout" heading, you can specify how long it should take before a HTTP request "times out". HiSoftware does not recommend setting this value above 60 seconds.



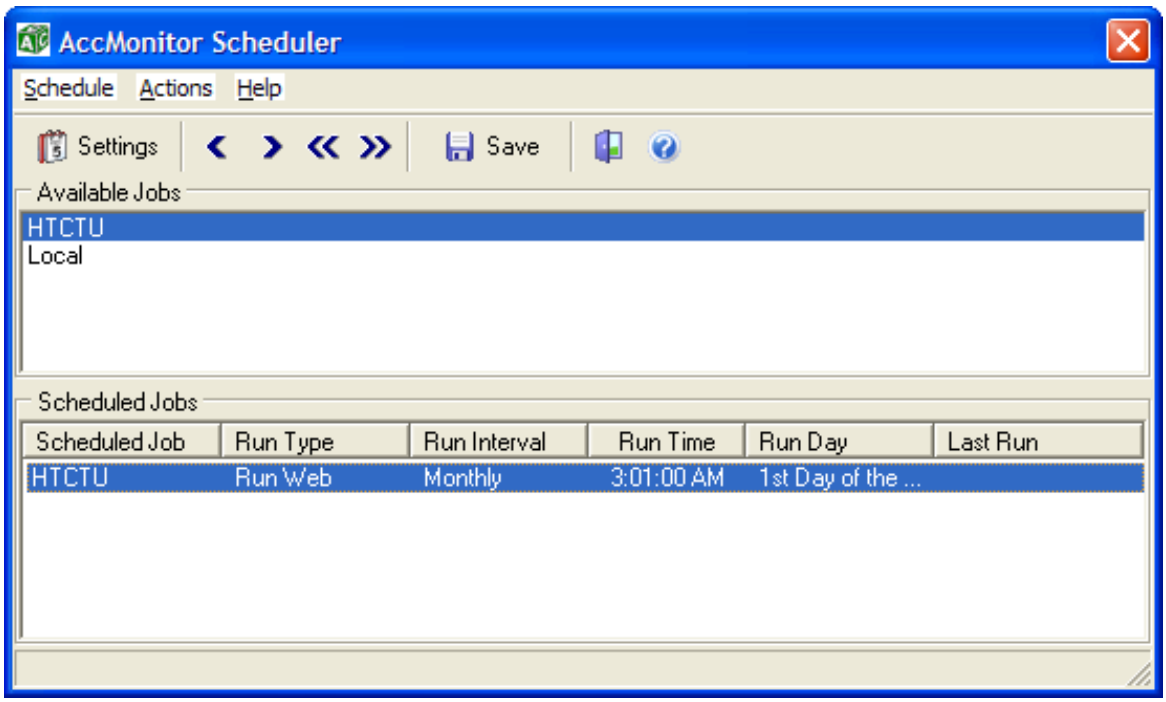
Using the Scheduler

In order to run evaluations on the various webs identified in AccMonitor, the AccMonitor administrator can manually set the run queue or can automatically identify when the specific webs should be evaluated. Automatically setting evaluations is accomplished with the Scheduler function.

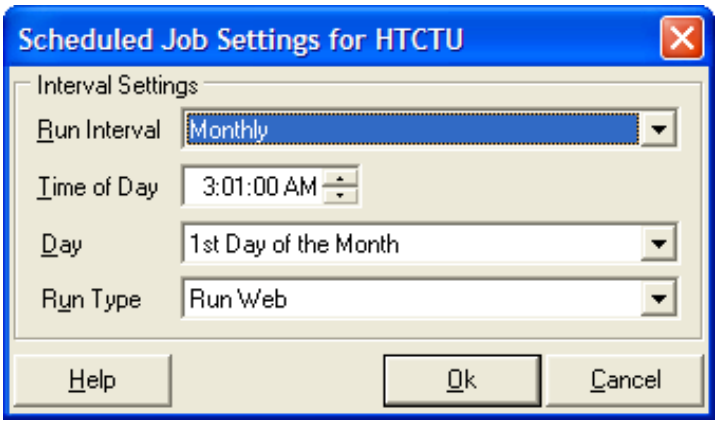
1. Select **Action** from the menu bar, choose S**chedule**, and then select **Open Scheduler**.

2. Under the "Available Jobs" heading, there will be a list of the available webs that can be evaluated with AccMonitor. Double-click on the specific job you wish to schedule (or select **Actions** from the menu bar and choose **Schedule Job**).

3. Once a web has been scheduled, it will appear in the lower window under the "Scheduled Jobs" heading. It is possible to specify the timing details of the scheduled job by selecting the specific job, and then selecting **Actions** and then **Edit Scheduled Job Settings**.



4. Identify the specific dates and times when the web is to be evaluated by AccMonitor. Select **Ok** when you have entered the specific times and dates.



5. Make sure to save the Scheduler settings by selecting **Save** on the toolbar, or select **Schedule** on the menu bar and choose **Save**.

After the scheduled jobs have been set, then you can leave the AccMonitor Server running in the taskbar and allow the webs to be evaluated per the job schedule.

Other Tools

AccVerify/AccRepair

AccVerify/AccRepair DS2 is combined application that provides web content developers with the ability to assess, review, and repair web content for accessibility and usability errors. The AccVerify component of the AccVerify/AccRepair application can evaluate web pages stored on the local desktop or "live" content published to a webserver and report on accessibility and usability violations. The AccRepair component can then assist a web author with repairing the web page to improve the overall accessibility of the web page

TagGen

TagGen generates and supports developers by prompting for the appropriate HTML content that can identify a page on the Web. This includes keywords, metadata content, language settings, document author, etc. Upon completion of the process of entering the necessary information, TagGen will generate the appropriate HTML code and upload this code to the specific web page of your choice. For more information about TagGen, please review the **Help** menu information within the application or visit:
http://www.hisoftware.com/Tent.htm

Link Validation Utility

The Link Validation Utility can identify hyperlinks that are invalid as well as the type of content that the hyperlink refers to on the Web. A primary function of the tool is to alert developers to invalid hyperlink targets and report back the functionality of the content. For more information please review the **Help** menu within the application, or visit:
http://www.hisoftware.com/linkvalidate/index.html

Hi-Caption

Hi-Caption is a separate tool that provides for the synchronization and formatting of captioning for multimedia presentations. Hi-Caption can be used for RealMedia files and Windows Media compatible file formats to develop synchronous captioned presentations. Hi-Caption can export SAMI, SMIL, and SMIL/QuickTime text formats for additional processing. For more information, please visit:
http://www.hisoftware.com/hmcc/index.html

Federal Accessibility Standards for Web-based Intranet and Internet Information and Applications

(Provided by www.usability.gov)

This page contains excerpts from Electronic and Information Technology Accessibility Standards issued by the ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD.

Shown below are:
Paragraphs from the Overview of the Standards
Subpart B — Technical Standards: Sec. 1194.22 Web-based intranet and internet information and applications.

This page only contains an excerpt of the summary and standards that directly relate to Web sites. Other parts of the standard may apply to your situation. See the complete, officially posted standards at http://www.access-board.gov/news/508-final.htm.

Electronic and Information Technology Accessibility Standards
ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD
[Published in the Federal Register on December 21, 2000]

Summary:

Web-based Intranet and Internet Information and Applications (1194.22)
The criteria for web-based technology and information are based on access guidelines developed by the Web Accessibility Initiative of the World Wide Web Consortium. Many of these provisions ensure access for people with vision impairments who rely on various assistive products to access computer-based information, such as screen readers, which translate what's on a computer screen into automated audible output, and refreshable Braille displays. Certain conventions, such as verbal tags or identification of graphics and format devices, like frames, are necessary so that these devices can "read" them for the user in a sensible way. The standards do not prohibit the use of web site graphics or animation. Instead, the standards aim to ensure that such information is also available in an accessible format. Generally, this means use of text labels or descriptors for graphics and certain format elements. (HTML code already provides an "Alt Text" tag for graphics which can serve as a verbal descriptor for graphics). This section also addresses the usability of multimedia presentations, image maps, style sheets, scripting languages, applets and plug-ins, and electronic forms.

The standards apply to Federal web sites but not to private sector web sites (unless a site is provided under contract to a Federal agency, in which case only that web site or portion covered by the contract would have to comply). Accessible sites offer significant advantages that go beyond access. For example, those with "text-only" options provide a

faster downloading alternative and can facilitate transmission of web-based data to cell phones and personal digital assistants.

§ 1194.22 Web-based intranet and internet information and applications.
(a) A text equivalent for every non-text element shall be provided (e.g., via "alt", "longdesc", or in element content).

(b) Equivalent alternatives for any multimedia presentation shall be synchronized with the presentation.

(c) Web pages shall be designed so that all information conveyed with color is also available without color, for example from context or markup.

(d) Documents shall be organized so they are readable without requiring an associated style sheet.

(e) Redundant text links shall be provided for each active region of a server-side image map.

(f) Client-side image maps shall be provided instead of server-side image maps except where the regions cannot be defined with an available geometric shape.

(g) Row and column headers shall be identified for data tables.

(h) Markup shall be used to associate data cells and header cells for data tables that have two or more logical levels of row or column headers.

(i) Frames shall be titled with text that facilitates frame identification and navigation.

(j) Pages shall be designed to avoid causing the screen to flicker with a frequency greater than 2 Hz and lower than 55 Hz.

(k) A text-only page, with equivalent information or functionality, shall be provided to make a web site comply with the provisions of this part, when compliance cannot be accomplished in any other way. The content of the text-only page shall be updated whenever the primary page changes.

(l) When pages utilize scripting languages to display content, or to create interface elements, the information provided by the script shall be identified with functional text that can be read by assistive technology.

(m) When a web page requires that an applet, plug-in or other application be present on the client system to interpret page content, the page must provide a link to a plug-in or applet that complies with §1194.21**(a)** through **(l)**.

(n) When electronic forms are designed to be completed on-line, the form shall allow people using assistive technology to access the information, field elements, and functionality required for completion and submission of the form, including all directions and cues.

(o) A method shall be provided that permits users to skip repetitive navigation links.

(p) When a timed response is required, the user shall be alerted and given sufficient time to indicate more time is required.

Note to §1194.22:

1. The Board interprets paragraphs **(a)** through **(k)** of this section as consistent with the following priority 1 Checkpoints of the Web Content Accessibility Guidelines 1.0 (WCAG 1.0) (May 5, 1999) published by the Web Accessibility Initiative of the World Wide Web Consortium:

Section 1194.22 Paragraph	WCAG 1.0 Checkpoint
(a)	1.1
(b)	1.4
(c)	2.1
(d)	6.1
(e)	1.2
(f)	9.1
(g)	5.1
(h)	5.2
(i)	12.1
(j)	7.1
(k)	11.4

2. Paragraphs **(l)**, **(m)**, **(n)**, **(o)**, and **(p)** of this section are different from WCAG 1.0. Web pages that conform to WCAG 1.0, level A (i.e., all priority 1 checkpoints) must also meet paragraphs **(l)**, **(m)**, **(n)**, **(o)**, and **(p)** of this section to comply with this section. WCAG 1.0 is available at http://www.w3.org/TR/1999/WAI-WEBCONTENT-19990505.

Web Content Accessibility Guidelines (WCAG) 1.0

Introduction

The Web Content Accessibility Guidelines (WCAG), version 1.0, is a set of guidelines designed to assist web developers in designing and creating universally accessible websites. These guidelines were developed by the Web Accessibility Initiative (WAI), a subgroup of the World Wide Web Consortium (W3C). The guidelines for accessible web design are separated into various checkpoints that are assigned priority levels. The priority levels are as follows:

Priority 1:

A Web content developer **must** satisfy this checkpoint. Otherwise, one or more groups will find it impossible to access information in the document. Satisfying this checkpoint is a basic requirement for some groups to be able to use Web documents.

Priority 2:

A Web content developer **should** satisfy this checkpoint. Otherwise, one or more groups will find it difficult to access information in the document. Satisfying this checkpoint will remove significant barriers to accessing Web documents.

Priority 3:

A Web content developer **may** address this checkpoint. Otherwise, one or more groups will find it somewhat difficult to access information in the document. Satisfying this checkpoint will improve access to Web documents.

The goal of these guidelines, as outlined by the WAI, is to encourage the development and implementation of accessible on-line content for all users, not just users requiring assistive technology. Accroding to the WAI, the guidelines are "…not to discourage content developers from using images, video, etc., but rather explain how to make multimedia content more accessible to a wide audience."

The following pages separate the WCAG 1.0 guidelines into the three priority levels established by the WAI along with the corresponding accessibility checkpoint.

WAI Priority 1 Checkpoints

In General (Priority 1)

- 1.1 Provide a text equivalent for every non-text element (e.g., via "alt", "longdesc", or in element content). *This includes*: images, graphical representations of text (including symbols), image map regions, animations (e.g., animated GIFs), 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.
- 2.1 Ensure that all information conveyed with color is also available without color, for example from context or markup.
- 4.1 Clearly identify changes in the natural language of a document's text and any text equivalents (e.g., captions).
- 6.1 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.
- 6.2 Ensure that equivalents for dynamic content are updated when the dynamic content changes.
- 7.1 Until user agents allow users to control flickering, avoid causing the screen to flicker.
- 14.1 Use the clearest and simplest language appropriate for a site's content.

And if you use images and image maps (Priority 1)

- 1.2 Provide redundant text links for each active region of a server-side image map.
- 9.1 Provide client-side image maps instead of server-side image maps except where the regions cannot be defined with an available geometric shape.

And if you use tables (Priority 1)

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

And if you use frames (Priority 1)

- 12.1 Title each frame to facilitate frame identification and navigation.

And if you use applets and scripts (Priority 1)

- 6.3 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.

And if you use multimedia (Priority 1)

- 1.3 Until user agents can automatically read aloud the text equivalent of a visual track, provide an auditory description of the important information of the visual track of a multimedia presentation.
- 1.4 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.

And if all else fails (Priority 1)

- 11.4 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.

Web Resources

HiSoftware Tools

AccVerify/AccRepair Application
http://www.hisoftware.com/access/newvIndex.html

AccMonitor
http://www.hisoftware.com/access/newmonitor.html

Hi-Caption
http://www.hisoftware.com/hmcc/index.html

Accessibility Tool for Macromedia Flash
http://www.hisoftware.com/macromedia_flash/

Standards and Guidelines

Section 508 Standards
http://www.section508.org

http://www.access-board.gov

Web-based Intranet and Internet Information and Applications – Section 1194.22
http://www.access-board.gov/sec508/guide/1194.22.htm

W3C Web Accessibility Initiative (WAI) Guidelines
http://www.w3c.org/WAI/

Usability.gov
http://www.usability.gov