

Application Name & URN

<Name of App + URN/URL>

Tester Name, Title, & SID

<Name of Tester(s)>

Test Page Selection

Before beginning pick a representative sampling of at least 3-5 pages* to test.

- If your site is dynamic or mobile responsive, you may need to test multiple states for each test page.
- The pages should include your home page as well as pages that represent variety of components in your application. If you present forms, include at least one form; if you present tables, include a page with a table, any custom, interactive components, etc. (If these pages have varying degrees of complexity, test the most complex page.)
- Enter your results on the Rating worksheet in the Score column, using the Notes to differentiate between test pages.

* For the purpose of this document and the associated ranking sheet the word “page” is used to refer to any web page, application state or screen that has unique information and would be considered separate from another “page.”

Test Pages

<Pages Tested>

Test Tools

<Tools Used>

Test Browsers

<Browsers Used>

Developer Input

A few items on the Rating Sheet require input from the application developer to ensure proper testing:

- 4.4 Ask the developers if the application ever automatically takes or moves the focus.
- 4.5 Ask the developer if any content changes dynamically (email updates, etc.), without the user initiating the change.
- 7.1 Ask the developer if there are any time constraints imposed on user actions and how they handle the user experience or test the time constraint.
- 11.2 Ask the developer if image maps are used and whether it is a server or client side image map.

Notes

**It is required that you add notes to the Notes field for all criteria. **

Questions / Contact

If you have additional questions, contact the ICT Accessibility office.

* Scoresheet v2.1.5 (1-25-2022)

Date Tested	Grade
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<Test Date>

Section	#	Criteria (Client/Web/Mobile)	WCAG Criteria	Instructions	Rating (1-5, N/A)	Notes (REQUIRED for all criterion)	1 <---	--3--	---> 5	Blind	Low Vision	Color Blind	Amputation	Deaf/ Hard of Hearing	Cognitive	Seizures
Keyboard/ Gestures	1.1	Can the keyboard be used to navigate all necessary tasks instead of the mouse, particularly using the tab, shift-tab, arrows, alt-down arrow, escape, spacebar, and enter keys?	2.1.1 & 2.1.1 (A)	<p>With all assistive technology and settings turned off, set aside your mouse and use the keyboard to do the following. Refer to the WAI-ARIA Authoring Practices (https://www.w3.org/TR/wai-aria-practices-1.1/) to reference standard keyboard navigation for components such as a listbox, menu tree, etc.</p> <ul style="list-style-type: none"> • Navigate to and through each of your test pages • Complete necessary tasks in the system from beginning to end. Necessary tasks are any forms, workflows, navigation, or actions needed to complete work in the application. For example, in an email program, tasks such as reading emails, search and writing an email are necessary tasks. <p>Repeat this with a screen reader turned on. You should still be able to navigate to all pages and complete all necessary tasks; providing the same level of usability for screen reader users as provided to sighted users.</p> <p>Note anytime you have to fall back on the mouse because the keyboard doesn't work as failures to 1.1. The scoring for this criterion is either 1 or 5.</p> <p>NA Allowed for Mobile Only.</p>	1		Completion of necessary tasks and/or navigation between and within pages with only the keyboard is not possible.		Completion of necessary tasks, navigation between and within all pages is possible with only the keyboard, including to and back from secondary windows.	X			X			
Keyboard/ Gestures	1.2	Client/Web: Are keyboard alternatives available when appropriate? Mobile/Touch: Are keyboard/gesture alternatives available when appropriate?	2.1.1 & 2.1.2 (A)	<p>Identify if any custom keyboard alternatives are provided or needed. Custom keyboard alternatives should be provided for any repeated action where the user would want to return the focus to its current location after completing the action. Examples include Save as Draft and Validate. Once you know what keyboard alternatives are provided and needed, use this information to determine the following:</p> <ul style="list-style-type: none"> • Ensure that keyboard alternatives are provided for tasks that would benefit from them. • Test the keyboard alternatives to ensure they work with and without a screen reader. • Test Common keyboard shortcuts (Ctrl+C, Ctrl+X, Ctrl+V) to ensure they work. If the application contains a form, copy and paste text into a form field. • Cross check keyboard alternatives provided against the list of standard alternatives to ensure none are already used (see <i>Keyboard Alternatives</i> tab) including shortcuts used by common assistive technologies such as screen readers. • Ensure documentation of keyboard alternatives is available to users within the application <p>Note any issues with these points as a failure of 1.2. NA Allowed for Mobile Only.</p>	1		Common keyboard alternatives are not supported. Necessary custom keyboard alternatives do not exist, and/or keyboard shortcuts interfere with the keyboard shortcuts used by the operating system, browser, or assistive technology.	Common keyboard alternatives are supported but necessary keyboard alternatives are not provided or they conflict with keyboard alternatives used by assistive technology, browser, or operating system.	Common keyboard alternatives are supported. Necessary keyboard alternatives are provided (or the application does not need them). These do not conflict with keyboard alternatives used by assistive technology, browser, or operating system.	X			X			
Keyboard/ Gestures	1.3	Can all actions be consistently executed by using the Enter key or Spacebar?	2.1.1 & 2.1.2 (A)	<p>With all assistive technology and settings turned off, navigate to all links, buttons, and interactive elements on the page including the search field. Hit the enter key and spacebar. Ensure at least one of the two actions activates these elements. Ensure that the key that activates the elements remains consistent throughout the application. Repeat this with a screen reader turned on and ensure you are providing the same level of usability for screen reader users as provided to sighted users.</p> <p>Note anytime neither spacebar nor enter activates the element and anytime the pattern changes (example: enter activates a tab on one page but spacebar activates a tab on another) as a failure of 1.3. NA Allowed for Mobile Only.</p>	1		Hitting the Enter key and spacebar while the focus is on an executable component (button, search box, pick list, etc.) does nothing.	Some executable components can be started by hitting the Enter key or spacebar when the focus is on the component or all components can be started using Enter or spacebar but which key starts them varies and is not documented.	All executable components can be started by hitting the enter key or spacebar when the focus is on the component. The keys remain consistent or unique behaviors are documented.	X			X			
Keyboard/ Gestures	1.4	If a keyboard shortcut is added using only one letter, can the user turn the shortcut off or remap it?	2.1.4 (A)	<p>Based on testing for 1.2, identify if any of the custom keyboard shortcuts added rely on a single letter on the keyboard (a as opposed to Alt+A). This can cause issues for users who rely on speech control. If a single key shortcut exists, identify if it can be turned off or customized so that it won't trigger an incorrect response.</p> <p>Note any single key shortcuts that cannot be turned off or remapped as a failure of 1.4. If custom keyboard shortcuts exist but do not rely on a single letter, mark this a 5. If no single-key custom keyboard shortcuts exist, mark this NA.</p>	NA		A keyboard shortcut relies on a single letter and the user can't turn it off or remap it.		A keyboard shortcut relies on a single letter and the user can turn it off or remap it.	X			X			
Keyboard/ Gestures	1.5	Client/Web: N/A Mobile/Touch: Can all functionality controlled by multipoint gestures or path based gestures also be operated using a single pointer?	2.5.1 (A)	<p>Mobile/Touch Only: Identify any custom functionality that relies on gestures using more than one finger (non-custom example: pinch to zoom) or movement of the finger (a zoom slider requiring the finger move up or down to zoom). If multipoint gestures exist, ensure an alternative way of triggering the functionality exists that relies only on a single pointer (example: a zoom button).</p> <p>Note any functionality that relies on gestures using more than one finger as a failure of 1.5. If all functionality that relies on gestures can be triggered with a single pointer, mark this a 5.</p> <p>Default to NA for Client/Web.</p>	NA		Functionality that could work with a single pointer requires path-based gestures or multipoint interaction.	Functionality uses multipoint or path based gestures and does not have a single pointer alternative, but the gestured used are essential.	All functionality that uses multipoint or path-based gestures can be operated with a single pointer alternative without a path-based gesture, unless a multipoint or path-based gesture is essential.				X			
Keyboard/ Gestures	1.6	Client/Web: N/A Mobile/Touch: Does single pointer activated functionality either trigger on the up event or allow the user to undo it?	2.5.2 (A)	<p>Mobile/Touch Only: Use your finger as a pointer to trigger functionality throughout the interface. Note when functionality activates when your finger touches the screen (down event) instead of when your finger lifts off the screen (up event).</p> <p>Note any down event triggered functionality that can't be undone as a failure of 1.6. If all functionality triggers on the up event, mark this a 5.</p> <p>Default to NA for Client/Web.</p>	NA		Single pointer activated functionality activates on the down event and can't be undone.		For functionality that can be operated using a single pointer, at least one of the following is true: No Down Event: The down-event of the pointer is not used to execute any part of the function; Abort or Undo: Completion of the function is on the up-event, and a mechanism is available to abort the function before completion or to undo the function after completion; Up Reversal: The up-event reverses any outcome of the preceding down-event.				X			

Section	#	Criteria (Client/Web/Mobile)	WCAG Criteria	Instructions	Rating (1-5, N/A)	Notes (REQUIRED for all criterion)	1 <---	--3--	----> 5	Blind	Low Vision	Color Blind	Amputation	Deaf / Hard of Hearing	Cognitive	Seizures
Keyboard/ Gestures	1.7	Client/Web: N/A Mobile/Touch: If functionality can be activated using device motion, can the motion control be turned off and the functionality operated by user interface components?	2.5.4 (A)	Mobile/Touch Only: Identify if any custom functionality is tied to moving the device (non-custom example: shaking most phones deletes the last entry). If motion activated functionality exists, ensure it can be turned off and the same functionality can be accessed using buttons, links, or other interface components (example: the delete key can be used to delete the last entry as well as shaking the device). Note any motion activated functionality that can't be turned off or accessed another way as a failure of 1.7. If no functionality is tied to device motion, mark this N/A. Default to NA for Client/Web.	NA		Motion activated functionality exists, can't be turned off nor accessed another way.	Motion activated functionality exists and can't be turned off but the same functionality can be accessed through user interface components.	Functionality that can be operated by device motion or user motion can also be operated by user interface components and responding to the motion can be disabled to prevent accidental actuation				X			
Focus	2.1	Client/Web: Can all supplementary elements that a user needs to interact with receive keyboard focus and be reached using only the keyboard?	2.1.1 & 2.1.2 (A)	Identify all supplementary interactive elements (button, link, control, form field, component, clickable image, etc.) on the test page. Supplementary elements are those elements involved in nonessential tasks that enhance the user experience, but do not stop the user from completing work in the application. For example, in an email program, elements such as hover hint text and tasks such as sorting the email list or changing the background color of an email are supplementary elements or tasks. With all assistive technology and settings turned off, tab from the top of the page to the bottom of the page. Ensure the keyboard focus lands on all supplementary elements and that all supplementary tasks can be completed. Repeat this with a screen reader turned on. You should still be able to navigate to all supplementary elements and complete all supplementary tasks; providing the same level of usability for screen reader users as provided to sighted users. Note any element that can be interacted with using the mouse but that doesn't allow keyboard interaction as a failure of 2.1. The scoring for this criterion is either 1 or 5.	1		The majority of fields, buttons, icons and other page elements the user needs to interact with can not be reached using the keyboard.	Some fields, buttons, icons and other page elements can't be reached using the keyboard but these do not stop the user from completing primary tasks.	All fields, buttons, icons, and other page elements that the user needs to interact with can be reached using the keyboard.	X			X			
Focus	2.2	Is the current focus visually indicated on screen and programmatically exposed?	2.4.7 (AA)	Based on testing for 1.1 and 2.1, ensure the keyboard focus remains visible at all times. Note anytime the focus is not visible as a failure of 2.2.	1		The focus can't be determined by looking at the page.	The focus is visible only part of the time.	The focus is always visible, even when it is on the page instead of within a form field.		X		X			
Focus	2.3	Does the focus move in a logical order or flow?	2.4.3 (A)	Based on testing for 1.1 and 2.1, ensure the keyboard focus moves from the top left to the bottom right of the screen unless there is a logical reason to change it, such as movement within a component or movement to a highly used component. The keyboard focus should generally follow the visual flow of the page. Note anytime the focus moves unexpectedly and illogically as a failure of 2.3.	1		The focus skips around, skips over elements, repeats elements unexpectedly, or moves outside the current form, modal window, or page.	The focus moves from top left to bottom right but skips a few elements or doesn't take sections/subsections into account.	The focus moves from the top left to the bottom right on a page, taking into account all elements and handling sections and subsections logically.		X		X			
Text	3.1	Is ALT text or other text equivalent provided for all non-text static elements with content?	1.1.1 & 1.3.1 (A)	Inspect the page and identify images that convey content. Use an automated test tool to list or display the alt text for all images identified as containing content. Ensure that the alternative text provides a concise and accurate replacement for each image that conveys content. Decorative images are handled in 3.5 but if images convey content they must be coded in a way that allows alternative text to be added. If you cannot add alternative text to images that convey meaning, note these as failures of 3.1. Note any images that convey content and do not have meaningful alternative text as a failure for 3.1. If no images that convey content are provided, mark this a 5.	1		Images, buttons, icons or other non-text element that are needed to understand content or use the program are missing associated text.	Some images, buttons, icons, or other non-text elements are missing content but they are not critical to understand the content or use the program. Some alternative text is redundant.	All images, buttons, icons or other non-text element include alternative text or descriptive text directly associated with the element. No redundant alternative text is included.	X						
Text	3.2	Are links visually distinct with text that explains what will happen when the link is clicked?	1.4.1 & 2.4.4 (A)	Visually inspect the page in grayscale. This can be done by printing in gray scale or using a tool to view it in gray scale. Determine if you can distinguish links from static text. Links should be located in a standard navigation area (top navigation, sidebar, etc.), underlined, or have at least a 3:1 color contrast ratio compared to body text and underlined when they receive focus. If links mixed within body text are not underlined, use a color contrast checking tool to determine if the color contrast meets the 3:1 color contrast requirement. Text that is not a link should not be underlined. Use a screen reader (Insert+F7) or accessibility test tool to list the link text. Determine if the link text can be understood in the context of a list. Repetitive and ambiguous links such as "Read More", "Click Here to Download", or "Learn More..." do not make sense without context. Note any links that can't be distinguished from static text or that have unclear link text as failures on 3.2. If no links are provided, mark this a 5.	1		Link can't be easily distinguished from body text, unclear, or redundant.	Some links are not distinct from the body text, unclear, or redundant (read more, click here, etc.).	Links are distinct from body text, unique, and the text clearly explains what they link to.	X	X	X				
Text	3.3	Are all controls, feedback mechanisms, status indicators, navigational mechanisms, etc. meaningfully and consistently labeled throughout the interface?	3.2.3 & 3.2.4 (AA)	Check to ensure the main navigation remains consistent across pages. Check that components behave consistently throughout the website. Ensure that links to pages include the page title they link to. Compare labels, titles, menus and controls on all the test pages for consistency. Ensure there is a consistent one-to-one relationship between icons and labels. Note any discrepancies in labeling or behavior as a failure of 3.3.	1		The same actions, indicators, etc. have different names or icons. Different actions, indicators, etc. have the same icon or the same name. Labels do not clearly indicate the action that will occur.		The same actions, indicators, etc. have the same icon and the same name. Different actions, indicators, etc. have the different icons or names. Labels clearly indicate the action that will occur.	X			X		X	

Section	#	Criteria (Client/Web/Mobile)	WCAG Criteria	Instructions	Rating (1-5, N/A)	Notes (REQUIRED for all criterion)	1 <---	--3--	---> 5	Blind	Low Vision	Color Blind	Amputation	Deaf / Hard of Hearing	Cognitive	Seizures
Text	3.4	Do interactive elements such as controls, form fields, and other form elements include sufficient information such as hints, help, mandatory format, length, values, status, and if the field is required?	3.3.1 & 3.3.2 (A)	<p>With a screen reader turned ON, move the focus to all interactive elements such as icons, buttons, images, form fields, etc. Ensure that any of the following information that is provided visually is also read by the screen reader at the appropriate time and provides the same level of usability for screen reader users as that provided to sighted users:</p> <ul style="list-style-type: none"> • Instructions and hint text • Required fields • Mandatory formats such as a date format • State changes (drop down expands, accordion opens, checkbox is checked, etc.) • Control type (button, menu, link, etc.) • Tooltips <p>Note any discrepancies between the information provided to the sighted user and information provided to the screen reader as failures of 3.4. If no additional information is needed or provided for form fields, mark this a 5.</p>	1		Interactive elements have mandatory formats, lengths or values and these are not associated with the fields for screen reader users. Required fields are not indicated for screen reader users. Images used for controls or buttons do not have text equivalents. State changes with no announcement.		All interactive elements that have mandatory formats, lengths or values are indicated by text for screen reader users. Required fields are indicated for screen reader users. Images used for controls or buttons have text equivalents. State changes are announced.	X						
Text	3.5	Are all decorative elements coded as decorative?	1.1.1 & 1.3.1 (A)	<p>With the screen reader turned off, hide background images using a test tool or by disabling styles. Identify any decorative images that are not hidden. Use an accessibility test tool to list images and ensure those decorative images are tagged with alt="".</p> <p>Note any decorative images that do not contain alt="" as an attribute as a failure of 3.5.</p> <p>If any images convey content but don't have alternative text, note these as failures to 3.1. If no decorative images are provided, mark this a 5.</p>	1		Decorative images and elements are inappropriately labeled such that a screen reader reads them.	A few decorative elements are inappropriately labeled such that a screen reader reads them.	All decorative images and elements are labeled or coded so the screen reader skips them.	X						
Text	3.6	Are meaningful labels provided when user input is required?	3.3.2 (A) & 2.4.6 (AA)	<p>With the screen reader turned off, click on all visible field labels. Ensure the focus moves to the associated form field when the label is clicked to verify that there is a programmatic association between the visual label and the form field. If this does not work, use an accessibility test tool or the browser's accessibility tree to inspect each form field and verify that it has an accessible name associated with it. Whether this criterion is tested using the visual label or the accessible name, verify that the meaning of each label is clear, unique, and unambiguous.</p> <p>With the screen reader turned on, tab through each form field and ensure the label is read and that its meaning is clear, unique and unambiguous.</p> <p>Note any form fields without meaningful labels as failures of 3.6. If no user input is required, mark this a 5.</p>	1		Fields requiring user input do not have associated labels or readily identified accessible names and the meaning is not clear or unambiguous.	Some fields requiring user input have associated labels or readily identified accessible names, or the meaning is not always clear, unique and unambiguous.	All fields requiring user input have associated labels or readily identified accessible names and the meaning is always clear, unique and unambiguous.	X	X	X				
Text	3.7	Client/Web: Can the line height, paragraph spacing, letter spacing, and word spacing be adjusted without loss of content or functionality? Mobile/Touch: N/A	1.4.12 (AA)	<p>Temporarily adjust the page using an accessibility test tool to verify that the line height, letter spacing, paragraph spacing, and word spacing for the page can be adjusted. Visually inspect the page to determine if the content remains visible. Interact to ensure functionality still works.</p> <p>Note any loss of content or functionality as a failure of 3.7.</p>	NA		Content or functionality is lost if any of the line height, paragraph spacing, letter spacing or word spacing is adjusted. - Line height at least 1.5 times font size - Letter spacing at least 0.12 times font size - Paragraph spacing at least 2 times font size - Word spacing at least 0.16 times font size	Some content or functionality is lost if all of the line height, paragraph spacing, letter spacing, and word spacing is adjusted. - Line height at least 1.5 times font size - Letter spacing at least 0.12 times font size - Paragraph spacing at least 2 times font size - Word spacing at least 0.16 times font size	All content and functionality works when the line height, paragraph spacing, letter spacing or word spacing is adjusted. - Line height at least 1.5 times font size - Letter spacing at least 0.12 times font size - Paragraph spacing at least 2 times font size - Word spacing at least 0.16 times font size	X	X		X			
Text	3.8	Is the programmatic and visual labelling of all user interface components with text or images of text the same?	2.5.3 (A)	<p>Visually inspect all user interface components such as links and buttons. Identify any that include text or images of text within the component.</p> <p>Use an accessibility testing tool or the browser inspect feature to read the label, aria-label, name or any other programmatic labelling and ensure the visual and programmatic labels are the same or the programmatic label includes the visual label as part of it. Alternatively, use a screen reader to ensure the visual and programmatic labels are the same so that any information that is provided visually is also read by the screen reader.</p> <p>Note any interface components with different programmatic and visual labels as a failure of 3.8.</p>	NA		Programmatic labels of user interface components that include text or images of text do not match or include the visual label.		Programmatic labels of user interface components that include text or images of text contains the text that is presented visually.	X			X		X	
Text	3.9	Client: N/A Web/Mobile/Touch: Do common inputs that gather information about individuals include the name used for autocomplete on the Autocomplete Values worksheet? (See Autocomplete Values tab)	1.3.5 (AA)	<p>Web/Mobile/Touch: Inspect the forms and identify any form fields that gather data about the primary user such as address, phone number, name, etc. Use a developer tool or the browser inspect feature to view the input field. Check to see that it has an autocomplete attribute with a value that matches the one on the Autocomplete Values worksheet.</p> <p>Note any form fields that have a purpose matching the Autocomplete Values worksheet that do not have the same autocomplete value specified as a failure of 3.9. If no form fields gather information about users, mark this as N/A. NA allowed for Client.</p>	NA		Common user related inputs are used but do not contain the corresponding autocomplete value.		No common user related inputs are used or the inputs used have the corresponding autocomplete value.	X	X		X		X	

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Content Organization and Navigation	4.1	Are appropriate text and code labels included to allow quick orientation and movement between pages and sections?	1.3.1 (A) & 2.4.2 (A) & 2.4.6 (AA)	Visually inspect the interface to determine that content is logically and consistently grouped and groups are clearly labeled. Client applications: Use a screen reader to ensure the organization makes sense as the screen reader reads the page. Web and Mobile/Touch: View the heading structure and regions using a screen reader NVDA (INSERT+F7)/JAWS (INSERT+F3) or accessibility testing tool to ensure the following: • Main, Search, Navigation, Banner, and ContentInfo regions are provided as appropriate. There should be only one Main region. Multiple regions with the same role must have distinct names. • Heading tags are used logically and correctly to support navigation. Headings should be nested correctly. Best practices: Only one H1 tag; No more than 20 headings on a page; Main page title should be H1, primary sections H2, subsections H3; H4-H6 are only rarely used. • The page title displays in the browser tab Note a disorganization, lack of navigation labels (headings and regions) or overuse of navigation labels as failures of 4.1.	1		Content is disorganized and unlabeled or inappropriately labeled. In web pages/applications, heading tags and regions are not used or are used excessively.		Content is organized into logical groups and labeled. In web pages/applications, regions and heading tags are used logically and correctly (H1, H2, H3, etc).	X			X		X	
Content Organization and Navigation	4.2	Is the reading order for assistive technology complete, logical and intuitive?	1.3.2 & 2.4.3 (A)	Web Only: Disable styles using an accessibility testing tool, developer tool, or browser feature. Examine the content. Determine if the reading order still makes sense and that all of the content remains and is organized. All: Turn off the screen and use a screen reader to read through the page (Insert+Down Arrow). Listen for content that is missing, presented out of order or in a confusing manner or display the reading history (Insert+Spacebar, H in JAWS). The content heard should provide the same level of usability for screen reader users as provided to sighted users. Note any content that is missing or disorganized as a failure of 4.2.	1		When the style sheet is removed or the screen reader reads the page, the content organization changes so that it no longer makes sense. When a screen reader reads, some content is not read.		When the style sheet is removed or the screen reader reads the page, the content makes sense and is equivalent to the visual presentation. When a screen reader reads, all content is read.	X					X	
Content Organization and Navigation	4.3	Can the user skip navigation functions/sidebar and go straight to the content?	2.4.1 (A)	If there is repetitive content on the page such site navigation menus, with all assistive technology turned OFF, place the focus at the top of the application (CTRL+Home) and hit the tab key until you are a few tab stops into the application. Determine if a link to skip to the main content is provided, visible, and works. Note missing, invisible, or non working skip links as a failure of 4.3 if repetitive content is present on the page. If there is no repetitive content or the focus can be moved to the main content within the first few tab stops, mark this a 5.	1		The user is forced to tab through numerous navigation elements before getting to content and/or must tab through a number of links before frequent actions are reached.		A visible skip link is provided within one tab stop of the initial focus to allow the user to skip to the content or no skip link is needed. Frequent actions are located early in the tab order.	X			X			
Content Organization and Navigation	4.4	Is the user informed if the location of the focus changes?	3.2.1 (A)	Determine if the focus ever moves automatically. If it does, trigger that movement with a screen reader turned on. Ensure the user is informed of the change of focus in a logical manner. This does not include opening a new browser tab/window from a link but does include movement to modal windows, error messages, alerts, focus changes on the page, etc. Note any focus movements where the screen reader user is not informed as a failure of 4.4. If the focus never moves automatically, rate this a 5.	1		The focus moves without the user action and there is no notice that the focus moved.	The focus moves based on user action but the interface fails to notify the user of a change.	The focus moves based on a user action or automatically and the interface notifies the user of the change and provides enough context to orient the user.	X						
Content Organization and Navigation	4.5	Is the user informed when content changes dynamically?	3.2.2 (A) & 4.1.3 (AA)	Determine if any content changes dynamically away from the focus, particularly if this causes a change in context. If it does, trigger the change with a screen reader turned on. Ensure the user is informed of changes to content in an appropriate and understandable manner. This includes status messages that occur away from the focus. This does not necessarily mean that every change must be announced out loud to the screen reader user. For example, informing users that a table updates every 30 seconds might be sufficient while announcing that the table has been updated every 30 seconds could detract from a user's understanding of the information. Note any content changes away from the focus where the screen reader user is not informed or made aware of the change as a failure of 4.5. If no content changes away from the focus, mark this a 5.	1		Content changes dynamically and the user isn't notified of the change in any way.	Content changes dynamically and the user is only notified some of the time or the notification is not appropriate and understandable.	Content does not change dynamically or the user is notified when content changes in an appropriate and understandable manner.	X						
Content Organization and Navigation	4.6	Are tables used appropriately, clearly organized, and labeled?	1.3.1 (A)	Use a screen reader, browser inspect feature, or accessibility test tool to examine tables on the page. Ensure the following is true: • Tables used for layout purposes should contain no title, row, or column headers, and they should include the attribute role="presentation" • Data tables should be used for tabular data and have, at a minimum, a title as well as a column or row header or both. Tables should be simplified as much as possible. All applications should note any data tables that are poorly organized, data tables used for non tabular data such as lists, or tabular data without a table approach as a failures of 4.6. Browser applications should note any layout tables without the role="presentation" and data tables without a title and column and/or row headers as failures of 4.6. If no tabular data or data tables are present on the page, mark this NA.	1		Data tables are used or should be used and are not labeled correctly. Tables are used for layout and are not labeled as presentation only.	Data tables are used, correctly labeled, but are overly complicated.	All data and layout tables used are labeled correctly.	X						
Content Organization and Navigation	4.7	If Frames are used, are they labeled with the title attribute?	1.1.1 (A)	Use a developer tool, browser inspect feature, accessibility test tool or screen reader (for JAWS use INS+F9) to determine if frames are present. This does not include iframes. If frames are used, ensure they have a meaningful and concise title. Note any frames without meaningful, concise title as a failure of 4.7. If frames are not used, mark this as NA.	1		Frames are used and none are titled or the title is not helpful.		Frames are used and all are titled.	X						

Section	#	Criteria (Client/Web/Mobile)	WCAG Criteria	Instructions	Rating (1-5, N/A)	Notes (REQUIRED for all criterion)	1 <---	--3--	---> 5	Blind	Low Vision	Color Blind	Amputation	Deaf / Hard of Hearing	Cognitive	Seizures
Content Organization and Navigation	4.8	Is content that appears on hover or keyboard focus dismissible, hoverable, and persistent?	1.4.13 (AA)	With assistive technology off, move the focus throughout the page and note any content that appears when hovering or focusing without hitting enter or otherwise activating it. If the content is custom coded (i.e., not controlled by the browser as in the case of tooltips added using the title attribute), then ensure that: 1. The content can be dismissed without moving the mouse or keyboard focus. This is typically done with the escape key. 2. That the content disappears when the mouse or keyboard focus is removed and 3. If hover activates the content, that moving the mouse pointer over the content does not cause the content to disappear. Note any hover/keyboard focus content that can't be dismissed without moving the focus, persists after the focus is removed, or disappears while the mouse focus remains over top of it as a failure of 4.8. If no content appears on hover or keyboard focus mark this a 5.	NA		Content that appears on hover or focus disappears without the user dismissing it or moving the focus or can't be dismissed without moving the focus.		Content that appears on hover or focus can be dismissed without moving the focus and persists until dismissed or the focus/pointer is moved. If hover activated it, the user can hover all the displayed content without accidentally dismissing it.	X	X		X		X	
Content Organization and Navigation	4.9	Client/Web: N/A Mobile/Touch: Can content be used in both portrait and landscape orientation?	1.3.4 (AA)	Mobile/Touch Only: Use the application in both landscape and portrait mode and ensure all content remains visible and functionality works. Note any loss of content or functionality as a failure of 4.9. NA for Client/Web.	NA		Content and functionality only works when the device is a specific orientation.		All content and functionality works in both portrait and landscape orientation.		X		X			
Color, Contrast and Zoom	5.1	Is true text used, instead of images of text, whenever possible?	1.4.5 (AA)	With assistive technology off, highlight all content by clicking and dragging the mouse from the top of the content to the bottom. Note any content that highlights as a block. Ensure images of text are used sparingly and only when the same effect couldn't be achieved by styling the text. Logos are typically images rather than text. Large portions of body text should never be images. Note any images of text that could be true text as failures of 5.1.	1		Body text is included in images.	Some text that could be styled is included in images but the text doesn't convey large amounts of content.	True text is used except for small amounts of image-embedded text, when text styling couldn't be used to achieve the needed look and feel (ex: Logos)	X	X					
Color, Contrast and Zoom	5.2	Do the default text and background size and colors provide sufficient contrast?	1.4.3 (AA)	Use an accessibility evaluation tool to check the contrast ratio of the text against the background. The color contrast ratio should be at least 4.5:1. If the color contrast ratio is 1:1, typically a background image is present without a background color specified. Use a developer tool to ensure the font size is equal to or greater than 10 pt. If using a tool is not possible, print screenshots of the application in grayscale and determine if any content is difficult to read. Note any low contrast text or text smaller than 10 pt. as a failure of 5.2, including when a background color has not been specified.	1		The default presentation does not have sufficient contrast and uses fonts smaller than 10 pt.	Body text in the default presentation has sufficient contrast but some header text uses text slightly lower than the contrast minimum (4.0-4.5). The smallest font size used is 10 pt.	All text in the default presentation has sufficient contrast and the smallest font size used is 10 pt.		X	X				
Color, Contrast and Zoom	5.3	Is an additional visual indicator provided when information or instructions are conveyed by color?	1.3.3 & 1.4.1 (A)	Determine if any information is conveyed by color. Ensure a second visual indicator such as text, pattern, sufficient contrast, change of scale, etc., is also provided. Note any information that is conveyed solely by color as a failure of 5.3. If no information is conveyed by color, mark this a 5.	1		Color alone conveys meaning or indicates actions.		All color coding is supplemented with clear, additional indicators (position, shape, text, etc.).			X				
Color, Contrast and Zoom	5.4	Does the application support a variety of text and background size and color combinations to support user selected settings?	1.4.4 (AA)	Test the application using a variety of appropriate browser and platform settings to zoom content and change the color combinations of content. Ensure the application is able to handle these changes. Below are example tests: 1. For web applications: Turn on the high contrast setting under the MS Ease of Access Center (Start > Control Panel > Ease of Access > Optimize Visual Display > Select a High Contrast Theme with a black background). Ensure the application works with these settings (Note that browser applications may need to refresh to pick these settings up). 2. For web applications: Zoom the application to 200% (Ctrl+ to zoom in, Ctrl- to zoom out, Ctrl0 to reset) and ensure all content works: Is all content seen and still readable? If content changes, either dynamically or as a result of an interaction, is the user aware of the change? 3. If the application cannot support changes to browser and platform settings, does the application provide a way to meet this criteria? If so, test to make sure text can be increased to 150% and ensure that there are at least three high contrast color schemes. Examples of high contrast color schemes are white on black, black on white, and yellow on blue. Note any loss of content or functionality as a failure of 5.4.	1		Content or functionality is lost when text size is increased or high contrast settings are applied, regardless of the technique used.	One of the three techniques allows users to access all content and functionality with increased text size and high contrast settings applied.	At least two of the three techniques allow users to access all content and functionality with increased text size and high contrast settings applied.		X					
Color, Contrast and Zoom	5.5	Is information conveyed in multiple ways so that communication is not contingent on a single sense or ability?	1.3.3 & 1.4.1 (A)	Visually inspect the application to ensure instructions do not rely upon shape, size, visual location only (e.g., "Click the square icon to continue," or "Instructions are to the right of Search."). Verify that alerts do not rely upon sight or sound only (e.g., a beeping sound alone indicates you may continue, or flashing only indicates there is a message, etc.). All information must be able to be accessed in a variety of ways that supports multiple senses, for example, including closed-captioning on videos or ensuring mouse over events can also be triggered by keyboard focus. Text content should be accessible as synthesized speech, braille, and visually displayed text. Most of these are covered by the criteria in other areas of this evaluation. This criteria specifically focuses on instructions and alerts. If there are other situations not covered under other evaluation criteria, but rely on a single sense, they should also be addressed here. Note any information that relies on a single sense or ability as a failure of 5.5.	1		Access to all information is limited to a single sense.	Access to some information is limited to a single sense while some information is accessible in multiple ways.	All information is accessible in multiple ways.	X	X	X		X		

Section	#	Criteria (Client/Web/Mobile)	WCAG Criteria	Instructions	Rating (1-5, N/A)	Notes (REQUIRED for all criterion)	1 <---	--3--	---> 5	Blind	Low Vision	Color Blind	Amputations	Deaf / Hard of Hearing	Cognitive	Seizures
Color, Contrast and Zoom	5.6	Do interface components and graphical objects that convey information have sufficient contrast with the background and surrounding objects?	1.4.11 (AA)	Identify user interface components such as buttons, menus, form fields, etc. and any graphical objects that convey information (map regions, pie charts, etc.). Use an accessibility evaluation tool to check the component and background color and graphical objects and surrounding graphical objects. Ensure they have at least a 3:1 contrast ratio. If the component has an outline (example: Form Fields), it can be used instead of the fill color. Affordances such as lines around text boxes, button colors and outlines, menu backgrounds, hover indications, icons, etc., should also have a contrast ratio of 3:1 or greater. This standard does not require affordances, rather it requires affordances have sufficient contrast when provided. This standard applies to placeholder text and disabled controls. Note any interface components and graphical objects that convey information with low contrast as a failure of 5.6.	NA		Affordances, interface components and graphical objects that convey information have a contrast ratio lower than 3:1.		Affordances, interface components and graphical objects that convey information have a contrast ratio greater than 3:1.		X	X				
Color, Contrast and Zoom	5.7	Client: N/A Web/Mobile/Touch: Can the page be zoomed to 400% in a 1280px wide display without requiring two scroll bars?	1.4.10 (AAA)	Web/Mobile/Touch: Set the display to 1280px wide or use a tool that automatically tests the page reflow. Use a browser to zoom the content to 400%. Inspect the application to ensure that content remains readable and functionality available with either a horizontal or vertical scrollbar but not both. Note any loss of content/functionality or the presence of both horizontal and vertical scrollbars as a failure of 5.7. NA allowed for Client.	NA		Functionality or content is lost.	All functionality and content can be accessed but it requires both vertical and horizontal scrollbars.	All content and functionality is available and only one scrollbar is needed.		X	X				
Flashing	6.1	Is flashing/flickering content avoided?	2.3.1 (A)	Visually inspect the application to see if any repeated changes between high contrast and low contrast occur. Movement such as a loading icon and a single user controlled change such as a color change on a button to indicate focus are not considered flashing. Note any flashing content as a failure of 6.1. If no flashing content exists, mark this a 5.	1		Large parts of the screen flash. Videos with quick, high contrast changes are used.		Nothing Flashes							X
Time	7.1	Does the user have sufficient time to read and use content?	2.2.1 (A)	Determine if the application applies a time limit. Work through the timeout process with the screen reader off and again with a screen reader on. Determine if the user is notified about the timeout, able to extend the time, and if work is saved after the timeout. Note any situations that would lead to data loss as part of the timeout as a failure of 7.1. If no timeout exists, mark this a 5.	1		Timeouts are included, the user is not warned nor given a chance to extend the time, and the user loses work at time out.	Time outs are included and the user is warned but not given a chance to extend the time. The user does not lose work if the timeout occurs.	No application timeouts are included or the user is notified when time is about to run out and given a chance to extend the time. The user does not lose work if the timeout occurs.	X	X	X	X	X	X	
Error Handling	8.1	Does validation identify the error, provide suggestions on fixing the error, and allow the user to fix the error?	3.3.1 & 3.3.2 (A) & 3.3.3 & 3.3.4 (AA)	Review error and validation messages. Determine if they are provided when needed, are clearly worded, and give suggestions on fixing the error. Trigger the error and validation messages with a screen reader on. Determine if the screen reader user is notified of the error and validation message. Note missing and poorly worded error messages as well as messages that are not read by the screen reader as failures of 8.1. If errors are prevented or not possible, mark this a 5. If the user is forced to start over to fix an error, mark this a 1.	1		No clear error/validation message is given when an error or validation occurs, the error message is in "system speak" such as 404 Error, or the user must start the task over to correct the error.	Error/validation messages are provided and identify the error but do not help the user fix the error.	Error/validation messages are provided, identify the error and provide suggestions on fixing the error.	X	X	X	X	X	X	
Error Handling	8.2	When an action causes an error or validation message, is the focus located or placed near the error or validation message?	3.3.1 (A)	Trigger error messages. Determine if the focus is directly next to or on the error message once it is triggered such that the error message would be visible at high magnification (1500%). Successful approaches include moving the focus to an error message at the top of a page, moving the focus to the error icon next to the form field that needs correction, providing the error message directly below the submit button, or providing the error message in a toast tied to the window. Note any error messages that display in a location that is not adjacent to the focus as a failure of 8.2. If errors and validation are not needed, mark this a 5.	1		When an error or validation occurs or the user validates a form, the notification is placed on a different part of the screen from the focus.		When an error or validation occurs or the user validates a form, the focus is moved to the notification or the notification is visually near the current focus.		X					
Language	9.1	Client: N/A Web/Mobile/Touch: Are language tags specified?	3.1.1 (A) & 3.1.2 (AA)	Web/Mobile/Touch: Inspect the content and determine if any language but English is included. View the code using Ctrl+U. If only English is used, lang="en" or a comparable tag should be an attribute in the html tag at the top of the page. Web pages that include languages in addition to English should include the appropriate lang attribute in the tags around the foreign language content. Note a failure to correctly indicate an all-English application as a 3. Note a failure to correctly indicate foreign language content as a 1 or 2 depending on the extent and importance of language used. NA allowed for Client Only.	1		Multiple languages are used and not specified.	Only English is used but it is not specified.	English is specified in HTML tag. If additional languages are used, they are also specified.	X					X	
Multimedia and Animation	10.1	If animation (including scrolling, blinking, or moving information) is provided, can the user turn it off and access the information in a non-animated way?	2.2.2 (A)	Visually inspect the interface to determine if animation is used. Time the animation. Determine if it ends within 5 seconds (assuming no sound is present). If animation longer than 5 seconds is present, visually inspect interface and preferences to see if it can be turned off. Ensure that if the animation conveys content, that the content is available in another form. Note any animation that lasts more than 5 seconds and cannot be turned off as a failure of 10.1. If animation also includes sound, then it fails 10.4 if the sound lasts more than 2 seconds. This does not include loading indicators that swirl. If no animation is present, mark this NA.	1		Animation is used to convey content and can't be turned off, nor is an alternative provided.	Animation is used and can not be controlled but does not convey content and the animation cycle is short and stops automatically.	User can control the animation or the animation ends within 5 seconds. The user can view content in an alternative way or the animation does not convey content.	X					X	

Section	#	Criteria (Client/Web/Mobile)	WCAG Criteria	Instructions	Rating (1-5, N/A)	Notes (REQUIRED for all criterion)	1 <---	--3--	---> 5	Blind	Low Vision	Color Blind	Amblakly	Deaf / Hard of Hearing	Cognitive	Seizures
Multimedia and Animation	10.2	Are accurate, synchronized captions and a descriptive transcript (or audio description) available for audio visual elements?	1.2.4 (A) & 1.2.5 (AA) & 1.2.8 (AAA)	Determine if audio visual content is provided. If audio visual content is present, watch the content to determine if accurate closed captions are provided. Examine the interface to determine if descriptive transcripts are provided. Read the transcripts for accuracy and ensure they include both audio and visual information. Consider whether the content and audience require audio descriptions in addition to descriptive transcripts. Note any audio visual content without captions and a descriptive transcript or low quality captions and descriptive transcript as a failure of 10.2. If no audio visual content is present, mark this NA.	1		No transcripts or captions are provided for content-rich audio visual elements.	Transcripts and/or captions are provided but are not comprehensive or accurate. Transcripts do not include necessary visual information.	High quality, descriptive transcripts and captions are provided for audio visual elements. Audio description is available if needed.					X		
Multimedia and Animation	10.3	Are accurate, descriptive transcripts available for audio-only and video-only elements?	1.2.1 (A)	Determine if any audio-only or video-only content is provided. If present, examine the interface to determine if descriptive transcripts are provided. Read the transcripts for accuracy. Note any audio-only or video-only content without a descriptive transcript or a low quality descriptive transcript as a failure of 10.3. If no audio-only or video-only content is present, mark this NA.	1		No transcripts are provided.	Transcripts are provided but are not comprehensive or accurate.	High quality, descriptive transcripts are provided.	X				X		
Multimedia and Animation	10.4	If audio automatically plays, can the user stop, pause, mute or adjust the volume?	1.4.2 (A)	Turn speakers on and determine if an audio automatically plays. Time the audio content. Determine if it ends within 3 seconds. If audio automatically plays longer than 2 seconds, inspect interface and preferences to see if it can be easily turned off, paused, muted, or adjusted. Ensure that if the audio conveys content, that the content is available in another form. Note any audio that plays automatically for more than 5 seconds and cannot be easily adjusted and turned off as a failure of 10.4. If no audio automatically plays, mark this NA.	1		Audio plays automatically, lasts more than 2 seconds, and there is no way for the user to stop it.	Audio plays automatically, lasts more than 2 seconds, and the mechanism to stop it is difficult to locate.	Audio plays automatically but can easily be turned off or stops in 2 seconds or less.	X						
Multimedia and Animation	10.5	If auto-updating is used, can the user turn it off?	2.2.2 (A)	Determine if any content automatically updates without the user triggering the update (example: on page refresh). If content automatically updates, inspect interface and preferences to see if it can be easily paused, stopped or hidden, or if the frequency of the update can be controlled. Note any content that automatically updates and can't be controlled by the user as a failure of 10.5. If no content automatically updates, mark this NA.	1		Auto-updating is used to convey content and can't be paused, stopped or hidden, nor can the frequency of the update be controlled.	Auto-updating is used and can not be controlled, but does not convey content and the update is short, infrequent, and stops automatically.	Auto-updating is used to convey content and it can be paused, stopped or hidden, or the frequency of the update be controlled.	X	X				X	
Other	11.1	Is an accessible alternative available for content or functionality within a system that cannot be made compliant any other way?	CR1 Conformance Level	Determine if a part of the application can't be made accessible. If this applies, determine if a documented workaround exists. Test the alternative to ensure it is fully accessible, requires as little human intervention as possible, and is documented in a way that is easily available to individuals who need it. In general creating two separate interfaces is discouraged as it creates more work. Alternatives that do not require human intervention are preferable to ones that do. Only use this when developing an alternative solution. If no alternative is being created, mark this NA.	1		Portions of the application cannot be made accessible. No alternative is provided.	Portions of the application cannot be made accessible. The alternative requires human intervention in some form or is not documented.	Portions of the application cannot be made accessible. The alternative is fully accessible, can be used independently, and is fully documented.	X	X	X	X	X	X	
Other	11.2	Client: N/A Web/Mobile/Touch: Are server side image maps used, and, if so, are redundant text links provided?	1.1.1 (A)	Web/Mobile/Touch: Visually inspect the interface or use an accessibility or developer tool to locate any image maps. If found, ask developer whether the image map is handled through the browser or the server. If the image map is handled via the server, visually inspect the interface to determine if alternative text links are provided to access comparable information. Note any server side image maps without redundant links as a failure of 11.2. If no server side image maps exist, mark this NA. Default to NA for Client.	1		Server side image maps are used and do not provide redundant text links.		Server side image maps are used and provide redundant text links.	X						
Other	11.3	If a specialized applet, plug-in or software is required, is a link to download it provided?	N/A (Deprecated)	Determine if any specialized software is needed to use the application that is not installed in the target audience's baseline (example Adobe Acrobat Reader for public websites). If the user will need to install software to run the application, visually inspect the interface to determine if a link to the required software is provided. Note any specialized software without a link provided as a failure of 11.3. If no specialized software is required, mark this NA.	1		No link is provided to specialized software.		A link is provided to specialized software.	X	X	X	X	X	X	

<Name of App + URN/URL>		
<Test Date>	1.00	<Name of Tester(s)>
<Pages Tested>		
<Tools Used>		<Browsers Used>

Keyboard	1.1	1
	1.2	1
	1.3	1
Focus	2.1	1
	2.2	1
	2.3	1
Text	3.1	1
	3.2	1
	3.3	1
	3.4	1
	3.5	1
	3.6	1
Content	4.1	1
	4.2	1
	4.3	1
	4.4	1
	4.5	1
	4.6	1
	4.7	1
Color	5.1	1
	5.2	1
	5.3	1
	5.4	1
	5.5	1
Flashing	6.1	1
Time	7.1	1
Error	8.1	1
	8.2	1
Language	9.1	1
Multimedia	10.1	1
	10.2	1
	10.3	1
	10.4	1
	10.5	1
Other	11.1	1
	11.2	1
	11.3	1

WCAG 2.1 (NEW)		
Keyboard	1.4	NA
	1.5	NA
	1.6	NA
	1.7	NA
Text	3.7	NA
	3.8	NA
	3.9	NA
Content	4.8	NA
	4.9	NA
Color	5.6	NA
	5.7	NA

NOTES

Point Scores as Grades

5.0 denotes a fully accessible product, but this breakdown offers a range of accessibility to scale against which should be developed and implemented for all ratings that fall below 5.0, and a formal POAM focus on CIO for any grades falling below 4.4. A score of 5.0 denotes a meaningfully accessible resource and level denote functional accessibility and demonstrate a great commitment toward total accessibility.

Rating	Description
5	Accessible and usable. Will continue to benefit from User Experience feedback as specific individuals may still experience problems.
4.8-4.9	Close to functional accessibility. Typically a blind person will still have difficulty using certain functions some of which could still be complete stop-work barriers.
4.4-4.7	Some accessibility functions emerging. Blind persons and those with ambulatory disabilities will typically be unable to use the tool and may require assistance.
1.0-4.3	Fundamentally inaccessible for all persons with targeted disabilities, except possibly DHH and Seizures.

NA	NA is allowed for all Optional Criteria, but otherwise is not allowed unless specifically stated in the instructions and is dependent upon the functionality and type of application being tested (Web/Client/Mobile). Items rated NA do not count against your overall score.
----	--

against potential operational impact. A mitigation plan
ing on accessibility remediation must be submitted to
l is deserving of recognition. Scores at the 4.8-4.9
'.

Term	Description
Client Application	A software program that integrates the processing capabilities of another program, esp. that accesses distributed objects provided by server application.
Keyboard Shortcuts	Also known as keyboard alternatives and hotkeys. An assigned key or sequence of keys programmed to execute a command or perform a specific task in a software application.
True Text	Text that is embedded in a web page rather than being part of an image.
Web Application	A software program that provides interactive functionality and is accessed through a web browser and URL.
WCAG	Web Content Accessibility Guidelines (WCAG) 2.0 covers a wide range of recommendations for making Web content more accessible. Following these guidelines will make content accessible to a wider range of people with disabilities, including blindness and low vision, deafness and hearing loss, learning disabilities, cognitive limitations, limited movement, speech disabilities, photosensitivity and combinations of these. Following these guidelines will also often make your Web content more usable to users in general.
Primary Tasks	Key functionality for the application. For an email application this would include writing and reading emails.
Secondary Tasks	Secondary functionality within an application. For an email application, this might include sorting mail and formatting text.
Multipoint gestures	A touch gesture that requires more than one finger to operate. Examples include pinching two fingers together to zoom or swiping to fingers to scroll.
Single point gestures	A touch gesture which can be activated using a single finger or pointing device. Clicking a button is a single point gesture.
Affordances	Clues about how an object or interface component should be used. The size of a text box or the 3d design of a button are affordances.

Value

name
honorific-prefix
given-name
additional-name
family-name
honorific-suffix
nickname
organization-title
username
new-password
current-password
organization
street-address
address-line1
address-line2
address-line3
address-level4
address-level3
address-level2
address-level1
country
country-name
postal-code
cc-name
cc-given-name
cc-additional-name
cc-family-name
cc-number
cc-exp
cc-exp-monthq
cc-exp-year
cc-csc
cc-type
transaction-currency
transaction-amount
language
bday
bday-day
bday-month
bday-year
sex
url
photo
tel

tel-country-code
tel-national
tel-area-code
tel-local
tel-local-prefix
tel-local-suffix
tel-extension
email
impp

Used For

Full name

Prefix or title (e.g., "Mr.", "Ms.", "Dr.", "Mlle")

Given name (in some Western cultures, also known as the first name)

Additional names (in some Western cultures, also known as middle names, forenames other than the first)

Family name (in some Western cultures, also known as the last name or surname)

Suffix (e.g., "Jr.", "B.Sc.", "MBASW", "II")

Nickname, screen name, handle: a typically short name used instead of the full name

Job title (e.g., "Software Engineer", "Senior Vice President", "Deputy Managing Director")

A username

A new password (e.g., when creating an account or changing a password)

The current password for the account identified by the username field (e.g., when logging in)

Company name corresponding to the person, address, or contact information in the other fields associated with the account

Street address (multiple lines, newlines preserved)

Street address (one line per field, line 1)

Street address (one line per field, line 2)

Street address (one line per field, line 3)

The most fine-grained administrative level, in addresses with four administrative levels

The third administrative level, in addresses with three or more administrative levels

The second administrative level, in addresses with two or more administrative levels; in the countries with three administrative levels, the second level is the country

The broadest administrative level in the address, i.e., the province within which the locality is found; for countries with one administrative level, the level is the country

Country code

Country name

Postal code, post code, ZIP code, CEDEX code (if CEDEX, append "CEDEX", and the disbursement, if relevant, append "disbursement")

Full name as given on the payment instrument

Given name as given on the payment instrument (in some Western cultures, also known as the first name)

Additional names given on the payment instrument (in some Western cultures, also known as middle names)

Family name given on the payment instrument (in some Western cultures, also known as the last name or surname)

Code identifying the payment instrument (e.g., the credit card number)

Expiration date of the payment instrument

Month component of the expiration date of the payment instrument

Year component of the expiration date of the payment instrument

Security code for the payment instrument (also known as the card security code (CSC), card validation code (CVV), or card verification value (CVV2))

Type of payment instrument

The currency that the user would prefer the transaction to use

The amount that the user would like for the transaction (e.g., when entering a bid or sale price)

Preferred language

Birthday

Day component of birthday

Month component of birthday

Year component of birthday

Gender identity (e.g., Female, Fa'afafine)

Home page or other Web page corresponding to the company, person, address, or contact information

Photograph, icon, or other image corresponding to the company, person, address, or contact information

Full telephone number, including country code

Country code component of the telephone number

Telephone number without the county code component, with a country-internal prefix applied if applica

Area code component of the telephone number, with a country-internal prefix applied if applicable

Telephone number without the country code and area code components

First part of the component of the telephone number that follows the area code, when that component

Second part of the component of the telephone number that follows the area code, when that compone

Telephone number internal extension code

E-mail address

URL representing an instant messaging protocol endpoint (for example, "aim:goim?screenname=exampl

th two administrative levels, this would typically be the city, town, village, or other locality with example, in the US, this would be the state; in Switzerland it would be the canton; in the UK, th

ode (CVC), card verification value (CVV), signature panel code (SPC), credit card ID (CCID), etc)

in which the relevant street address is found

Shortcut	Action
1	Headings level 1
1	Headings level 1
2	Headings level 2
2	Headings level 2
3	Headings level 3
3	Headings level 3
4	Headings level 4
4	Headings level 4
5	Headings level 5
5	Headings level 5
6	Headings level 6
6	Headings level 6
'	Find as You Type Link
+key	Exit Forms Mode
Alt+Shift+F6	Previous Window
/	Find as You Type Text
a	annotation (comment, editor revision,
Alt	Move to the Menu Bar
Alt	Cancel
Alt, Arrow KEYS	Move between Menus
Alt+A	Favorites
Alt+A	Favorites
Alt+B	Bookmarks
Alt+B	Bookmarks
Alt+B	Bookmarks
Alt+D	Select Location Bar
Alt+DASH	Open a child Window Control Menu
Alt+DELETE	Say Active Cursor
Alt+Delete	Disable Zoomtext
Alt+DELETE	Say Active Cursor
Alt+Down Arrow	Open Combo Box/Jump Menu
Alt+Down Arrow	Say Next Sentence
Alt+DownArrow	Next sentence
Alt+E	Edit
Alt+E	Edit
Alt+E	Edit
Alt+ENTER	Open File or Folder Properties
Alt+Enter	Open Address in New Tab
Alt+F	File
Alt+F	File
Alt+F	File
Alt+F10	App: Maximize
Alt+F3	Create AutoText
Alt+F4	Exit the Active Application

Alt+F4	Close Window
Alt+F4	Close Window
Alt+F5	App: Restore
Alt+F7	Next Misspelling
Alt+H	Help
Alt+H	Help
Alt+H	Help
Alt+Home	Home
Alt+Insert	Enable Zoomtext
Alt+Left Arrow	Back
Alt+Num Pad 5	Say Current Sentence
Alt+NumPad-	Zoom Out
Alt+NumPad+	Zoom In
Alt+Return	Redo
Alt+Right Arrow	Forward
Alt+S	History
Alt+S	History
Alt+S	History
Alt+Shift+A	Start App Reader
Alt+Shift+C	Close Pane
Alt+Shift+Comma	Say Current Table Cell
Alt+Shift+D	Start Doc Reader
Alt+Shift+Down Arrow	Mouse Down
Alt+Shift+F2	Save
Alt+Shift+I	SpeakIt Tool
Alt+Shift+Left Arrow	Mouse Left
Alt+Shift+Left Arrow	Mouse Left
Alt+Shift+M	Move to Prior Table Cell
Alt+Shift+N	Move Down One Table Cell
Alt+Shift+PERIOD	Move to Next Table Cell
Alt+Shift+Right Arrow	Mouse Right
Alt+Shift+Right Arrow	Mouse Right
Alt+Shift+S	Speech
Alt+Shift+Up Arrow	Mouse Up
Alt+Shift+Up Arrow	Mouse Up
Alt+Shift+Y	Move Up One Table Cell
Alt+Spacebar	Open the Application Control Menu
Alt+T	Tools
Alt+T	Tools
Alt+T	Tools
Alt+TAB	Switch between Open Applications
Alt+Up Arrow	Say Prior Sentence
Alt+Up Arrow	Say Prior Sentence
Alt+Up Arrow	Close Combo Box
Alt+UpArrow	Previous sentence

Alt+V	View
Alt+V	View
Alt+V	View
Alt+WINDOWS Key+Com	Read Current Row
Alt+WINDOWS Key+Ctrl+	Permanently Decrease Voice Rate
Alt+WINDOWS Key+Ctrl+	Permanently Increase Voice Rate
Alt+WINDOWS Key+Dow	Read Next Row
Alt+WINDOWS Key+Left	Read Prior Column
Alt+WINDOWS Key+PERI	Read Current Column
Alt+WINDOWS Key+Right	Read Next Column
Alt+WINDOWS Key+Up A	Read Prior Row
APPLICATIONS KEY or Shift+F10	Open the Shortcut Menu
b	button
B	Button Quick Key
BACKSPACE	Go Up One Folder Level
BACKSPACE	Delete Prior Character
Backspace	Back
c	combo box
Caps Lock+.	Report current character in review
Caps Lock+1	Toggle Input Help Mode
Caps Lock+5	Say Color
Caps Lock+8	Left Mouse Button
Caps Lock+9	Right Mouse Button
Caps Lock+a	Say all
Caps Lock+A or Caps Lock	Say All
Caps Lock+APOSTROPHE	Route Touch Cursor to Focus Location
Caps Lock+APOSTROPHE	Route PC Cursor to JAWS Cursor
Caps Lock+b	Read active window
Caps Lock+backspace	Move to focus object
Caps Lock+Comma	Say Character
Caps Lock+Comma three	Say ASCII or Hexadecimal Value
Caps Lock+Comma twice	Say Character Phonetically
Caps Lock+delete	Report review cursor location
Caps Lock+Down Arrow	Move to next line in review
Caps Lock+End	Move to end of line in review
Caps Lock+enter	Activate current navigator object
Caps Lock+f	Report text formatting
Caps Lock+F	Say Font
Caps Lock+f10	Copy to review cursor
Caps Lock+f2	Pass next key through
Caps Lock+f9	Copy from review cursor
Caps Lock+H	Say Sentence
Caps Lock+Home	Move to start of line in review
Caps Lock+Home or	Spell to Cursor
Caps Lock+Home or Caps	Say to Cursor
Caps Lock+I	Say Line
Caps Lock+I twice quickly	Spell Current Line

Caps Lock+J	Say Prior Word
Caps Lock+K	Say Word
Caps Lock+K twice quickly	Spell Word
Caps Lock+I	Read current line
Caps Lock+L	Say Next Word
Caps Lock+Left Arrow	Move to previous character in review
Caps Lock+Left Bracket	Route JAWS Cursor to PC Cursor
Caps Lock+M	Say Prior Character
Caps Lock+n	NVDA Menu
Caps Lock+N	Say Next Sentence
Caps Lock+O	Say Next Line
Caps Lock+P	JAWS Cursor
Caps Lock+P twice quickly	Invisible Cursor
Caps Lock+Page Up	Spell from Cursor
Caps Lock+PageDown	switch to previous review mode
Caps Lock+PageDown	switch to previous review mode
Caps Lock+PageUp	switch to next review mode
Caps Lock+PageUp	switch to next review mode
Caps Lock+PERIOD	Say Next Character
Caps Lock+q	Quit NVDA
Caps Lock+R	Restrict JAWS Cursor
Caps Lock+Right Arrow	Move to next character in review
Caps Lock+s	Toggle Speech Mode
Caps Lock+Semicolon (pr	PC Cursor
Caps Lock+Shift+.	Report current line in review
Caps Lock+Shift+8	Drag and Drop
Caps Lock+Shift+a	Say all with review
Caps Lock+Shift+A or Cap	Say Selected Text
Caps Lock+Shift+B	Report Battery Level
Caps Lock+Shift+Backspa	Move System focus or caret to current
Caps Lock+Shift+Down Ar	Move to first contained object
Caps Lock+Shift+End	Report Status Bar
Caps Lock+Shift+J twice c	Spell to Cursor
Caps Lock+Shift+L	Say from Cursor
Caps Lock+Shift+L twice c	Spell from Cursor
Caps Lock+Shift+LeftArro	Move to previous object
Caps Lock+Shift+N	Say Bottom Line of Window
Caps Lock+Shift+o	Report current object
Caps Lock+Shift+RightArr	Move to next object
Caps Lock+Shift+s	Read current text selection
Caps Lock+Shift+UpArrov	Move to containing object
Caps Lock+Shift+Y	Say Top Line of Window
Caps Lock+Shift+z	Toggle application sleep mode on and
Caps Lock+t	Report title
Caps Lock+tab	Report current focus
Caps Lock+U	Say Prior Line
Caps Lock+UpArrow	Move to previous line in review
Caps Lock+WINDOWS Ke	Script Utility Mode Toggle

Caps Lock+Y	Say Prior Sentence
Comma	Move past end of container
Ctrl	Terminate speech
Ctrl	Interrupt Speech
Ctrl-	Zoom out
Ctrl_Right Arrow	Move Tab Right (when tab is focus)
Ctrl+	Zoom in
Ctrl+-	Text Size: Decrease
Ctrl+-	Zoom out
Ctrl+(1 to 9)	Select Tab (1 to 9)
Ctrl+\	Unselect All But Current
Ctrl+\	Unselect All But Current
Ctrl+`	Next Tab Group
Ctrl++	Text Size: Increase
Ctrl++	Zoom in
Ctrl+0	Text Size: Restore
Ctrl+0	Zoom Reset
Ctrl+1to8	Select Tab 1 to 8
Ctrl+9	Select Last Tab
Ctrl+A	Select All
Ctrl+A	Select All
Ctrl+A	Select All
Ctrl+A	Select All
Ctrl+Alt+1	Apply Heading 1
Ctrl+Alt+1...0	Jump to Reading Zone 1-10
Ctrl+Alt+2	Apply Heading 2
Ctrl+Alt+3	Apply Heading 3
Ctrl+Alt+Down Arrow	Cell Below
Ctrl+Alt+Down Arrow	Cell Below
Ctrl+Alt+DownArrow	Move to next row
Ctrl+Alt+E	Edit reading zones
Ctrl+Alt+End	Last Cell
Ctrl+Alt+End	Last Cell
Ctrl+Alt+F2	Open Document
Ctrl+Alt+Home	First Cell
Ctrl+Alt+Home	First Cell
Ctrl+Alt+I	Print Preview
Ctrl+Alt+L	List reading zones
Ctrl+Alt+L	Number List
Ctrl+Alt+Left	Say previous sentence
Ctrl+Alt+Left Arrow	Cell to Left
Ctrl+Alt+Left Arrow	Cell to Left
Ctrl+Alt+LeftArrow	Move to previous column
Ctrl+Alt+N	Next Reading Zone
Ctrl+Alt+Num Pad 5	Say Current Cell
Ctrl+Alt+Num Pad 5	Say Current Cell
Ctrl+Alt+Num Pad 5	Say current sentence

Ctrl+Alt+Num Pad 5	Say Current Cell
Ctrl+Alt+O	Outline
Ctrl+Alt+P	Previous Reading Zone
Ctrl+Alt+Page Down	Temporarily Decrease Voice Rate
Ctrl+Alt+Page Down	Decrease Voice Rate
Ctrl+Alt+Page Up	Temporarily Increase Voice Rate
Ctrl+Alt+Page Up	Increase Voice Rate
Ctrl+Alt+PageDown	Go to end of window
Ctrl+Alt+PageUp	Move to Start of Window
Ctrl+Alt+Right	Say next sentence
Ctrl+Alt+Right Arrow	Cell to Right
Ctrl+Alt+Right Arrow	Cell to Right
Ctrl+Alt+RightArrow	Move to next column
Ctrl+Alt+Shift+Down Arrc	Last Cell in Column
Ctrl+Alt+Shift+Down Arrc	Last Cell in Column
Ctrl+Alt+Shift+Left Arrow	First Cell in Row
Ctrl+Alt+Shift+Left Arrow	First Cell in Row
Ctrl+Alt+Shift+Right Arro	Last Cell in Row
Ctrl+Alt+Shift+Right Arro	Last Cell in Row
Ctrl+Alt+Shift+Up Arrow	First Cell in Column
Ctrl+Alt+Shift+Up Arrow	First Cell in Column
Ctrl+Alt+Up Arrow	Cell Above
Ctrl+Alt+Up Arrow	Cell Above
Ctrl+Alt+UpArrow	Move to previous row
Ctrl+Alt+V	Navigate Reading Zones
Ctrl+Alt+Y	Find Again
Ctrl+Alt+Z	Create new reading zone
Ctrl+Alt+Z	Go Back
Ctrl+B	Bold
Ctrl+B	
Ctrl+I	Bookmarks
Ctrl+Backspace	Delete Back Word
Ctrl+C	Copy Selected File or Text to Clipboard
Ctrl+C	Copy
Ctrl+C	Copy
Ctrl+C	Copy
Ctrl+Caps Lock+.	Report current word in review
Ctrl+Caps Lock+Down Ar	Start Skim Reading
Ctrl+Caps Lock+End	Move to bottom line in review
Ctrl+Caps Lock+Home	Move to top line in review
Ctrl+Caps Lock+I	Say Paragraph
Ctrl+Caps Lock+LeftArrov	Move to previous word in review
Ctrl+Caps Lock+O (Note: Say Next Paragraph	
Ctrl+Caps Lock+RightArrc	Move to next word in review
Ctrl+Caps Lock+Shift+Do	Skim Reading dialog box
Ctrl+Caps Lock+U	Say Prior Paragraph

Ctrl+D	Bookmark This Page
Ctrl+D	Bookmarks
Ctrl+D	Bookmarks
Ctrl+D	Font
Ctrl+Delete	Delete Word
Ctrl+Down	Say next paragraph
Ctrl+Down Arrow	Move One Paragraph Down
Ctrl+Down Arrow	Move Tab Right (when tab is focus)
	Select Next Search Engine
Ctrl+Down Arrow	(when Search Bar is focused)
Ctrl+E	Center Paragraph
Ctrl+End	Move to End of Document
Ctrl+End	Move Tab to End (when tab is focus)
Ctrl+Enter	Complete .com Address
Ctrl+F	Find
Ctrl+F	Find
Ctrl+F	Find
Ctrl+F	Find
Ctrl+F	Search for a word or a phrase
Ctrl+F10	Document: Maximize
Ctrl+F12	Open Document
Ctrl+F2	Print Preview
Ctrl+F4	Close Tab
Ctrl+F4	Close Document
Ctrl+F5	Reload (override cache)
Ctrl+F5	Document: Restore
Ctrl+F6	Move to Next Window
Ctrl+F7	Document: Move
Ctrl+F8	Document: Size
Ctrl+G	Find Again
Ctrl+H	History
Ctrl+H	History
Ctrl+H	History
Ctrl+Home	Move to Beginning of Document
Ctrl+Home	Move Tab to Beginning (when tab is focus)
Ctrl+I	Italic
Ctrl+Insert	Copy
Ctrl+Insert+1 through 0	Read List View Columns 1 through 10
Ctrl+Insert+C	Clear Initial Values
Ctrl+Insert+Down Arrow	Start Skim Reading
Ctrl+Insert+Down Arrow	Start Skim Reading
Ctrl+Insert+f	Find
Ctrl+Insert+F	JAWS Find
Ctrl+Insert+F1	Screen Sensitive Help Technical
Ctrl+Insert+F2	Say Special Window Classes
Ctrl+Insert+G	Start Auto Graphics Labeler

Ctrl+Insert+H	Custom Highlight Assign
Ctrl+Insert+Num Pad Mir	Tether JAWS to PC
Ctrl+Insert+Num Pad Slas	Drag and Drop
Ctrl+Insert+S	Select a Voice Profile
Ctrl+Insert+Shift+C	Say Cursor Type
Ctrl+Insert+Shift+Down A	Skim Reading dialog box
Ctrl+Insert+Shift+Down A	Skim Reading dialog box
Ctrl+Insert+Shift+G	List Labeled Graphics
Ctrl+Insert+space	Move to containing browse mode doc
Ctrl+Insert+TAB or Insert	Create a Prompt
Ctrl+Insert+V	Say Application Version
Ctrl+Insert+W	Open Word Index
Ctrl+J	Downloads
Ctrl+J	Downloads
Ctrl+J	Downloads
Ctrl+J	Justify Paragraph
Ctrl+K	
Ctrl+E	Web Search
Ctrl+L	Select Location Bar
Ctrl+Left Arrow	Move One Word Left
Ctrl+Left Arrow	Move Tab Left (when tab is focused)
Ctrl+Left Arrow	Say Prior Word
Ctrl+M	New Message
Ctrl+M	Indent
Ctrl+N	New Window
Ctrl+N	New Window
Ctrl+N	New Window
Ctrl+N	New Document
Ctrl+Num 5	Select All
Ctrl+Num Pad 5	Say Word
Ctrl+Num Pad Plus	Untruncate Columns in List View
Ctrl+NumPad+-	Slow Down Speech
Ctrl+NumPad++	Speed Up Speech
Ctrl+O	Open File
Ctrl+O	Open Document
Ctrl+P	Print
Ctrl+P	Print
Ctrl+P	Print
Ctrl+P	Print
Ctrl+P	Print
Ctrl+Page Down	Move to Top of Next Page
Ctrl+Page Up	Move to Top of Previous Page
Ctrl+PageDown	Next Tab
Ctrl+PageDown	Browse Next
Ctrl+PageUp	Previous Tab
Ctrl+PageUp	Browse Previous
Ctrl+R	Reload

Ctrl+Right Arrow	Move One Word Right
Ctrl+Right Arrow	Say Next Word
Ctrl+S	Save Page As
Ctrl+S	Save
Ctrl+S	Save
Ctrl+S	Save
Ctrl+Shift or Ctrl+Spacebar	Select Multiple List Items
Ctrl+Shift or Ctrl+Spacebar	Select Multiple List Items
Ctrl+Shift+`	Previous Tab Group
Ctrl+Shift+A	All Caps
Ctrl+Shift+B	Bold
Ctrl+Shift+C	Color Enhancements
Ctrl+Shift+C	Copy Format
Ctrl+Shift+D	Bookmark All Tabs
Ctrl+Shift+D	Double Underline
Ctrl+Shift+Del	Clear Private Data
Ctrl+Shift+E	Tab Groups View
Ctrl+Shift+End	Select to End of Document
Ctrl+Shift+Enter	Complete .org Address
Ctrl+Shift+F	Font Enhancements
Ctrl+Shift+F	Font
Ctrl+Shift+F11	View System Tray Contents
Ctrl+Shift+F12	Print
Ctrl+Shift+F6	Previous Window
Ctrl+Shift+Home	Select to Beginning of Document
Ctrl+Shift+I	Italic
Ctrl+Shift+J	Browser Console
Ctrl+Shift+L	Apply List Bullet
Ctrl+Shift+Left Arrow	Select One Word Left
Ctrl+Shift+Left Bracket	Set Frame Top Left
Ctrl+Shift+Left Bracket tw	Set Frame to Window
Ctrl+Shift+N	Undo Close Window
Ctrl+Shift+Num Pad 5	Say current paragraph
Ctrl+Shift+O	Focus Enhancements
Ctrl+Shift+P	Pointer Enhancements
Ctrl+Shift+P	Font Size Select
Ctrl+Shift+Q	Close
Ctrl+Shift+Q	
Ctrl+Shift+R	Reload (override cache)
Ctrl+Shift+R	Cursor Enhancements
Ctrl+Shift+Right Arrow	Select One Word Right
Ctrl+Shift+Right Bracket	Set Frame Bottom Right
Ctrl+Shift+T	Undo Close Tab
Ctrl+Shift+TAB	Reverse Direction through Pages
Ctrl+Shift+Tab	Previous Tab
Ctrl+Shift+Tab	Move from one frame to the previous

Ctrl+Shift+U	Display hot key
Ctrl+Shift+U	Underline
Ctrl+Shift+W	Close Window
Ctrl+Shift+W	Word Underline
Ctrl+Shift+Z	Cycle through window types
Ctrl+Spacebar	Select/Deselect in List View
Ctrl+T	New Tab
Ctrl+T	New Tab
Ctrl+T	New Tab
Ctrl+T	New Tab
Ctrl+TAB	Move to Another Page
Ctrl+Tab	Next Tab
Ctrl+Tab	Move from one frame to the next frame
Ctrl+U	Page Source
Ctrl+U	Underline
Ctrl+Up	Scroll previous paragraph
Ctrl+Up Arrow	Move One Paragraph Up
Ctrl+Up Arrow	Move Tab Left (when tab is focused)
Ctrl+Up Arrow	Select Previous Search Engine (when Search bar is focused)
Ctrl+V	Paste Contents of Clipboard
Ctrl+V	Paste
Ctrl+V	Paste
Ctrl+V	Paste
Ctrl+W	Close Tab
Ctrl+W	Close Document
Ctrl+WINDOWS Key+8	Left Mouse Button Lock
Ctrl+WINDOWS Key+9	Right Mouse Button Lock
Ctrl+WINDOWS Key+L	Select Language
Ctrl+X	Cut Selected File or Text to Clipboard
Ctrl+X	Cut
Ctrl+X	Cut
Ctrl+X	Cut
Ctrl+Y	Redo
Ctrl+Y	Redo
Ctrl+Y	Redo
Ctrl+Y	Redo
Ctrl+Z	Undo
Ctrl+Z	Undo
Ctrl+Z	Undo
Ctrl+Z	Undo
Ctrl+0	Zoom Reset
d	landmark
DELETE	Delete Selected File or Folder
DELETE	Delete Current Character
Delete	Delete

Down	Say next line
Down Arrow	Say Next Line
Down Arrow	Say Next Line
e	edit field
End	Move to End of Line
End	Go to Bottom of Page
ENTER	Choose a Menu Item
Enter (in a form element)	Enter Forms Mode
Enter (in forms mode)	Submit Form
Esc	Close Tab Groups View
Esc	Stop
Esc	Cancel
ESC	close a Menu
escape	Exit focus mode
f	form field
F	Form Quick Key
F1	Get Help
F10	Menu Mode (make menu current f
F11	Full Screen
F12	Save As
F2	Rename Selected File or Folder
F2	Move Text
F3	Find a File or Folder from Desktop
F4	Redo
F5	Refresh Window
F5	Reload
F6	Switch Between Tree View and List View
F6	Move to Next Frame
F6	Select Location Bar
F7	Caret Browsing
F7	Spell Check
g	graphic
h	heading
H	Headings Quick Key
Home	Move to Beginning of Line
Home	Go to Top of Page
i	list item
I	List Item Quick Key
Ins+Esc	Refresh Screen, i.e. repaints all the cui
Ins+F5	Reformat documents, i.e. reformats rr
Ins+F7	Bring up a list of links within the page
Ins+F9	Bring up a list of frames that are prese
Insert+O or Insert+F2, and	Script Manager
Insert+1	Toggle Input Help Mode
Insert+1	Keyboard Help

Insert+2	Typing Echo Toggle
Insert+3	Pass Key Through
Insert+4	Select Symbol to Print
Insert+5	Say Color
Insert+5	Say Color
Insert+6 or Insert+F2, and	Settings Center
Insert+7 or Insert+F2, and	Window Class Reassign
Insert+8 or Insert+F2, and	Keyboard Manager
Insert+9 or Insert+F2, and	Frame Viewer
Insert+Alt+m	Interact with math content
Insert+Alt+R	Toggle Revision Detection On or Off
Insert+Alt+S	Select Scheme
Insert+Alt+W	Virtualize Window
Insert+b	Read active window
Insert+B	Read Current Window
Insert+c	Report clipboard text
Insert+C	Read Word in Context
Insert+d	open long description
Insert+D or Insert+F2, and	Dictionary Manager
Insert+Down Arrow	Say All
Insert+Down Arrow	Say All
Insert+DownArrow	Say all
Insert+E	Say Default Button of Dialog
Insert+End	Report Status Bar
Insert+End	Say Top Line of Window
Insert+ESC	Refresh Screen
Insert+f	Report text formatting
Insert+F, twice quickly	Say Font
Insert+F, twice quickly to	Say Font
Insert+F1	Help with current element
Insert+F1	Screen Sensitive Help
Insert+F1 twice quickly	JAWS Help for Applications
Insert+f10	Copy to review cursor
Insert+F10	Window List
Insert+F11	List System Tray Icons
Insert+f12	Report date/time
Insert+F12	Say System Time
Insert+F12 twice quickly	Say System Date
Insert+f2	Pass next key through
Insert+F2	Run JAWS Manager
Insert+F2	Run JAWS Manager
Insert+f3	Find next
Insert+F3	JAWS Find Next
Insert+F4	Shut Down JAWS
Insert+f5	Refresh browse mode document
Insert+F5	List of Form Elements
Insert+F6	List of Headings
Insert+f7	rowse mode elements list

Insert+f9	Copy from review cursor
Insert+G or Insert+F2, an	Graphics Labeler
Insert+H	Hot Key Help
Insert+Home	Say to Cursor
Insert+Home	Say to Cursor
Insert+Home twice quick	Spell to Cursor
Insert+Home twice quick	Spell to Cursor
Insert+J	JAWS Window
Insert+Left Arrow	Say Prior Word
Insert+Left Arrow	Say Prior Word
Insert+n	NVDA Menu
Insert+Num Pad 5	Say Word
Insert+Num Pad 5	Say Word
Insert+Num Pad 5 twice c	Spell Word
Insert+Num Pad 5 twice c	Spell Word
Insert+Num Pad Minus	Route JAWS Cursor to PC Cursor
Insert+Num Pad Plus	Route Touch Cursor to Focus Location
Insert+Num Pad Plus	Route PC Cursor to JAWS Cursor
Insert+Num Pad Slash	Left Mouse Button Lock
Insert+Num Pad Star	Right Mouse Button Lock
Insert+NumPad1	switch to previous review mode
Insert+NumPad1	switch to previous review mode
Insert+NumPad2	Move to first contained object
Insert+NumPad4	Move to previous object
Insert+NumPad5	Report current object
Insert+NumPad6	Move to next object
Insert+NumPad7	switch to next review mode
Insert+NumPad7	switch to next review mode
Insert+NumPad8	Move to containing object
Insert+NumPadDelete	Report review cursor location
Insert+NumPadEnter	Activate current navigator object
Insert+NumPadMinus	Move to focus object
Insert+Page Down	Say Bottom Line of Window
Insert+Page Up	Say from Cursor
Insert+Page Up	Say from Cursor
Insert+Page Up twice qui	Spell from Cursor
Insert+Page Up twice qui	Spell from Cursor
Insert+q	Quit NVDA
Insert+Q, twice quickly tc	Say Active Configuration Name
Insert+R	Restrict JAWS Cursor
Insert+Right Arrow	Say Next Word
Insert+Right Arrow	Say Next Word
Insert+s	Toggle Speech Mode
Insert+S	Screen Echo Toggle
Insert+Shift+b	Report battery status
Insert+Shift+Down Arrow	Say Selected Text
Insert+Shift+Down Arrow	Spell Selected Text
Insert+Shift+End	Read from Top of Column

Insert+Shift+f3	Find previous
Insert+Shift+F3	JAWS Find Previous
Insert+Shift+Home	Read from Start of Row
Insert+Shift+Num Pad 5	Read Current Column
Insert+Shift+NumPadMin	Move System focus or caret to current
Insert+Shift+Page Down	Read to Bottom of Column
Insert+Shift+Page Up	Read to End of Row
Insert+Shift+s	Toggle application sleep mode on and
Insert+Shift+Up Arrow	Read Current Row
Insert+Shift+UpArrow	Read current text selection
Insert+space	Toggle browse/focus modes
Insert+Spacebar, C	Display Clipboard Contents in Results Viewer
Insert+Spacebar, H	View Speech History
Insert+Spacebar, J or Inse	JAWS Command Search
Insert+Spacebar, L	Keyboard Lock
Insert+Spacebar, Shift+H	Clear Speech History
Insert+Spacebar,S	Toggle Speech On or Off
Insert+t	Report title
Insert+T	Say Window Title
Insert+tab	Report current focus
Insert+TAB	Say Window Prompt in Text
Insert+Up Arrow	Say Current Line
Insert+Up Arrow twice q	Spell Current Line
Insert+UpArrow	Read current line
Insert+V	Quick Settings
Insert+W	Window Key Help
Insert+WINDOWS Key+C	Copy Selected Text to FSClipboard
Insert+WINDOWS Key+C	Copy Selected Text to FSClipboard
Insert+Windows Key+Do	Display Skim Reading Summary
Insert+WINDOWS Key+N	Script Utility Mode Toggle
Insert+WINDOWS Key+W	Open Skim Read Summary
Insert+X	Say Frame at Cursor
k	link
l	list
L	List Quick Key
Left Arrow	Move One Character Left
Left Arrow	Say Prior Character
Left Arrow	Rewind during a Say All
Left Arrow	Say Prior Character
m	frame
n	nonLinked text
Num Pad 5	Say Character
Num Pad 5	Say Character
Num Pad 5	Say Character
Num Pad 5 three times q	Say ASCII or Hexadecimal Value
Num Pad 5 three times q	Say ASCII or Hexadecimal Value
Num Pad 5 twice quickly	Say Character Phonetically

Num Pad 5 twice quickly	Say Character Phonetically
Num Pad Minus	JAWS Cursor
Num Pad Minus twice qu	Invisible Cursor
Num Pad Plus (press twic	PC Cursor
Num Pad Slash	Left Mouse Button
Num Pad Star	Right Mouse Button
NumPad1	Move to previous character in review
NumPad2	Report current character in review
NumPad3	Move to next character in review
NumPad4	Move to previous word in review
NumPad5	Report current word in review
NumPad6	Move to next word in review
NumPad7	Move to previous line in review
NumPad8	Report current line in review
NumPad9	Move to next line in review
NumPadPlus	Say all with review
o	embedded object
Page Down	Decrease Voice Rate (when using SayA
Page Up	Increase Voice Rate (when using SayAl
PageDown	Move Down in Text
PageDown	Move Down in Text
PageUp	Move Up in Text
PageUp	Move Up in Text
q	block quote
r	radio button
Right Arrow	Move One Character Right
Right Arrow	Say Next Character
Right Arrow	Fast Forward during a Say All
Right Arrow	Say Next Character
Right Arrow	Say Next Character
Right Arrow	Fast Forward during a Say All
s	separator
Shift	Pause Speech
Shift+Backspace	Forward
Shift+Caps Lock+SEMICO	Touch Cursor
Shift+Comma	Move to start of container
Shift+Del	Delete Selected Autocomplete Enti
Shift+Delete	Cut
Shift+End	Select to End of Line
Shift+Enter	Complete .net Address
Shift+F1	Formatting Properties
Shift+F12	Save
Shift+F2	Copy Text
Shift+F3	Find Previous
Shift+F3	Change Case
Shift+F4	Find Again
Shift+F5	Go Back

Shift+F6	Move to Previous Frame
Shift+Home	Select to Beginning of Line
Shift+Insert	Paste
Shift+Left Arrow	Select One Character Left
Shift+Left Arrow	Start of Text
Shift+Num Pad 5	Say current line
Shift+Num Pad 5	Say Current Control Hot Key
Shift+Num Pad Plus	Touch Cursor
Shift+NumPad1	Move to start of line in review
Shift+NumPad3	Move to end of line in review
Shift+NumPad7	Move to top line in review
Shift+NumPad9	Move to bottom line in review
Shift+Right Arrow	Select One Character Right
Shift+Right Arrow	End of Text
Shift+TAB	Move Backward through Dialog Controls
Shift+Tab	Jump from link/Form element next pr
Shift+Tab	Navigate to Previous Form Control
Spacebar	Toggle a Check Box ON/OFF
Spacebar	Select/Deselect in List View
Spacebar	Select and Deselect Checkboxes
t	Stop speech
t	table
T	Table Quick Key
TAB	Move through Dialog Controls
TAB	Switch Between Tree View and List View
Tab	Jump from link/Form element next on
Tab	Navigate to Next form Control
u	unvisited link
U	Unvisited Link Quick Key
Up	Say previous line
Up Arrow	Say Prior Line
Up Arrow	Say Prior Line
Up Arrow/Down Arrow	Select Radio Button
Up Arrow/Down Arrow o	Select Element in Combo Box
v	visited link
V	Visited Link Quick Key
WINDOWS Key+Insert+X	Read Clipboard Contents
WINDOWS Key+M	Minimize All Applications
WINDOWS LOGO KEY or Ctrl+ESC	Open the Start Menu
WINDOWS LOGO KEY+E	Open Windows Explorer
WINDOWS LOGO KEY+M	Minimize all Applications

WINDOWS LOGO KEY+R Open Run Dialog

WINDOWS LOGO
KEY+TAB Move to First Item on the Taskbar

Windows+Shift+D Enable/Disable Dual Monitor

Windows+Shift+P Smoothing

Windows+Shift+Z Cycle through dual monitor views
checkbox

Program

JAWS

NVDA

JAWS

NVDA

JAWS

NVDA

JAWS

NVDA

JAWS

NVDA

JAWS

NVDA

FireFox

JAWS

Microsoft

FireFox

NVDA

Microsoft

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Zoomtext

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Application Keystrokes

Application Keystrokes

Application Keystrokes
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Windows Explorer

Application Keystrokes

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Application Keystrokes

General Windows Keystrokes

Reading Tables

Reading Tables

Reading Tables

Reading Tables

Reading Tables

Reading Tables

General Windows Keystrokes

Windows Explorer

Working w/ Text

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Working w/ Text

Moving in Tables

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Clipboard

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Working w/ Text

Working w/ Text

Working w/ Text

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Working w/ Text

Windows Explorer

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Working w/ Text

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Working w/ Text

Dialog Boxes

Dialog Boxes

Dialog Boxes

Working w/ Text

Clipboard

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Windows Explorer
Working w/ Text

Working w/ Text

Application Keystrokes

Application Keystrokes

General Windows Keystrokes

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Working w/ Text

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Note: When using this keystroke, press and release INSERT+SPACEBAR, and then press S to mute speech.

Desktop

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Working w/ Text

Working w/ Text

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Working w/ Text

Working w/ Text

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Working w/ Text

Dialog Boxes

Dialog Boxes

Dialog Boxes

Dialog Boxes

Windows Explorer

Clipboard

General Windows Keystrokes

General Windows Keystrokes

General Windows Keystrokes

General Windows Keystrokes

General Windows Keystrokes

Criteria
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1.4
1.5, 1.6, 1.7
2.1
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3.1

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3.4

3.5

3.6

3.7

3.8

3.9

4.1

4.2

4.3

4.4, 4.5

4.6

4.7

4.8, 4.9, 5.1

5.2

5.3, 5.4, 5.5

5.6

5.7

6.1, 7.1, 8.1,
8.2, 9.1

10.1 – 10.5

11.1 – 11.3

[illegible]

Recommended Test Tools

Manual checks are required to test this criterion using a Keyboard and a Screenreader.

Screenreader:

- Windows – JAWS (best for internal sites) or NVDA (best for public-facing sites)
- Mac / iOS – Voiceover
- Android – Talkback
- Linux – Orca

JAWS Inspect (Windows only) can help to provide a clear understanding of screenreader functionality if you are unfamiliar with the use of a screenreader; it will provide a printed report of everything JAWS will say.

Manual checks are required to test these criteria using a Keyboard.

Manual checks are required to test this criterion using a Keyboard and a Screenreader.

Screenreader:

- Windows – JAWS (best for internal sites) or NVDA (best for public-facing sites)
- Mac / iOS – Voiceover
- Android – Talkback
- Linux – Orca

JAWS Inspect (Windows only) can help to provide a clear understanding of screenreader functionality if you are unfamiliar with the use of a screenreader; it will provide a printed report of everything JAWS will say.

Manual checks are required to test these criteria using a Keyboard.

Manual checks are required to test these criteria using a Mobile / Touchscreen device if applicable.

Manual checks are required to test this criterion using a Keyboard and a Screenreader.

Screenreader:

- Windows – JAWS (best for internal sites) or NVDA (best for public-facing sites)
- Mac / iOS – Voiceover
- Android – Talkback
- Linux – Orca

JAWS Inspect (Windows only) can help to provide a clear understanding of screenreader functionality if you are unfamiliar with the use of a screenreader; it will provide a printed report of everything JAWS will say.

Manual checks are required to test these criteria using a Keyboard.

Best test tools for this criterion are the ARC Toolkit or ANDI. With ARC enabled, select “Tab Order” from the Test groups panel on the left. The tab order will be numerically indicated on the web page with lines drawn from element to element. Alternatively, ANDI can also be used to provide a numerical indication of tab order by selecting the “tab order” button at the top of the bookmarklet, but it does not draw lines from element to element. Visual inspection of the test results is still required.

- **ARC Toolkit:** Select “Tab order” from the Test Groups options.
- **ANDI:** Select “Focusable elements” and then select “Tab order.”

This check can also be done manually with a keyboard.

Manual checks are necessary to test parts of this criterion.

View page in grayscale: ANDI, WAVE and NoCoffee can all be used to view a webpage in grayscale.

- ANDI: Select the Color Contrast option and then select “grayscale.”
- WAVE: Select the Contrast tab and then select “Desaturate page.”
- NoCoffee: From the colorblindness dropdown menu select “Achromatopsia.”

Identifying images: The ANDI bookmarklet can identify both foreground (inline) and background (CSS) images and display the associated alternative text of the foreground images. No test tool can determine if the alt text provided is appropriate or if background images were used appropriately.

- ANDI: Select Graphics/Images then use the next and previous buttons to cycle through all images.

Manual checks are necessary to test parts of this criterion.

A screenreader or a test tool like the ANDI bookmarklet can be used to get a list of links and determine if the link text makes sense out of context. To use ANDI select “links/buttons” and then select “view links list.” The accessible name in the list of links corresponds to what you would see in a screenreader’s list of links. ANDI will flag empty links and some ambiguous links such as “here” as errors.

Manual checks are required to test this criterion.

Manual checks are required to test this criterion using a Screenreader.

Screenreader:

- Windows – JAWS (best for internal sites) or NVDA (best for public-facing sites)
- Mac / iOS – Voiceover
- Android – Talkback
- Linux – Orca

JAWS Inspect (Windows only) can help to provide a clear understanding of screenreader functionality if you are unfamiliar with the use of a screenreader; it will provide a printed report of everything JAWS will say.

Manual checks are necessary to test parts of this criterion.

The ARC Toolkit and ANDI bookmarklet can be used to disable background images and display the associated alternative text of the foreground images. The WAVE extension can be used to easily disable styles which will also hide all background images. To do this first enable WAVE and then set the Styles button to “off.” It is located at the top of the test results panel on the left.

None of these tools can determine if the remaining foreground images are decorative but all of these tools can display the alt text to help identify if the correct alt text (alt=”) is used for images that you identify as decorative.

Manual checks are required to test this criterion using a mouse and a Screenreader.

ANDI or the browser accessibility tree (part of the browser devtool) can be used to identify the accessible name of form fields for this check when manual testing with the mouse is not sufficient.

Screenreader:

- Windows – JAWS (best for internal sites) or NVDA (best for public-facing sites)
- Mac / iOS – Voiceover
- Android – Talkback
- Linux – Orca

JAWS Inspect (Windows only) can help to provide a clear understanding of screenreader functionality if you are unfamiliar with the use of a screenreader; it will provide a printed report of everything JAWS will say.

Best test tool is the ARC Toolkit. With ARC enabled, scroll to the bottom of the “Test Groups” panel on the left and select the checkbox for “Check text spacing.” Manually inspect the page to ensure correct results.

ANDI can be used to verify that the accessible name displayed for each user interface component matches the visually displayed name on the webpage. This does not supply automatic test results; manual inspection is still required.

A screenreader or JAWS Inspect can also be used to verify that visual and programmatic labels are the same. This does not supply automatic test results; manual inspection is still required.

Any developer tool or browser inspect tool can be used to inspect the code for the input fields in question. Manual inspection is still required to verify correct results.

While ARC, aXe or ANDI can be used to identify headings and regions, WAVE’s interface for this function is easy to read and understand, and clearly marks all the elements on the webpage. Enable WAVE and select the Structure tab in the test results panel on the left.

There are two good options for this test.

- a) Use WAVE to easily disable all styles. Enable WAVE and set the Styles button to “off.” It is located at the top of the test results panel on the left. Manually inspect the page to ensure correct results.
- b) Use ANDI to have the read order numerically marked on the webpage. Enable ANDI, select Structure and then select the “Read order” button at the top of the ANDI bookmarklet.

While test tools can verify that a skip link is present, manual testing is best to verify that a skip link is present, visible when focused on, and works when used.

Manual checks with a screenreader are necessary as part of these test criterion.

Screenreader:

- Windows – JAWS (best for internal sites) or NVDA (best for public-facing sites)
- Mac / iOS – Voiceover
- Android – Talkback
- Linux – Orca

JAWS Inspect (Windows only) can help to provide a clear understanding of screenreader functionality if you are unfamiliar with the use of a screenreader; it will provide a printed report of everything JAWS will save.

ANDI is the only test tool that reported potential problems such as the lack of a table name or unscoped table headers. It is also the only tool that identified the heading text associated with each table cell. With “Tables” selected, table headings (th) and table cells (td) are identified within the selected table when they receive focus, along with the inner text of each heading or cell. For table cells, the associated table heading that would be perceived by assistive technology is also identified.

If ANDI is not available, the next best tool to use is the ARC Toolkit. ARC will identify tables with errors but does not provide as much clear information about the table as ANDI. Both tools will report tables with “role=presentation.”

The ARC Toolkit can be used to easily identify both visible and hidden frames and iframes and report the frame title if one is present.

Manual checks are required to test these criteria.

Nearly all accessibility test tools identify color contrast issues, but two have features that are uniquely helpful.

The aXe DevTool, although not as intuitive to use as some other tools, is the only test tool that clearly identified when an error might be caused by a background image preventing an accurate assessment of color contrast. Other test tools identified an error but gave no indication that a background image might be preventing an accurate assessment.

For help with correcting color errors, WAVE has a built-in color tool that lets you temporarily adjust the colors on the web page to identify a usable accessible color while testing.

For determining font size, WAVE will identify all small text on the webpage. Note that it identifies both visible and hidden text (this is marked as hidden and can usually be ignored) as well as font icons. Alternatively, the browser's devtool can be used to inspect any element where the text seems to be too small. Right-click on the element in question and then select "Inspect" from the available options.

Manual checks are required to test these criteria.

Manual checks with a contrast analyzer are required to test these criteria. The Colour Contrast Analyzer is the best contrast analyzer when testing this criterion. Other color contrast analyzers can be used but CCA will be the easiest.

The ARC Toolkit is the easiest way to test this criterion. Scroll to the bottom of the "Test Groups" panel on the left and select the checkbox for "Check page reflow." Manually inspect the page to ensure correct results.

Manual checks are required to test these criteria.

Manual checks are required to test these criteria.

Manual checks are required to test these criteria.