

Web Content Accessibility Guidelines (WCAG) 2.0

Mapping of WCAG 2.0 Sufficient Techniques to Security Issues*

* Eight security issues as defined in "Can an accessible web application be secure? Assessment issues for security testers, developers and auditors", OWASP AppSec EU09, Poland

WCAG 2.0 Sufficient Techniques

Category	Technique	Security issues							
		1	2	3	4	5	6	7	8
General									
Techniques	G1: Adding a link at the top of each page that goes directly to the main content area								
	G4: Allowing the content to be paused and restarted from where it was paused						•	•	
	G5: Allowing users to complete an activity without any time limit							•	
	G8: Providing a movie with extended audio descriptions	•		•					
	G9: Creating captions for live synchronized media								
	G10: Creating components using a technology that supports the accessibility API features of the platforms on which the user agents will be run to expose the names and roles, allow us						•		
	G11: Creating content that blinks for less than 5 seconds								
	G13: Describing what will happen before a change to a form control that causes a change of context to occur is made								
	G14: Ensuring that information conveyed by color differences is also available in text	•							
	G15: Using a tool to ensure that content does not violate the general flash threshold or red flash threshold								
	G17: Ensuring that a contrast ratio of at least 7:1 exists between text (and images of text) and background behind the text								
	G18: Ensuring that a contrast ratio of at least 4.5:1 exists between text (and images of text) and background behind the text								
	G19: Ensuring that no component of the content flashes more than three times in any 1-second period								
	G21: Ensuring that users are not trapped in content						•		
	G53: Identifying the purpose of a link using link text combined with the text of the enclosing sentence	•							
	G54: Including a sign language interpreter in the video stream								
	G55: Linking to definitions								
	G56: Mixing audio files so that non-speech sounds are at least 20 decibels lower than the speech audio content								
	G57: Ordering the content in a meaningful sequence								
	G58: Placing a link to the alternative for time-based media immediately next to the non-text content	•							
	G59: Placing the interactive elements in an order that follows sequences and relationships within the content								
	G60: Playing a sound that turns off automatically within three seconds								
	G61: Presenting repeated components in the same relative order each time they appear								
	G62: Providing a glossary	•							
	G63: Providing a site map								
	G64: Providing a Table of Contents								
	G65: Providing a breadcrumb trail								
	G68: Providing a descriptive label that describes the purpose of live audio-only and live video-only content	•							
	G69: Providing an alternative for time based media	•							
	G70: Providing a function to search an online dictionary	•							
	G71: Providing a help link on every Web page								
	G73: Providing a long description in another location with a link to it that is immediately adjacent to the non-text content	•							
	G74: Providing a long description in text near the non-text content, with a reference to the location of the long description in the short description	•							
	G75: Providing a mechanism to postpone any updating of content							•	
	G76: Providing a mechanism to request an update of the content instead of updating automatically							•	
	G78: Providing a second, user-selectable, audio track that includes audio descriptions			•					
	G79: Providing a spoken version of the text			•					
	G80: Providing a submit button to initiate a change of context								

G81: Providing a synchronized video of the sign language interpreter that can be displayed in a different viewport or overlaid on the image by the player	●	●		
G82: Providing a text alternative that identifies the purpose of the non-text content	●			
G83: Providing text descriptions to identify required fields that were not completed	●			
G84: Providing a text description when the user provides information that is not in the list of allowed values	●			
G85: Providing a text description when user input falls outside the required format or values	●			
G86: Providing a text summary that requires reading ability less advanced than the upper secondary education level	●			
G87: Providing closed captions		●		
G88: Providing descriptive titles for Web pages	●			
G89: Providing expected data format and example	●			
G90: Providing keyboard-triggered event handlers			●	
G91: Providing link text that describes the purpose of a link	●			
G92: Providing long description for non-text content that serves the same purpose and presents the same information	●			
G93: Providing open (always visible) captions		●		
G94: Providing short text alternative for non-text content that serves the same purpose and presents the same information as the non-text content	●			
G95: Providing short text alternatives that provide a brief description of the non-text content	●			
G96: Providing textual identification of items that otherwise rely only on sensory information to be understood	●			
G97: Providing the abbreviation immediately following the expanded form	●			
G98: Providing the ability for the user to review and correct answers before submitting				
G99: Providing the ability to recover deleted information	●			
G100: Providing the accepted name or a descriptive name of the non-text content	●			
G101: Providing the definition of a word or phrase used in an unusual or restricted way				
G102: Providing the expansion or explanation of an abbreviation	●			
G103: Providing visual illustrations, pictures, and symbols to help explain ideas, events, and processes		●		
G105: Saving data so that it can be used after a user re-authenticates			●	●
G107: Using "activate" rather than "focus" as a trigger for changes of context				
G108: Using markup features to expose the name and role, allow user-settable properties to be directly set, and provide notification of changes	●			
G110: Using an instant client-side redirect				
G111: Using color and pattern				
G112: Using inline definitions				
G115: Using semantic elements to mark up structure				
G117: Using text to convey information that is conveyed by variations in presentation of text	●			
G120: Providing the pronunciation immediately following the word	●			
G121: Linking to pronunciations				
G122: Including a text cue whenever color cues are used	●			
G123: Adding a link at the beginning of a block of repeated content to go to the end of the block				
G124: Adding links at the top of the page to each area of the content				
G125: Providing links to navigate to related Web pages				
G126: Providing a list of links to all other Web pages				
G127: Identifying a Web page's relationship to a larger collection of Web pages				
G128: Indicating current location within navigation bars				
G130: Providing descriptive headings				
G131: Providing descriptive labels	●			
G133: Providing a checkbox on the first page of a multipart form that allows users to ask for longer session time limit or no session time limit			●	
G134: Validating Web pages				
G135: Using the accessibility API features of a technology to expose names and roles, to allow user-settable properties to be directly set, and to provide notification of changes	●			●
G136: Providing a link at the beginning of a nonconforming Web page that points to a conforming alternate version				
G138: Using semantic markup whenever color cues are used				
G139: Creating a mechanism that allows users to jump to errors				
G140: Separating information and structure from presentation to enable different presentations				

G141: Organizing a page using headings			
G142: Using a technology that has commonly-available user agents that support zoom			
G143: Providing a text alternative that describes the purpose of the CAPTCHA	•		
G144: Ensuring that the Web Page contains another CAPTCHA serving the same purpose using a different modality		•	•
G145: Ensuring that a contrast ratio of at least 3:1 exists between text (and images of text) and background behind the text			
G146: Using liquid layout			
G148: Not specifying background color, not specifying text color, and not using technology features that change those defaults			
G149: Using user interface components that are highlighted by the user agent when they receive focus			
G150: Providing text based alternatives for live audio-only content	•	•	
G151: Providing a link to a text transcript of a prepared statement or script if the script is followed	•	•	
G152: Setting animated gif images to stop blinking after n cycles (within 5 seconds)			
G153: Making the text easier to read			
G155: Providing a checkbox in addition to a submit button	•		
G156: Using a technology that has commonly-available user agents that can change the foreground and background of blocks of text			
G157: Incorporating a live audio captioning service into a Web page			•
G158: Providing an alternative for time-based media for audio-only content			•
G159: Providing an alternative for time-based media for video-only content			•
G160: Providing sign language versions of information, ideas, and processes that must be understood in order to use the content			•
G161: Providing a search function to help users find content			
G162: Positioning labels to maximize predictability of relationships	•		
G163: Using standard diacritical marks that can be turned off	•		
G164: Providing a stated period of time after submission of the form when the order can be updated or canceled by the user	•		
G165: Using the default focus indicator for the platform so that high visibility default focus indicators will carry over			
G166: Providing audio that describes the important video content and describing it as such		•	
G167: Using an adjacent button to label the purpose of a field	•		
G168: Requesting confirmation to continue with selected action	•		
G169: Aligning text on only one side			
G170: Providing a control near the beginning of the Web page that turns off sounds that play automatically			
G171: Playing sounds only on user request			
G172: Providing a mechanism to remove full justification of text			•
G173: Providing a version of a movie with audio descriptions	•	•	
G174: Providing a control with a sufficient contrast ratio that allows users to switch to a presentation that uses sufficient contrast			•
G175: Providing a multi color selection tool on the page for foreground and background colors			•
G176: Keeping the flashing area small enough			
G177: Providing suggested correction text	•		
G178: Providing controls on the Web page that allow users to incrementally change the size of all text on the page up to 200 percent			•
G179: Ensuring that there is no loss of content or functionality when the text resizes and text containers do not resize			
G180: Providing the user with a means to set the time limit to 10 times the default time limit			•
G181: Encoding user data as hidden or encrypted data in a re-authorization page			•
G182: Ensuring that additional visual cues are available when text color differences are used to convey information			
G183: Using a contrast ratio of 3:1 with surrounding text and providing additional visual cues on focus for links or controls where color alone is used to identify them			
G184: Providing text instructions at the beginning of a form or set of fields that describes the necessary input	•		
G185: Linking to all of the pages on the site from the home page			
G186: Using a control in the Web page that stops moving, blinking, or auto-updating content			•
G187: Using a technology to include blinking content that can be turned off via the user agent			
G188: Providing a button on the page to increase line spaces and paragraph spaces			•
G189: Providing a control near the beginning of the Web page that changes the link text			•
G190: Providing a link adjacent to or associated with a non-conforming object that links to a conforming alternate version			
G191: Providing a link, button, or other mechanism that reloads the page without any blinking content			•

	G192: Fully conforming to specifications			●
	G193: Providing help by an assistant in the Web page			
	G194: Providing spell checking and suggestions for text input			●
	G195: Using an author-supplied, highly visible focus indicator			
	G196: Using a text alternative on one item within a group of images that describes all items in the group			●
	G197: Using labels, names, and text alternatives consistently for content that has the same functionality			
	G198: Providing a way for the user to turn the time limit off			●
	G199: Providing success feedback when data is submitted successfully			
				●
HTML and XHTML Techniques	H2: Combining adjacent image and text links for the same resource			
	H4: Creating a logical tab order through links, form controls, and objects			
	H24: Providing text alternatives for the area elements of image maps			●
	H25: Providing a title using the title element			●
	H27: Providing text and non-text alternatives for object			
	H28: Providing definitions for abbreviations by using the abbr and acronym elements			●
	H30: Providing link text that describes the purpose of a link for anchor elements			●
	H32: Providing submit buttons			
	H33: Supplementing link text with the title attribute			●
	H34: Using a Unicode right-to-left mark (RLM) or left-to-right mark (LRM) to mix text direction inline			
	H35: Providing text alternatives on applet elements			●
	H36: Using alt attributes on images used as submit buttons			●
	H37: Using alt attributes on img elements			●
	H39: Using caption elements to associate data table captions with data tables			●
	H40: Using definition lists			
	H42: Using h1-h6 to identify headings			
	H43: Using id and headers attributes to associate data cells with header cells in data tables			
	H44: Using label elements to associate text labels with form controls			●
	H45: Using longdesc			●
	H46: Using noembed with embed			
	H48: Using ol, ul and dl for lists			
	H49: Using semantic markup to mark emphasized or special text			
	H50: Using structural elements to group links			
	H51: Using table markup to present tabular information			
	H53: Using the body of the object element			●
	H54: Using the dfn element to identify the defining instance of a word			
	H56: Using the dir attribute on an inline element to resolve problems with nested directional runs			
	H57: Using language attributes on the html element			
	H58: Using language attributes to identify changes in the human language			
	H59: Using the link element and navigation tools			
	H60: Using the link element to link to a glossary			
	H62: Using the ruby element			●
	H63: Using the scope attribute to associate header cells and data cells in data tables			
	H64: Using the title attribute of the frame and iframe elements			●
	H65: Using the title attribute to identify form controls when the label element cannot be used			●
	H67: Using null alt text and no title attribute on img elements for images that AT should ignore			
	H69: Providing heading elements at the beginning of each section of content			
	H70: Using frame elements to group blocks of repeated material			
	H71: Providing a description for groups of form controls using fieldset and legend elements			●

H73: Using the summary attribute of the table element to give an overview of data tables ●

H74: Ensuring that opening and closing tags are used according to specification ●

H75: Ensuring that Web pages are well-formed ●

H76: Using meta refresh to create an instant client-side redirect

H77: Identifying the purpose of a link using link text combined with its enclosing list item ●

H78: Identifying the purpose of a link using link text combined with its enclosing paragraph ●

H79: Identifying the purpose of a link using link text combined with its enclosing table cell and associated table headings ●

H80: Identifying the purpose of a link using link text combined with the preceding heading element ●

H81: Identifying the purpose of a link in a nested list using link text combined with the parent list item under which the list is nested ●

H83: Using the target attribute to open a new window on user request and indicating this in link text

H84: Using a button with a select element to perform an action

H85: Using OPTGROUP to group OPTION elements inside a SELECT

H86: Providing text alternatives for ASCII art, emoticons, and leetspeak ●

H87: Not interfering with the user agent's reflow of text as the viewing window is narrowed

H88: Using HTML according to spec ●

H89: Using the title attribute to provide context-sensitive help

H90: Indicating required form controls

H91: Using HTML form controls and links ●

CSS Techniques

C6: Positioning content based on structural markup

C7: Using CSS to hide a portion of the link text ●

C8: Using CSS letter-spacing to control spacing within a word

C9: Using CSS to include decorative images

C12: Using percent for font sizes

C13: Using named font sizes

C14: Using em units for font sizes

C15: Using CSS to change the presentation of a user interface component when it receives focus

C17: Scaling form elements which contain text

C18: Using CSS margin and padding rules instead of spacer images for layout design

C19: Specifying alignment either to the left OR right in CSS

C20: Using relative measurements to set column widths so that lines can average 80 characters or less when the browser is resized

C21: Specifying line spacing in CSS

C22: Using CSS to control visual presentation of text

C23: Specifying text and background colors of secondary content such as banners, features and navigation in CSS while not specifying text and background colors of the main content

C24: Using percentage values in CSS for container sizes

C25: Specifying borders and layout in CSS to delineate areas of a Web page while not specifying text and text-background colors

C26: Providing options within the content to switch to a layout that does not require the user to scroll horizontally to read a line of text ●

C27: Making the DOM order match the visual order

C28: Specifying the size of text containers using em units

C29: Using a style switcher to provide a conforming alternate version

C30: Using CSS to replace text with images of text and providing user interface controls to switch

Client-side Scripting Techniques

SCR1: Allowing the user to extend the default time limit ● ●

SCR2: Using redundant keyboard and mouse event handlers ●

SCR14: Using scripts to make nonessential alerts optional ●

SCR16: Providing a script that warns the user a time limit is about to expire ● ●

SCR18: Providing client-side validation and alert ●

	SCR19: Using an onchange event on a select element without causing a change of context			
	SCR20: Using both keyboard and other device-specific functions			●
	SCR21: Using functions of the Document Object Model (DOM) to add content to a page	●		●
	SCR22: Using scripts to control blinking and stop it in five seconds or less			●
	SCR24: Using progressive enhancement to open new windows on user request			
	SCR26: Inserting dynamic content into the Document Object Model immediately following its trigger element			●
	SCR27: Reordering page sections using the Document Object Model			●
	SCR28: Using an expandable and collapsible menu to bypass block of content			●
	SCR29: Adding keyboard-accessible actions to static HTML elements			
	SCR30: Using scripts to change the link text	●		●
	SCR31: Using script to change the background color or border of the element with focus			●
	SCR32: Providing client-side validation and adding error text via the DOM			●
	SCR33: Using script to scroll content, and providing a mechanism to pause it			● ●
	SCR34: Calculating size and position in a way that scales with text size			
	SCR35: Making actions keyboard accessible by using the onclick event of anchors and buttons			●
	SCR36: Providing a mechanism to allow users to display moving, scrolling, or auto-updating text in a static window or area			● ●
	SCR37: Creating Custom Dialogs in a Device Independent Way	●		●
Server-side Scripting Techniques	SVR1: Implementing automatic redirects on the server side instead of on the client side			
	SVR2: Using .htaccess to ensure that the only way to access non-conforming content is from conforming content			
	SVR3: Using HTTP referer to ensure that the only way to access non-conforming content is from conforming content			
	SVR4: Allowing users to provide preferences for the display of conforming alternate versions			
SMIL Techniques	SM1: Adding extended audio description in SMIL 1.0	●		●
	SM2: Adding extended audio description in SMIL 2.0	●		●
	SM6: Providing audio description in SMIL 1.0	●		●
	SM7: Providing audio description in SMIL 2.0	●		●
	SM11: Providing captions through synchronized text streams in SMIL 1.0	●		●
	SM12: Providing captions through synchronized text streams in SMIL 2.0	●		●
	SM13: Providing sign language interpretation through synchronized video streams in SMIL 1.0			
	SM14: Providing sign language interpretation through synchronized video streams in SMIL 2.0			
Plain Text Techniques	T1: Using standard text formatting conventions for paragraphs			
	T2: Using standard text formatting conventions for lists			
	T3: Using standard text formatting conventions for headings			
ARIA Techniques	ARIA1: Using Accessible Rich Internet Application describedby property to provide a descriptive, programmatically determined label			
	ARIA2: Identifying required fields with the "required" property			
	ARIA3: Identifying valid range information with the "valuemin" and "valuemax" properties			
	ARIA4: Using Accessible Rich Internet Applications to programmatically identify form fields as required			