

**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			