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**Guidelines for older persons and
persons with disabilities—
Information and communications
equipment, software and services—
Part 3: Web content**

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law.

Consequently **JIS X 8341-3:2004** is replaced with this Standard.

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JIS X 8341 series consists of the following 5 parts under the general title “*Guidelines for older persons and persons with disabilities—Information and communications equipment, software and services*”:

Part 1: Common Guidelines

Part 2: Information processing equipment

Part 3: Web content

Part 4: Telecommunications equipment

Part 5: Office equipment

Guidelines for older persons and persons with disabilities—Information and communications equipment, software and services—Part 3: Web content

Introduction

This Japanese Industrial Standard was established in 2004 and the revision of this time is to employ WCAG 2.0 (Web Content Accessibility Guidelines 2.0), which is the recommendation of W3C (World Wide Web Consortium), in order to correspond to changes in circumstances surrounding the subsequent Web accessibility.

With the progress of the information society, people are increasingly using information communication equipment, software, and such services as the Internet that are made possible by information communication technology. The Web content technology is one of important technology among them. This Standard is intended to encourage the perception, comprehension and operation mainly for older persons, persons with disabilities and persons with temporary disabilities by specifying the guidelines for issues which need to be taken into consideration in planning, designing, production and development, verification, and maintenance and operation of Web content.

In “Clause 4 Attainment level of Web content accessibility”, the degree of conformance to “Clause 7 Requirements for Web content” is specified.

Next, in “Clause 5 General principles”, the general principles that should be taken into consideration in order to ensure and improve the information accessibility of Web content are specified.

Further, in “Clause 6 Requirements for ensuring and improving Web accessibility” and “Clause 7 Requirements for Web content”, the requirements needed for observing the general principles specified in “Clause 5 General principles” are specified.

In “Clause 6 Requirements for ensuring and improving Web accessibility”, the specific requirements that should be taken into consideration in each stage of planning, designing, production and development, verification, and maintenance and operation are specified. They are intended primarily for persons responsible for a set of Web pages.

In “Clause 7 Requirements for Web content”, the specific requirements that should be taken into consideration in production and development are specified. They are intended primarily for authors and developers. In accordance with WCAG 2.0, four principles (being perceivable, being operable, being understandable and being robust), twelve guidelines arranged under each principle and success criteria arranged under each guideline are provided, and the success criteria are the specific requirements which this Standard requires. The success criteria are described as a testable basis independent of Web content technologies. The concrete implementation method that meets the success criteria is not described in this Standard because it changes with development etc. of assistive technologies which users use.

Finally, in “Clause 8 Test method”, the test method when the conformance test is performed using this Standard is specified. The person responsible for a set of Web pages can evaluate whether the produced and developed content conforms to this Standard at what attainment level of Web content accessibility in accordance with the method specified here.

This Standard is applied also to new technology and using form which is related to the Web, and is to expect the growth of more advanced information accessibility technology.

1 Scope

This Standard is intended to ensure and improve the information accessibility mainly for older persons, persons with disabilities and persons with temporary disabilities, and to specify the issues which need to be taken into consideration in planning, designing, production and development, verification, and maintenance and operation of Web content. Clause 4 defines the degree of conformance to clause 7, and the success criterion concerning clause 7 to meet each attainment level is known. In clause 6, the requirements that should be taken into consideration in each stage of planning, designing, production and development, verification, and maintenance and operation are specified. The person responsible for a set of Web pages can test whether the produced and developed content conforms to this Standard at what level of clause 4 using the test method given in clause 8.

The disabilities of people with disabilities include blindness and low vision, deafness and hearing loss, learning disabilities, cognitive limitations, limited movement, speech difficulties, photosensitivity and combinations of these.

NOTE : “Low vision” refers to “a state in which the problem associated with a visual function still interferes with everyday activities even if it is corrected with glasses” and it views effects on activities of persons with disabilities wider than it views effects on activities of persons with “weak eyesight” that refers to “vision after correction of both eyes of less than 0.3”.

The Web content in this Standard refers to any information and sensory experience to be communicated to the users by means of a user agent such as a Web browser and assistive technology, and is applied, for instance, to the content used with a Web application, a Web system, a personal digital assistant, etc., the electronic document created using Web content technology distributed through Internet, intranet and on recorded media such as CD-ROM, and the devices etc. that are designed to be operated using a Web browser.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this Standard. For the standard indicated below, only the edition of the indicated year shall be applied and any revisions (including amendments) made thereafter shall not be applied.

JIS X 8341-1:2010 *Guidelines for older persons and persons with disabilities—Information and communications equipment, software and services—Part 1: Common guidelines*

NOTE : Corresponding International Standard: ISO 9241-20:2008 *Ergonomics of human-system interaction—Part 20: Accessibility guidelines for information/communication technology (ICT) equipment and services* (IDT)

3 Terms and definitions

For the purposes of this Standard, the terms and definitions given in **JIS X 8341-1** : 2010, and the following terms and definitions apply.

3.1 Terms and definitions concerning Web overall

3.1.1 Web content

information and sensory experience to be communicated to the user by means of a user agent including the source code or the markup that defines the content's structure, presentation, and interactions

3.1.2 Web content technology

encoding mechanism for rendering, play or execution by user agents

NOTE 1 Even when the term “technology” is described in this Standard, it may refer to the Web content technologies.

NOTE 2 Web content technologies may include markup languages, data formats, programming languages and the like that authors may use alone or in combination to create end-user experiences that range from static Web pages and synchronized media presentations up to dynamic Web applications.

Example: Some common examples of Web content technologies include HTML, CSS, SVG, PNG, PDF and JavaScript.

3.1.3 Web page

resource (non-embedded resource) obtained from a single URI using HTTP plus any other resources (embedded resources) that are used in the rendering or intended to be rendered together with it by a user agent

NOTE 1 Although any other resources (embedded resources) would be rendered together with the primary resource (non-embedded resource), they would not necessarily be rendered simultaneously with each other.

NOTE 2 The term “Web page” includes various resources such as not only a static HTML page but also a dynamic HTML page.

Example 1 An image file referred to with HTML file and img element. In this case, the HTML file corresponds to the non-embedded resource, and the image file corresponds to the embedded resource.

Example 2 A Web mail program built using Ajax. The program exist at “http://example.com/mail”, but includes an inbox, a contacts area and a calendar. Links or buttons are provided that cause the inbox, contacts or a calendar to display, but do not change the URL of full Web pages.

Example 3 A customizable portal site, where users can choose content to display from a set of different content modules.

Example 4 When you enter “http://shopping.example.com/” in your browser, you enter an interactive shopping environment where you visually move around in a store dragging products off of the shelves around you and into a visual shopping cart in front of you. Clicking on a product causes it to be demonstrated with a specification sheet floating alongside. This might be a single-page Web site or just one page within a Web site.

3.1.4 set of Web pages

collection of Web pages that share a common purpose and that are created by the same author, group or organization

NOTE 1 Different language versions would be considered different sets of Web pages.

NOTE 2 A set of Web pages includes also a Web site.

3.2 Terms and definitions concerning content

3.2.1 text

sequence of letters that can be programmatically determined, where the sequence is expressing something in human language

3.2.2 non-text content

any content that is not a sequence of letters that can be programmatically determined or where the sequence is not expressing something in human language

NOTE : This includes ASCII Art, emoticons and images representing text. ASCII Art is a picture created by a spatial arrangement of letters or symbols.

3.2.3 text alternative

text programmatically associated with non-text content or referred to from text that is programmatically associated with non-text content

The programmatically associated text is the text whose location can be programmatically determined from the non-text content.

3.2.4 CAPTCHA

initial letters for “Completely Automated Public Turing test to tell Computers and Humans Apart”

NOTE : CAPTCHA tests often involve asking the user to type in text that is displayed in an obscured image or audio file.

3.2.5 name

text by which software can identify a component within Web content to the user

NOTE 1 The name may be hidden and only exposed by assistive technology, whereas a label is presented to all users. In many cases, the label and the name are the same.

NOTE 2 This is unrelated to the name attribute in HTML.

3.2.6 label

text or other component with a text alternative that is presented to a user to identify a component within Web content

NOTE 1 A label is presented to all users whereas the name may be hidden and only exposed by assistive technology. In many cases, the name and the label are the same.

NOTE 2 It is not limited to the label element in HTML.

3.2.7 link purpose

nature of the result obtained by performing a mouse click operation, etc. to a hyperlink

3.2.8 ambiguous to users in general

the purpose cannot be determined from the link and all information of the Web page presented to the user simultaneously with the link (i.e. readers without disabilities would not know what a link would do until they activated it)

Example: The word “guava” in the following sentence “One of the notable exports is guava” is a link. The link could lead to a definition of guava, a chart listing the quantity of guava exported or a photograph of people harvesting guava. Until the link is activated, all readers are unsure and the person with a disability is not at any disadvantage.

3.3 Terms and definitions concerning multimedia

3.3.1 synchronized media

audio or video synchronized with another format for presenting information, or that synchronized with time-based interactive components, unless the media is a media alternative to text that is clearly labelled as such

3.3.2 alternative for time-based media

document including correctly sequenced text descriptions (transcript) of time-based visual and auditory information, and providing a means for achieving the outcomes of any time-based interaction

NOTE : A screenplay used to create the synchronized media content would meet this definition only if it is corrected to accurately represent the final synchronized media after editing.

3.3.3 captions

synchronized visual or text alternative for both speech and non-speech audio information needed to understand the media content

NOTE : Captions are similar to dialogue-only subtitles except captions convey not only the content of spoken dialogue but also equivalents for non-dialogue audio information needed to understand the program content, including sound effects, music, laughter, speaker identification and location, etc.

3.3.4 audio

human voice and other sounds

3.3.5 audio description

narration added to the soundtrack to describe important visual details that cannot be understood from the main soundtrack alone

- NOTE 1 Audio description of video provides information about actions, characters, scene changes, on-screen text, and other visual content.
- NOTE 2 In standard audio description, narration is added during existing pauses in dialogue.
- NOTE 3 Where all of the video information is already provided in existing audio, no additional audio description is necessary.

3.3.6 media alternative to text

media that presents no more information than is already presented in text (directly or via text alternatives)

- NOTE : A media alternative for text is provided for those who benefit from alternate representations of text. Media alternatives for text may be audio-only, video-only (including sign-language video), or audio-video.

3.4 Terms and definitions concerning interaction

3.4.1 user interface component

a part of the content that is perceived by users as a single control for a distinct function

- NOTE 1 Multiple user interface components may be implemented as a single programmatic element. Components here is not tied to programming techniques, but rather to what the user perceives as separate controls.
- NOTE 2 User interface components include form elements and links as well as components generated by scripts.

3.4.2 keyboard interface

interface used by software to obtain keystroke input

- NOTE 1 A keyboard interface allows users to provide keystroke input to programs even if the native technology does not contain a keyboard.
- NOTE 2 Operation of the application (or parts of the application) through a keyboard-operated mouse emulator, such as MouseKeys, does not qualify as operation through a keyboard interface because operation of the program is through its pointing device interface, not through its keyboard interface.

3.4.3 real-time event

event that occurs at the same time as the viewing and is not completely generated by the content

- Example 1 A Webcast of a live performance (occurs at the same time as the viewing and is not prerecorded).
- Example 2 An on-line auction with people bidding (occurs at the same time as the viewing).

Example 3 Live humans interacting in a virtual world using avatars (is not completely generated by the content and occurs at the same time as the viewing).

3.4.4 changes of context

major changes in the content of the Web page that, if made without user awareness, can disorient users who are not able to view the entire page simultaneously

Changes in context include the following changes.

- user agent
- viewport
- focus
- content that changes the meaning of the Web page

NOTE : A change of content is not always a change of context. Changes in content, such as an expanding outline or dynamic menu, do not necessarily change the context, unless they also change one of the above (e.g. focus).

Example : Opening a new window, moving focus to a different component, going to a new Web page (including anything that would look to a user as if they had moved to a new page) or significantly re-arranging the content of a page are examples of changes of context.

3.5 Terms and definitions concerning light and colour

3.5.1 relative luminance

the relative brightness of any point in a colourspace, normalized to 0 for darkest black and 1 for lightest white

NOTE 1 For the sRGB colourspace, the relative luminance of a colour L is defined as

$$L = 0.2126 \times R + 0.7152 \times G + 0.0722 \times B$$

where, R , G and B are as follows.

$$\text{if } R_{\text{sRGB}} \leq 0.03928, \text{ then } R = R_{\text{sRGB}}/12.92$$

$$\text{if } R_{\text{sRGB}} > 0.03928, \text{ then } R = ((R_{\text{sRGB}} + 0.055)/1.055)^{2.4}$$

$$\text{if } G_{\text{sRGB}} \leq 0.03928, \text{ then } G = G_{\text{sRGB}}/12.92$$

$$\text{if } G_{\text{sRGB}} > 0.03928, \text{ then } G = ((G_{\text{sRGB}} + 0.055)/1.055)^{2.4}$$

$$\text{if } B_{\text{sRGB}} \leq 0.03928, \text{ then } B = B_{\text{sRGB}}/12.92$$

$$\text{if } B_{\text{sRGB}} > 0.03928, \text{ then } B = ((B_{\text{sRGB}} + 0.055)/1.055)^{2.4}$$

or,

$$R_{\text{sRGB}} = R_{\text{8bit}}/255$$

$$G_{\text{sRGB}} = G_{\text{8bit}}/255$$

$$B_{\text{sRGB}} = B_{\text{8bit}}/255$$

The formulae are referring to the bibliographies [1] and [2].

- NOTE 2 Almost all systems used today to view Web content assume sRGB encoding. Unless it is known that another colourspace will be used to process and display the content, authors should evaluate using sRGB colourspace. If using other colourspaces, see Understanding Success Criterion 1.4.3 (<http://www.w3.org/TR/UNDERSTANDING-WCAG20/visual-audio-contrast-contrast.html>).
- NOTE 3 If dithering occurs after a user agent (Web browser) receives image data, then the source colour value is used. For colours that are dithered at the source, the average values of the colours that are dithered should be used (average R, average G, and average B).
- NOTE 4 Tools are available that automatically do the calculations when testing contrast and flash.
- NOTE 5 “MathML version of the relative luminance definition” is also available at <http://www.w3.org/TR/WCAG20/relative-luminance.xml>.

3.5.2 contrast ratio

$$(L1 + 0.05)/(L2 + 0.05)$$

where, L1 : relative luminance of lighter of colours
 L2 : relative luminance of darker of colours

- NOTE 1 Contrast ratios can range from 1 to 21 (commonly written 1:1 to 21:1).
- NOTE 2 Because authors do not have control over user settings as to how text is rendered (for example, font smoothing or anti-aliasing), the contrast ratio for text can be evaluated with anti-aliasing turned off.
- NOTE 3 For the purposes of **7.1.4.3** and **7.1.4.6**, contrast is measured with respect to the specified background over which the text is rendered in normal usage. If no background colour is specified, then white is assumed.
- NOTE 4 Background colour is the specified colour of content over which the text is to be rendered in normal usage. It is a failure if no background colour is specified when the text colour is specified, because the user’s default background colour is unknown and cannot be evaluated for sufficient contrast. For the same reason, it is a failure if no text colour is specified when a background colour is specified.
- NOTE 5 When there is a border around the letter, the border can add contrast and would be used in calculating the contrast between the letter and its background. A narrow border around the letter would be used as the letter. A wide border around the letter that fills in the inner details of the letters acts as blurring (halo, glory, drop shadow, sparkle, etc.) and would be considered background.
- NOTE 6 This Standard conformance should be evaluated for colour pairs specified in the content that authors would expect to appear adjacent in typical presentation. Authors need not consider unusual presentations, such as colour changes made by the user agent, except where caused by the authors’ source code.

3.5.3 flash

a pair of opposing changes in relative luminance that can cause seizures in some people, if it is large enough and in the right frequency range

NOTE : “A pair of opposing changes” here refers to an increase followed by a decrease or a decrease followed by an increase.

3.6 Terms and definitions concerning user agent technology

3.6.1 user agent

any software that retrieves and presents Web content for users

NOTE : Web browsers, media players, plug-ins, and other programs including assistive technologies that help in retrieving, rendering, and interacting with Web content.

3.6.2 viewport

object in which the user agent presents content

NOTE : The user agent presents content through one or more viewports. Viewports include windows, frames, loudspeakers, and virtual magnifying glasses. A viewport may contain another viewport (e.g., nested frames). Interface components created by the user agent such as prompts, menus, and alerts are not viewports.

3.6.3 rendering

generating images, audios, etc. that are presented to users from the data of Web content

3.6.4 presentation

rendering of the content in a form to be perceived by users

3.6.5 programmatically determined

determined by software from author-supplied data provided in a way that different user agents can extract and present this information to users in different modalities

3.6.6 mechanism

process or technique for achieving a result

NOTE : The mechanism may be explicitly provided in the content, or may be relied upon to be provided either by the platform or by user agents.

3.7 Terms and definitions concerning test and conformance

3.7.1 relied upon (technologies that are)

the content would not conform, if that technology is turned off or is not supported

4 Attainment level of Web content accessibility

The degree of conformance to the requirements for Web content specified in clause 7 is called the attainment level of Web content accessibility. The attainment level of Web

content accessibility has Level A, Level AA and Level AAA. The success criterion that should be met when it conforms at each level is shown in table 1, table 2 and table 3.

NOTE : Depending on Web content, Level AAA may be unable to be met completely.

Table 1 Success criteria to be met for conformance at Level A, Level AA or Level AAA

Subclause	Title
7.1.1.1	Success criterion concerning non-text content
7.1.2.1	Success criterion concerning prerecorded audio-only and video-only media
7.1.2.2	Success criterion concerning captions of prerecorded audio content
7.1.2.3	Success criterion concerning alternative content of prerecorded video content or audio description
7.1.3.1	Success criterion concerning information and relationships
7.1.3.2	Success criterion concerning meaningful sequence
7.1.3.3	Success criterion concerning sensory characteristics
7.1.4.1	Success criterion concerning use of colour
7.1.4.2	Success criterion concerning audio control
7.2.1.1	Success criterion concerning keyboard operation
7.2.1.2	Success criterion concerning focus movement
7.2.2.1	Success criterion concerning timing adjustable
7.2.2.2	Success criterion concerning pause, stop and hide
7.2.3.1	Success criterion concerning three flashes or below threshold
7.2.4.1	Success criterion concerning bypass blocks
7.2.4.2	Success criterion concerning page titled
7.2.4.3	Success criterion concerning focus order
7.2.4.4	Success criterion concerning link purpose in context
7.3.1.1	Success criterion concerning language of page
7.3.2.1	Success criterion concerning on-focus
7.3.2.2	Success criterion concerning change of context by user interface component
7.3.3.1	Success criterion concerning error identification
7.3.3.2	Success criterion concerning labels or instructions
7.4.1.1	Success criterion concerning parsing
7.4.1.2	Success criterion concerning programmatically determined name and role, and programmatically set value

Table 2 Success criterion to be met in addition to table 1 for conformance at Level AA or Level AAA

Subclause	Title
7.1.2.4	Success criterion concerning captions of audio content of live
7.1.2.5	Success criterion concerning audio description of prerecorded video content
7.1.4.3	Success criterion concerning minimum contrast
7.1.4.4	Success criterion concerning resize text
7.1.4.5	Success criterion concerning images of letters
7.2.4.5	Success criterion concerning multiple ways
7.2.4.6	Success criterion concerning headings or labels
7.2.4.7	Success criterion concerning focus visible
7.3.1.2	Success criterion concerning language of parts
7.3.2.3	Success criterion concerning consistent navigation
7.3.2.4	Success criterion concerning consistent identification
7.3.3.3	Success criterion concerning error suggestion
7.3.3.4	Success criterion concerning error prevention of legal commitments, financial transactions, data modification and submission of response

Table 3 Success criterion to be met in addition to table 1 and table 2 for conformance at Level AAA

Subclause	Title
7.1.2.6	Success criterion concerning sign language of prerecorded audio content
7.1.2.7	Success criterion concerning extended audio description of prerecorded video content
7.1.2.8	Success criterion concerning alternative content of prerecorded media
7.1.2.9	Success criterion concerning alternative content of live audio-only content
7.1.4.6	Success criterion concerning enhanced contrast
7.1.4.7	Success criterion concerning low or no background audio
7.1.4.8	Success criterion concerning visual presentation
7.1.4.9	Success criterion concerning no exception on images of letters
7.2.1.3	Success criterion concerning no exception on keyboard operation
7.2.2.3	Success criterion concerning no timing
7.2.2.4	Success criterion concerning interruption
7.2.2.5	Success criterion concerning re-authenticating
7.2.3.2	Success criterion concerning three flashes
7.2.4.8	Success criterion concerning location
7.2.4.9	Success criterion concerning link purpose
7.2.4.10	Success criterion concerning section headings
7.3.1.3	Success criterion concerning unusual words
7.3.1.4	Success criterion concerning abbreviations
7.3.1.5	Success criterion concerning reading level
7.3.1.6	Success criterion concerning pronunciation
7.3.2.5	Success criterion concerning change on request
7.3.3.5	Success criterion concerning help
7.3.3.6	Success criterion concerning no exception on error prevention

5 General principles

The general principles shall be as follows.

- Principle concerning being perceivable** Information and user interface components shall be presentable to users in ways they can perceive.
- Principle concerning being operable** User interface components and navigation shall be operable.
- Principle concerning being understandable** Information and the operation of user interface shall be understandable.
- Principle concerning being robust** Content shall be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies.

NOTE 1 In 4.1 of JIS X 8341-1:2010, three principles of **a)** appropriateness for the widest use range, **b)** fair use and **c)** robustness are specified. General principles in this Standard are materialized based on the use characteristics of content including users' characteristics and assistive technologies in order to realize these three principles in Web content.

NOTE 2 All people cannot always use even the content that conforms to this Standard at Level AAA depending on the type and degree of disabilities and the duplication of disabilities of users. In particular, care is needed for people who have cognitive limitation, speech disorder and learning disabilities. Referring to 5.3 of JIS X 8341-1:2010, it can be advanced to ensure and improve the higher accessibility than that in this Standard by understanding and identifying the use situations of various people including elderly people and people with disabilities, grasping needs for accessibility, creating solutions and promoting to grapple with design process to be evaluated.

6 Requirements for ensuring and improving Web accessibility

6.1 Planning

In the planning stage, the person responsible for a set of Web pages shall decide on a Web accessibility policy and document it. The Web accessibility policy shall include the target attainment level of Web content accessibility.

NOTE : The Web accessibility policy should be disclosed on a site for a Website, and on a manual, a package, etc. for a Web application.

6.2 Designing

In the designing stage, the person responsible for a set of Web pages shall determine a design condition required for producing and developing the Web content in accordance with the Web accessibility policy. The design condition shall include the following.

- a) **Success criterion to be applied** The success criterion applied to the content to be produced shall be selected from the success criteria included in the target attainment level of accessibility.

Example: For example, it is not necessary to apply the success criterion concerning an animated video in the content in which the animated video is not contained.

NOTE : Even the success criteria included in the non-target attainment level of accessibility should be determined as requirements for production and development collectively when there are success criteria that are available.

- b) **Web content technology to be used and implementation method** The technology used for Web content and the implementation method for meeting each success criterion shall be clarified. In order to meet the success criteria in clause 7, it shall be confirmed that the Web content technology to be used and implementation method are actually available for users. For example, although they are

specified as specifications, even if implementation is performed with the method which user agents (a Web browser, assistive technology, etc.) do not support, it does not follow that the success criteria are met.

Those who design and develop shall be responsible for confirming whether the Web content technology to be used and implementation method can meet the success criteria.

NOTE 1 For the selection method of the Web content technology and implementation method, see Annex A (informative).

NOTE 2 For the concrete intention of each success criterion and the Web content technology and implementation method that meet each success criterion, Understanding WCAG 2.0 and Techniques for WCAG 2.0 disclosed to the public by W3C will serve as a useful reference.

NOTE 3 The judgment whether the Web content meets the success criterion becomes more convincing by making users including the elderly people and people with disabilities participated from the early stage of design, grasping how to use a Web browser, assistive technology, etc. when Web is used and extracting problems through the actual utilization of Web content under development. Furthermore, it is expected that the rework in development process becomes small, and the cost of man-hours, expenses, etc. required for the whole content development is reduced.

- c) **Authoring tool used for production and development** It is desirable to select the authoring tools (Web page creation software, content management systems, blog, etc.) with the function to assist to meet the success criterion so that accessibility is not made to decrease when information is produced, added and updated.

Example: When an image is added, the content management system that urges to make text alternative certainly input is introduced.

NOTE : It is effective also to create beforehand the template in order to reduce the burden in the stage of maintenance and operation in parallel to the selection of authoring tools in consideration of accessibility.

- d) **User agents used for verification** In order to obtain reliable verification results, it is desirable for users to assume user agents which they actually use. The user agents here assumed can be used for confirming that the Web content technology to be used and implementation method are actually available for users, or for using for verification performed by a user test.

It is desirable to document the determined design condition. Furthermore, as a result of examining the design condition, when the change of the Web accessibility policy decided in the planning stage is needed, the Web accessibility policy shall be changed and documented.

6.3 Production and development

The person responsible for a set of Web pages shall produce and develop Web content so that the corresponding success criterion in clause 7 is met.

NOTE : For the implementation method (of Web content technology) used in order to meet the success criterion, Sufficient and Advisory Techniques of Understanding WCAG 2.0 that is disclosed to the public by W3C should be referred to. The implementation method may be independently developed only in cases where users can confirm that they can use it without problems using user agents which users use.

6.4 Verification

The person responsible for a set of Web pages shall verify that the success criterion concerning the corresponding attainment level is met after producing and developing Web content.

6.5 Maintenance and operation

6.5.1 Quality assurance of accessibility

The person responsible for a set of Web pages shall assure the quality of Web accessibility and shall make an effort to maintain and improve it when the maintenance and operation of Web content is performed.

NOTE : When information is added or updated, the Web content accessibility should be re-verified.

6.5.2 Collection of opinions by feedback

The person responsible for a set of Web pages shall prepare a means to collect the opinions of users for grappling with Web accessibility, and the opinions from users shall be used for the assurance and improvement of Web content accessibility.

Example: The form in which the opinions and requests on the usability of Web content can be transmitted by users shall be offered to utilize the next development.

6.5.3 Offer of accessible inquiry means

When the person responsible for a set of Web pages prepares some sort of means that aims at receiving the inquiry from users concerning Web content, the means to be prepared shall be accessible and offered to the easily accessible location on Web content.

NOTE 1 Since there are people who cannot use only with specific inquiry means, it is effective to offer two or more inquiry means.

NOTE 2 By publishing the frequent inquiry content collectively on FAQ pages, the time and effort which users inquire can be saved.

Example: In the Web page that offers the form for inquiry on line, a telephone number, a fax number, a mailing address, etc. are clarified collectively.

7 Requirements for Web content

7.1 Principle concerning being perceivable

Information and user interface components shall be presentable to the user in ways they can perceive.

7.1.1 Guideline concerning text alternative

Text alternatives shall be provided for any non-text content so that they can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language.

7.1.1.1 Success criterion concerning non-text content

All non-text content that is presented to the user has text alternative that serves the equivalent purpose, except for the situations listed below.

- a) **Control, input** If non-text content is a control or accepts user input, then it has a name that describes its purpose.

NOTE : For additional requirements concerning controls and the content that accepts user input, see 7.4.1.2.

- b) **Time-based media** If non-text content is time-based media, then the text alternative shall provide at least descriptive identification of the non-text content.

NOTE : For additional requirements concerning media, see 7.1.2.

- c) **Text** If non-text content is a test or exercise that would be invalid when presented in text, then text alternative shall provide at least descriptive identification of non-text content.

- d) **Sensory** If non-text content is primarily intended to create a specific sensory experience, then text alternative shall provide at least descriptive identification of non-text content.

NOTE : The sensory experience is such that it is not purely decorative, and does not primarily convey important information or perform a function

Example: A performance of a flute solo, works of visual art, etc., are included.

- e) **CAPTCHA** If the purpose of non-text content is to confirm that content is being accessed by a person rather than a computer, then text alternatives that identify and describe the purpose of non-text content are provided, and alternative forms of CAPTCHA using output modes for different types of sensory perception are provided to accommodate different disabilities.

- f) **Decoration, formatting, invisible** If non-text content is pure decoration, is used only for visual formatting, or is not presented to the user, then it is implemented in a way that it can be ignored by assistive technology.

NOTE : This success criterion is the success criterion of Level A.

7.1.2 Guideline concerning time-based media

Text alternatives shall be provided for time-based media.

7.1.2.1 Success criterion concerning prerecorded audio-only media and pre-recorded video-only media

For prerecorded audio-only media and prerecorded video-only media, the following shall be satisfied except when the audio or video is media alternative to text and is clearly labelled as such.

- a) **Prerecorded audio-only** Alternative for time-based media is provided that presents equivalent information for prerecorded audio-only content.
- b) **Prerecorded video-only** Either alternative for time-based media or audio track is provided that presents equivalent information for prerecorded video-only content.

NOTE : This success criterion is the success criterion of Level A.

7.1.2.2 Success criterion concerning captions of prerecorded audio content

Captions shall be provided for all prerecorded audio content in synchronized media except when the synchronized media is media alternative to text and is clearly labelled as such.

NOTE : This success criterion is the success criterion of Level A.

7.1.2.3 Success criterion concerning alternative of prerecorded video content or audio description

Alternative for time-based media or audio description shall be provided for all prerecorded video content in synchronized media except when the synchronized media is media alternative to text and is clearly labelled as such.

NOTE : This success criterion is the success criterion of Level A.

7.1.2.4 Success criterion concerning captions of live audio content

Captions shall be provided for all live audio content in synchronized media.

NOTE : This success criterion is the success criterion of Level AA.

7.1.2.5 Success criterion concerning audio description of prerecorded video content

Audio description shall be provided for all prerecorded video content in synchronized media.

NOTE : This success criterion is the success criterion of Level AA.

7.1.2.6 Success criterion concerning sign-language of prerecorded audio content

Sign-language interpretation shall be provided for all prerecorded audio content in synchronized media

NOTE 1 The sign-language translation of one language, generally a spoken language, into a sign language. Sign languages are essentially independent languages that are unrelated to the spoken language(s) of the same country or region.

NOTE 2 This success criterion is the success criterion of Level AAA.

7.1.2.7 Success criterion concerning extended audio description of prerecorded video content

When foreground audio includes pauses (between dialog and narration) of insufficient length for inserting audio description that conveys a sense equivalent to video, extended audio description shall be provided for all prerecorded video content in synchronized media.