TECHNICAL SPECIFICATION

ISO/IEC TS 30135-5

First edition
2014-11-15

Information technology — Digital publishing — EPUB3 —

Part 5: Media Overlay

Technologies de l'information — Publications numériques — EPUB3 — Partie 5: Superposition de médias

Reference number
ISO/IEC TS 30135-5:2014(E)

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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

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ISO/IEC TS 30135 consists of the following parts, under the general title *Information technology — Document description and processing languages — EPUB 3:*

- *Part 1: Overview*
- *Part 2: Publications*
- *Part 3: Content Documents*
- *Part 4: Open Container Format*
- *Part 5: Media Overlay*
- *Part 6: Canonical Fragment Identifier*
- *Part 7: Fixed-Layout Documents*

EPUB Media Overlays 3.0

Recommended Specification 11 October 2011

This version

http://www.idpf.org/epub/30/spec/epub30-mediaoverlays-20111011.html

Latest version

http://www.idpf.org/epub/30/spec/epub30-mediaoverlays.html

Previous version

http://www.idpf.org/epub/30/spec/epub30-mediaoverlays-20110908.html

A diff of changes from the previous draft is available at this link.

Please refer to the errata for this document, which may include some normative corrections.

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Editors

Marisa DeMeglio, DAISY Consortium

Daniel Weck, DAISY Consortium

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1 Overview

1.1 Purpose and Scope

This section is informative

This specification, EPUB Media Overlays 3.0, defines a usage of [SMIL] (Synchronized Multimedia Integration Language), the Package Document, the EPUB® Style Sheet, and the EPUB Content Document for representation of audio synchronized with the EPUB Content Document.

This specification is one of a family of related specifications that compose EPUB 3, the third major revision of an interchange and delivery format for digital publications based on XML and Web Standards. It is meant to be read and understood in concert with the other specifications that make up EPUB 3:

- The EPUB 3 Overview [EPUB3Overview], which provides an informative overview of EPUB and a roadmap to the rest of the EPUB 3 documents. The Overview should be read first.
- EPUB Publications 3.0 [Publications30], which defines publication-level semantics and overarching conformance requirements for EPUB Publications.
- EPUB Content Documents 3.0 [ContentDocs30], which defines profiles of XHTML, SVG and CSS for use in the context of EPUB Publications.
- EPUB Open Container Format (OCF) 3.0 [OCF3], which defines a file format and processing model for encapsulating a set of related resources into a single-file (ZIP) EPUB Container.

1.2 Relationship to Other Specifications

This section is informative

This specification relies on a subset of [SMIL], from which the EPUB Media Overlays elements and attributes defined in Media Overlay Document Definition are derived.

› 1.3 Terminology

EPUB Publication (or Publication)

A logical document entity consisting of a set of interrelated resources and packaged in an EPUB Container, as defined by this specification and its sibling specifications.

Publication Resource

A resource that contains content or instructions that contribute to the logic and rendering of the EPUB Publication. In the absence of this resource, the Publication might not render as intended by the Author. Examples of Publication Resources include the Package Document, EPUB Content Documents, EPUB Style Sheets, audio, video, images, embedded fonts and scripts.

With the exception of the Package Document itself, Publication Resources must be listed in the manifest [Publications30] and must be bundled in the EPUB container file unless specified otherwise in Publication Resource Locations [Publications30].

Examples of resources that are not Publication Resources include those identified by the Package Document link [Publications30] element and those identified in outbound hyperlinks that resolve outside the EPUB Container (e.g., referenced from an [HTML5] `a` element `href` attribute).

EPUB Content Document

A Publication Resource that conforms to one of the EPUB Content Document definitions (XHTML or SVG).

An EPUB Content Document is a Core Media Type, and may therefore be included in the EPUB Publication without the provision of fallbacks [Publications30].

XHTML Content Document

An EPUB Content Document conforming to the profile of [HTML5] defined in XHTML Content Documents [ContentDocs30].

XHTML Content Documents use the XHTML syntax of [HTML5].

SVG Content Document

An EPUB Content Document conforming to the constraints expressed in SVG Content Documents [ContentDocs30].

EPUB Navigation Document

A specialization of the XHTML Content Document, containing human- and machine-readable global navigation information, conforming to the constraints expressed in EPUB Navigation Documents [ContentDocs30].

Core Media Type

A set of Publication Resource types for which no fallback is required. Refer to Publication Resources [Publications30] for more information.

Package Document

A Publication Resource carrying bibliographical and structural metadata about the EPUB

Publication, as defined in Package Documents [Publications30].

Manifest

A list of all Publication Resources that constitute the EPUB Publication.

Refer to manifest [Publications30] for more information.

Spine

An ordered list of Publication Resources, typically EPUB Content Documents, representing the default reading order of the Publication.

Refer to spine [Publications30] for more information.

Media Overlay Document

An XML document that associates the XHTML Content Document with pre-recorded audio narration in order to provide a synchronized playback experience, as defined in this specification.

Text-to-Speech (TTS)

The rendering of the textual content of an EPUB Publication as artificial human speech using a synthesized voice.

EPUB Style Sheet (or Style Sheet)

A CSS Style Sheet conforming to the CSS profile defined in EPUB Style Sheets [ContentDocs30].

Viewport

The region of an EPUB Reading System in which the content of an EPUB Publication is rendered visually to a User.

CSS Viewport

A Viewport capable of displaying CSS-styled content.

EPUB Container (or Container)

The ZIP-based packaging and distribution format for EPUB Publications defined in [OCF3].

Author

The person(s) or organization responsible for the creation of an EPUB Publication, which is not necessarily the creator of the content and resources it contains.

User

An individual that consumes an EPUB Publication using an EPUB Reading System.

EPUB Reading System (or Reading System)

A system that processes EPUB Publications for presentation to a User in a manner conformant with this specification and its sibling specifications.

› 1.4 Conformance Statements

The keywords "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC2119].

All sections of this specification are normative except where identified by the informative status label "This section is informative". The application of informative status to sections and appendices applies to all child content and subsections they may contain.

All examples in this specification are informative.

2 Media Overlay Document Definition

2.1 Introduction

This section is informative

Books featuring synchronized audio narration are found in mainstream e-books, educational tools and e-books formatted for persons with print disabilities. In EPUB 3, these types of books are created by using Media Overlay Documents to describe the timing for the pre-recorded audio narration and how it relates to the EPUB Content Document markup. The file format for Media Overlays is defined as a subset of SMIL, a W3C recommendation for representing synchronized multimedia information in XML.

The Media Overlays feature is designed to be transparent to EPUB Reading Systems that do not support the feature. The inclusion of Media Overlays in an EPUB Publication has no impact on the ability of Media Overlay-unaware Reading Systems to render that Publication as a "regular" EPUB Publication.

Although future versions of this specification may incorporate support for video media (e.g., synchronized text/sign-language books), this version supports only synchronizing audio media with the EPUB Content Document.

2.2 Content Conformance

A Media Overlay Document must meet all of the following criteria:

Document Properties

- It must meet the conformance constraints for XML documents defined in XML Conformance [Publications30].
- It must be valid to the Media Overlays schema as defined in Appendix A, *Media Overlays Schema* and conform to all content conformance constraints expressed in Media Overlay Document Definition.
- It must be authored to reflect the structure of the EPUB Content Document with which it is associated, as stated in Structure .
- Authors should avoid using scripts to control audio and video embedded in the EPUB Content Document, as stated in Embedded Audio and Video.
- It should use semantic markup where appropriate, as described in Semantic Inflection.
- It must be packaged with the EPUB Publication as shown in Packaging.

File Properties

- The Media Overlay Document filename should use the file extension `.smil`.

2.3 Reading System Conformance

EPUB Reading System support for Media Overlays is optional. A Reading System that supports Media Overlays must meet the following criteria:

› It must process the Media Overlay Document in conformance with all Reading System conformance constraints expressed in Media Overlay Document Definition.

› It must support XHTML Content Documents, and it may support SVG Content Documents.

› It must render Media Overlay elements as described in Basic Playback.

› It must allow User navigation while a Media Overlay is being played, as discussed in Navigation.

› It must adhere to rules regarding referenced audio and video embedded in the EPUB Content Document, as stated in Embedded Audio and Video.

› Text-to-Speech (TTS)-capable Reading Systems should conform to Reading System Text-to-Speech Conformance Requirements [Publications30].

› It should offer the skippability and escapability features described in Skippability and Escapability.

A Reading System that does not support Media Overlays must meet the following criteria:

› It must ignore both the `media-overlay` attribute on manifest `item` elements and the manifest `item` elements where the `media-type` attribute value equals `application/smil+xml`.

› 2.4 Media Overlay Document Definition

All elements [XML] defined in this section are in the `http://www.w3.org/ns/SMIL` namespace [XMLNS] unless otherwise specified.

› 2.4.1 The `smil` Element

The `smil` element must be the root element of all Media Overlay Documents.

Element Name

`smil`

Usage

The `smil` element is the root element of the Media Overlay Document.

Attributes

`version` [required]

Specifies the version number of the [SMIL] specification to which the Media Overlay adheres.

This attribute must have the value `3.0` to indicate compliance with this version of the specification.

`id` [optional]

The ID [XML] of this element, which must be unique within the document scope.

`epub:prefix` [optional]

Declares additional metadata vocabulary prefixes.