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Open electronic-book publication structure

开放式电子图书出版物结构

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Foreword

This guiding technical document is a modified adoption of the Open eBook Publication Structure (first edition) of the Open eBook Forum (Oebf). Annex B (OEB package DTD),

Annex C (OEB document DTD) and Annex D (character entities) of the original document have not been adopted; for detailed information about that organization see http://www.openebook.org.

This guiding technical document is for reference only. Annex A of this guiding technical document is an informative annex.

This guiding technical document was proposed by the Ministry of Information Industry of the People's Republic of China and is under the overall jurisdiction of the China Electronics Standardization Institute.

The drafting organizations are the China Electronics Standardization Institute (CESI) and the Institute of Computing Technology of the Chinese Academy of Sciences. The main drafters are Huang Tiejun, Lin Shouxun, Xiao Ming, Li Honghui and Gao Jian.

1 Scope

The purpose of studying the structure of open electronic book publications is to provide a specification for expressing the content of electronic books. In particular: this guiding technical document attempts to give content providers, such as publishers and other persons or bodies owning displayable content, and tool providers, a minimal general guide, so as to ensure that the content of an electronic book keeps its fidelity, accuracy, accessibility and presentability on every electronic book platform; it attempts to reflect the present state of the various electronic book content format standards; and its objective is to provide publishers, agencies, authors and other publishers of electronic book content with a format that allows them to offer users electronic book content suited to many reading systems.

The premise of this guiding technical document is that, for electronic book technology to achieve greater success on the market, reading systems must be able to access a large number of works of many types conveniently.

2 Normative references

The provisions in the following documents become provisions of this guiding technical document through reference in it. For dated references, subsequent amendments (excluding corrections) or revisions do not apply; however, parties reaching agreement on the basis of this guiding technical document are encouraged to study whether the latest editions may be used. For undated references, the latest edition applies.

GB/T 7408, Data elements and interchange formats - Information interchange - Representation of dates and times (eqv ISO 8601)

GB 13000.1, Information technology - Universal multiple-octet coded character set (UCS) - Part 1: Architecture and basic multilingual plane (idt ISO/IEC 10646-1)

GB/T 17235.1, Information technology - Digital compression and coding of continuous-tone still images - Part 1: Requirements and guidelines (eqv ISO/IEC 10918-1)

3 Terms and definitions

The following terms and definitions apply in this guiding technical document.

3.1 basic OEB document - an OEB document whose structure is defined according to this guiding technical document. 3.2 content provider - a publisher, author or other information provider who supplies a publication to one or more reading systems in the format described in this guiding technical document. 3.3 deprecated - a function that this guiding technical document allows but recommends the user not to use; the function may be abandoned in a future version.

3.4 extended OEB document - an OEB document that, within the extension mechanism defined in this guiding technical document, uses constructs other than those specified in it. 3.5 OEB core media type - a MIME media type that all reading systems must support. 3.6 OEB document - an XML document conforming to this guiding technical document. 3.7 OEB package - the file describing an OEB publication; it identifies all the other files in the publication and provides description and access information about them.

3.8 OEB publication - the collection of OEB documents together with other files, the other files usually appearing as media types of various kinds including structured text and graphics, which together form the inseparable constituent parts of the publication. 3.9 reader - the person who reads the publication. 3.10 reading device - the physical platform, hardware and software, that presents the publication.

3.11 reading system - a unified whole of software and hardware able to accept an OEB publication and to make it usable by the reader. The greatest difference among reading systems may lie in the difference of their architecture. A reading system may be implemented on a single device or distributed over several computers. It is to be noted in particular that, if a reading device is part of a larger reading system, that device is not required to accept OEB publications directly, but the reading system as a whole must be able to do so. A reading system may also include other additional processing functions outside the scope of this guiding technical document, such as compression, indexing, encryption, rights management and distribution.

4 Overview

4.1 About this guiding technical document. This guiding technical document brings together publishers, reading system manufacturers, software developers and experts on the relevant standards; it is the result of a joint exploratory effort.

4.2 Relationship with other specifications. This guiding technical document combines subsets and applications of other relevant specifications, so as to make it convenient to

create, organize, express and interchange electronic documents of every kind unambiguously. The relevant specifications include: a) the XML 1.0 markup meta-language (http://www.w3.org/TR/REC-xml); b) the XML namespaces specification (http://www.w3.org/TR/REC-xml-names); c) the HTML 4.0 document content markup language (http://www.w3.org/TR/REC-html40), with the XHTML 1.0 specification also taken into account (http://www.w3.org/TR/xhtml1/); d) the CSS 1 style sheet language (http://www.w3.org/TR/REC-CSS1), including also CSS 2.

Two XML DTDs are defined in this guiding technical document: the package DTD and the basic OEB document DTD. The package DTD forms the root of a complete publication, and the reading system uses it to find and organize the constituent parts of the publication; the basic OEB document DTD defines formally the HTML subset described in this guiding technical document.

4.2.2 Relationship with XML namespaces. The current version of this guiding technical document does not require the reading system to handle XML namespace prefixes according to the XML namespaces draft recommendation. A namespace prefix is a way of prefixing element and attribute names so as to distinguish names from several different definition sets. Using an XML namespace declaration, a prefix can be associated with a unique URI; a namespace declaration may also take a URL as the default namespace and apply it to elements lacking a namespace prefix. The XML namespace prefix and the element that follows it are separated by a colon. The use of namespace prefixes in OEB documents is forbidden in this guiding technical document; however, to use the various attributes of the Dublin Core metadata elements in an OEB package, forms such as dc:prefix are required.

4.2.3 Relationship with HTML. Given the importance of existing software tools, legacy data, publishing practice and market conditions, this guiding technical document is based on HTML. This approach allows content providers to explore existing HTML content, tools and specialized techniques further. To keep the development burden on reading system developers to a minimum - they may use devices restricted in power and in display - the publication structure of this guiding technical document does not include all the HTML elements and attributes. The elements and attributes are selected from the HTML 4.0 specification, following the principle of matching the direction of development of existing HTML, XHTML and emerging XML. Annex A gives a complete list of the element types in HTML 3.2, HTML 4.0 and the OEB document.

4.2.4 Relationship with CSS. This guiding technical document defines a style language on the basis of CSS 1 and CSS 2, with the media type text/x-oebl-css. Although the OEB authoring group recognized that this media type definition does not match the draft recommendation of the CSS working group, practical circumstances made it necessary. The document includes CSS-based style sheet constructs, which are used to define baseline display effect functions. To keep the burden on reading system developers and