

Introduction

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This report aims to provide an overview of the XML landscape - what technologies are available, in what state of development and acceptance are they, and provide examples of how they are used.

In the first part, a number of frequently asked questions about XML and related technologies are answered, providing the reader with a high-level overview of many of the topics which will be covered in more detail later in the report. Basic concepts relating to XML are discussed in this topic, such as well-formedness, validation, namespaces, elements and attributes. Also included is a high-level discussion about the semantic web.

The second part of the report discusses various technologies, some of which vital to XML, such as XPath and XLink. Other technologies are based on XML, such as XIML and XUL, while AJAX and the concept of the DOM are more loosely related to XML. The W3C XML Schema is also described, explaining how the need for such a technology emerged and how does W3C XML Schema fulfills its role.

In the third part, the topics of styling and transforming XML documents is addressed. Technologies such as CSS and XSL are discussed, providing examples of how they can be used to style XML documents, and for generating XHTML documents.

More specific topics are explored in Part Four - such as Scalable Vector Graphics, and how can XML be used to represent a logical data model. This part also includes a section discussing the .docx format used by recent versions of Microsoft Office, and how it relates to the older .doc format. Another section is dedicated to a review of one of the most popular XML IDEs, XML Spy,

The fifth, and final part of this report explores some of the downsides of XML, and some of the problems which could be encountered while authoring or using XML documents. A case study of a badly written XML document is analyzed, and also included in Part Five is a discussion of security in the context of XML documents, along with a section on how encodings are used in XML.