

Information technology — Computer graphics and image processing —
Extensible 3D (X3D) language bindings —
Part 1: ECMAScript

Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

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International Standard ISO/IEC 19777-1 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee 24, *Computer graphics, image processing and environmental data representation*, in collaboration with [Web3D Consortium, Inc.](#)

ISO/IEC 19777 consists of the following parts, under the general title *Information technology — Computer graphics and image processing — Extensible 3D (X3D) language bindings*:

Part 1: ECMAScript

Part 2: Java

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Introduction

Extensible 3D (X3D) is a system for describing interactive 3D objects and worlds as defined in ISO/IEC 19775. This part of ISO/IEC 19777 specifies the binding of the services defined in ISO/IEC 19775-2 to the programming language ECMAScript for use in X3D internal representation (Script nodes) and for external application access.

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1 Scope

Part 2 of ISO/IEC 19775 specifies a language independent application programmer interface (API) to a set of services and functions. For integration into a programming language, the X3D abstract interfaces are embedded in a language-dependent layer obeying the particular conventions of that language. This part of ISO/IEC 19777 specifies such a language-dependent layer for the ECMAScript language.

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2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Identifier	Reference
I10641	ISO/IEC 10641:1993 <i>Information technology — Computer graphics and image processing — Conformance testing of implementations of graphics standards</i>
I14772-1	ISO/IEC 14772-1:1997 <i>Information technology — Computer graphics and image processing — The Virtual Reality Modeling Language (VRML) — Part 1: Functional specification and UTF-8 encoding</i>
I14772-2	ISO/IEC 14772-2:2004 <i>Information technology — Computer graphics and image processing — The Virtual Reality Modeling Language (VRML) — Part 2: External authoring interface (EAI)</i>
I16262	ISO/IEC 16262:2002 <i>Information technology — ECMAScript language specification</i>
I19775-1	ISO/IEC 19775-1:2004 <i>Information technology — Computer graphics and image processing — Extensible 3D (X3D) — Part 1: Architecture and base components</i>
I19775-2	ISO/IEC 19775-2:2004 <i>Information technology — Computer graphics and image processing — Extensible 3D (X3D) — Part 2: Scene Access Interfaces (SAI)</i>
I19776-2	ISO/IEC FDIS 19776-2:2005 <i>Information technology — Computer graphics, image processing and environmental data representation — Extensible 3D (X3D) encodings — Part 2: Classic VRML encoding</i>
RFC1738	IETF RFC 1738 <i>Uniform Resource Locator, Internet standards track protocol</i>
RFC1808	IETF RFC 1808 <i>Relative Uniform Resource Locator, Internet standards track protocol</i>
RFC2077	IETF RFC 2077 <i>The Model Primary Content Type for Multipurpose Internet Mail Extensions, IETF Internet standards track protocol</i>
RFC2141	IETF RFC 2141 <i>Universal Resource Name, Internet standards track protocol</i>
RFC2397	IETF RFC 2397 <i>The "data" URL scheme, Internet standards track protocol</i>