

A Uniform Resource Name (URN) Namespace
for the Web3D Consortium (Web3D)

Status of this Memo

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Abstract

This document describes a Uniform Resource Name (URN) namespace for the Web3D Consortium (Web3D) for naming persistent resources such as technical documents and specifications, Virtual Reality Modeling Language (VRML) and Extensible 3D (X3D) files and resources, Extensible Markup Language (XML) Document Type Definitions (DTDs), XML Schemas, namespaces, style sheets, media assets, and other resources produced or managed by Web3D.

1. Introduction

Web3D is a non-profit organization with a mandate to develop and promote open standards to enable 3D for the Internet, Web and broadcast applications. Web3D is responsible for developing, advancing, and maintaining the VRML97 ISO/IEC International Standard (ISO/IEC 14772-1:1997), X3D (the forthcoming official successor to VRML) and related technologies.

Web3D maintains and extends its standardization activities through the coordinated efforts of dedicated Working Groups, Task Groups, and professional Liaisons to related standards bodies such as ISO, W3C, and MPEG. See <http://web3d.org/> for details.

Web3D would like to assign unique, permanent, location-independent names based on URNs for some resources it produces or manages.

This namespace specification is for a formal namespace.

2. Specification Template

Namespace ID:

"web3d"

Registration Information:

Registration Version Number: 1
Registration Date: 2003-05-06

Declared registrant of the namespace:

Web3D Consortium, Inc.
Email: <contact@web3d.org>
Web: <http://web3d.org>

c/o

Name : Aaron E. Walsh
Affiliation: Web3D Working Group Chair; Web3D Liaison to MPEG, W3C
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Declaration of syntactic structure:

URNs assigned by Web3D will have the following hierarchical structure based on the group's organizational structure:

urn:web3d:{subgroup}:{subgroup-specific string}

where "subgroup" corresponds to an official Web3D subgroup or activity such as the VRML standard ('vrm197'), Extensible 3D ('x3d'), Universal Media Working Group ('media'), Geographical VRML Working Group ('geovrml'), Humanoid Animation Working Group ('hanim') and so forth, and "subgroup-specific string" is a US-ASCII string that conforms to URN Syntax requirements ([RFC2141]).

In cases where ownership or management of a resource is shared by multiple Web3D subgroups or activities, a general category may be used in place of a specific subgroup.

Chairs of Web3D subgroups and activities assign all unique identifiers that fall within the scope of the subgroup or activity that they chair. Chairs of Web3D subgroups and activities are also responsible for publishing the specific structure of URNs assigned by their group or activity.

Relevant ancillary documentation:

None

Identifier uniqueness considerations:

Identifier uniqueness will be enforced by the Web3D Board of Directors (BoD) in cooperation with Chair(s) of corresponding Web3D subgroups.

Identifier persistence considerations:

Web3D is committed to maintaining the accessibility and persistence of all resources that are officially assigned URNs by the organization.

Process of identifier assignment:

Assignment is limited to the owner and those authorities that are specifically designated by the owner. Web3D may designate portions of its namespace for assignment by other parties.

Process of identifier resolution:

The owner will develop and maintain "URN catalogs" that map all assigned URNs to Uniform Resource Locators (URLs), specifically to enable Web-based resolution of named resources. In the future, an interactive online resolution system may be developed to automate this process.

The owner will authorize additional resolution services as appropriate.

Rules for Lexical Equivalence:

URNs are lexically equivalent if they are lexically identical.

Conformance with URN Syntax:

No special considerations.

Validation mechanism:

None specified. The owner will develop and maintain URN catalogs. The presence of a URN in a catalog indicates that it is valid.

Scope:

Global

3. Examples

The following examples are not guaranteed to be real. They are presented for pedagogical reasons only.

```
urn:web3d:vrml97:node:GeoCoordinate
urn:web3d:vrml97:node:NurbsCurve
urn:web3d:x3d:schemas:2002:compact
urn:web3d:x3d:schemas:2002:compromise
urn:web3d:media:textures:nature:grass
```

4. Security Considerations

There are no additional security considerations other than those normally associated with the use and resolution of URNs in general.

5. Namespace Considerations and Community Considerations

The Web3D Consortium (formerly "VRML Consortium") long acknowledged the value and utility of URNs starting with the VRML International Standard issued in 1997 (ISO/IEC 14772-1:1997, commonly known as "VRML97"). Annex F.2, "URNs", of that standard outlines non-normative use of URNs as a persistent naming mechanism for referenced resources such as files, EXTERNPROTOs, textures, and so forth.

As such numerous VRML players and authoring tools, as well as content authoring communities, have adopted Web3D-oriented URNs for this purpose despite the fact that no formal "web3d" URN NID has been established by the Web3D Consortium. Consequently, interoperability of resources named using these disparate naming conventions is difficult, if not impossible, owing to the lack of a single, well defined "web3d" URN namespace that is formally registered and maintained by the Web3D Consortium.

In order to promote complete compatibility and interoperability across past, current and future Web3D standards, as well as across myriad Web3D-related products, tools, and content, the Web3D Consortium believes formal registration and management of the "web3d" URN namespace is necessary and in the best interest of the larger Internet- and Web-based communities it serves.

The "web3d" URN namespace will be used to name VRML and X3D files and resources, XML DTDs and Schemas, namespaces, style sheets, media assets, and other resources produced or managed by Web3D. As an open

standards organization, any Web3D Consortium resources that are officially named using the "web3d" namespace will be made freely available to the public.

Resources will be named and maintained in accordance with the process(es) described in this document. Any organization or individual can utilize the Web3D Consortium's freely available URN catalogs to resolve a resource named therein. Although the Web3D Consortium will control the naming and allocation of resources in order to maintain compliance with the process(es) described in this document, resolution and/or use of these resources is unrestricted and without fee in order to promote widespread adoption of open Web3D technologies. To this end, related documentation and open source resolvers will be freely provided through the Web3D Consortium's Web site.

Additionally, member organizations or individuals that wish to name their own resources using the "web3d" namespace may submit such request(s) directly to the corresponding Web3D Working Group (subgroup) for subsequent review.

6. IANA Considerations

This document describes a "web3d" URN NID registration for the Web3D Consortium which has been entered into the IANA registry of URN NIDs (<http://www.iana.org/assignments/urn-namespaces>).

References

[RFC2141] Moats, R., "URN Syntax", RFC 2141, May 1997.

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Acknowledgement

Funding for the RFC Editor function is currently provided by the Internet Society.

