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VRML

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ABSTRACT

VRML is neither a virtual reality nor a modeling language. It basically stands for Virtual Reality Modeling Language. Virtual Reality implies an immersive 3D experience which typically requires a head mounted display and 3D input devices such as digital gloves. VRML is recognized as the standard 3D format for the distribution of virtual worlds on the Internet. In this research paper we are going to study about how it is called as an international standard for describing 3D shapes, images etc and its emergence, popularity , current state , standards and application .

INTRODUCTION

It is a typical file format for representing 3-dimensional interactive vector graphics, considered particularly with the World Wide Web in mind. It is usually pronounced vermal. It is a static scene description language .It is a text file format where edges and vertices for a 3D polygon can be particular along with surface color , shininess , transparency , image mapped structure. VRML files are commonly called worlds and have file extension as .wrl (plain) and .wrz (compression).It is extended from Labyrinth. Its latest release are 2.0 .VRML files are in plain text format and compressed using gzip so that they transfer over the internet more quickly . VRML is proposed by its designers to be the typical language for exchanging virtual worlds including interaction possibilities and multi-user abilities via Internet. It serves as a simple, multiplatform language for publishing 3-D web pages .It neither requires nor imposes immersion. VRML provides the technology to assimilate 2D ,3D ,text and multimedia into coherent model .It is the one who provides geometric modeling feature .

EMERGENCE

The first major combination of networking graphics in the real world only involve 2D images. The World wide web is a graphical interface to the internet and was launched in 1991 and web began to blossom into marketing phenomenon VRML was coined by Dave Raggett in a paper named as “Extending WWW to support Platform independent virtual reality” and submit at a World Wide conference in 1994 .In October 1995 TGS verified a 3D plugin for the beta release of netscape 2.0 by netscape communications at internet world. In 1997 , a new version was finalized as VRML97 which is also known as VRML2.0 or VRML2 .It was used on internet on some personal homepages. In 1998 the partition was sold to VREAM division of platinum technology and taken over by computer and its associates.

CURRENT STATE

A VRML consists of hierarchy of nodes and each nodes defines a transformation ,a property

of appearance, a primitive , a camera , a WWW-link , a information or a group of other nodes. VRML is a static scene description language, which does not include interactive behavior. change format for virtual worlds over the Internet. It allows only browsing through static 3D worlds without interactive behavior. But the specification of VRML is intended for further extensions. The main aim is to extend the currently static scene description language into a virtual world description language.

STANDARDISATION PROCESS

The current standardization process of VRML and how it might be formalized in the near future. A standard published by ISO/IEC is the last phase of a long process that starts with the proposal of innovative work within a committee. International Standards are developed by ISO technical committees and subcommittees by a process using 6 stages which are proposal , preparatory , committee , enquiry , approval and publication .

APPLICATIONS

The access on different kind of data can be provided through a 3D user interface. It allows interaction with data becomes more instinctive for the user .The nodes and edges can be arranged more clearly in a 3D environment than in a 2D representation. It is used for visualization of simulation processes in the areas of handling and order picking and visualization of data .3D representation of the simulation output makes complex processes understandable and problems visible at once. It uses the integration of the simulation process in VRML and necessary to extend VRML with animation capabilities.

CONCLUSION

Although the specification of VRML 1.0 has been modernized and some ambiguity have been removed and needed for explanation and improvement of VRML 1.0 still exits. These issues have to be addressed before new revision of VRML, includes more functionality, can be released. VRML is a very powerful description language for exchanging 3D scenes using Internet. Since its the first approach to create a three dimensional user interface for the WWW, and supported by a extensive community, it will also be accepted as the standard exchange format for virtual worlds over the Internet. Currently VRML allows only browsing through static 3D worlds without interactive behavior. But the specification of VRML is designed for further extensions. On the one hand, the ongoing discussion is about integrating object behavior. Here the VAG started an initiative to consider different proposals for the extension of VRML 1.0. So in this area a widely accepted accord will be reached in the near future. The multi-user support will be added to VRML. It was successfully achieved by its wide spread use and its formal adoption as an international organization for standards(ISO). It depends on two factors i.e. availability of software and availability of worlds.

REFERENCES

[1.] ”ISO members “ international organization for standardization archived from the original on 9 february 2015

[2.] Berners-Lee, T., Fielding R.T., Nielsen H.F.: “Hypertext Trans- fer Protocol HTTP

1.0", HTTP Working Group. [www] http:// www.w3.org/hypertext/WWW/Protocols/Over view.html

[3.] Broll W., England D.: Adding Multi-User Support to VRML. In Proceedings of the VRML'95 Symposium, (San Diego, Ca., Dec. 13-15, 1995) ACM, 1995, 87-94.

[4.] Brutzman, Donald P., Macedonia, Michael R., and Zyda, Michael J.: Internetwork Infrastructure Requirements for Vir- tual Environments. In Proceedings of the VRML'95 Sympo- sium, (San Diego, Ca., Dec. 13-15, 1995) ACM, 1995, 95-104.

[5.] Arthur van Hoff, Sami Shaio, Orca Starbuck: Hooked on Java. Addison Wessley (1995). See also: Java Language Documenta-tion. Sunsoft (1995). [www] http://java.sun.com/documenta- tion.html.

[6.] Honda Y., Matsuda K., Rekimoto J., and Lea R.: Virtual Soci- ety: Extending the WWW to support a Multi-user Interactive Shared 3D Environment. In Proceedings of the VRML'95 Sym- posium, (San Diego, Ca., Dec. 13-15, 1995) ACM, 1995, 109- 116.

[7.] Macedonia M.R., Zyda M.J., Pratt D.R., et al.: Exploiting Reality with Multicast Groups: A Network Architecture for Large-Scale Virtual Environments. In Proceedings of the Vir- tual Reality Annual International Symposium. VRAIS '95. (pp. 2-10). Los Alamitos, CA: IEEE Computer Society Press (March 1995).

[8.] Microsoft: "A Brief Introduction to Active VRML", VRML'95 Symposium, (San Diego, Ca., Dec. 13-15, 1995)

[9.] Pesce, Mark. VRML —Browsing & Building Cyberspace. New Riders Publishing (1995). 15. QvLib —A VRML Parsing Library. [www] http:// vrml.wired.com/vrml.tech/qv.html.