

# EDITTORE: A Generic Objects Editor for Project CIVITAS

Andrei Rubina Thomaz<sup>1</sup>, Magalí Longhi<sup>2</sup>, Margarete Axt<sup>3</sup>

<sup>1</sup> Arts Institute – Federal University of Rio Grande do Sul (UFRGS)

<sup>2</sup> Supercomputing Center (CESUP) Federal University of Rio Grande do Sul – (UFRGS)

<sup>3</sup> LELIC – Building 12201 (FACED), Av. Paulo Gama s/n, CEP: 90040-060, Porto Alegre - RS – Brazil.  
andrei@ufrgs.br, magali@cesup.ufrgs.br, [maaxt@vortex.ufrgs.br](mailto:maaxt@vortex.ufrgs.br)

**Abstract.** *This paper describes the Object Editor – EDITTORE, which is being developed for Project CIVITAS. It consists in a set of functions, written in VRML97 and ECMA Script, which allows the customization of 3D objects in a virtual world. In Project CIVITAS, which is a city builder and simulator, it will be used to customize city elements as houses and buildings.*

## 1. Introduction

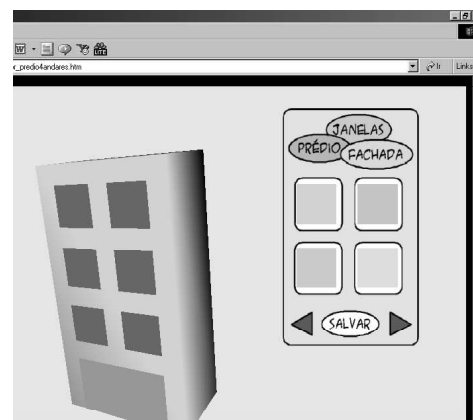
The Object Editor – EDITTORE is a set of functions written in VRML97 [2] and in ECMA Script [3], which allows the customization of 3D objects in a virtual world by choosing its characteristics from a set of predefined options. One of its design goals is genericity, so it can be employed in the building and modification of various 3D objects such as houses, furniture, and any other objects of a virtual world. A known case of an editor which is like the one we intend to build is the avatar creation facility, which is typically implemented in either 2D or 3D graphical interfaces and is present as a module in many virtual communities, such as Habbo Hotel [www.habbohotel.com].

## 2. Development Phase

EDITTORE is being developed for Project CIVITAS [1], which basically consists in the development of a city builder and simulator targeted for children coursing the 3th and 4th grades of Brazilian Fundamental Education, which is in affinity with an ethical, political and pedagogical proposal which is based on multi-user interaction and digital content sharing [1]. In this project, EDITTORE will be used by children, engaging them in the building of the city and in the creation and modification of elements of that city. The options for each element, which are selected by the child-user, are coded and stored in a database and later attached in the correct position of the virtual world's terrain which the child is working with.

## 3. Conclusion

The first version of EDITTORE was implemented in VRML97 and is available at [http://www.civitas.lelic.ufrgs.br/editor\\_objetos/](http://www.civitas.lelic.ufrgs.br/editor_objetos/). The next goals of the project are the development of a version in X3D, the successor of VRML97, and the development of the necessary editors for project CIVITAS.



**Figure 2.** One of the Object Editors implemented for Project CIVITAS.

## 4. References

- [1] Axt, Margarete; Longhi, Magalí T.; Martins, Márcio; Andrade, Leandro; Vicari, Rosa. "CIVITAS: Cidades Virtuais, tecnologias para Aprendizagem e Simulação." CNPQ Project. Category: AI 11/2001.
- [2] VRML 97 International Standard - The Virtual Reality Modeling Language Specification. Web3D Consortium. (Available at [http://www.web3d.org/technicalinfo/specifications/ISO\\_IEC\\_14772-All/index.html](http://www.web3d.org/technicalinfo/specifications/ISO_IEC_14772-All/index.html)). (accessed in 30/04/2003)
- [3] Standard ECMA-262 - ECMAScript Language Specification. [http://www.web3d.org/technicalinfo/specifications/ISO\\_IEC\\_14772-All/index.html](http://www.web3d.org/technicalinfo/specifications/ISO_IEC_14772-All/index.html). (accessed in 02/05/2003)