

USRA 2025

An Annotated Bibliography

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References

- [1] S. Feiner, B. MacIntyre, M. Haupt, and E. Solomon, “Windows on the world: 2D windows for 3D augmented reality,” in *Proc. UIST’93*, 1993, pp. 145–155.

In this paper, the authors describe different means of using a 2D windowing techniques to implement 3D windows in an IVE. Menus (windows) are classified into three categories based on their association with the IVE. (1) The *world-fixed* menu is a set of menus that will always appear in the same exact position in the IVE. (2) *Object-fixed* menus are those that are associate with only one single object in the world. (3) The last category is the *view-fixed* menu which will always appear in the same position relative to the current user view. This menu classification provides a new perspective to the CHI problem in an IVE.

- [2] F. P. B. Jr., “What’s real about virtual reality,” *IEEE Computer Graphics and Applications*, vol. 19, no. 6, pp. 16–27, Nov.-Dec. 1999.

This is a cool paper the author present etc. ... *Insert Your Annotation here.*

- [3] D. Rémy and J. Vouillon, “Objective ML: An effective object-oriented extension to ML,” *Theory And Practice of Objects Systems*, vol. 4, no. 1, pp. 27–50, 1998.

I need to write about this.

- [4] K. Thearling, B. Becker, and D. DeCosta, “Visualizing data mining models,” in *Proc. Integration of Data Mining and Data Visualization Workshop*, 1998.

Kurt Thearling et al. provide an excellent review of the most recent work in the arena of data visualization. Although the work is not intended for IVE applications, most of the ideas were instrumental in understanding some of the inherent difficulties in data visualization. For example, from this work it became evident to us that *orienteering* is one of the most important aspects in an IVE. This indicates that it is important to examine possible solutions to properly orient the user early in the project. Some of the ideas presented includes maintaining a grid that defines the three axes (x, y, z) and the notion of a companion menu that, when invoked, aids the user in locating and transporting themselves within the environment. The authors also emphasize the importance of “trusting the model.” Trust here refers to the user’s ability to comfortably rely on the methods provided to correctly interpret the visual presentation at hand.

- [5] P. Wadler, “Why no one uses functional languages,” *ACM SIGPLAN Notices*, vol. 33, pp. 23–27, 1998.

I need to write about this.

- [6] Y. Wang and C. MacKenzie, “Object manipulation in virtual environments: Relative size matters,” in *Proc. CHI’99*, May 1999.

The authors of this paper investigate the relation between human performance in an IVE and the size of the cursor, object and controller. The *cursor* here refers to the graphical object that maps the input device (controller) to the virtual world. A study was performed to arrive at two conclusions. The first (*the relative size hypothesis*) states that the **interplay** between the size of the controller, cursor, and object has a direct effect on the performance in the virtual environment rather than the size of the controller, cursor or the object **alone**. The second hypothesis that was proved shows that only the orientation time was fastest when the controller and cursor were largest.

This study can help us during the development of our UI system. The 3D pointer that was developed probably should be a little larger than its current size.