



Jens von Pilgrim, Kristian Duske and Paul McIntosh

Journal of Information Visualization (2009) Vol. 8 Issue 2, 107–119. doi:10.1057/ivs.2009.9

Status: [Published](#)

Abstract: In this paper we present the Eclipse project GEF3D. It is a framework for three-dimensional (3D) editors and editors, based on the widely used two-dimensional (2D) graphical editing framework Eclipse Graphical Editing Framework (GEF). It enhances this framework, enabling programmers to easily implement 3D editors. As an Eclipse plugin GEF3D is seamlessly integrated into the Eclipse integrated development environment, allowing developers to work with one tool for developing and visualizing their software in 3D. The third dimension enables the visualization of more complex relationships than provided by existing two-dimensional representations. In this paper we explain the architecture and certain design patterns of GEF3D in order to give researchers and developers interested in 3D software visualization an overview of how to use GEF3D and the features provided by the framework. We present the results of a usability evaluation, show how GEF3D is applied to embed an existing 2D editor into a 3D editor, and discuss performance issues.

Keywords: 3D, graphical editing, software visualization, framework, Eclipse