Abstract

In this paper, we present a layout algorithm for clustered graphs which is a modified force directed algorithm. We have used Spring Embedder algorithm by Eades as base for our algorithm and modified it to suit the constraints of general biological graphs. Our main contribution is adopting spring embedder algorithm to maintain clustered structure of original graph with inherent depth of nesting and handling different node sizes. Results show that our layout algorithm draws graphs with acceptable quality with respect to aesthetic criteria for graph drawing. The algorithm has been integrated with systems biology visualization suit called "eSkin", which allows lay outing and analyze biological graphs.

References

- Coleman and Stott Parker, 12 Dec. 1996, "Aesthetics-Based Graph Layout for
Human Consumption

- John Morris, Allan Kuchinsky, 2014, "Analysis and Visualization of Biological Networks with Cytoscape".

Index Terms

Computer Science

Algorithms

Keywords
Clustered Graph  Biological Pathways  Force Directed Layout