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Angular-Coordinate Driven Radial Tree Drawing

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Abstract : We present a visualization technique for radial drawing of trees consisting of two slightly different algorithms. Both of them make use of node-link diagrams for visual encoding. This visualization creates clear drawings without edge crossing. One of the algorithms is suitable for real-time visualization of large trees, as it requires minimal recalculation of the layout if leaves are inserted or removed from the tree; while the other algorithm makes better utilization of the drawing space. The algorithms are very similar and follow almost the same procedure but with different parameters. Both algorithms assign angular coordinates for all nodes which are then converted into 2D Cartesian coordinates for visualization. We present both algorithms and discuss how they compare to each other.

Keywords : Radial drawing, Visualization, Algorithm, Use of node-link diagrams
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