Table visualization with improved circular layout technique

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Abstract

Most often, tables are used to collect data and later we are using these tables to draw useful conclusions from them. However, finding information and making decisions based on raw table data could be a very hard task. Therefore, there are numerous ways to visualize data to be able to understand what kind of information it carries. Circular layout is a widely used visualization technique and the well-known Circos application is a great example of it. It uses Bézier curves to draw the connections. Our presented visualization method is also based on the circular layout technique. We improved Circos' way of representing connections by making a modification on how we construct the shapes along the contour of the circle. Owing to this, we gain more space to visualize more connections inside the circle. The diagram's transparency could be increased by sorting the connections. However, Circos does not able to sort the connections or reduce intersections between them. In this work we would like to introduce a method for sorting the connections as well.

 $K\!ey\!words:$ data, visualization, circular layout, sorting, table, diagram, search algorithm

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