

# Tutorial of Aurora

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## 1. Overview of Aurora

Aurora is an intuitive visualization tool comprising three main components: the Graph Pane for visual display, the Info Pane for detailed information on selected nodes or edges, and the Walks Pane, showcasing the graph's various paths (Figure 1).

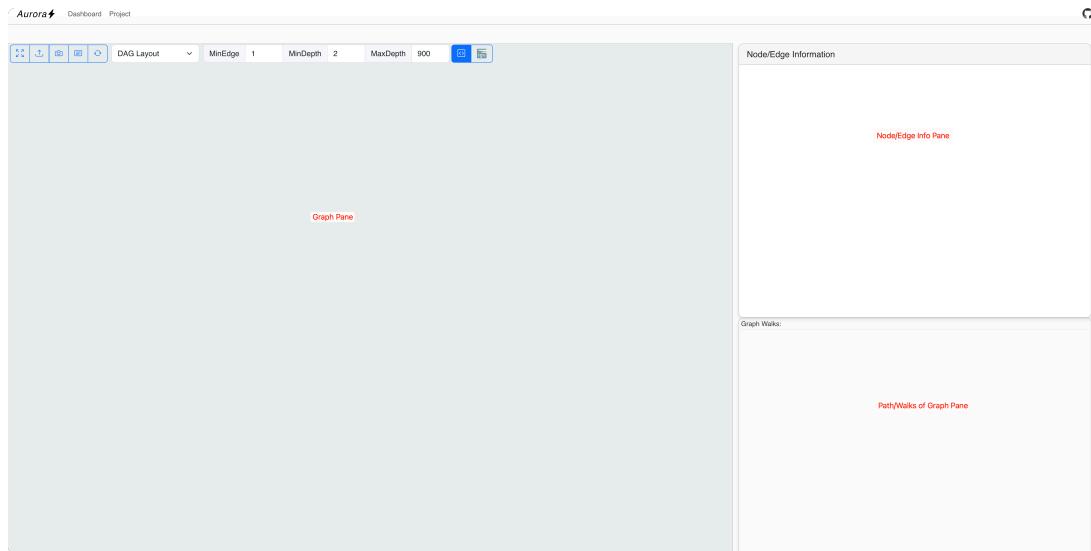


Figure 1: Overviwe of Aurora.

## 2. Features of Aurora

### 2.1. Available Buttons

Aurora offers a range of user-friendly features, including options for maximizing the Graph Pane, uploading datasets, taking snapshots, toggling label visibility, and resetting the view to default settings (Figure 2).

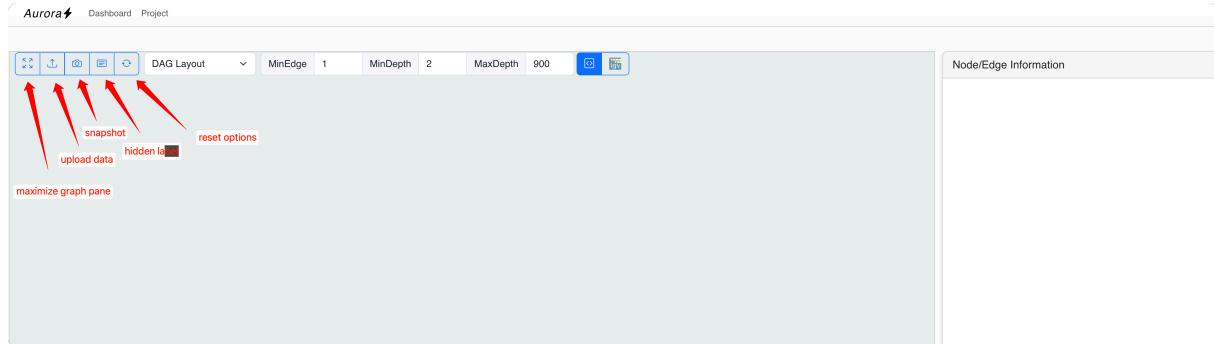


Figure 2: Buttons of Aurora.

## 2.2. Available Options

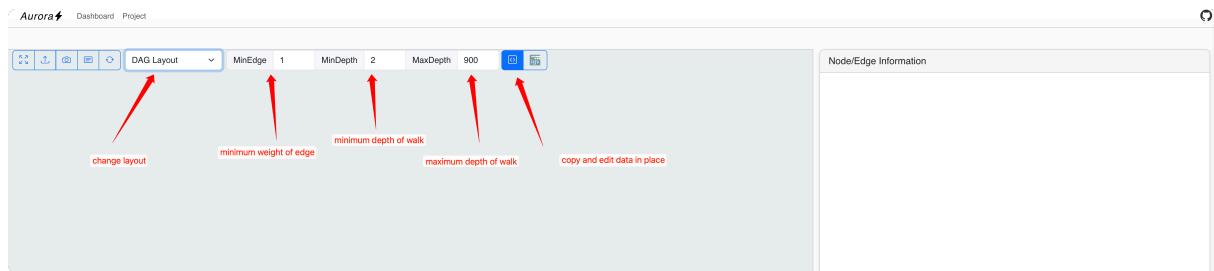


Figure 3: Options of Aurora.

## 3. Exploring Aurora: A Step-by-Step Guide

Aurora provides two methods for data import: directly uploading from a local file (Figure 2) and editing the data in place (Figure 3).

To begin, let's explore Aurora using the provided example dataset. Click the editing button (Figure 4) to open a window where you can modify the graph's JSON data directly.

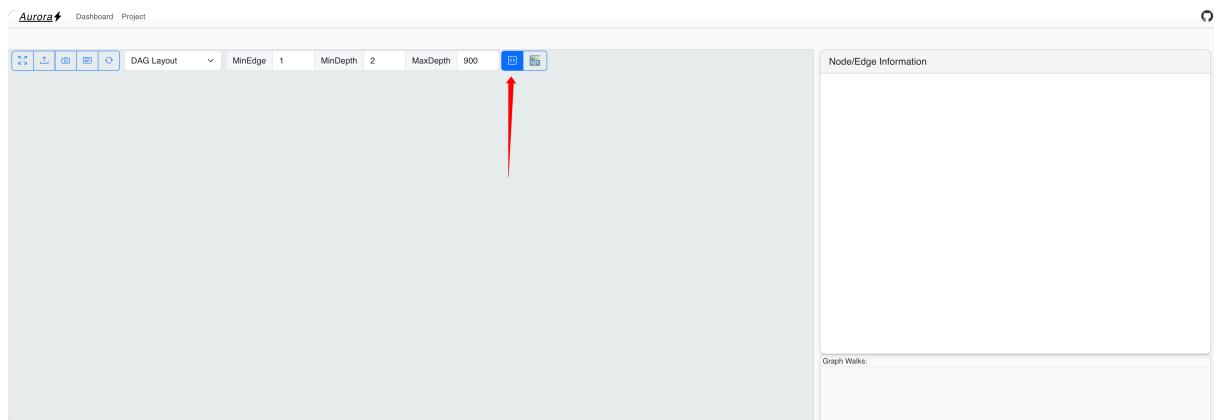


Figure 4: Open Editing Window.

This window comes pre-filled with sample data for a quick demonstration (Figure 5). To visualize your data, simply paste it here and click "save changes". The updated graph will then appear in the Graph Pane (Figure 1, Figure 6).

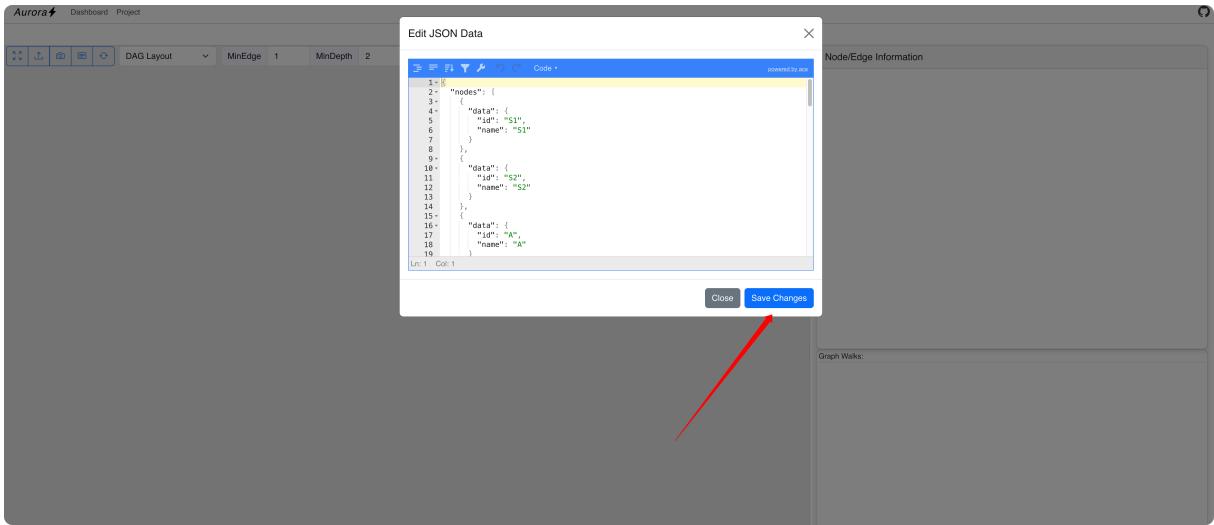


Figure 5: Edit Json Data.

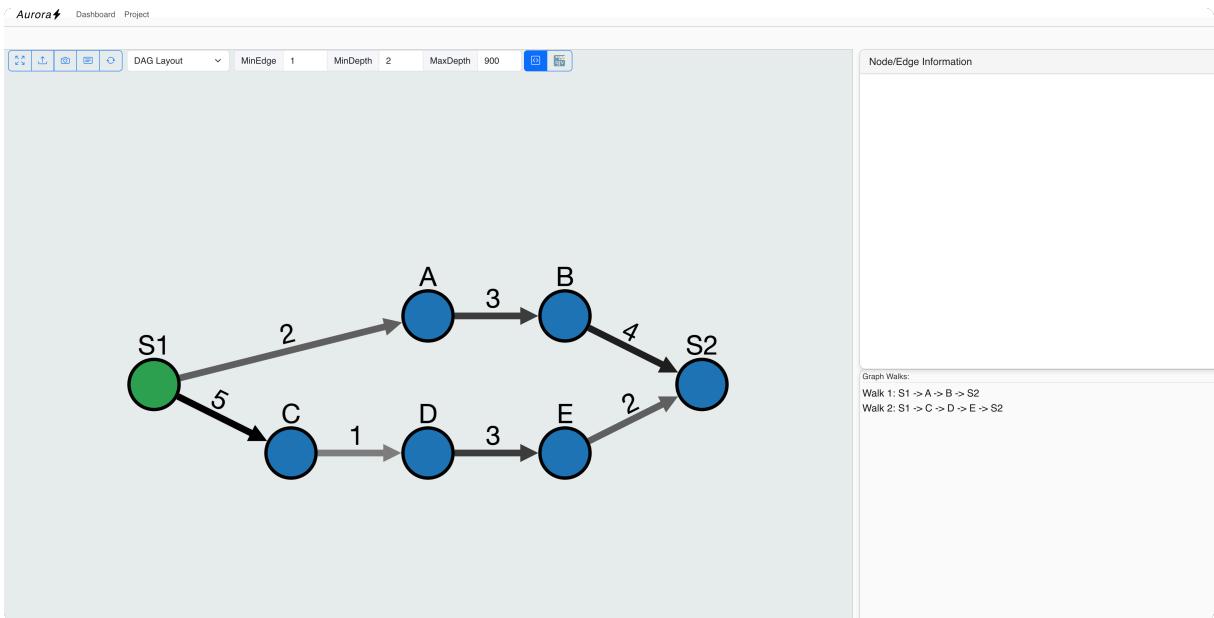


Figure 6: Graph Example.

Within the Graph Pane, the graph derived from JSON data displays node labels, identifying each node, and edge labels, representing the edges' weights. Clicking on nodes or edges reveals more detailed information in the Info Pane (Figure 7), and the Walks Pane lists all possible paths within the graph (Figure 7).

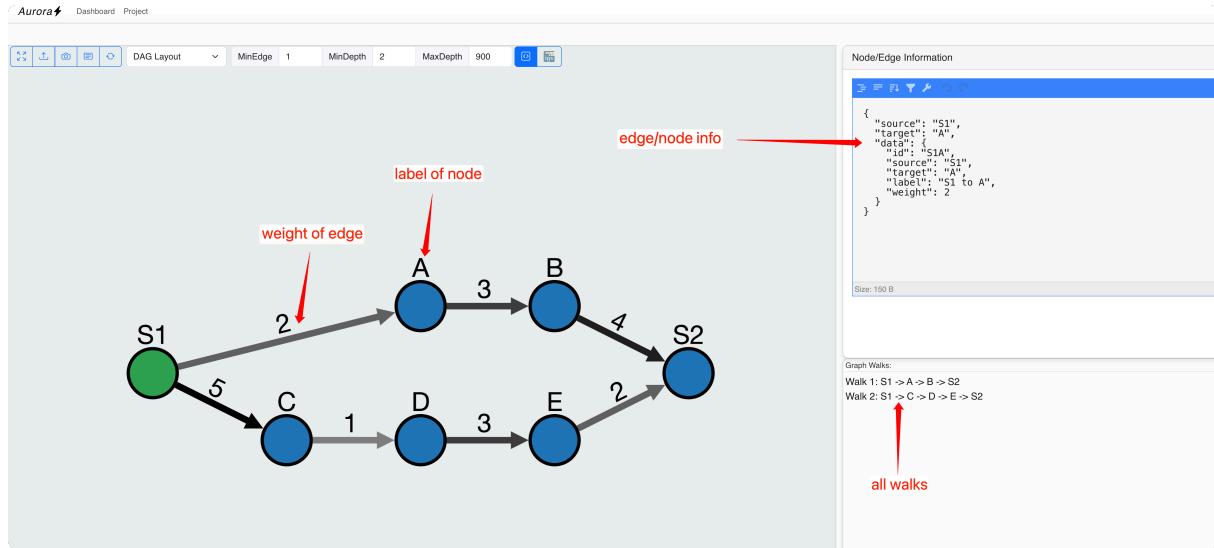


Figure 7: Graph Information.

Selecting a path in the Walks Pane highlights the corresponding nodes in the Graph Pane (Figure 8).

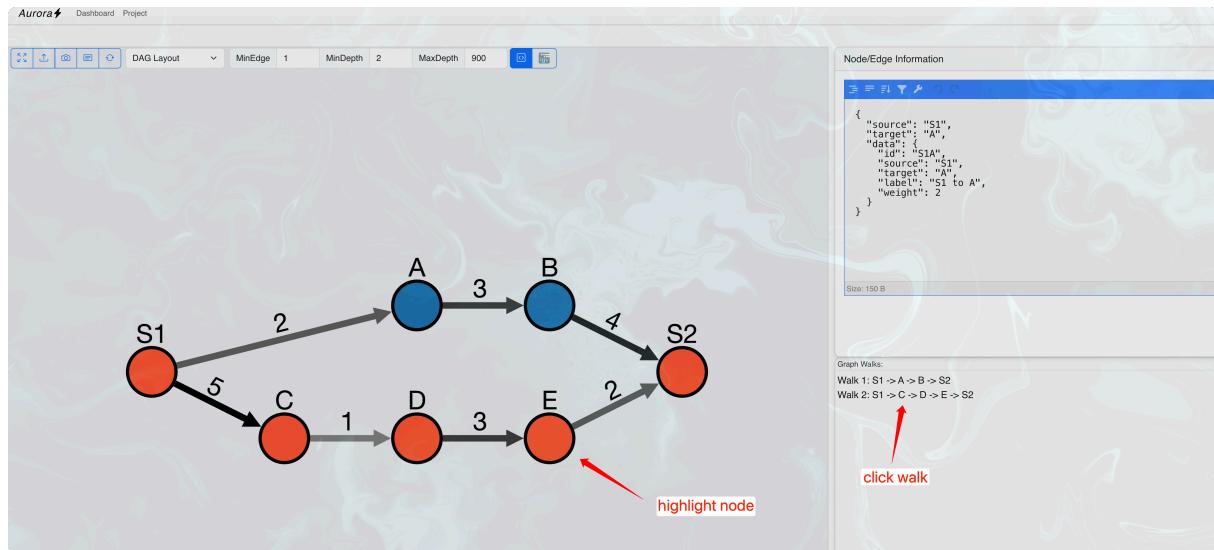


Figure 8: Walk Highlight.

Moreover, Aurora enhances the user experience with tooltips, providing instant information when hovering over a node or edge (Figure 9).

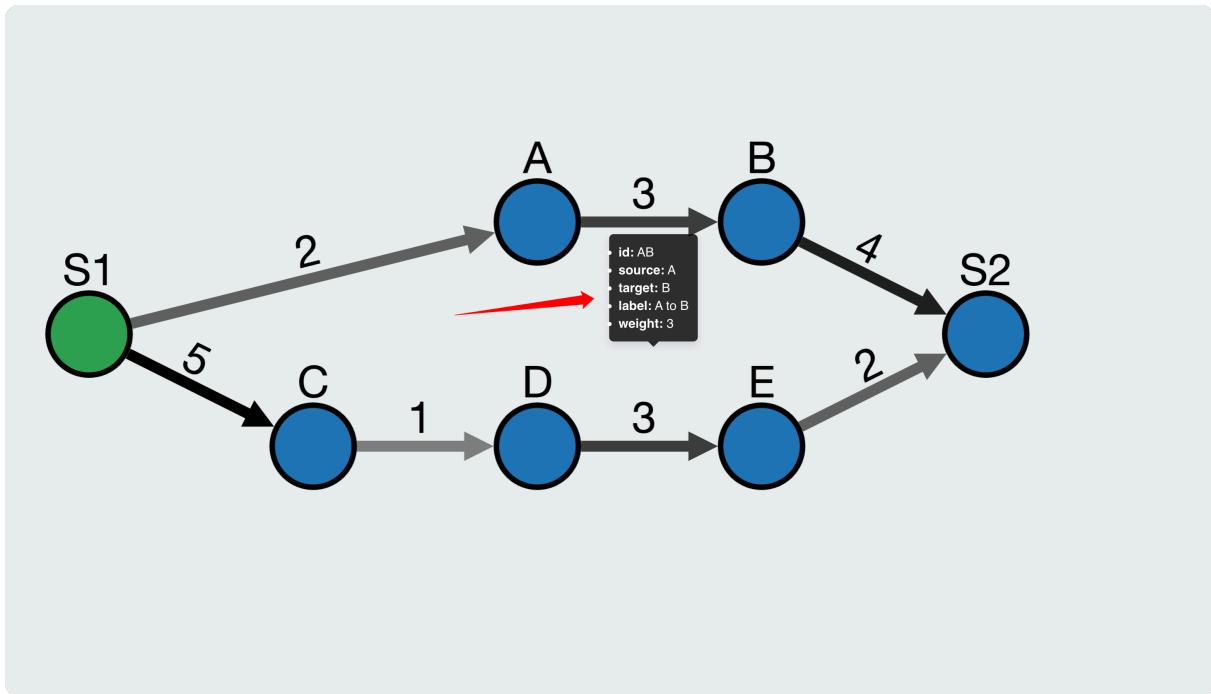


Figure 9: Tooltip.

Additionally, Aurora supports multiple graph layouts. Users can alter the graph's appearance by selecting different layout options (Figure 3). Below are two examples, showcasing the Euler layout and the Circle layout.

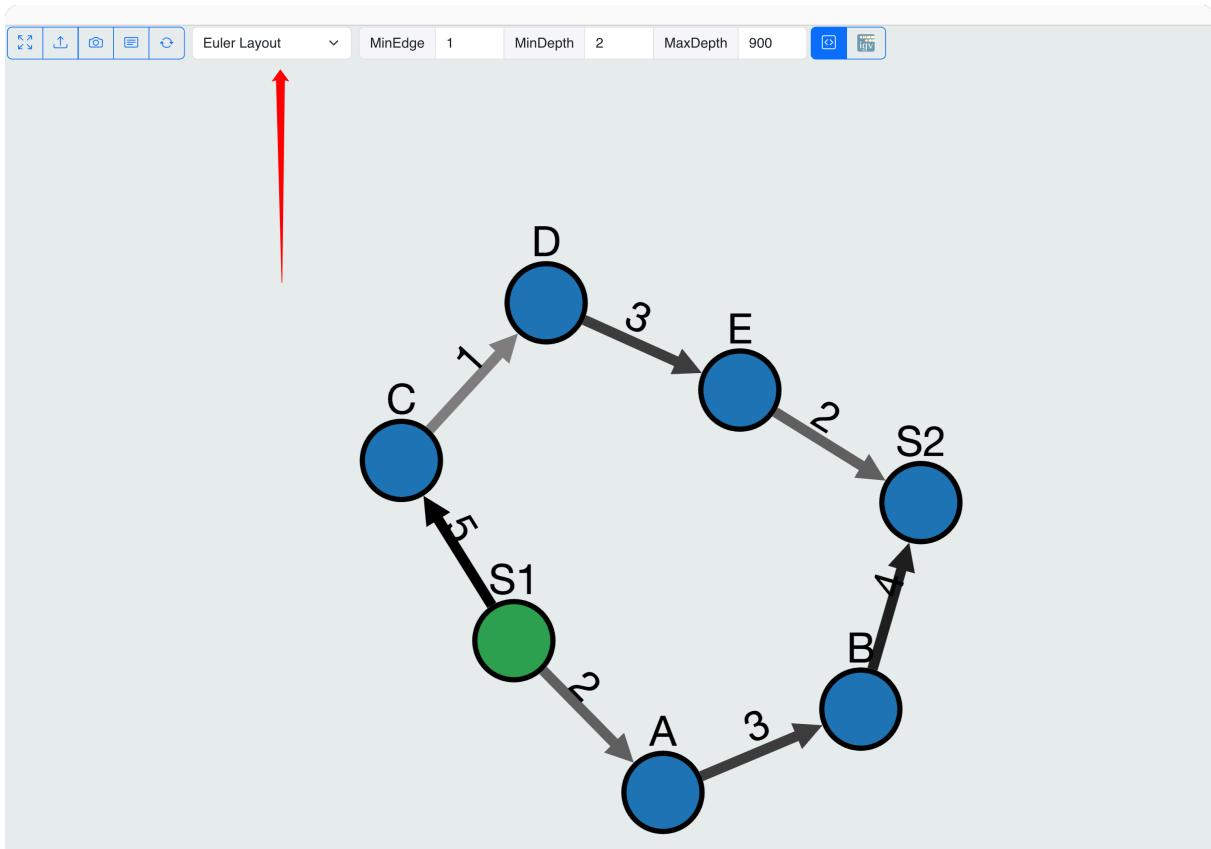


Figure 10: Euler Layout.

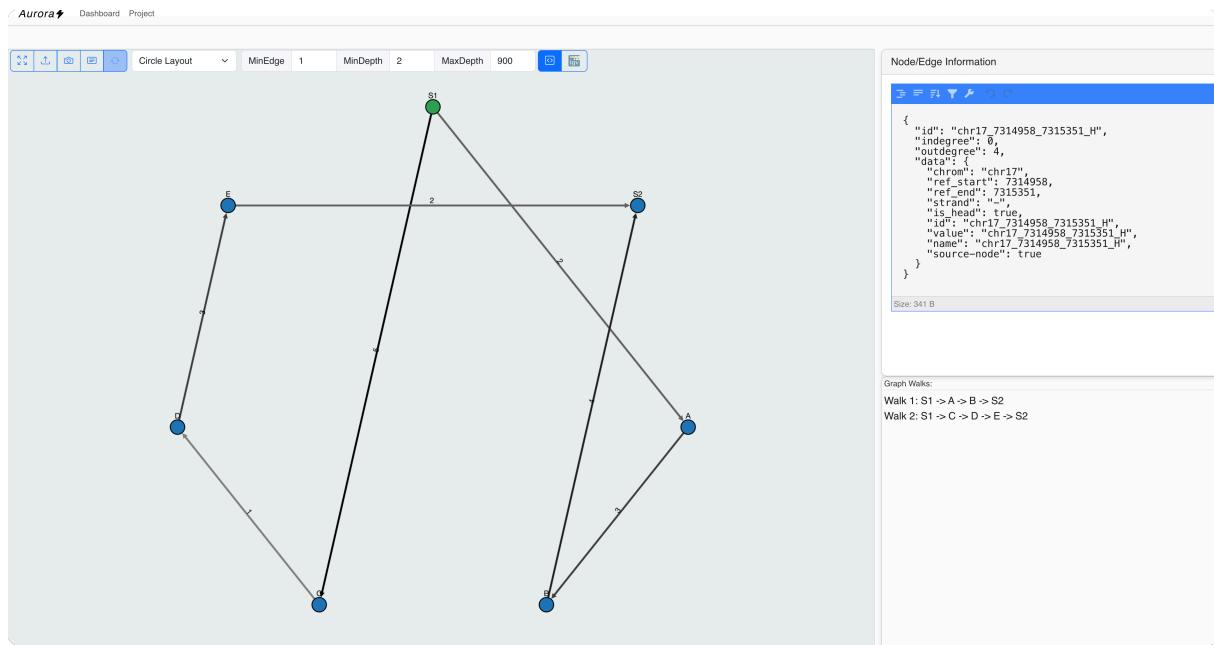


Figure 11: Circle Layout.

More example data can be downloaded from the repository of the GitHub <https://github.com/cauliyang/aurora/tree/main/examples>

## 4. Question and Issue.

We greatly value your feedback and contributions to enhancing Aurora. Should you have any suggestions or encounter any issues, please feel free to open an issue in our repository.