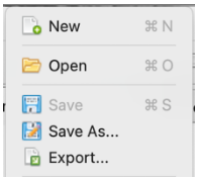
INSTRUCTIONS FOR JASS _ for WINDOWS

You can download the latest version of JASS 2.0.7 for Windows here:

https://github.com/SMoG-Chalmers/JASS/releases/download/v2.0.7/jass_2.0.7_2024-01-29_Windows.exe

BASIC INTERFACE



- Start a New project. Use **New** button  or (Ctrl+N)
- Open existing file. Use **Open** button or (Ctrl+O)
- Save your project. Use **Save** button or command (or Ctrl+S).
  Saves as **.jass**

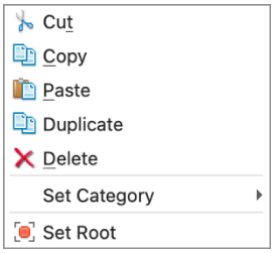
  ! Important disclaimer: Currently the software cannot handle files/folder names with special characters (ä,ö,å), so there should not be any special characters in the saved files names or folders.!
- Zoom: Press **Ctrl** and Scroll Mouse wheel
- Pan: Press Mouse wheel and move mouse

DRAW GRAPH

- **Load Background image** (e.g. .jpg)  of the plan (floor plan, layout) you want to analyse.

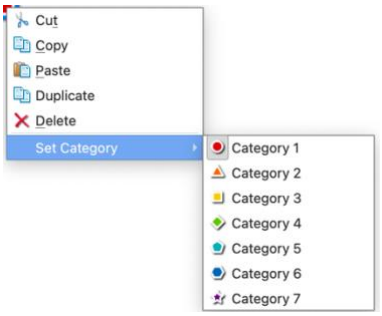
  Remove Background image usung 
- Add a **NODE** in each room or distinct space using the **Node tool (W)** 
- Draw an **'EDGE'**, meaning a link, between the directly connected rooms-spaces when there is a door or a direct connection between them, using **the Edge tool (E)** 

- Select NODES and/or EDGES using the **Select Tool (Q)**
- **Cut, Copy, Paste, Delete** using the panel  or the right-click menu

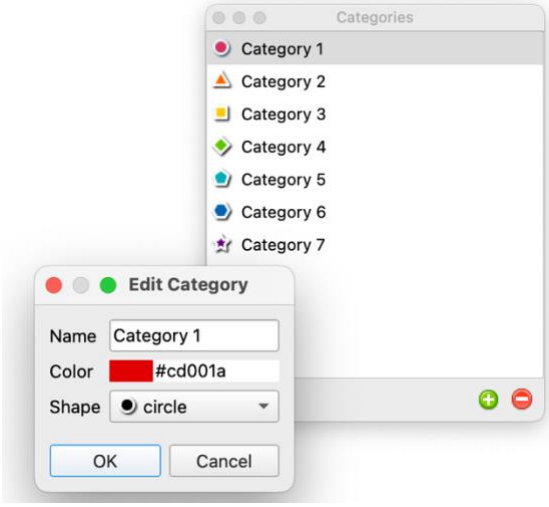


ASSIGN NODE CATEGORIES

- You can assign a CATEGORY to each NODE by selecting it and using the right-click menu. Choose '**Set Category**'. You can select multiple nodes and assign the same Category.



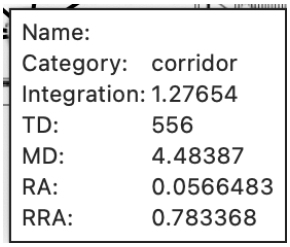
- You can **Edit** or **Add new Categories** in the **Categories window**. 
- Within the **Categories window** you can edit the **Name, Shape and Color** of each category. You can also **Add** and **Remove Categories** by clicking on the **Plus (+)** and **Minus (-)** button.



- **When adding a Node, you can directly assign it to a Category by scrolling the mouse wheel or by using the keyboard numbers (1-9).**

GRAPH ANALYSIS

- While you add Nodes and Edges the software on-the-fly calculates different centrality metrics: **Integration, Total Depth (TD), Mean Depth (MD)**, RA, RRA. You can see the values of each Node by hovering over it.



The Centrality metrics of each node will be recalculated on-the-fly as you add and remove nodes and links.

VISUALISATION

There are three different options for visualization using the node colors:

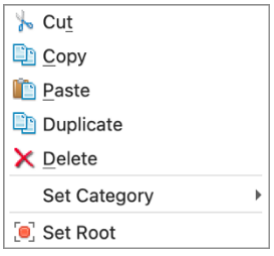
a. Node colors are based on their assigned **Category.**

b. Node colors are based on their **Integration value**. The spectral color range is used, from red-orange-yellow-green- blue, going from the most central (integrated) to the less central nodes (segregated).

c. Node colors are based on their **Depth** from a **Root node** (see Make Justified Graph section for how-to Set a Root node). As you set different Root nodes the colors of the Nodes will change, since their Depth from each Root node is different.

MAKE JUSTIFIED GRAPH

- First set a **Root node**. To set a Root node, select a Node and then click **Set Root**  or right-click and select **Set Root**



- Then **select all the nodes** that will be included in the Justified graph using the **Select tool**. You can select a subset of nodes (e.g. one floor only) to analyse.
- Finally, use the **Generate Justified Graph tool** (Ctrl+G) 

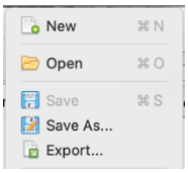
  You will get a new window with the Justified graph.
- You can select a different Root node and re-generate the Justified Graph.

- **NOTE** that if you add and remove links on either window, the graphs on both windows will update on-the-fly. BUT if you add a Node, you have to re-generate the Justified Graph.

  The Centrality metrics of each node will also be recalculated on-the-fly as you add and remove nodes and links.
- You can **slide** between the Main window and the Justified graph window. As you select nodes in the Main window the same nodes are selected on the Justified Graph window.
- You can use the Visualisation option: Depth to colour the nodes in the Main window based on their Depth from the Root note (see Visualisation section)
- You can Show and Hide the Justified Graph window using the **Show Justified Graph tool** 
- When you Save the Jass file the latest Justified Graph is also saved. When you Open the file again and click Show Justified Graph it will appear.

- **NOTE** that you cannot have two justified graphs open or saved at the same time. If you want to save a Justified Graph you must save the Jass file using for instance, File name_Root node (e.g. ACE_Entrance). For the second Justified Graph you have to save it again as e.g.ACE_Library, and so on. Otherwise, when you make a new Justified Graph the previous one will disappear. So, you have to save one Jass file per Justified Graph.

EXPORT



- Use **Export** to export the graphs. It exports to a vector file .svg.
- When you Export, both the Main graph (without the background image) and the showed Justified Graph are exported in one svg.
- The Export will by default show the Category node colors.
- You can edit the .svg in Adobe Illustrator, Affinity Designer and other vector editing and design software.

VIEW

- You can select the size of Nodes in **View-UI Scale**