


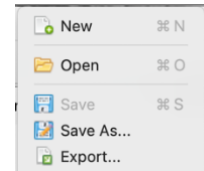
# INSTRUCTIONS FOR JASS \_for MAC

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

[https://github.com/SMoG-Chalmers/JASS/releases/download/v2.0.7/jass\\_2.0.7\\_2024-01-29\\_Mac.zip](https://github.com/SMoG-Chalmers/JASS/releases/download/v2.0.7/jass_2.0.7_2024-01-29_Mac.zip)

## BASIC INTERFACE


- Start a New project. Use **New** button  or (Command+N)
- Open existing file. Use **Open** button or (Command+O)
- Save your project. Use **Save** button or command (or Command+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 **Command** 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.

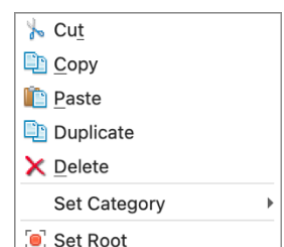
Remove Background image using



- 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)**

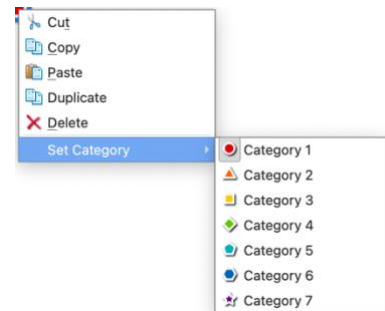
- **Cut, Copy, Paste, Delete** using the panel  or the right-click menu




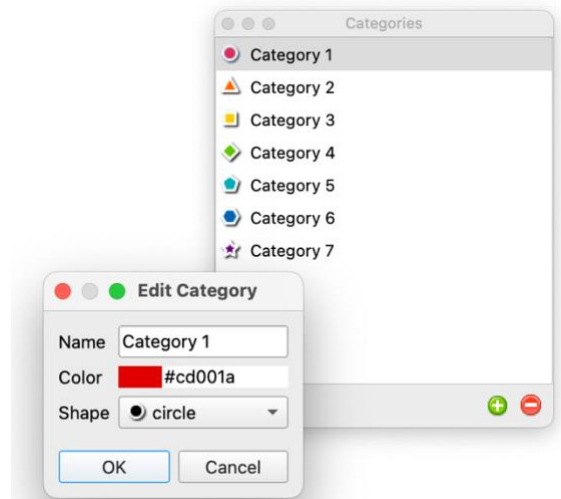
## ASSIGN NODE CATEGORIES

- 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.



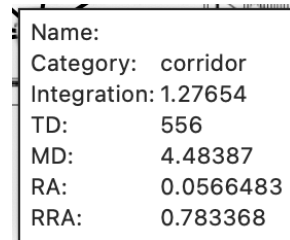
- When adding a Node, you can directly assign it to a Category by scrolling the mouse wheel or by using the keyboard numbers (1-9).

## 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.



Name:	
Category:	corridor
Integration:	1.27654
TD:	556
MD:	4.48387
RA:	0.0566483
RRA:	0.783368

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:

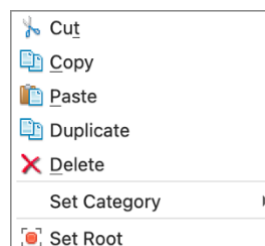
- Node colors are based on their assigned **Category**.
- Node colors are based on their **Integration value**. The spectral color range is used, from red-orange-yellow-green- blue, going from the most central (integrated) to the less central nodes (segregated).
- Node colors are based on their **Depth**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



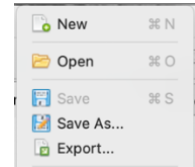
- Then **select all the nodes** that will be included in the Justified graph using the **Select tool**. You can select a subset of nodes (e.g. one floor only) to analyse.
- Finally, use the **Generate Justified Graph tool** (Command+G) 

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 node (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 show the Visualisation mode (Categories, Integration or Depth) of the Main graph.
- 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**

