

TILED RMMV PLUGIN

OVERVIEW

[Tiled](#) is a general map editor made by Thorbjørn Lindeijer. It offers many features such as multiple layers, grid-free object layers and more! We recommend reading the documentation on the Tiled website for the full list. We implemented it in RPG Maker MV for our personal projects and we hope that it will help your project in the future!

FEATURE COMPARISON

1.2.0	1.3.0
Limited to Upper and Lower Layers.	You can now setup zIndex and priority to determine the display order of the layers.
Collisions are set in layers through Custom Property.	
Setting a layer to Same as Player was not available.	You can now set tiles and objects to same level as player via Custom Properties. Similar to RPG Maker XP's priority tileset setting. The zIndex and Priority must be of the same value (by default: 3).
Mark a layer with the custom property, regionId. The ID will be the layer's region number.	
Bridges or Levels were not possible.	Bridges and Levels are now possible. You can hide tilesets or change tilesets depending on the 'level'.

Tile Movement is the same as RPG Maker. The tile grid's size is the movement and collision size of all objects.	TileD now has Quarter Movement / Half-Tile Movement option. So even if you have 48x48 grid size, you can move in 24x24.
To have animated tiles, you must set up Animated Tiles in the Animation Editor and then add a custom property 'animated' to the layer. The limit is 1.	The user no longer has to set a custom property for Animated Tiles. You can just simply set them in Animation editor and set them to any layer.
You can set a parallax in Tiled.	You must set a parallax in RPG Maker MV map editor.
Event Positioning must be done via Event Comments with the command: <position: X, Y>	Use Object Layer to set a custom property, eventId, to put an event to a specific coordinate.
There is no Object layer features.	You can now use Object Layers to insert tiles that are 'off the grid.' Making them perfect for adding visual touches on the map.
The framework uses setPixels and getPixels which are very process heavy.	The framework uses shaders making it faster.

GETTING STARTED

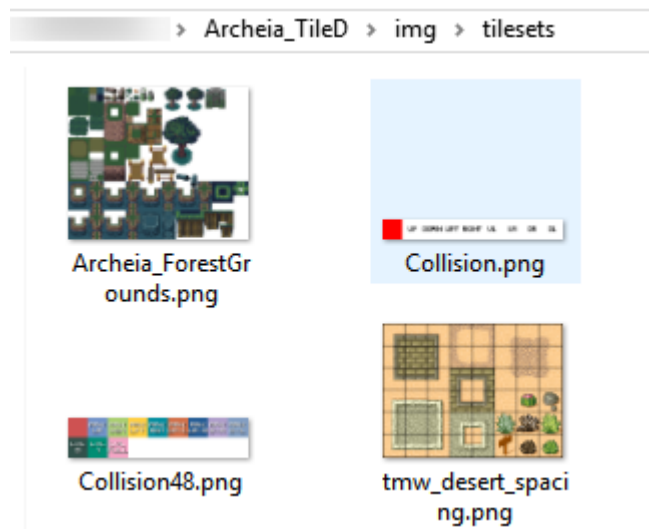
To get started on using the plugin, there are some very important information that you need take into mind.

1. Once you use Tiled, **you must have all the maps done in Tiled**. Please keep this in mind.
2. Download [Tiled](#) if the above information is alright with you.
3. Decide on the **Tile Grid** you would like to use in the entire game. Just remember that the new version has a quarter movement option so you if you want 48x48 tiles with 24x24 movement, you can just enable Half-Tile/Quarter movement.
4. Create a maps folder in the project's root folder.

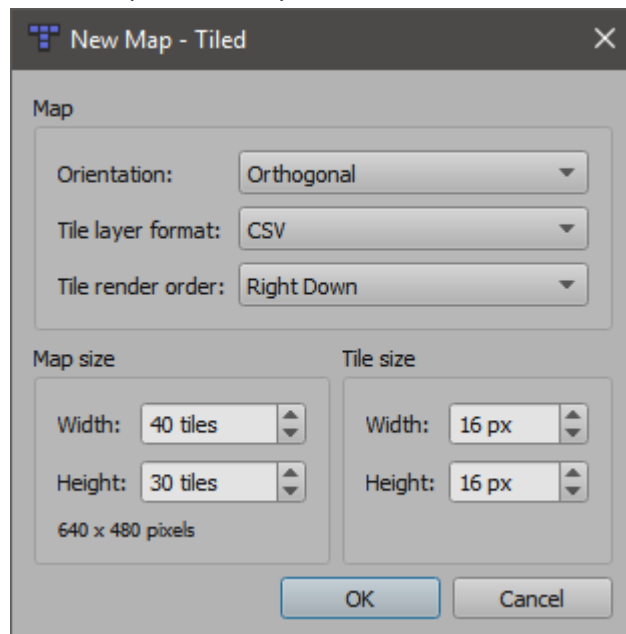
audio	8/19/2016 5:19 PM	File folder	
data	8/26/2016 11:00 AM	File folder	
fonts	8/26/2016 10:22 AM	File folder	
icon	8/19/2016 5:19 PM	File folder	
img	8/19/2016 5:19 PM	File folder	
js	8/26/2016 10:56 AM	File folder	
maps	8/26/2016 3:45 PM	File folder	
movies	8/19/2016 5:19 PM	File folder	
save	8/20/2016 12:05 AM	File folder	
Game.rpgproject	8/26/2016 3:45 PM	RPGPROJECT File	1 KB
index.html	8/26/2016 3:45 PM	Chrome HTML Do...	2 KB

5. Put all the tilesets you are using in the **Project Folder/img/tilesets**. **We suggest that you stick to at least 1024x1024 at max per tileset.** You can have multiple tilesets per map so limiting them and making them easier to load would

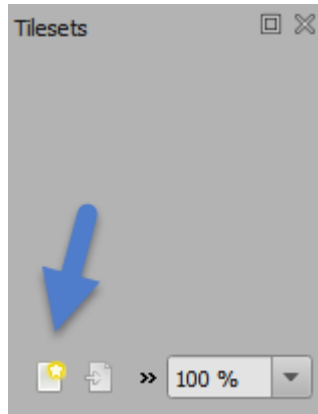
benefit your game!



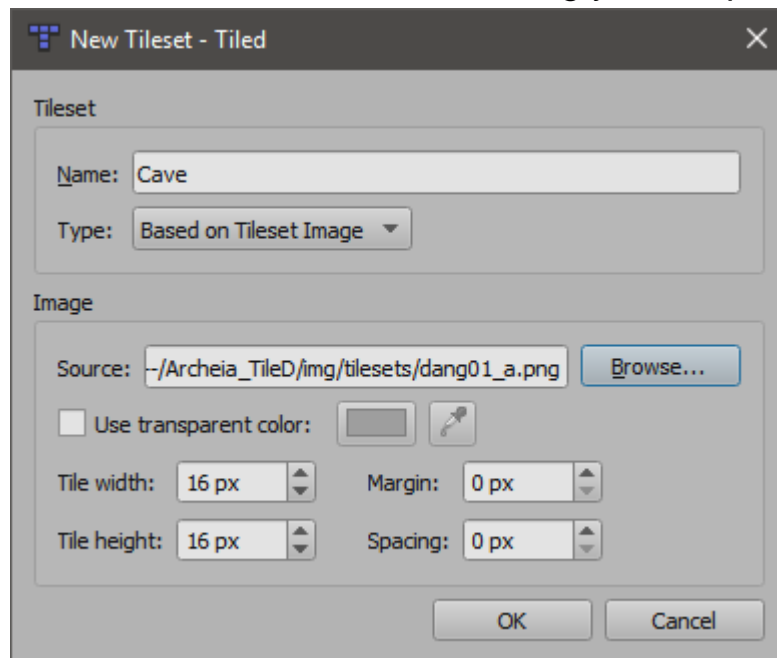
6. Open Tiled. Select **File -> New**. Make sure that Orientation is Orthogonal, Tile layer format is CSV and Tile render origin is Right Down. Set the Width and Height based on your game. For example purposes, we're using 16x16 tiles with the map size of 40x30 (640x480).



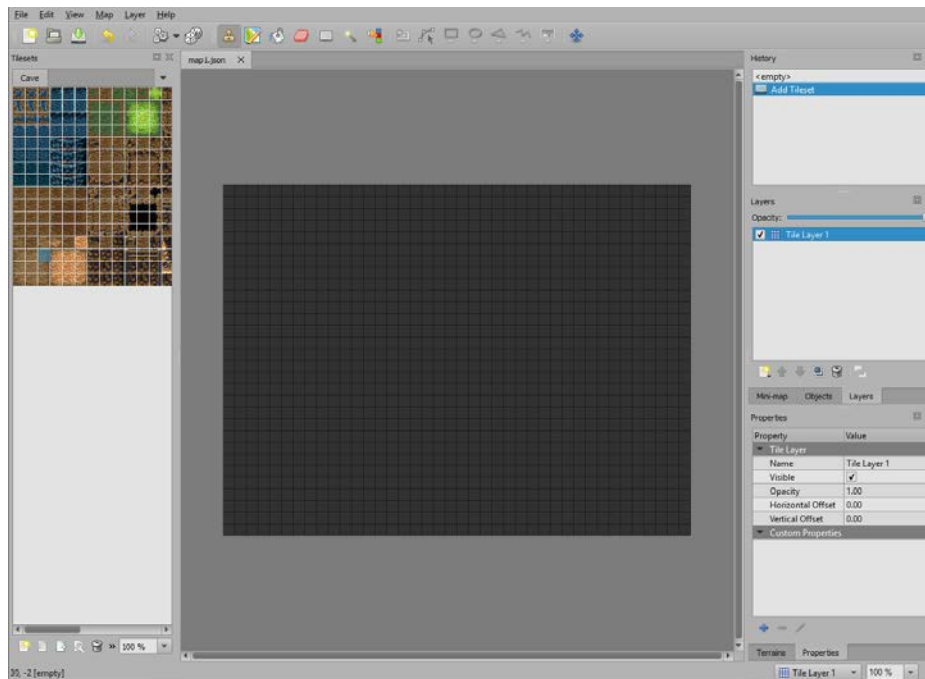
7. To import a tileset, press **Map -> New Tileset** or press the New Tileset icon in Tilesets tab.



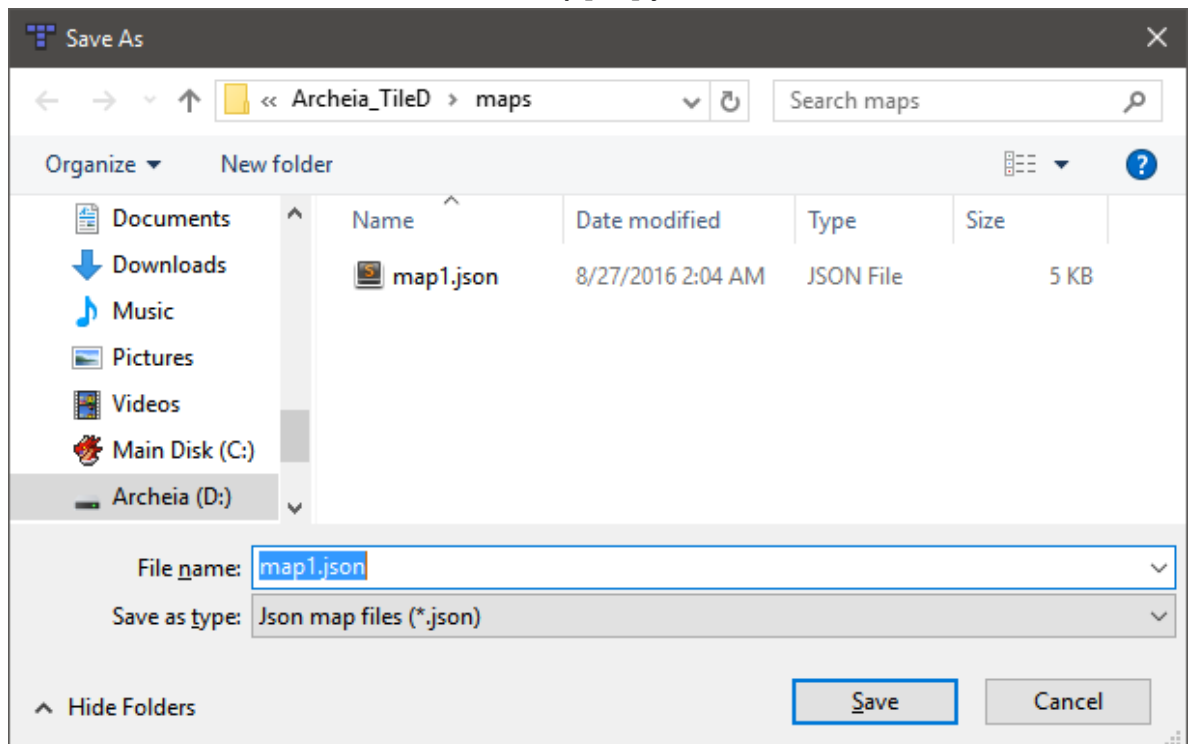
8. The New Tileset window should appear. We do not support spacing and margin, please avoid using it. Make sure to use the tilesets that are in your project's img/tileset folder. It would be easier for collaboration and editing your maps by doing so.



9. If successful the window should look like this:

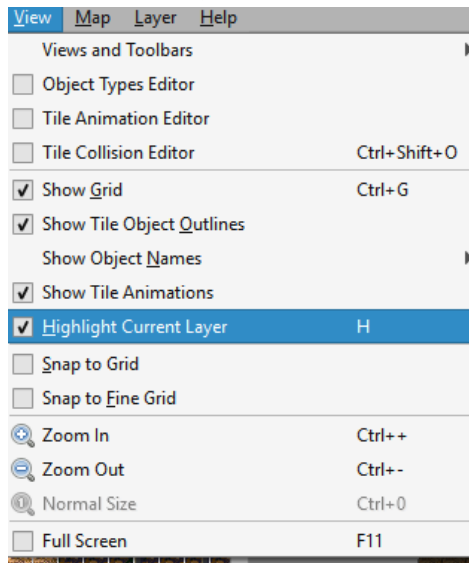


10. For now, let's save. It must be in .JSON format in the Maps folder. The name must be like Map[ID].json. Like so:

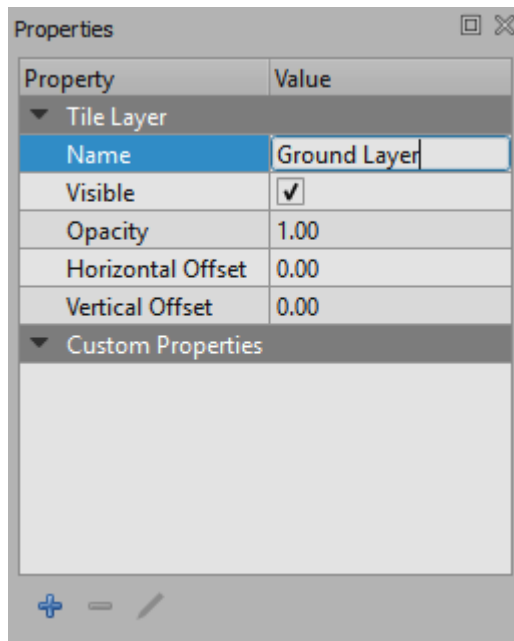


MAKING A MAP

- Before we start, I highly suggest going to **View -> Highlight Current Layer**. You can also activate Snap to Grid if you want.



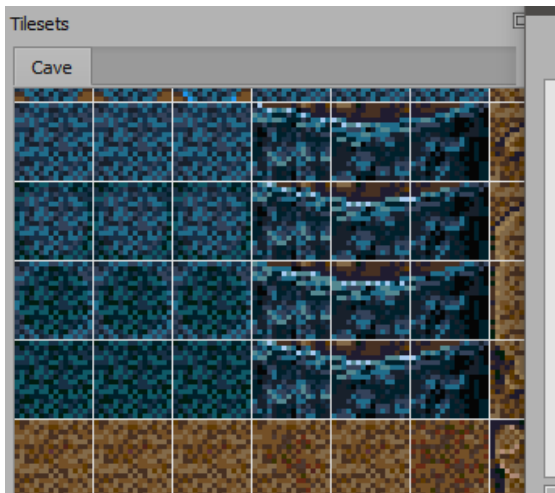
- By default, Tiled has a layer already made for you. Let's click that, go to Layer Properties. Then let's name the first layer as Ground Layer:




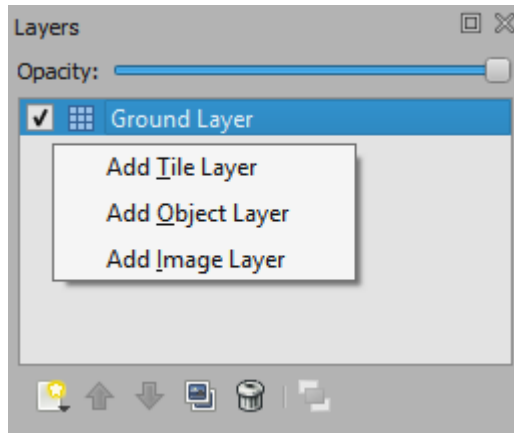
- Now let's select the ground tile!



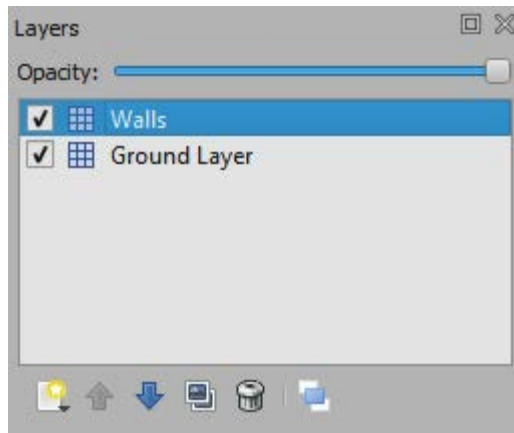
- But you might be thinking, the tiles are too small (If you are using 16x16). Hold CTRL then scroll with the mouse wheel!



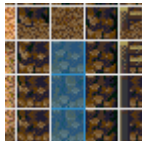
- Select the Bucket tool () and fill it in!
- Now let's create a new Tile Layer for the walls and/or ceiling. And then label it properly!



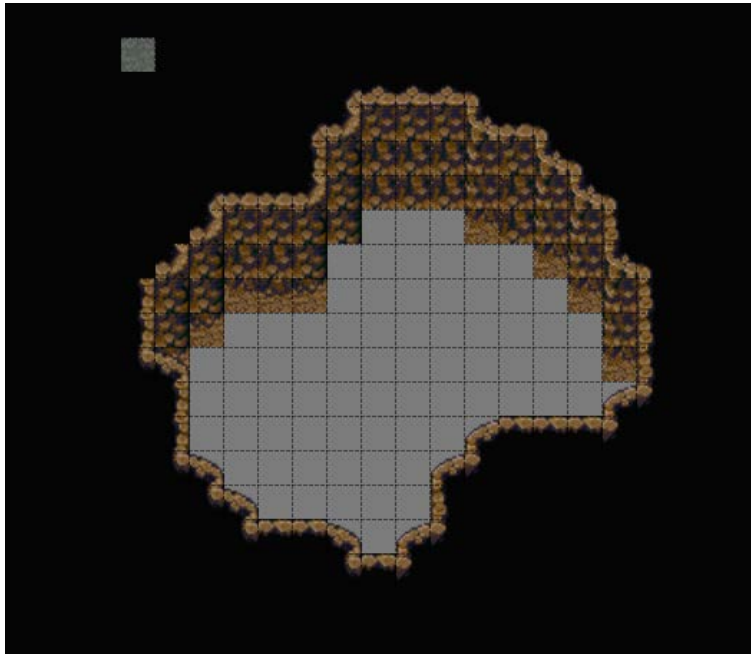
->




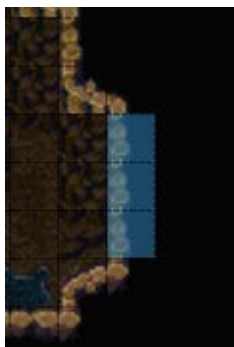
- To select multiple tiles, just click on one tile, hold then drag. It should appear like this:




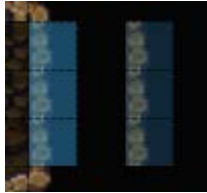
- Now start laying out your map! Here's a great start!



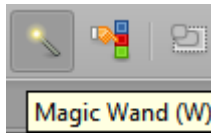
- You might be thinking, is there an easy way to 'eyedrop' the tiles I already laid out? Do I have to always select it from the Tileset window? Nope! Just Right-Click the tile you want to eyedrop.
- If you want to select multiple tiles and copy them. Pick the Rectangle View () and select the tiles you want to copy. Like so:



- And then, select Stamp Brush () and right click on the selected tiles. Now the tiles are copied! It should look like this:



- But wait, what if I changed my mind and want the black areas and wall tops separated? Do I have to remap all of that? Nope! Click the Magic Wand Tool:

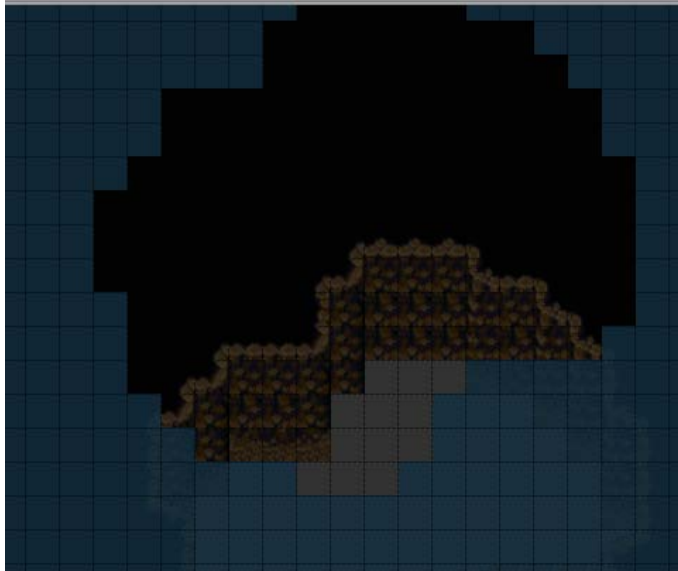


- Hold the SHIFT button and start clicking the tiles you want to move to a new layer.



- If you accidentally select a portion just hold CTRL and click that tile to be removed from the selection.
- After you're done, press **Edit -> Cut** or **CTRL+X**.

- Create a new layer, name it Ceiling. Then, **Edit -> Paste** or **CTRL+V**. It would look similar to this:



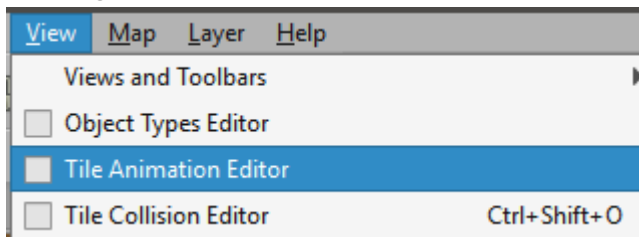
- Just set it to the right area and press!

HOW TO APPLY ANIMATED TILES

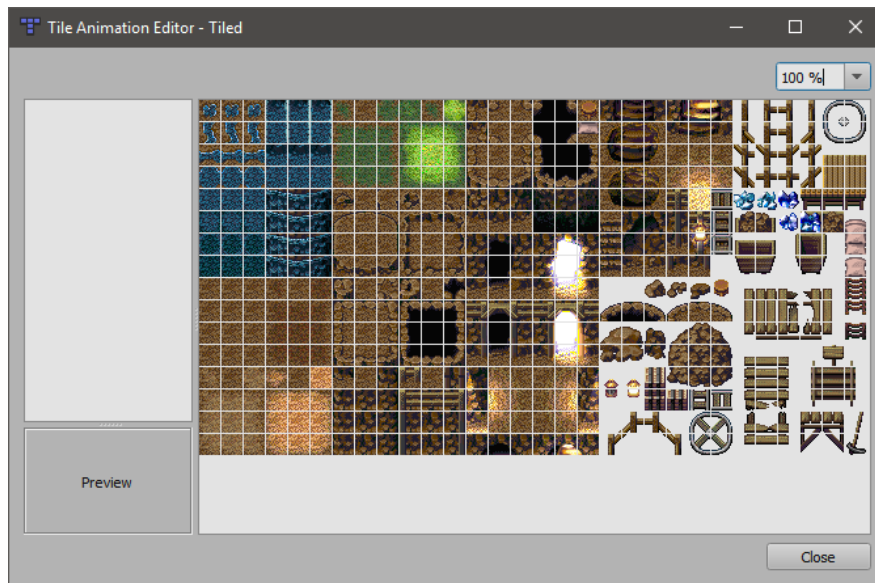
- Select a Tile you want to animate.



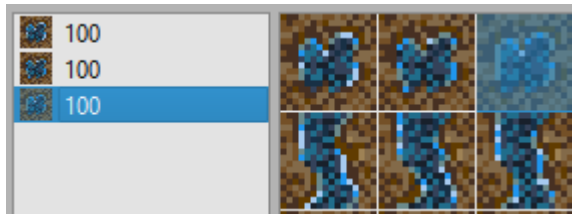
- First go to **View -> Tile Animation Editor**



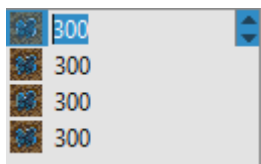
- A window like this should appear:



- Select the tiles you want to animate by double-clicking them. It should look like this:



- If you accidentally added a tile, select the tile on the left list and press Delete.
- You can set individual times for the tiles. Double click a tile like this and type the millisecond you want. 300ms is the default in RPG Maker:



- Once you are done, check the Tilesets tab and you should see a film reel icon like this:



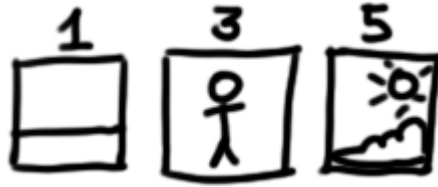
- That mean whenever you use that tile, it will always be animated! Do not use this for objects that will 'turn off' or 'change animation' in the game. Now let's start adding objects!

WHAT IS ZINDEX AND PRIORITY?

Before we start adding doodads, we need to know about zIndex and Priority.

- **zIndex** determines the layer order of the object you want to display.
 - **Above Player** – 5
 - **Same as Player** – 3
 - **Below Player** – 1
- **Priority** is used if they're all in the same zIndex. Priority 2 will appear above Priority 1 and so forth.

You can imagine zIndex and Priority like so:



Each of them has their own section. Even if zIndex 1 has 256 priority layers in it, they will not appear above zIndex 3 or 5. It will only affect the tiles in that specific zIndex.

Now that we know how zIndex and priority works, let's move onto the next section!

HOW TO APPLY SAME AS PLAYER/UPPER TILES

There are some things you need to consider before applying objects on the map. Here's a quick breakdown of examples that I think are important to consider:

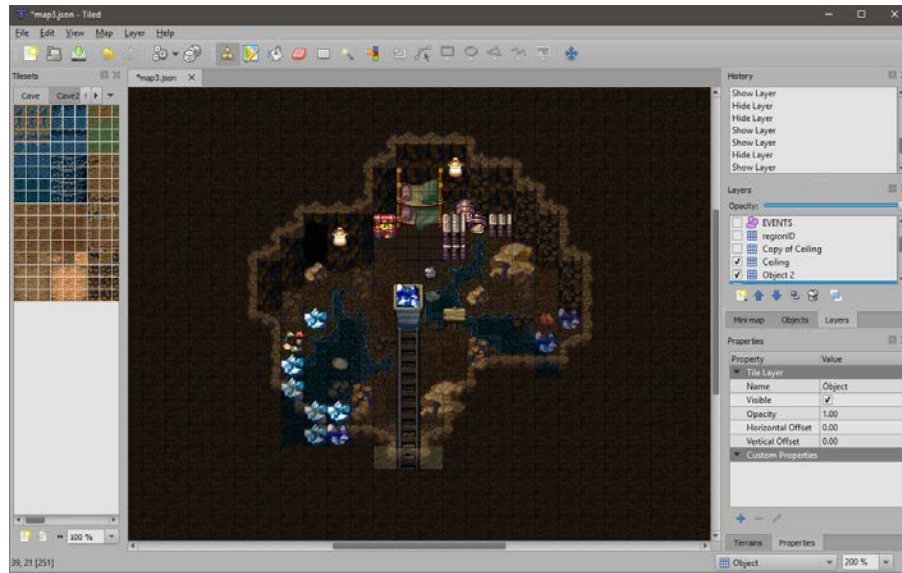
- **Trees or Stalagmites:** The Object must be a single tile. Or at least the tree tops that the player can walk behind and above. If your sprites are tall and it's not set properly, a limb will appear



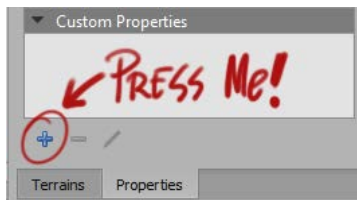
like it got cut off. Like so:

- **Rocks, Boxes, Barrels or Crates:** Or any object that is similar to it can be placed on the same layer without much issue.

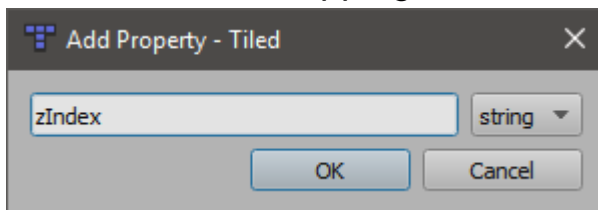
If you want to have a tiles the same as player, apply the tiles in the layer. Something similar to this:



- To make sure that the tiles will be the same layer as player, we must give it a Custom Property. Press the **Add (+)** button from the Custom Properties window.

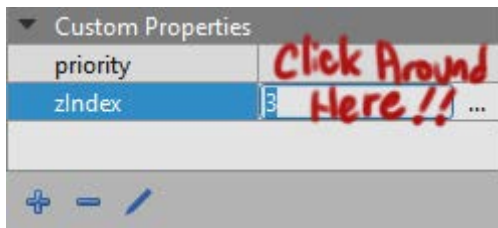


- A new window will appear called Add Property. Insert **zIndex** and **priority** on the name field. They are **case sensitive!** I recommend using string just in case but otherwise it won't hurt your project if you use int. There is no need to add a priority if there are no overlapping tiles on the same zIndex layer.



- After they are made, insert the values for the layer you'd like the tiles to be in. Since we're aiming for Same as Player, we'll put 3.

Click the empty space on the fields beside them.

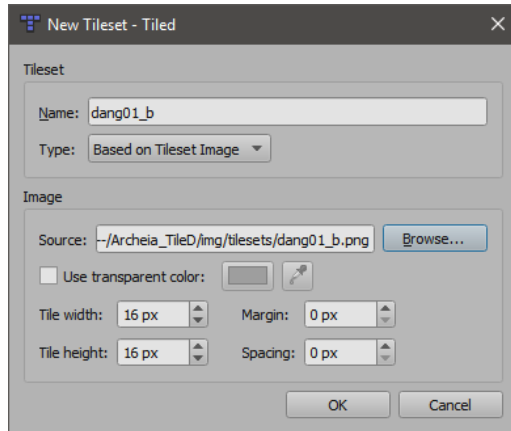


- If you have other layers with tiles Same as Player, this is where priority comes in. Put a number from 0-256 in its tab. The higher the number, the more it will take precedence to be visually displayed.
- If you want to have upper tiles, such as ceilings, change the zIndex to 5.

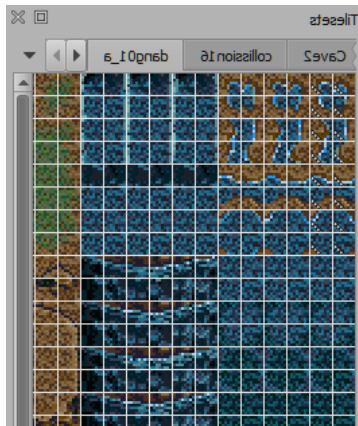
PRECISION MAPPING

Precision Mapping allows the users to put tiles or objects without having to conform to a grid. Animated tiles included. They are mostly used to for decoration. Do not use this if you intend those objects to be interacted by the player in some way and are off the grid. This will allow you to create complex paths and patterns that autotiles tend to do automatically for you. However, we cannot guarantee that the [TileD Terrain tool](#) will work (as far as we know, as long as you don't put Margin or Spacing, it should work).

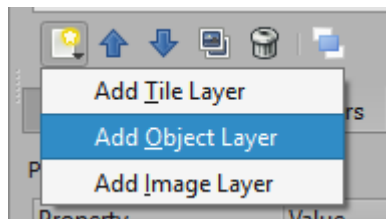
- Let's create a new tileset. Let's say the grid size is 32x32, we'll make it 16x16 this time. Like so:



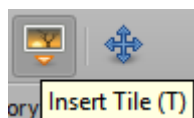
- You will notice that tiles will look like this:



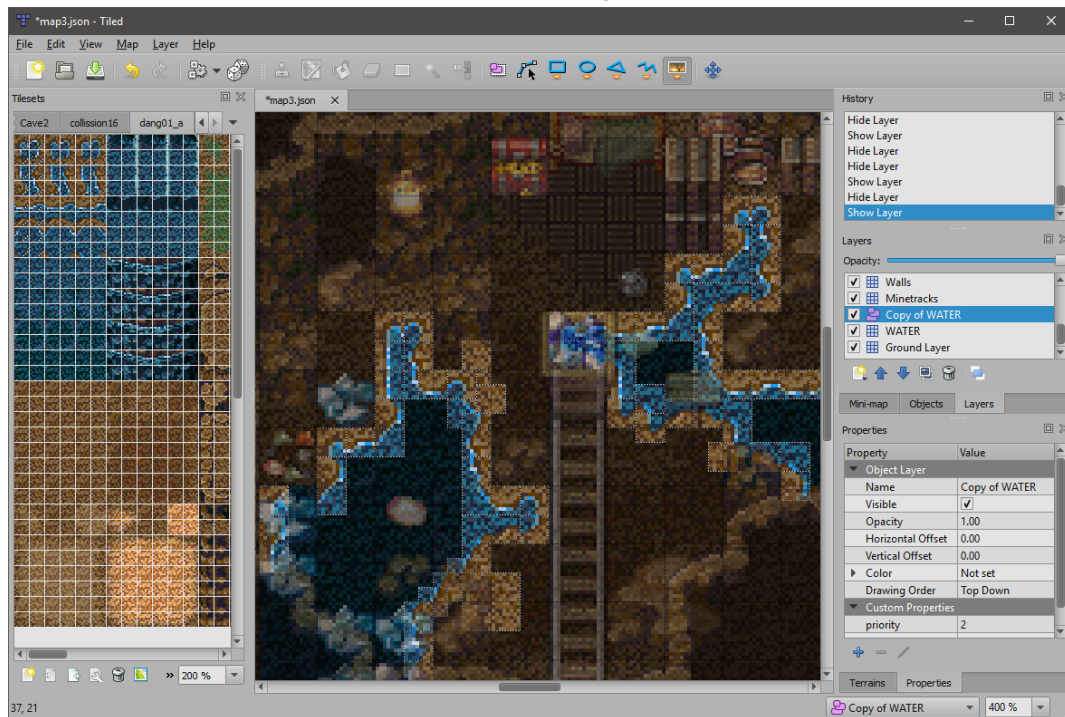
- Now that we have that tileset, let's create a new layer! But instead of using Tile Layer, we will now create an Object Layer.



- To insert a tile, click this icon:



- You can now insert tiles in a 16x16 grid instead of 32x32!



- Now that it's over, let's talk about applying collision.

HOW TO APPLY COLLISION

Collision determines if the player can walk on that tile or not. There are multiple types that can be added into the layer Custom Property:

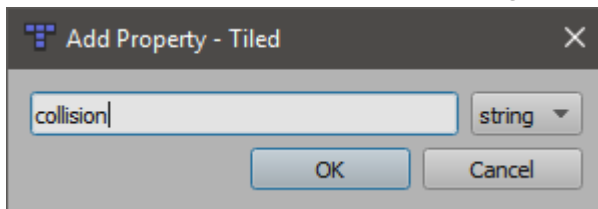
- **full** – It means the entire tile is impassable.
- **arrow** – It means that specific direction would be impassable.
 - **up-left** - Half-tile collision up-left quarter
 - **up-right** - Half-tile collision up-right quarter
 - **down-left** - Half-tile collision down-left quarter
 - **down-right** - Half-tile collision down-right quarter
- **arrowImpassable** - If the layer is an arrow collision mask layer, it will make one direction be impassable. Value can be **up**, **down**, **left**, **right**.

Now that we know the types, let's start adding!

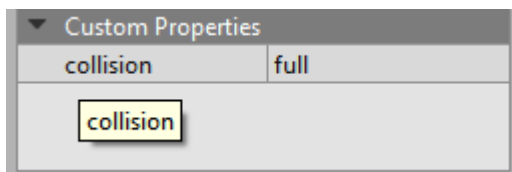
- First create a tileset that signifies the properties. Make sure that the tiles are the same tile size as your main grid. For this tutorial, 16x16. Here is an example (I used 48x48 so it's easy to read):



- Import the tileset.
- Create a new **Tile Layer**.
- Add a Custom Property named **collision**. This is case sensitive. Make sure that it is set to string. Otherwise you can't input text.



- Insert the value. For now we'll use full.



- Overlay the areas you don't want the player to be walking in with the red tile (or whichever color you prefer).



- If you want to use **arrow collision**, arrange the custom properties like this:

Custom Properties	
arrowImpassable	down
collision	arrow

- The same as full collision, just tile your map like this:



HOW TO ADD REGION IDS

If you want to use it, just do the steps in collision except this time, the layer's Custom Property must be arranged like this:



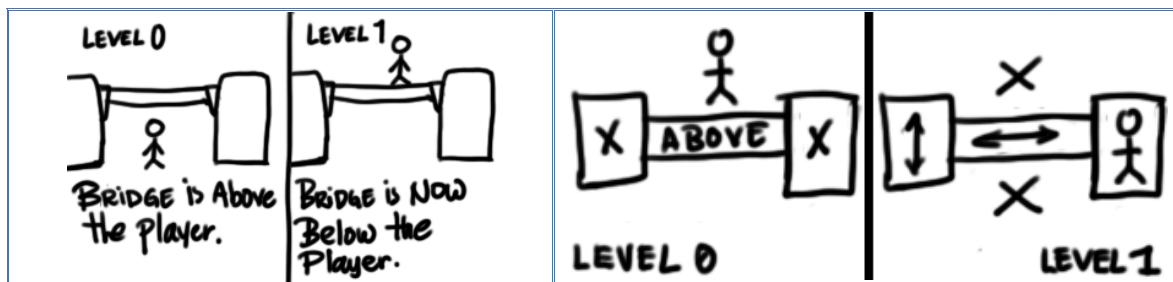
And that's about it! Now that's over, let's move to implementing 'bridges'.

HOW TO CREATE BRIDGES/CHANGE TILESETS

Something that is a challenge to implement with RPG Maker is the ability to create bridges. However the features we're talking about isn't just limited to bridges, it can also be used to show or hide certain areas. There are some important properties that we need to know:

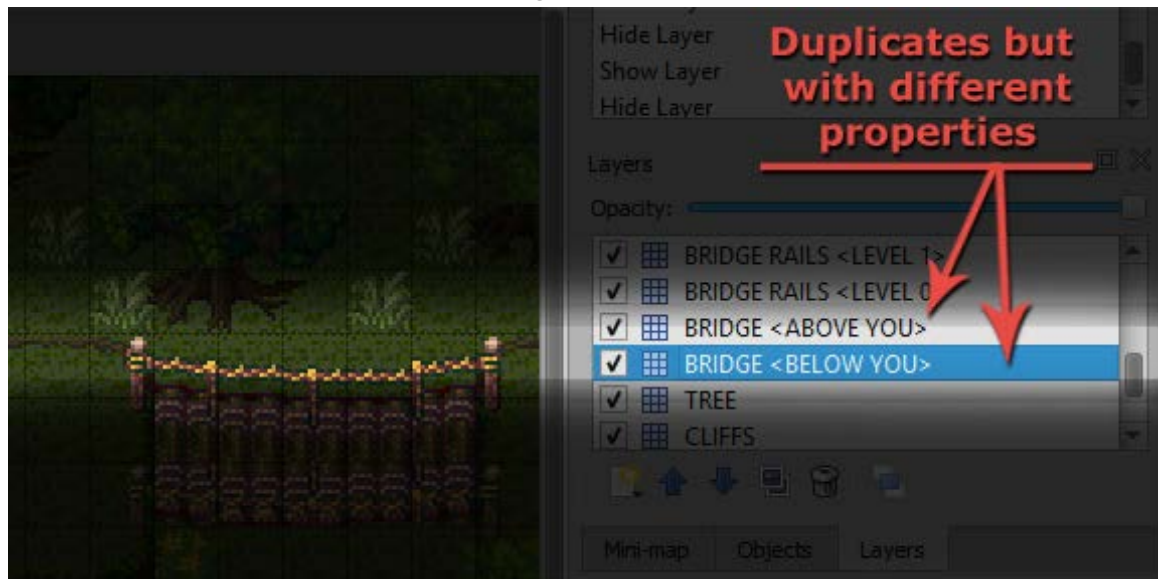
- **level** - Mark the layer on different level, use for multiple levels map. Default level is 0. Use this for collision and regionId.
- **hideOnLevel** - Hide the layer when on a certain level.
- **toLevel** - The tiles on this layer will transfer player to another level.

Let's try to explain this visually. This is the **position of the player** based on the level he is currently in. **Left is Side view, Right is Top view**:

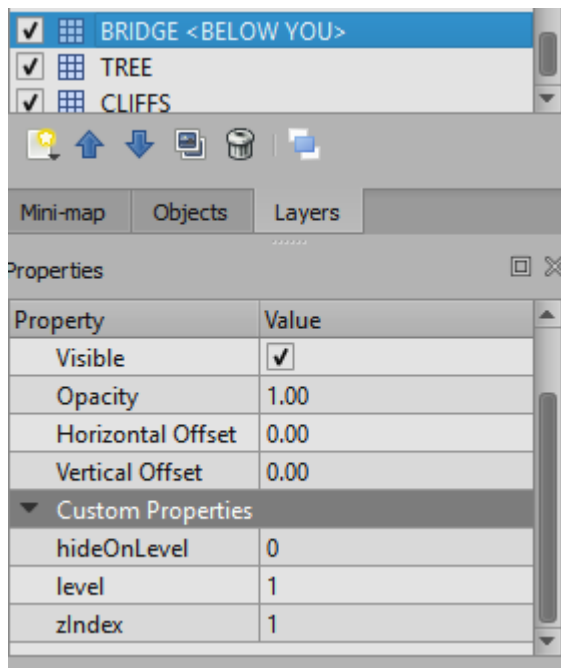


Levels allow you to change how the tiles will appear and the collision will work. It will require some careful layering but can be a very powerful function.

- First we need to create two bridge bases.

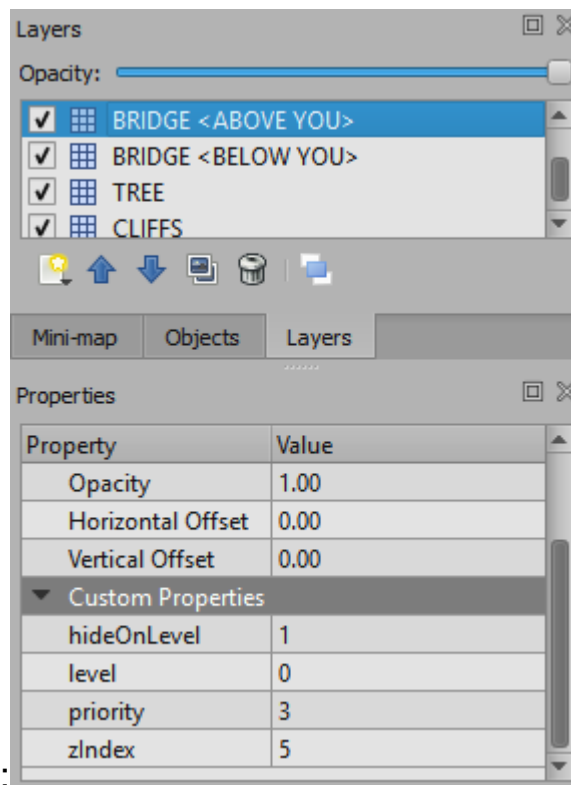


- For **BRIDGE <BELOW YOU>** the Custom Properties are as follows:



Since this version of the bridge is where the player is going to walk on. It's set on zIndex 1 (ground), level 1 (only appears on level 1) and gets hidden on level 0.

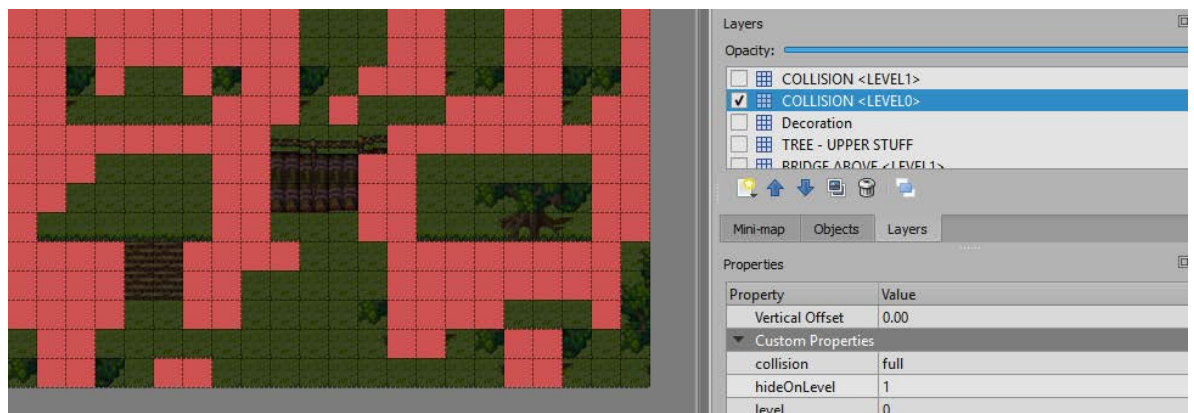
- For **BRIDGE <ABOVE YOU>** the Custom Properties are as



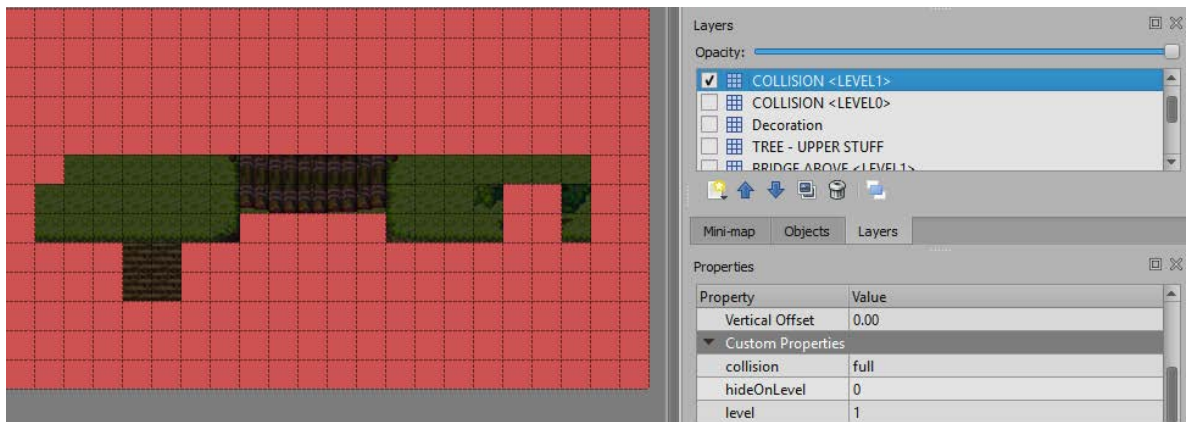
follows:

Since this version of the bridge is where the bridge is *above* the player. It's set on zIndex 5 (above), level 0 (only appears on level 0) and gets hidden on level 1. I added a priority just to avoid possible visual glitches.

- Now, if we want to **set different collisions based on the level**, you will do the same as above with minor changes. Here's **COLLISION <LEVEL0>**

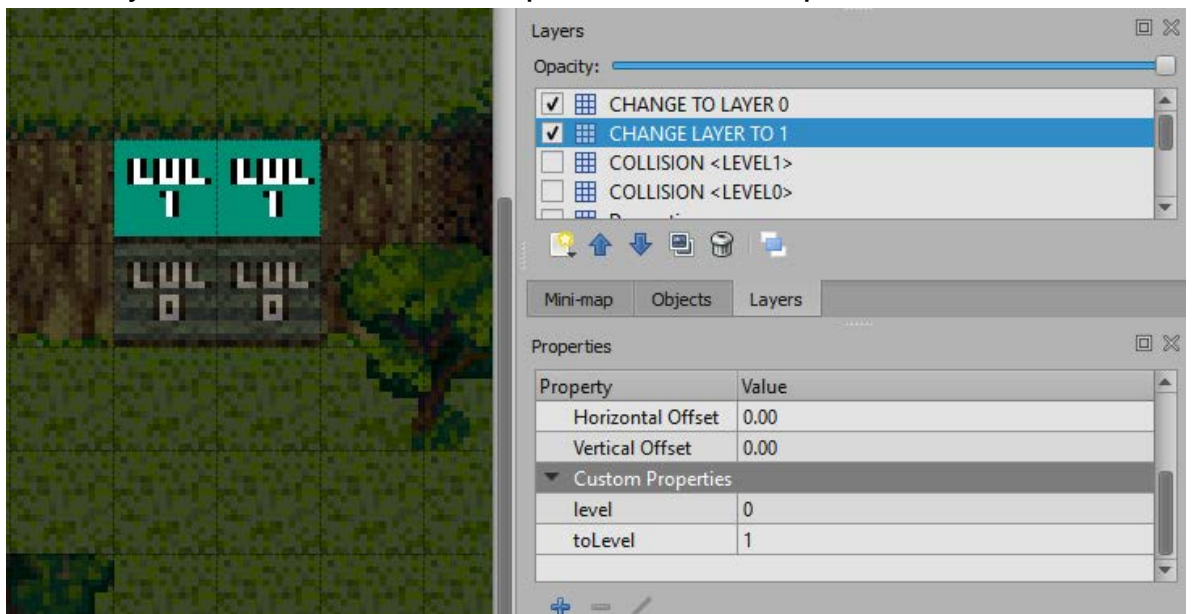


Here's **COLLISION <Level1>**



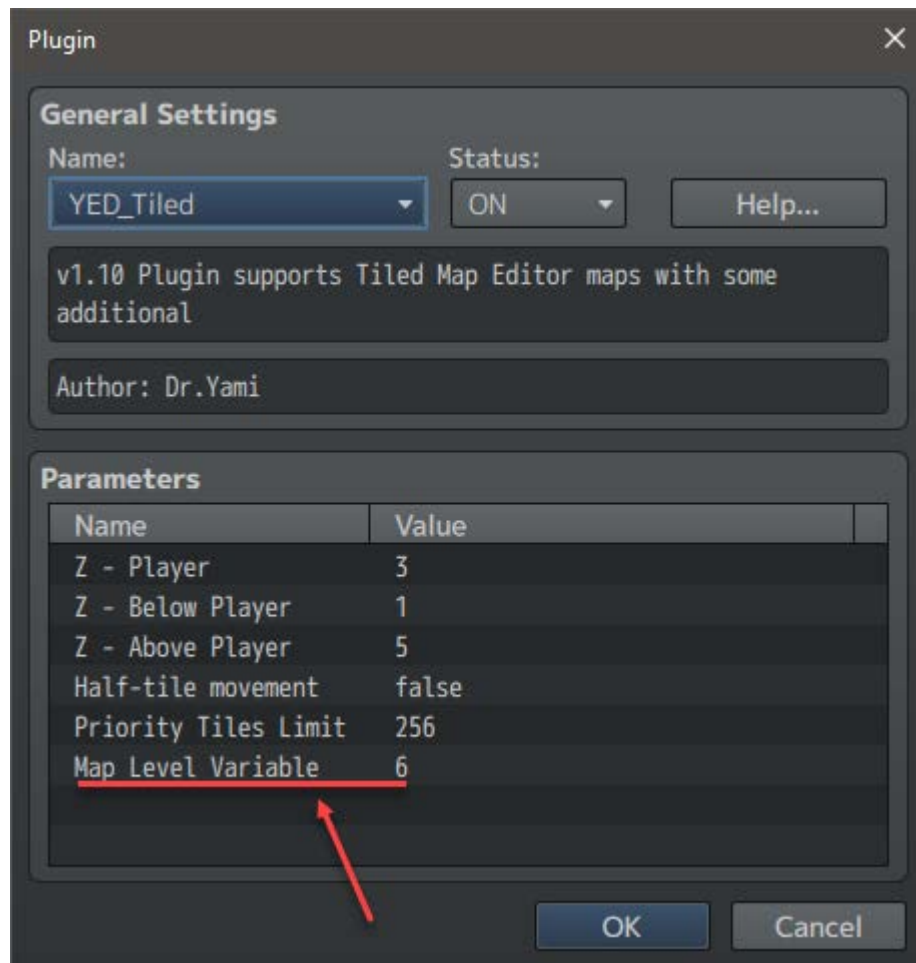
As you can see, this is how much you can manipulate the tilesets, objects, region IDs, etc. by just giving the layers levels and when they should be hidden.

- To activate from level 0 to level 1 and vice versa, you need to create a layer where they will be triggered. We need to create clear layers for these transition points. For example:



- It means that as long as the player touches these tiles, they will move to a new 'level.' Hopefully this is explained clear enough!

- You can also change/get the level in-game by bounding it to a variable. Open the Plugin Manager and look for **Map Level Variable**.



Make sure to reset the variable when transferring the player.

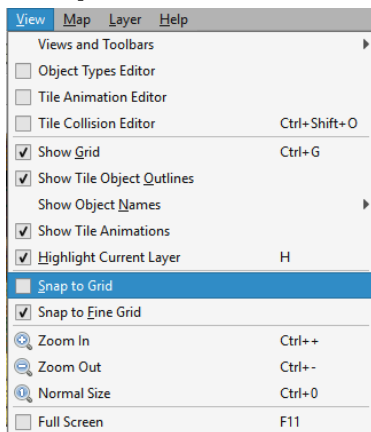
HOW TO SET EVENT OBJECTS

There is only one layer property that we need to bear in mind.

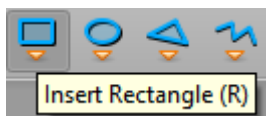
- **eventId** – The value set to this property refers to the event's ID in RPG Maker MV.

Now let's walkthrough the process:

- Go to **View -> Snap to Fine Grid**. If you want, you can select **Snap to Grid** instead.



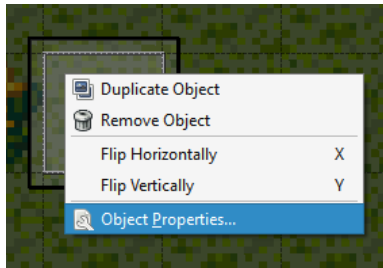
- Create a **New Object Layer**.
- Select the **Insert Rectangle** tool.



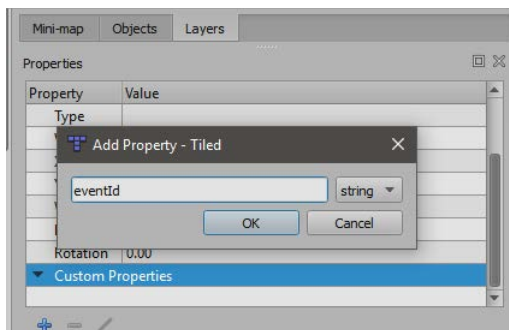
- Draw a Rectangle. It must be EXACTLY a tile. This is the reason we set Snap to Fine Grid/Snap to Grid. Like this:



- Right-click the rectangle you just created. And select **Object Properties**.



- Add a new Custom Property named eventId.




- Put the ID of the event you want to display there. For now let's go with eventId 1.

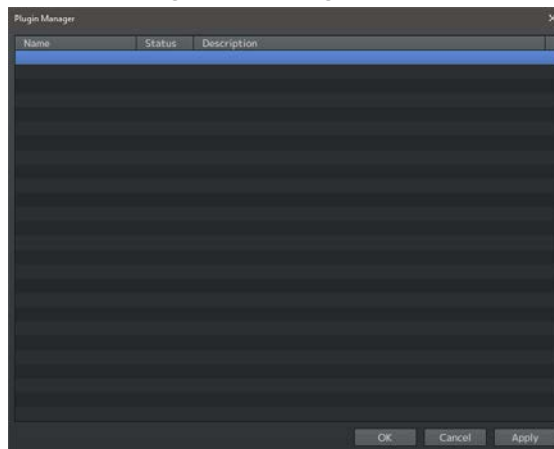


- Now let's try the changes we have in RPG Maker MV!

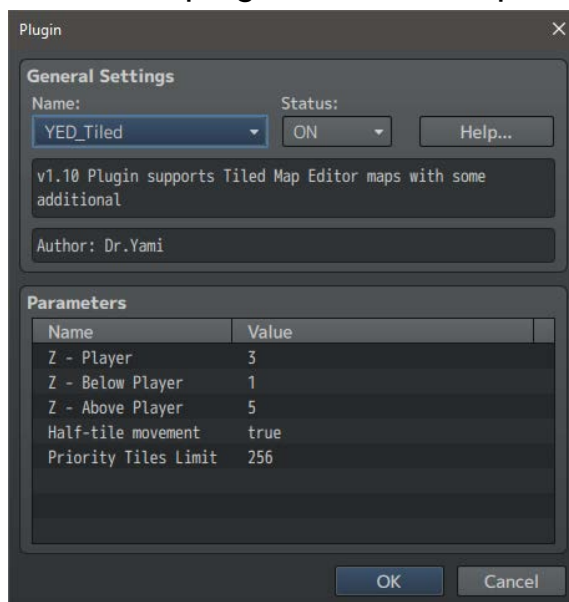
INSTALL TILED PLUGIN IN RPG MAKER MV

- Put YED_Tiled.js inside the Project Folder/js/plugin folder.

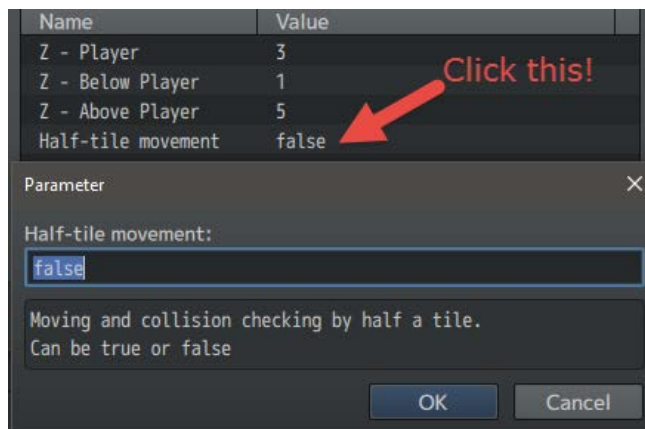
- Open Plugin Manager(). This window should appear:



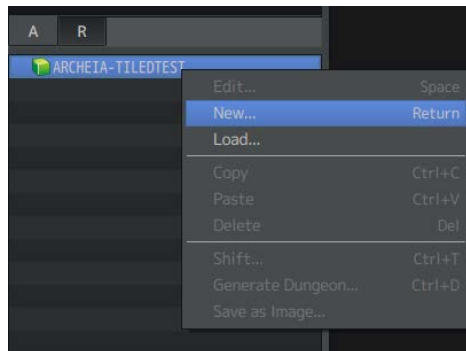
- Double click the empty space and a new window will open. Select the plugin from the dropdown box.



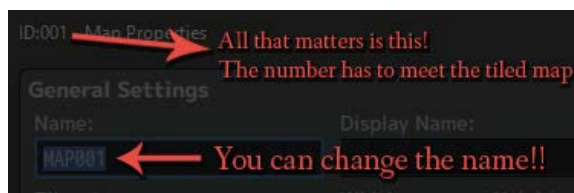
- For the sake of simplicity, we will disable Half-tile movement by changing the value true to false. Press OK after.



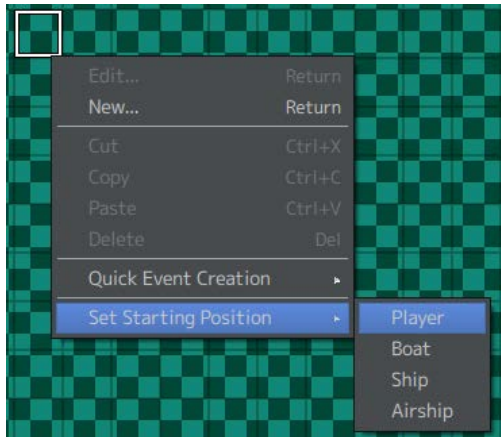
- Assuming we have no maps, let's create a map!



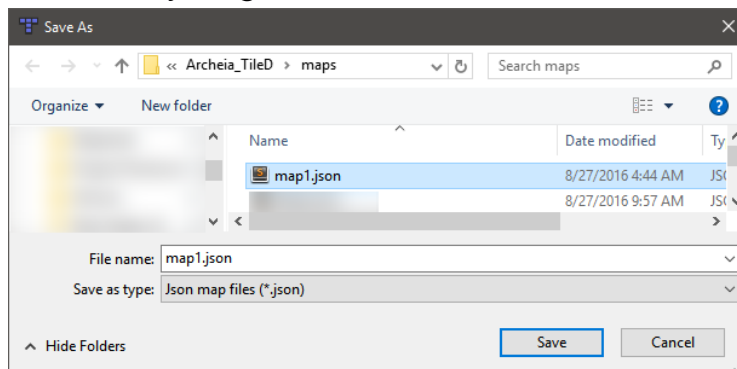
- You will notice the Map Properties window will appear. The name is MAP001.



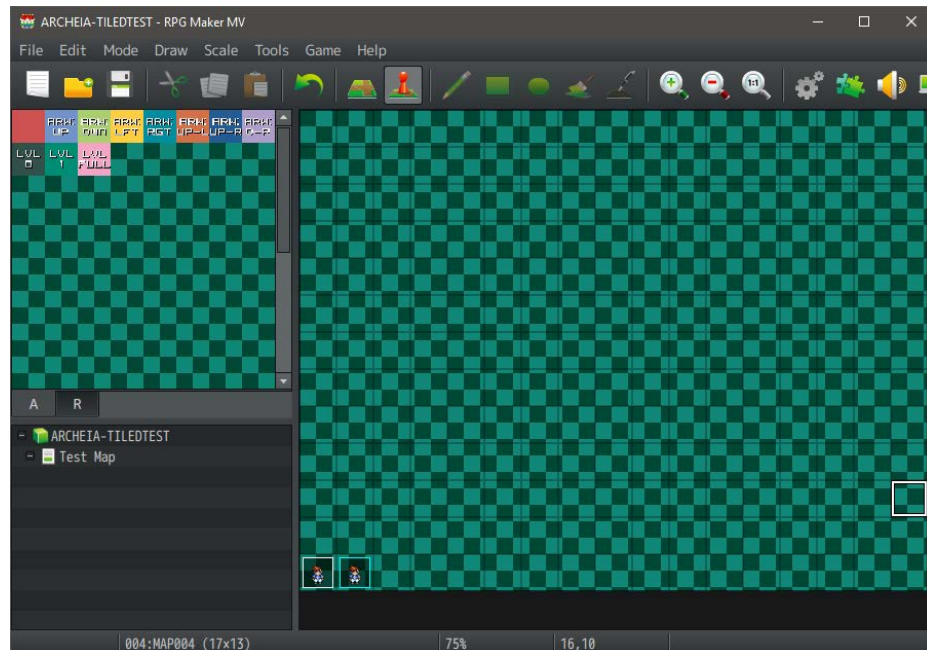
- Press OK. If you want to test the map immediately. Go to the map and press Right Click. Select Player and then Save.



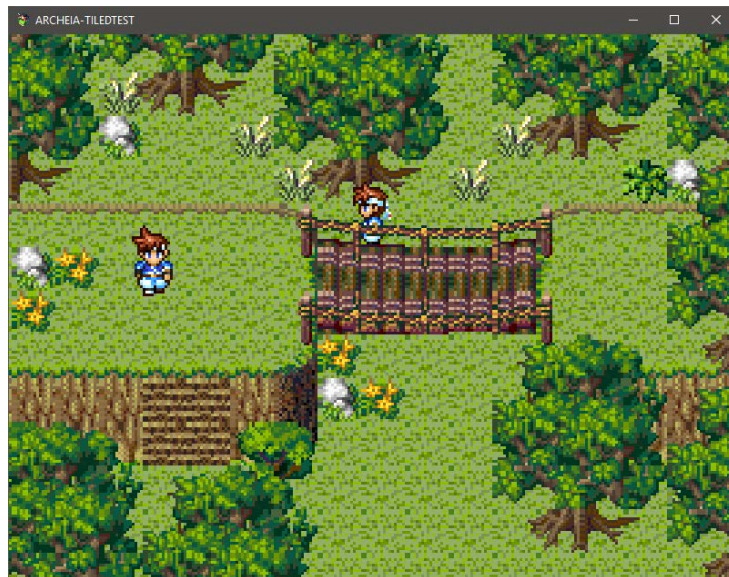
- Go back to your Tiled map and save it as Map1.json. Do not add 001 or anything like that. Refer back to the Getting Started section if you get stuck.



- Since we set an Event in the tiled map earlier. Just create a new event. The positioning and map size doesn't matter.



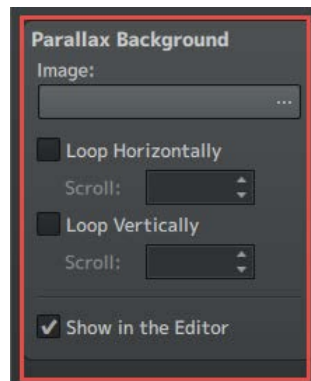
- Press Test Play(). And see it in action!



Awesome it works! However there are few more things that we still need to cover.

SETTING PARALLAXES

- To set a parallax, use the default functions of the RPG Maker MV editor. This can be seen in Map Properties window.

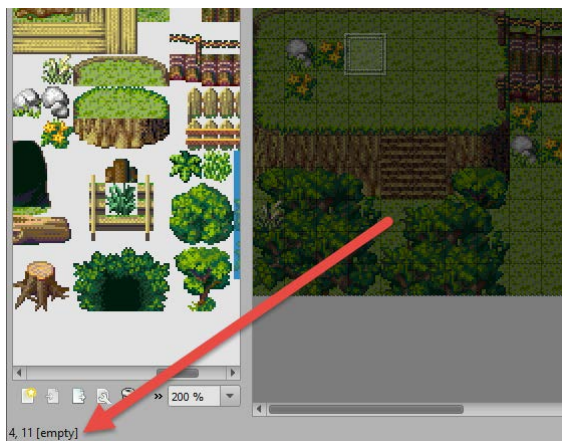


FREQUENTLY ASKED QUESTIONS

- **How do I set the correct coordinates for my player character?**

It is very likely that your character will be placed wrong on the map. Other than making the width x height of the MV map the same as the tiled map, there is another way.

- When you go to Tiled and hover over a tile, the coordinates can be seen on the lower left corner.



- Here is an example of a test teleport event that is set on Autorun. Set all the event Transfer Player to use variables instead of direct coordinates.

```
◆Control Variables : #0001 PLAYER MAP ID = 1
◆Control Variables : #0002 PLAYER X = 4
◆Control Variables : #0003 PLAYER Y = 11
◆Transfer Player : {PLAYER MAP ID} ( {PLAYER X} , {PLAYER Y} )
◆Erase Event
```

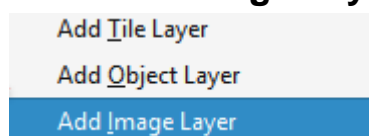
- Now the player is on the right position!



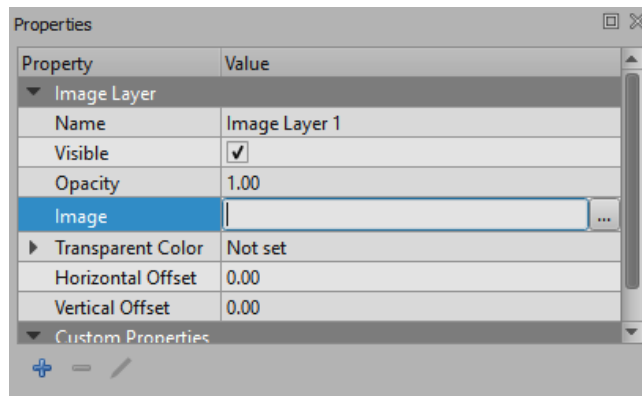
- **My coordinates are wrong when I use Half-Tile Movement!**
 - Remember that if you go with Half-Tile/Quarter Movement, the map size is multiplied by 2. So if you have a 30x30 map, it will become 60x60. So the coordinates will change as well.
- **My Regions aren't working!**
 - If you have levels on your map, your regions will be affected as well. So you need to make duplicates based on the level.
- **Can I trace/reference an old map in Tiled?**

Absolutely! Here's how you can do it.

 - Create an **Image Layer**:



- Go to Properties and look for **Image Property** and click the [...] button:



- And that's it!
- **My sprites don't fit the new grid size!**
This is not the concern of the Tiled plugin. You need to change your graphics.
- **My sprites have some weird pixel offset!**
As said in the RPG Maker helpfile, add a ! on the beginning of the sprite's filename to remove the 3 pixel offset.
- **Is this compatible with 1.2.0?**
Probably not.
- **Can you do x feature?**
Probably not. You can try asking. But Yami and I stopped using RPG Maker MV unless it's absolutely necessary (like Patron supporter request) so we might not do it.