

# How do I...

## **How do I have a locked door that opens once the player finds the key?**

You can place an exit on the same tile as the key. The exit takes the player to an identical room where the door is unlocked.

You can also use the exit from dialogue hack, and have conditional dialogue on the door which will exit the player to the next room if they have met certain conditions (found the key, have enough coins to pay for entry, have spoken to the right NPC etc).

*(See the 'Tools and resources' section for more information about hacks).*

## How do I have more than three colours in the palette?

This is done by editing the game data. You add the extra colours to the palette by putting each RGB value on a new line, like so:

```
PAL 0  
NAME beach  
250,218,148  
248,249,211  
228,117,127
```

to

```
PAL 0  
NAME beach  
250,218,148  
248,249,211  
228,117,127  
193,148,108  
133,209,203  
159,116,178  
199,140,155  
82,159,169  
248,249,211
```

Then you can assign a different colour to each of your tiles, sprites or items by adding 'COL [N]' to it in the game data. The colours are assigned using 0 based indexing, so the first colour in the palette is COL 0, the second is COL 1 etc. The first colour you add will be COL 3, the second COL 4.

```
TIL a  
11001110  
11001110  
11001110  
11111111  
11001110  
11001110  
11001110  
11001110  
NAME seat 1  
COL 3
```

## **How do I have more than two colours per tile?**

By using the transparent sprites hack, you can layer sprites and items over tiles and have the art for the tile and the art for the sprite/item show.

*(See the 'Tools and resources' section for more information about hacks).*

## How do I add extra frames of animation?

This is done by editing the game data. Two frame animations created in the Bitsy editor will look like this in the game data:

```
SPR A
00000000
00000000
00011000
00010100
00011100
00111100
00010000
00000000
>
00000000
00000000
00011000
00010100
00011100
00111100
00000100
00000000
POS 0 1,6
```

Extra frames can be added like so:

```
SPR A
00000000
00000000
00011000
00010100
00011100
00111100
00111100
00010000
00000000
>
00000000
00000000
00011000
00010100
00011100
00111100
00000100
00000000
>
00000000
00000000
00011000
00010100
00011100
00111100
00010100
00000000
POS 0 1,6
```

Each number in the 8x8 grid represents a square in the Bitsy drawing window, where 0 is a square of the background colour and 1 is the tile/sprite colour.

## How do I change the background colour of the text box?

This is done by editing the Bitsy code. Replace the 0 at the end of each line with the R,G and B value for your desired colour.

```
// fill text box with black
for (var i=0;i<textboxInfo.img.data.length;i+=4)
{
    textboxInfo.img.data[i+0]=0;
    textboxInfo.img.data[i+1]=0;
    textboxInfo.img.data[i+2]=0;
    textboxInfo.img.data[i+3]=255;
}
```

to

```
// fill text box with black
for (var i=0;i<textboxInfo.img.data.length;i+=4)
{
    textboxInfo.img.data[i+0]=83;
    textboxInfo.img.data[i+1]=73;
    textboxInfo.img.data[i+2]=76;
    textboxInfo.img.data[i+3]=255;
}
```

## How do I change my game's title in the game data (without using the Bitsy editor)?

The game's title (the text that appears in the opening text box) is declared on the first line under the opening script tag in your game's HTML file.

```
<!-- HEADER -->
<head>

<title></title>

<script type="bitsyGameData" id="exportedGameData">
TITLE

# BITSY VERSION 4.8

! ROOM_FORMAT 1
```

If you don't have a title, this line will be blank.

This may be useful if you've downloaded your game, added hacks or made other changes, and don't want to reupload your game to the editor to change the title.

## How do I read out items and variables (and drawings) as part of the dialogue?

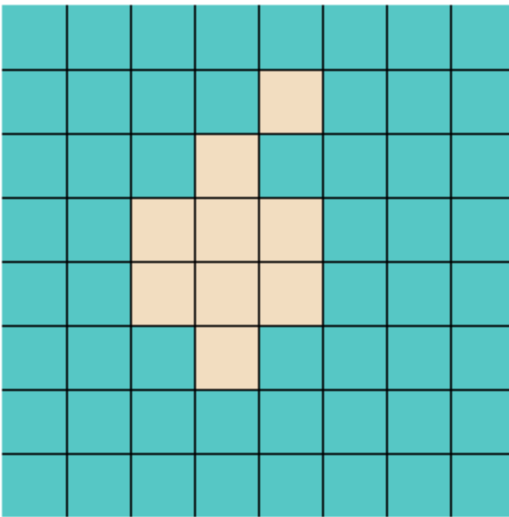
You can print the number of items the player has collected in dialogue like this:



Where apples is the name given to the item in the drawing panel:



avatar tile sprite item



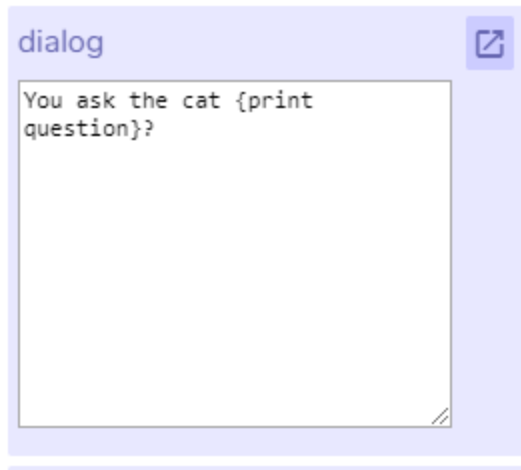
< > 🔍 + 📄 - 🔍 grid

name apples inventory

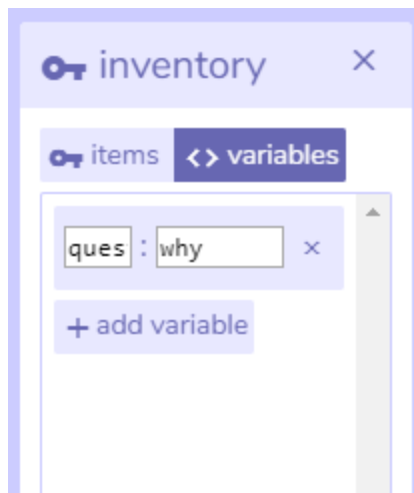
dialog

It's an apple.

You can print a variable in dialogue like this:



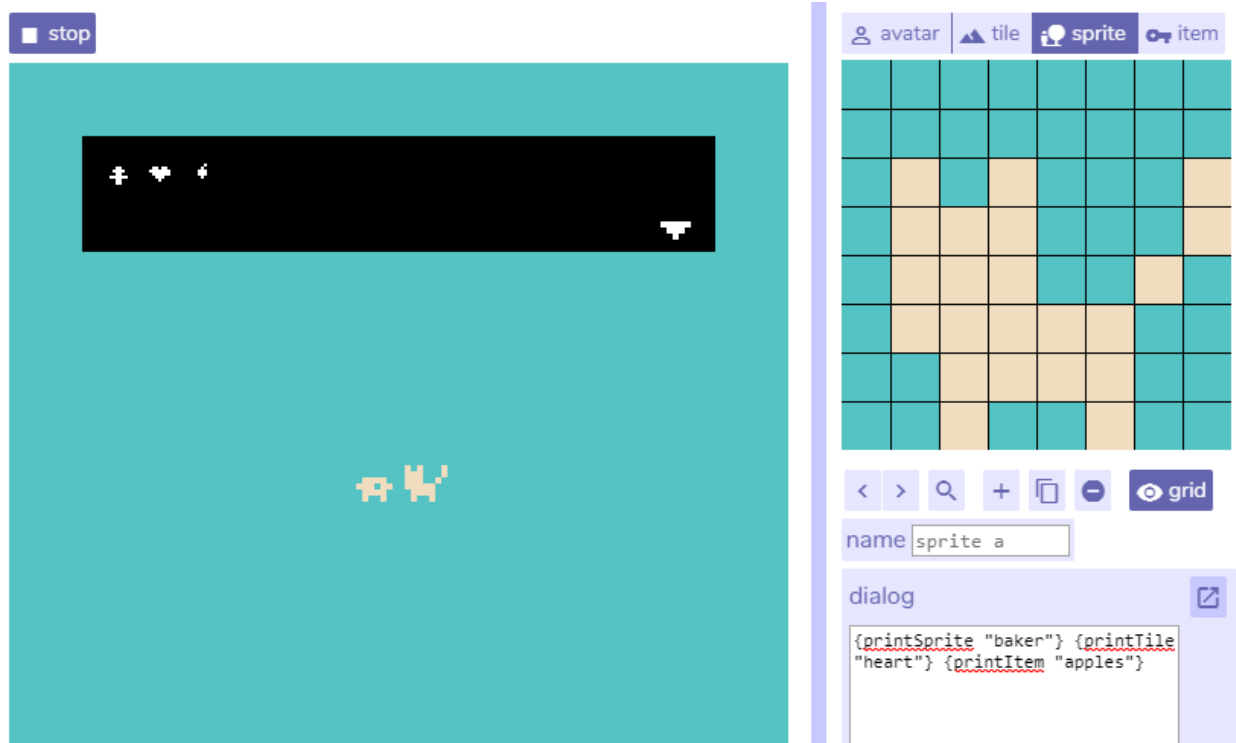
Variables are declared in the inventory tab:



Andrew Yolland has written a tutorial on Bitsy variables:

<https://ayolland.itch.io/trevor/devlog/29520/bitsy-variables-a-tutorial>

You can also print tiles, sprites and items as part of dialogue. This can be useful for custom characters or symbols.





## What do I do if my game looks blurry?

The blurriness is caused by the default upscaling your browser applies to canvas elements. The best ways to fix this are to:

- A) make sure to set itch.io embed sizes to 512x512,
- B) include some 'image-rendering' CSS.

Add this to the CSS for #game and you should be covered for most browsers:

```
/* https://caniuse.com/#search=image-render */  
-ms-interpolation-mode: nearest-neighbor; /* IE */  
image-rendering: -moz-crisp-edges; /* FF 6.0+ */  
image-rendering: pixelated; /* Chrome, Safari */
```

## **What do I do if the title of my game keeps disappearing?**

Write your game's title in a text editor, copy it and paste it back into the title field.

Alternately, you can edit the title in the game data. (*See 'How do I change my game's title in the game data (without using the Bitsy editor)?'*).

# Tools and resources

**Bitsy hacks:** <https://github.com/seleb/bitsy-hacks>

Hacks are reusable scripts you can add to your game file to extend the functionality of Bitsy.

**Borksy:** <https://ayolland.itch.io/borksy>

Borksy is a hacking tool! Use it to customize your games and add hacks without needing a web server or any manual cut-and-paste work.

**Image to Bitsy:** <https://ruin.itch.io/image-to-bitsy>

Image to Bitsy is a tool to convert any image into a room for your game.

This document was compiled with help from the Bitsy community on Discord.

Please contact @andimlenny on Twitter with any questions or suggestions.