



# DotShotX

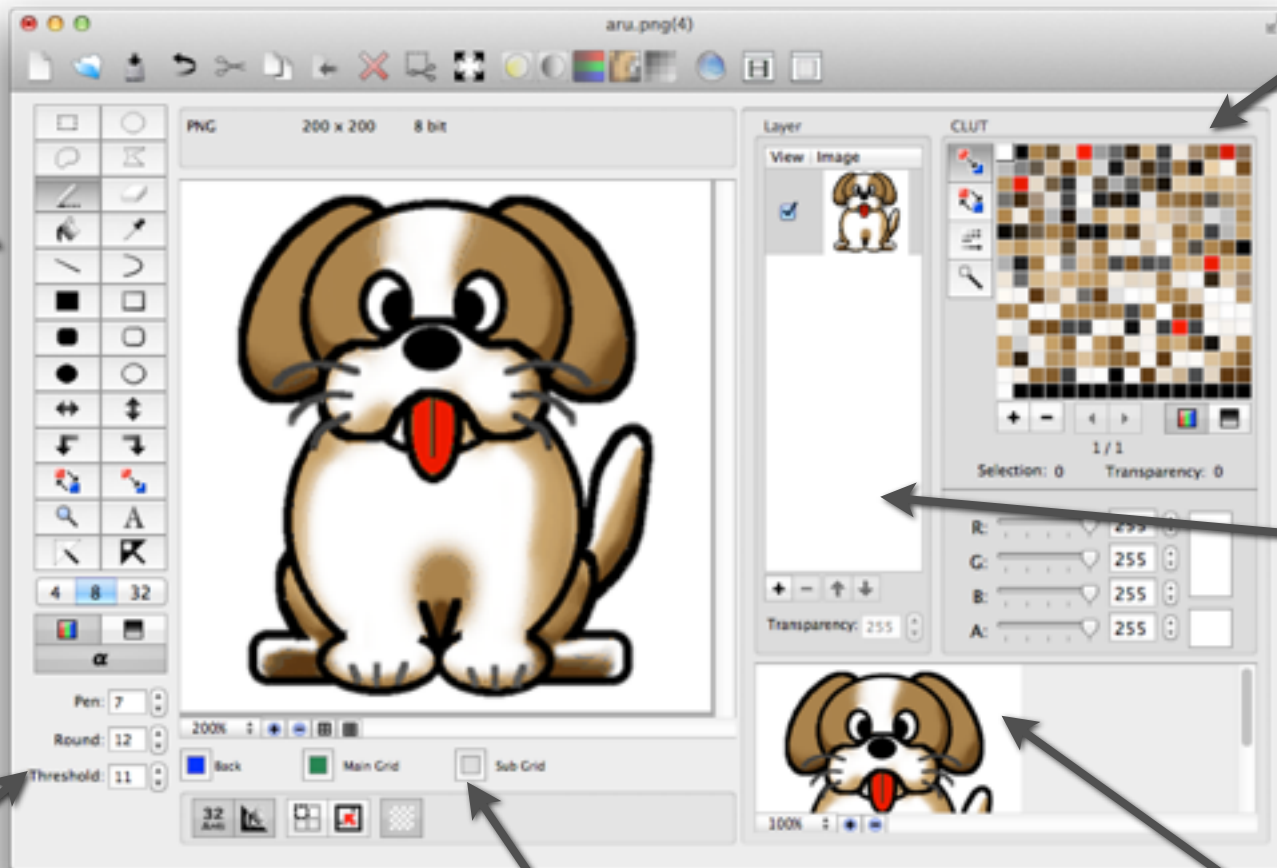
Smart Dot Editor

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# Application outline

## Edit tools

Tools to edit the image.



## Color palette

Color palette is displayed here. When the image is 4 bit or 8 bit, the corresponding palette will be displayed. The common system palette will be displayed for a full colored image.

## Layer

Multiple layers can be used to the image. You can only edit the active layer you selected.

## Edit window

The active image that can be currently edited is displayed by application. Edit window will be additionally opened as you activate a new image.

## Options

You can change several settings.

## Preview

The image preview is displayed here.

# Edit

## Active image

The active image to edit is displayed.

## Image information

The information such as image format and size is displayed.

## Display size

Adjust the image display size.

## Grid display

Switch between grid display and hide.

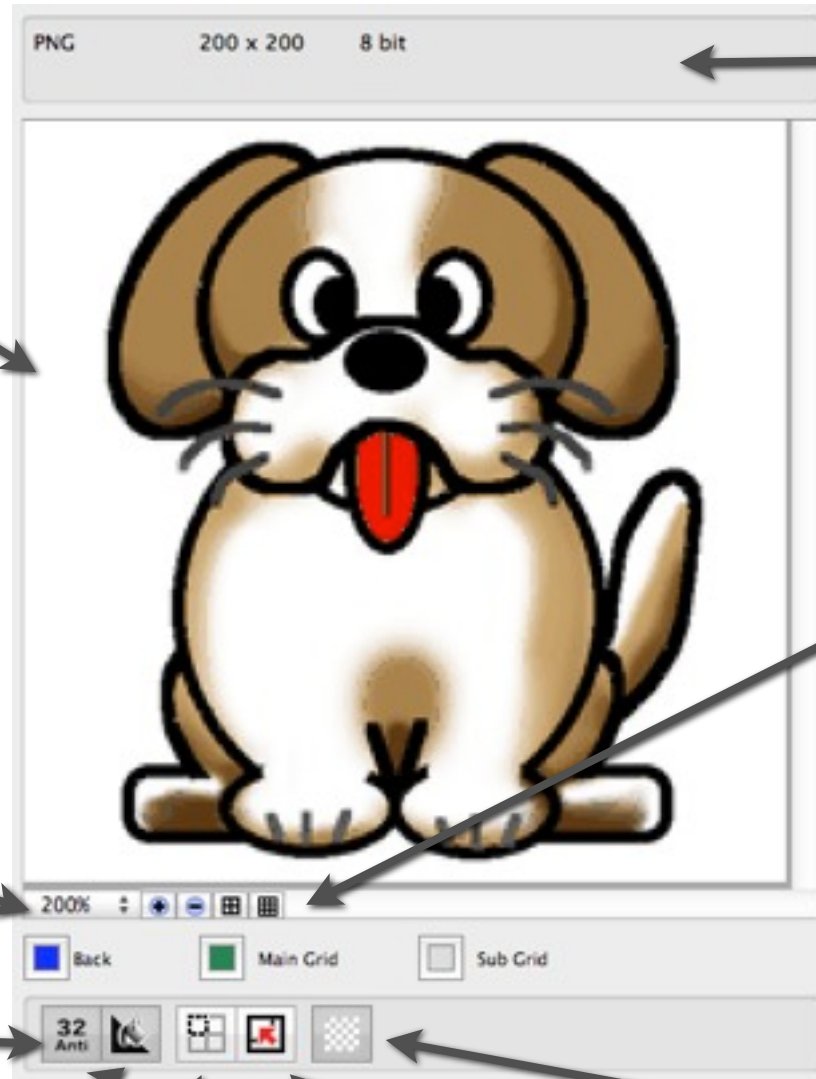
Apply anti-aliasing to the image when it is 32 bit image.

Display background pattern instead of clear background.

Region filling and alpha value adjusting will be applied to the closed region.

Fit the selected area to the grid.

Limit the shifting of the region selecting within the image.



# Edit tools

## Rectangle selection

Select rectangular regions of the active layer.

## Oval selection

Select oval regions of the active layer.

## Polygon selection

Select polygonal regions of the active layer. Click to start selecting and double-click to end.

## Free selection

Select free regions of the active layer.

## Pen

Draw lines freely with the color you selected.

## Region filling

Click the region to fill with the color you selected.

## Line

Draw straight lines with the color you selected.

## Graphics

Draw rectangles and ovals. You can adjust the roundness of rectangles' corner at options.

## Reverse

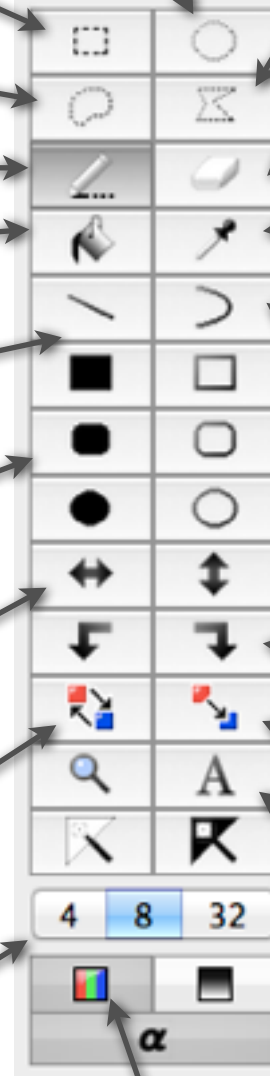
Make the selected region mirror-reversed or upside down. The reversed region will be "float region".

## Pixel exchange

Exchange the pixels between first click and second click.

## Change the pixel bit level

Display the image information such as image format or size.



## Eraser

Draw with the color of palette number zero for the 4 bit or 8 bit image. For the 32 bit image, draw with transparent color by setting alpha value to zero.

## Dropper

Take the color of the point you clicked and import it to the palette. When it is an indexed image, the corresponding color number will be selected.

## Bezier curve

Draw Bezier curves with the color you selected. Click to start and click again to end. Then click once more to settle the curve.

## Rotation

Make the selected region turn to right to left. The rotated region will be "float region".

## Pixel copy

Copy the color you selected to the entire pixel you clicked.

## Text

Write texts.

## Edit channel

Change the edit channel.

## Alpha

Set alpha value to zero in the pixel you clicked.

# Color palette

## Color exchange

Exchange colors by dragging and dropping. When it is an indexed image, with pushing the option key, the pixels which correspond to the color will be exchanged at the same time.

## Copy the color

Copy the color by dragging and dropping.

## Color palette

Display 256 colors at a maximum.

## Generate color gradient

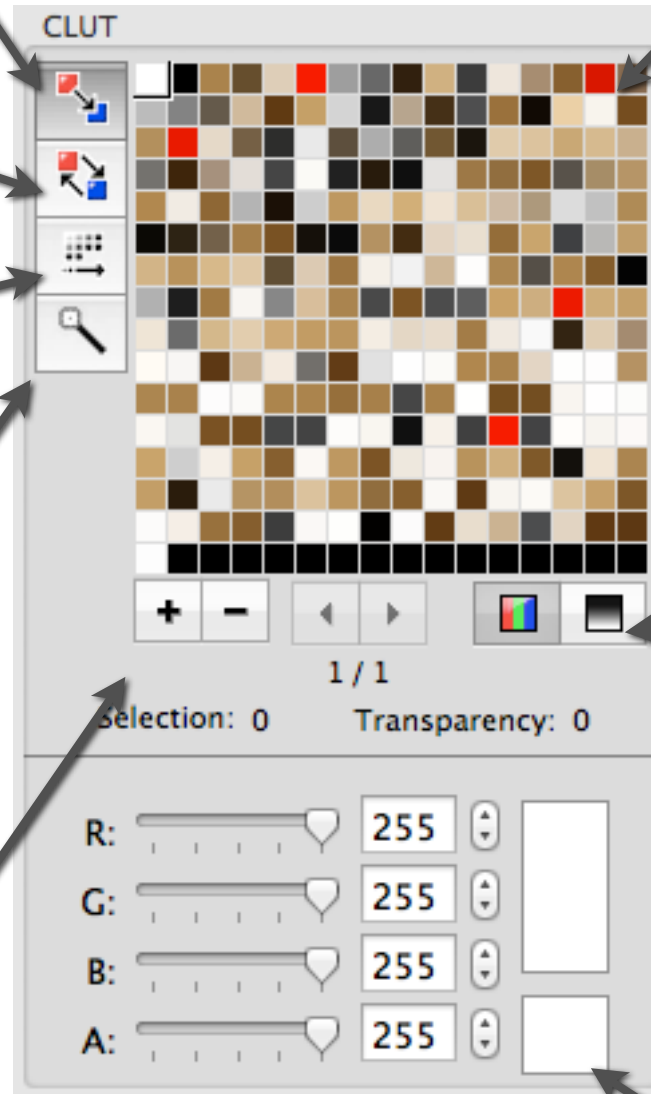
Generate color gradient by dragging and dropping.

## Transparent color

When it is an indexed image, you can make the color you clicked "transparent color". The transparent color here will be the designated transparent color when it is saved in the GIF format.

## Palette adding/deleting

You can add or delete a palette when it is an indexed image.



## Change channels

Change the display channels.

## Change colors

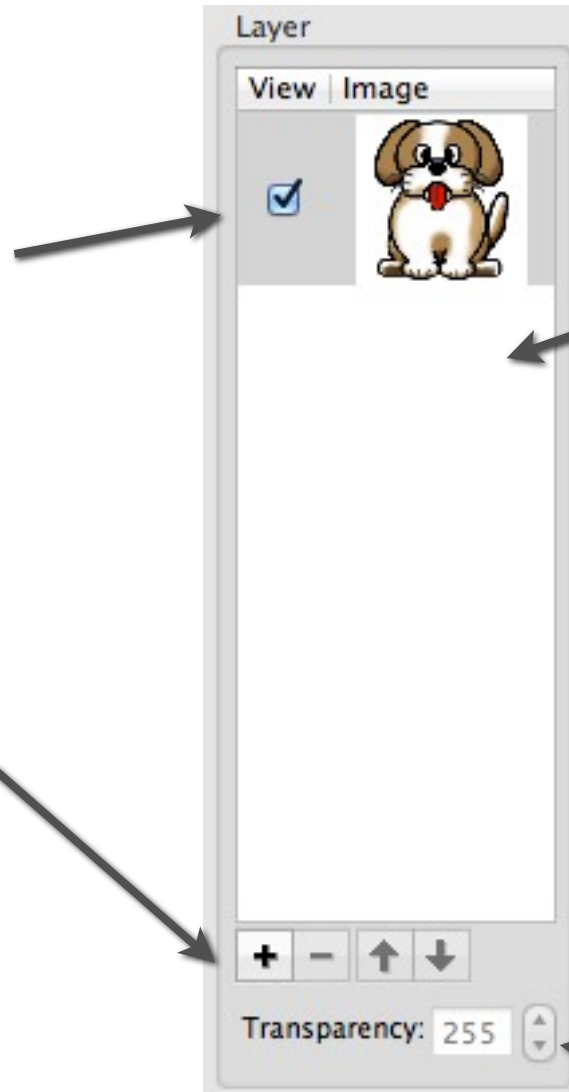
Change the color you selected.

# Layer

Multiple layers can be used for the image. You can only edit the active layer you selected. The other inactive layers are not affected by editing.

## Layer display

Uncheck the checkbox and the layer will be hid and cannot be edited.



## Layer list

Layer list is displayed. Double-click the layer name to change.

## Layer adding/deleting/order

You can add and delete a layer and alter priority of layers.

## Layer's degree of transparency

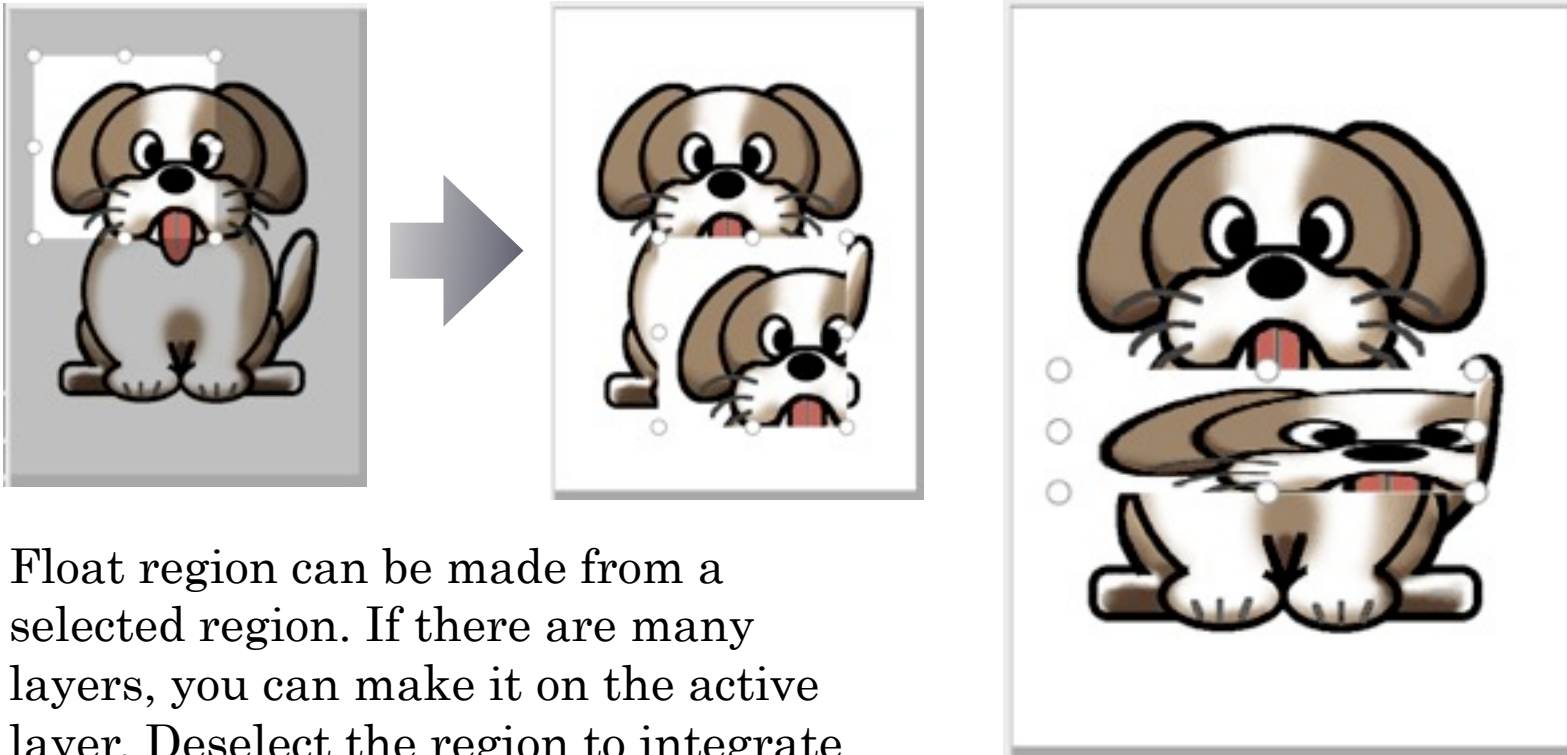
Adjust the transparency degree of the layer.



# Float region

Float region is the temporary “easy-generated layer” and each layer can have only one of that. When there is a float region, your edit will be limited within the float region.

To make a float region, select “float the selected region” or “float the outside of the selected region” from the select menu when the image has a selected region. A float region will also be made when a selected region is applied by edit tool’s “Rotation” or “Reverse”. In addition, the image that is pasted from clipboard is also float region.



Drag the handle around a float region to change its shape.

Float region can be made from a selected region. If there are many layers, you can make it on the active layer. Deselect the region to integrate the float region in the under image.

# Animation window

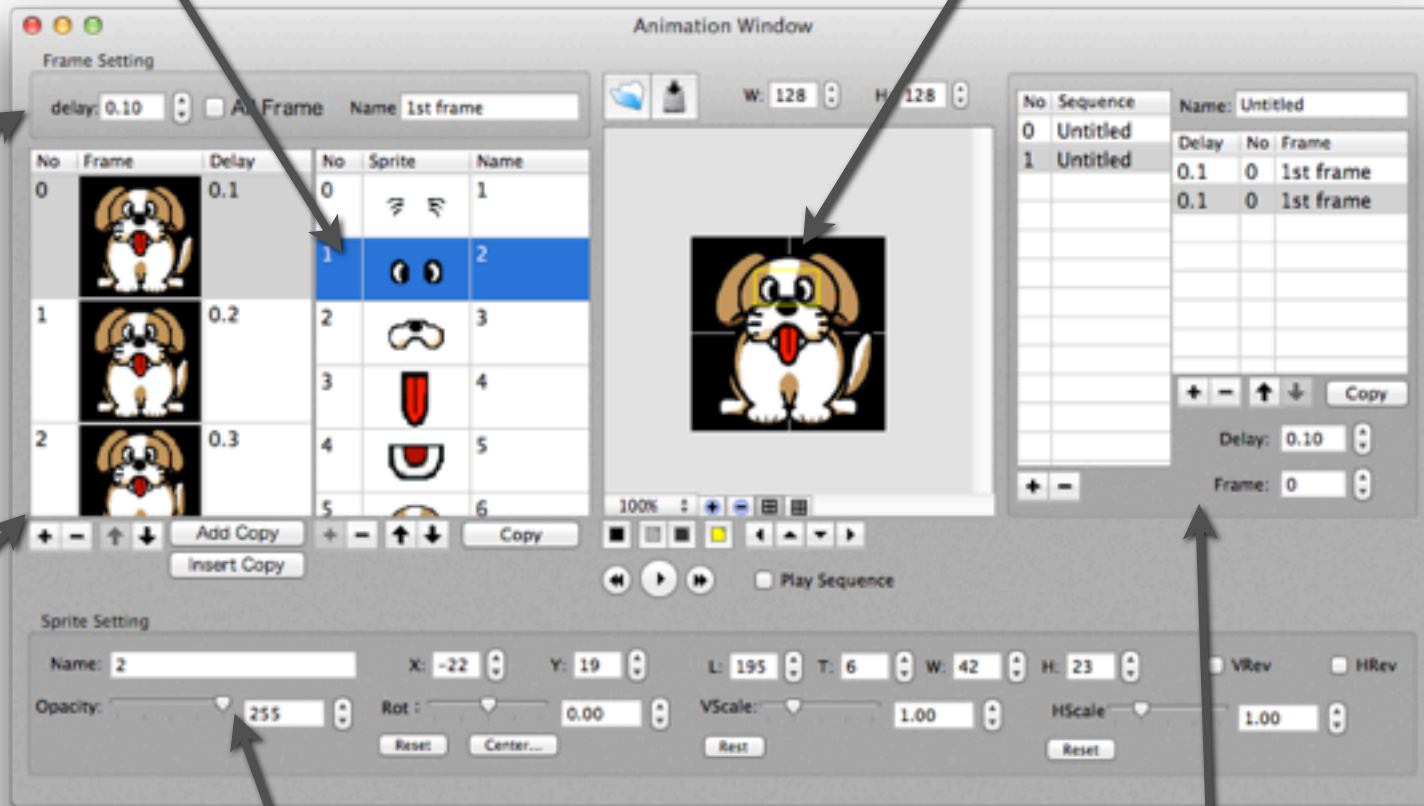
You can open the animation window by selecting “animation window” from the menu. You can make an animation with the combination of the sprite patterns and an image. The animation you made here can be saved as GIF animation or QuickTime movie.

## Sprite list

Display the sprite list of the frame selected at frame list.

## Frame view

Display the frame which is selected at frame list.



## Frame settings

Display the settings of the frame which is selected at frame list.

## Frame list

Display the list of the saved frame.

## Sprite settings

Display the settings of the sprite which is selected at sprite list.

## Sequence list

You can make the animation by combining the frames you selected.



# Animation window (Frame list)

Frame delay time (second)  
Set the frame delay time.

Frame name  
Change the frame name.

No	Frame	Delay	No	Sprite	Name
0		0.1	0		1
1		0.2	1		2
2		0.3	2		3
			3		4
			4		5
			5		6

Frame list  
Display the list of the saved frame.

Copy the sprite  
Make a copy of the selected sprite.

Frame adding/deleting/order  
You can add and delete a frame and change the order.

Copy the frame  
Make a copy of the selected frame.

Sprite adding/deleting/order  
You can add and delete a sprite and change the order. You can save the selected region of the image as a sprite.

# Animation window (Sprite settings)

## Sprite name

Change the sprite name.

## Sprite positioning

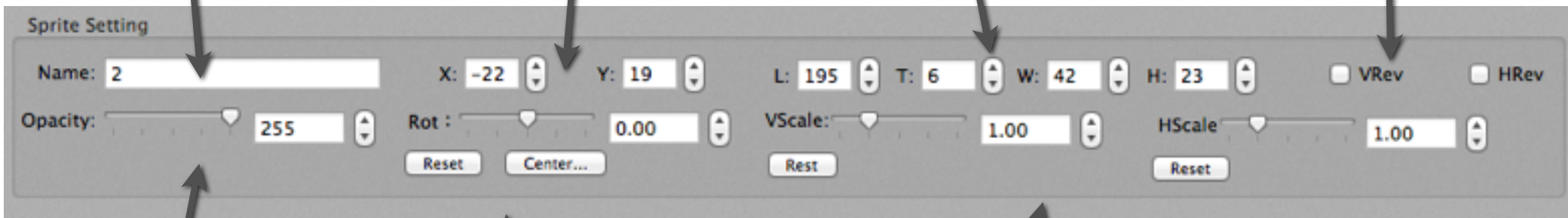
Adjust the coordinate of the sprite in the frame.

## Sprite clip region

Select the region to be a sprite.

## Vertical/Horizontal reverse

Check the checkbox to reverse vertically or horizontally.



## Sprite transparent degree

Adjust the transparent degree of the sprite.

## Sprite rotation angle

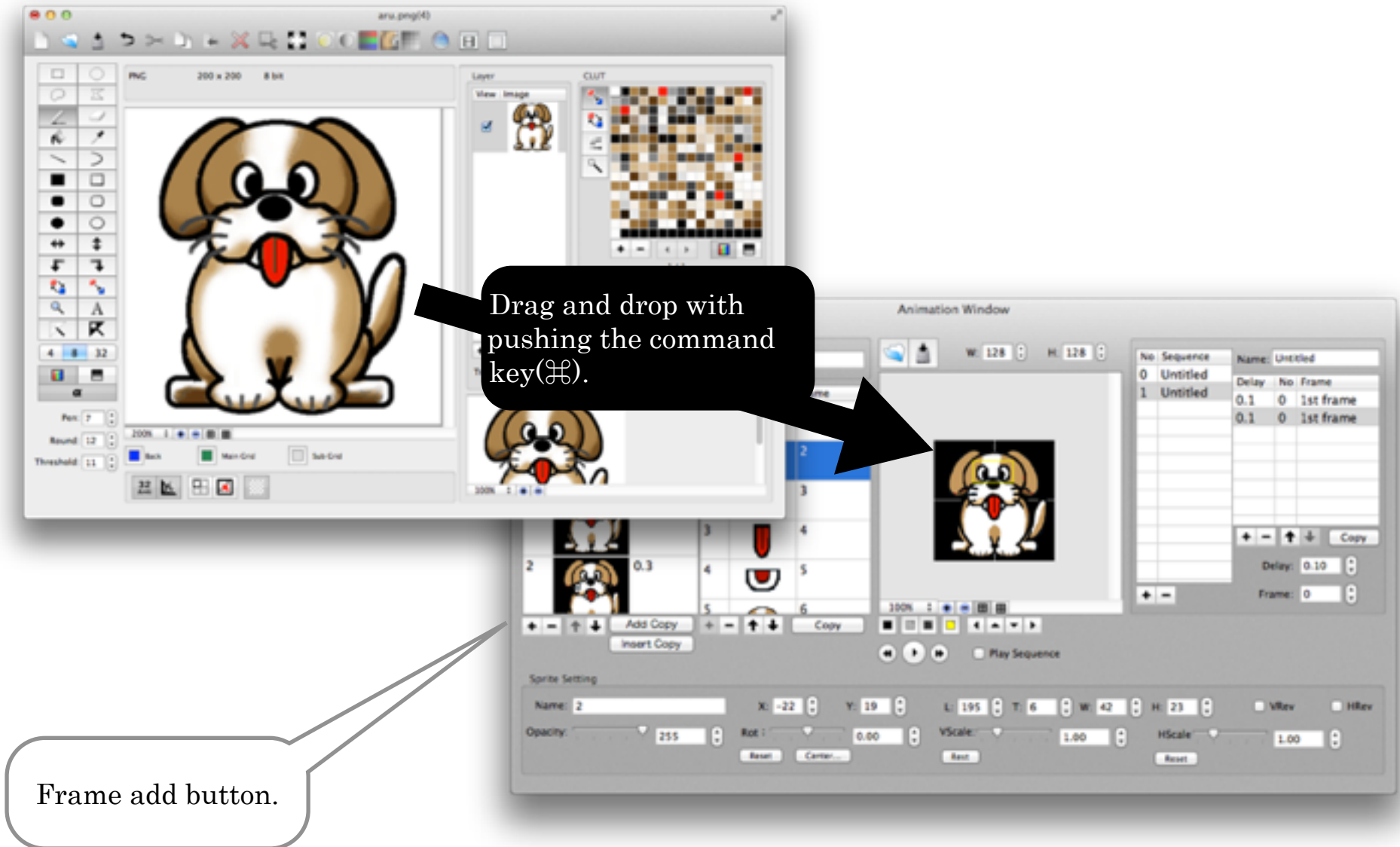
Adjust the sprite rotation angle.

## Sprite magnification percentage

Adjust the sprite magnification percentage.

# Animation window (Sprite saving)

To save a sprite, select the region you want to save and drag and drop it to the frame view with pushing the command key(⌘). Or, just push the frame or sprite add button [+].



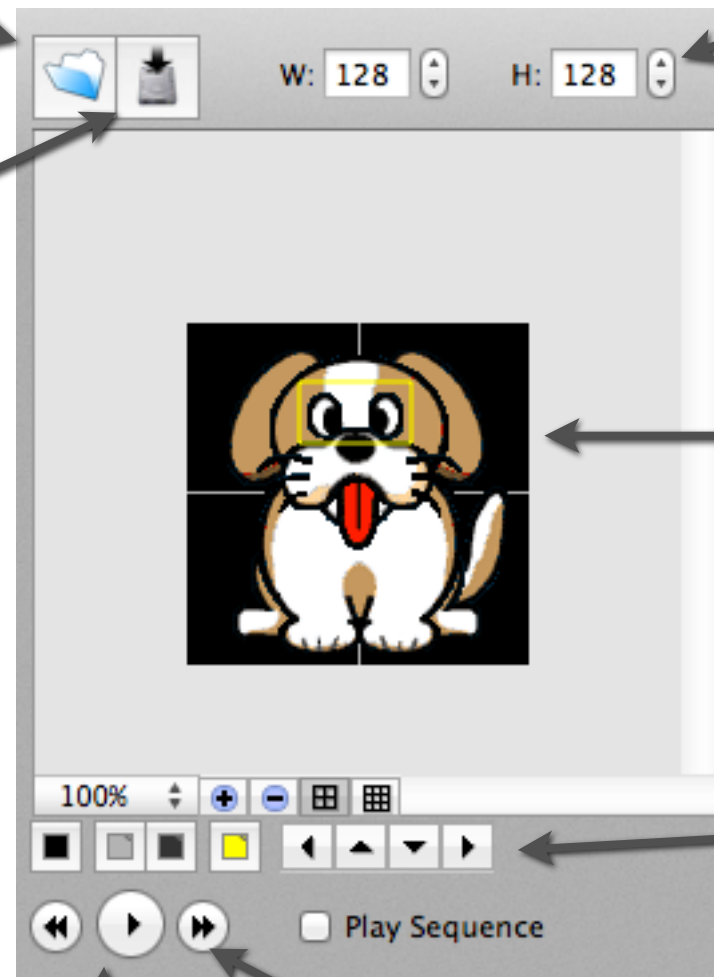
# Animation window (Frame view)

Open an animation data  
Read the animation data which is saved in DotShot format. The data can also be opened by dragging and dropping to the frame view.

Save animation  
You can save the animation in the below format;

- DotShot animation data
- GIF animation
- QuickTime movie
- Still image format

Color setting  
Set the color of the frame background, grid and the sprite selection border.



Frame size  
Adjust the frame size.

Frame image  
Adjust the sprite position by dragging.

Sprite positioning  
Adjust the position of the selected sprite by one dot.

Change the frame  
Change the frame to be displayed.

Animation start/stop

Start and stop the animation.

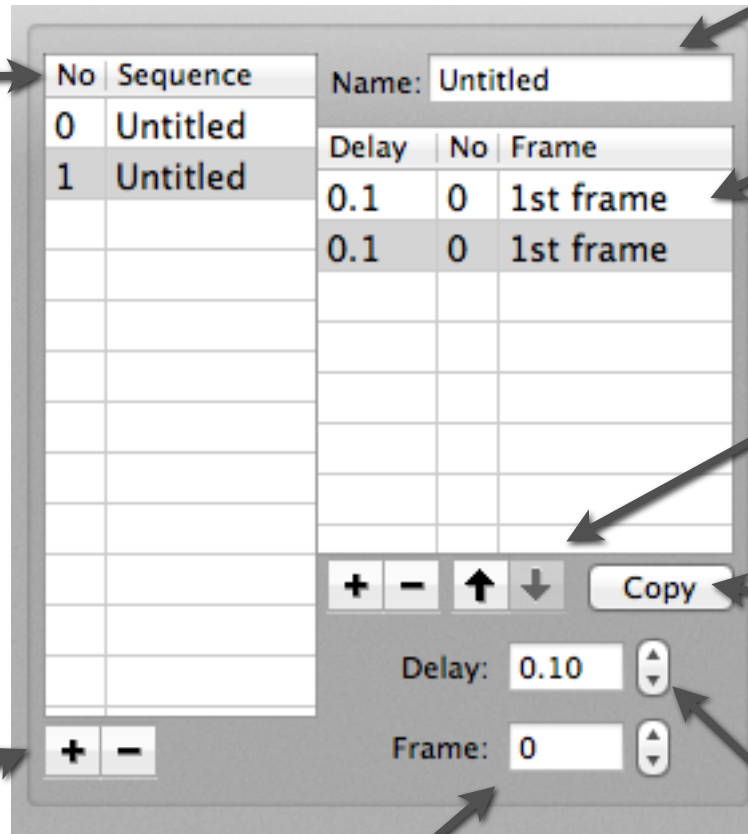
Check the checkbox and the frames at the sequence list will be played.

# Animation window (Sequence list)

You can make the animation pattern by selecting and combining the frames.

## Sequence list

The currently saved sequences are displayed.



## Sequence name

Change the sequence name.

## Sequence frame list

The frames which are currently saved in the sequence are displayed.

## Sequence frame adding/deleting/order

You can add and delete a sequence frame and change the order.

## Copy the sequence frame

Make a copy of the selected sequence frame.

## Sequence adding/deleting

You can add and delete a sequence and change the order.

## Sequence frame settings

Set the sequence frames.

## Frame delay time (second)

Set the frame delay time.

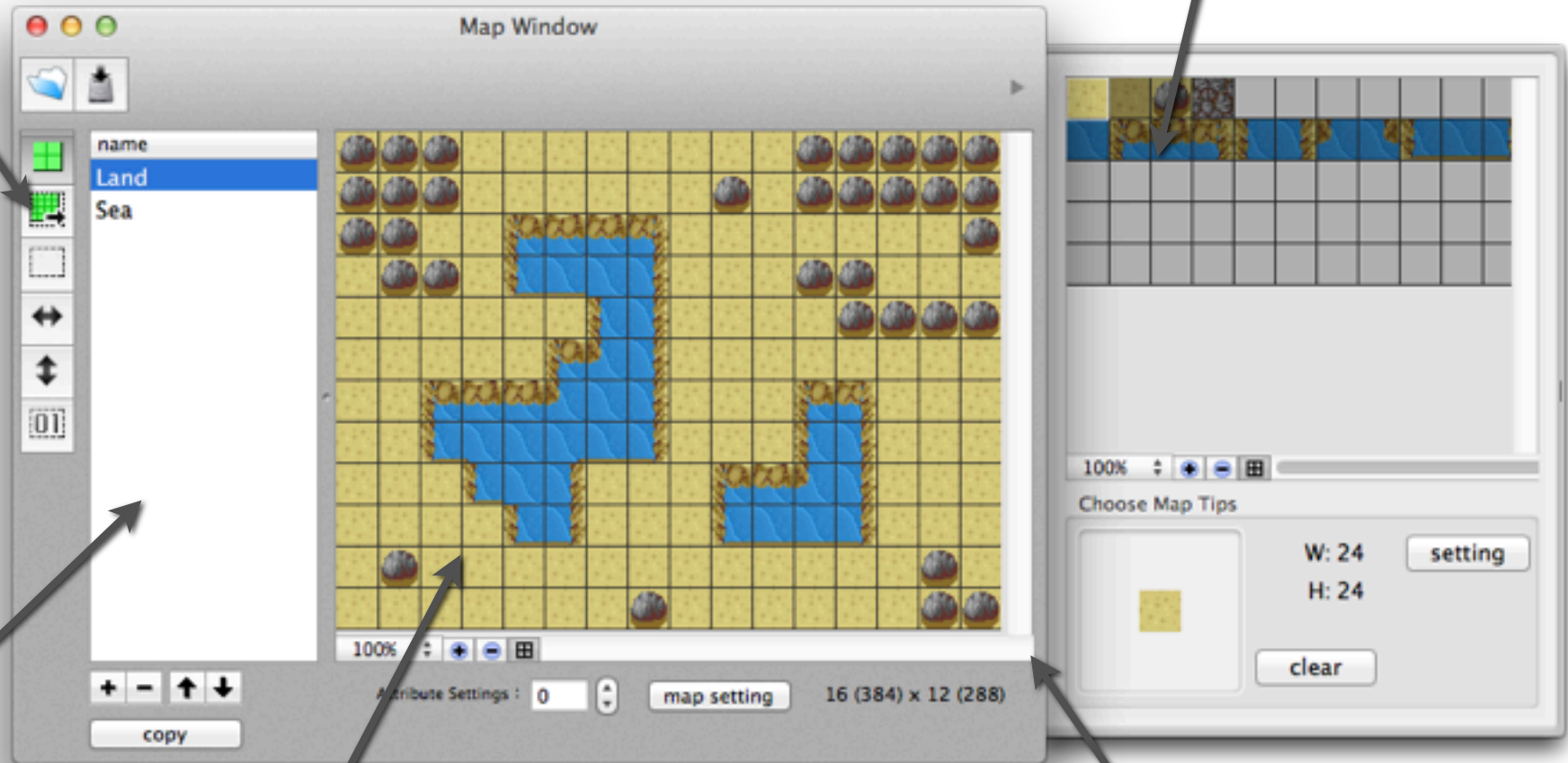
The frame delay time will not be changed if you adjust it here. You can set it separately from frame settings.

# Map window

You can open the map window by selecting “map window” from the select menu. You can make a map by lining up chips on a basic image and save it in the DotShotX’s own map data format or the still image format.

Map edit tool icons  
Tool icons to edit the map.

Image view  
Display the basic image of the map.



Map list  
Display the list of the saved maps.

Map view  
Display the map image which is selected at map list.

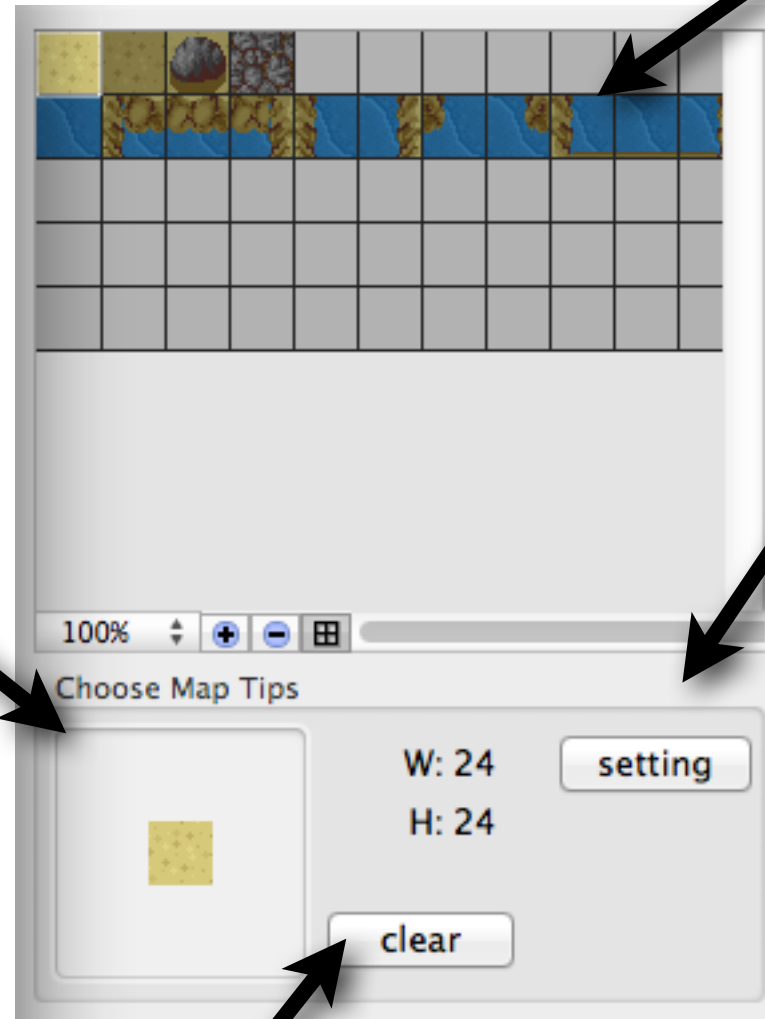
Selected map chip  
Display the chip you selected. You can place this chip on the map.



# Map window (Image view and selected map chip)

## Image view

Display the basic image of the map. Click or drag over to select the “map chip” to place on the map.



## Selected map chip

Display the image of the map chip.

## Map chip size setting

Adjust the map chip size.

## Clear map chip setting

You can make the normal map chip “clear map chip”. When you place it on the map, the map looks like as if there is no chip on it.



# Map window (Map view)

## Open a map data

Read the map data saved in the DotShot format.

## Map saving

You can save the map you made in the below format;  
• DotShot map data format, still image format

## Map view

Display the map view.

## Serial placement

Place chips serially by dragging on the map view.

## Rectangle placement

Place the chips in the rectangular region you dragged over to select on the map view.

## Selection (shifting and copy)

Shift the rectangular region you selected by dragging. Push the option key to make a copy of the region.

## Reverse

Make the rectangular region you selected mirror-reversed or upside down.

## Attribute setting

Set the figure to set attributes in the rectangular region you selected.

## Map adding/deleting

You can add or delete a map.

## Attribute

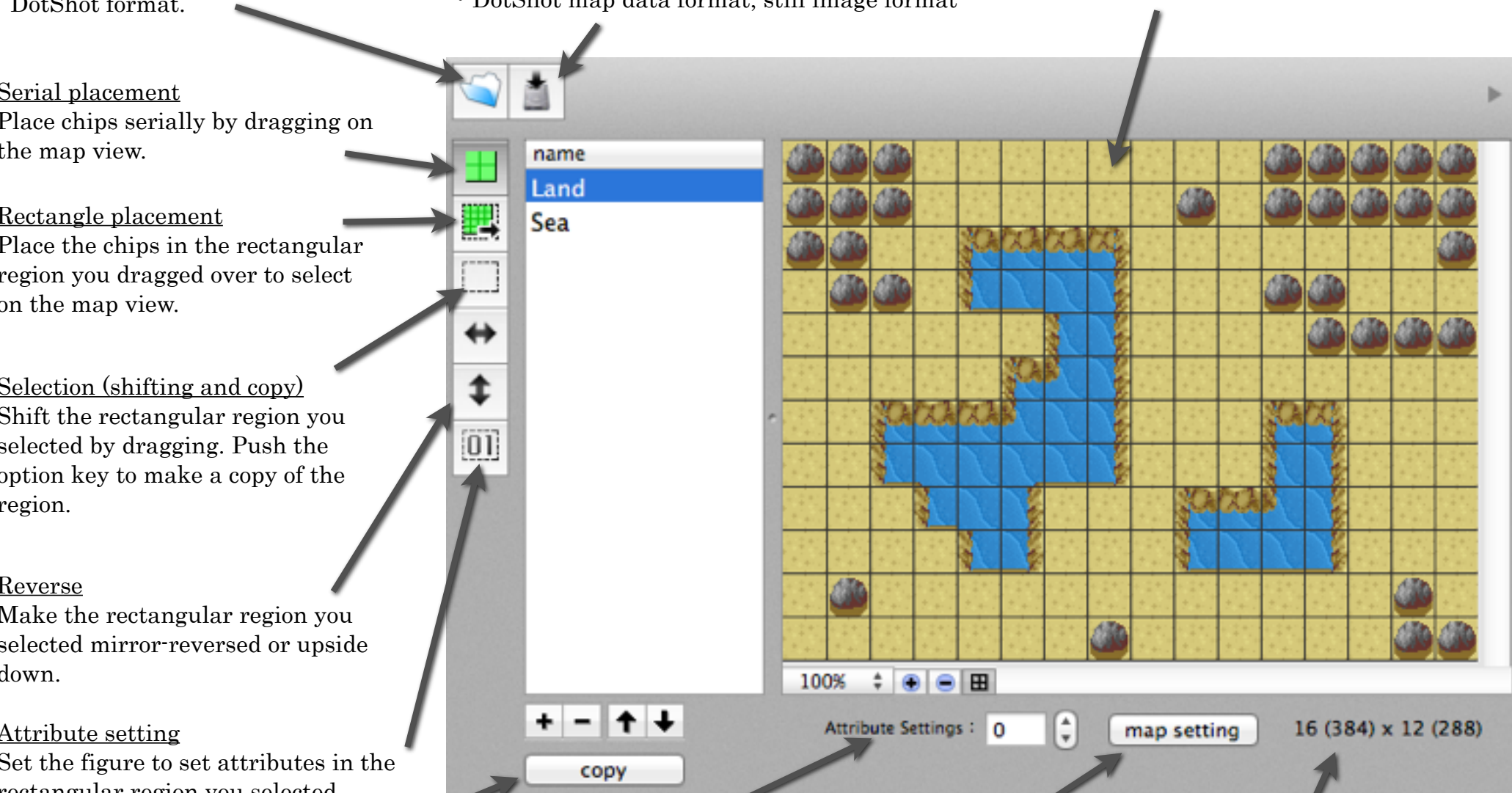
Set the figure to set attributes in the map chip.

## Map settings

Adjust the map size (the number of the chips) and change the map name.

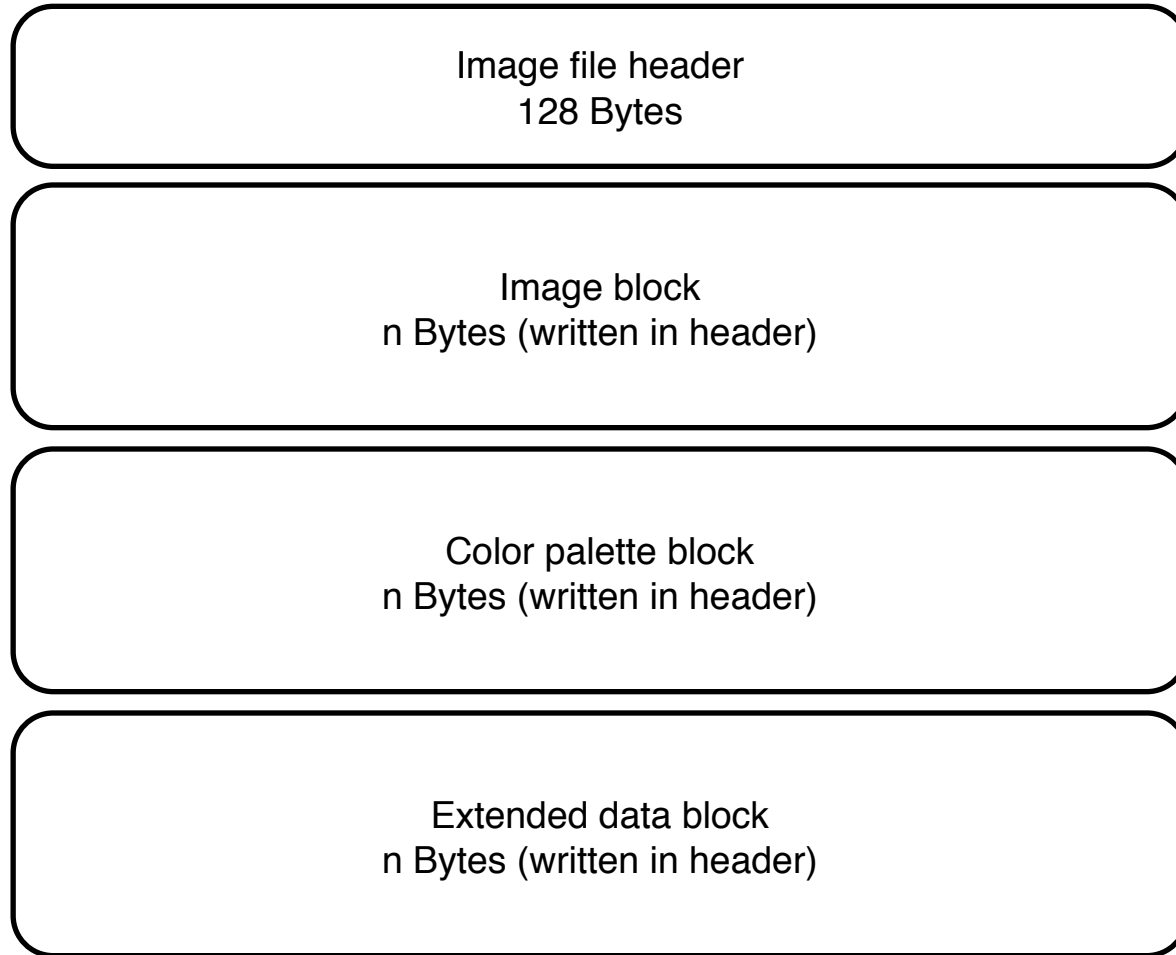
## Map size

Display the number of the chips and the pixels used horizontally and vertically.



# DotShot image file format (version 4.0.0)

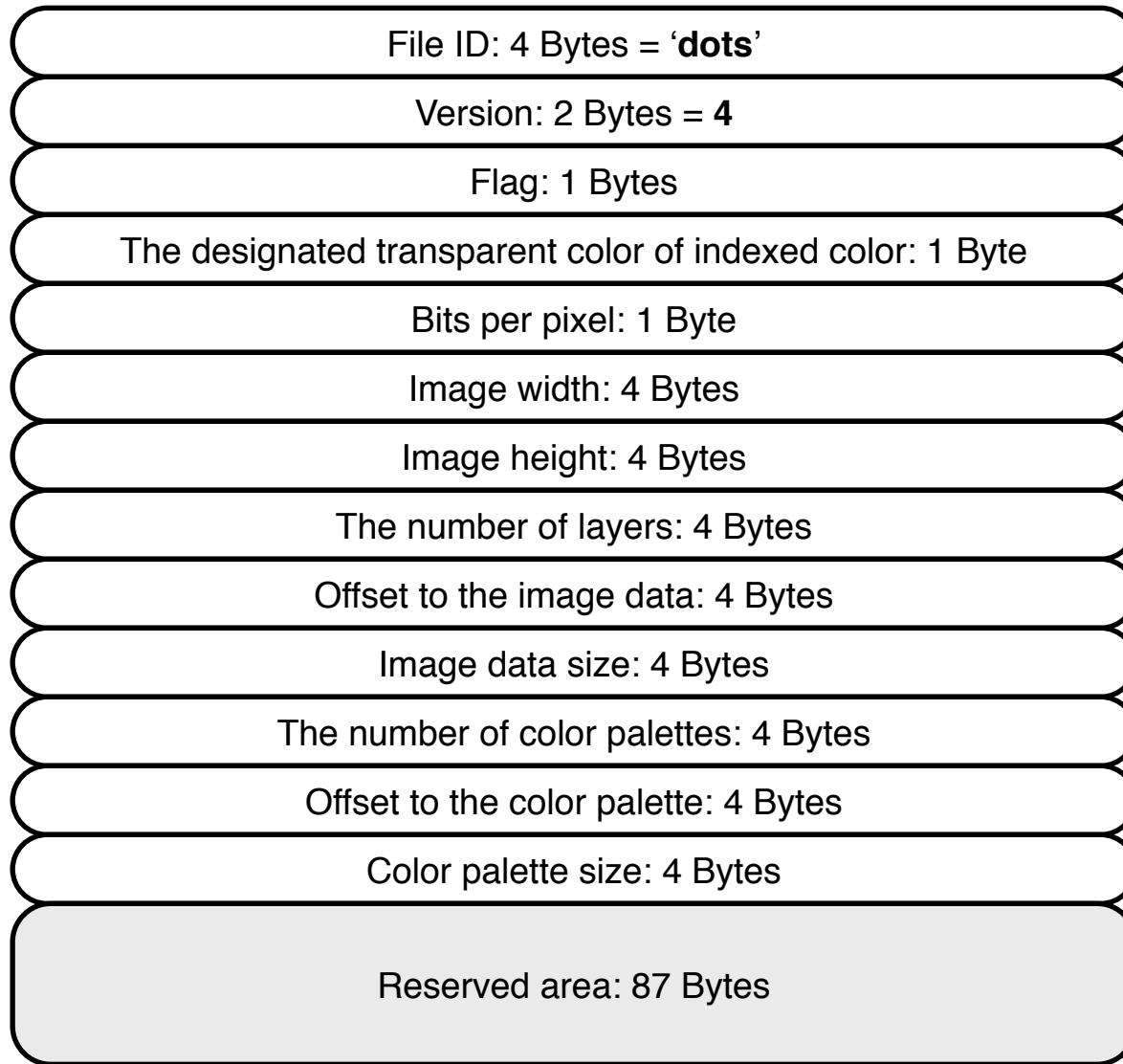
- Image file outline



※ The value is saved in big endian.

# DotShot image file format (version 4.0.0)

- Image file header (128 Bytes)

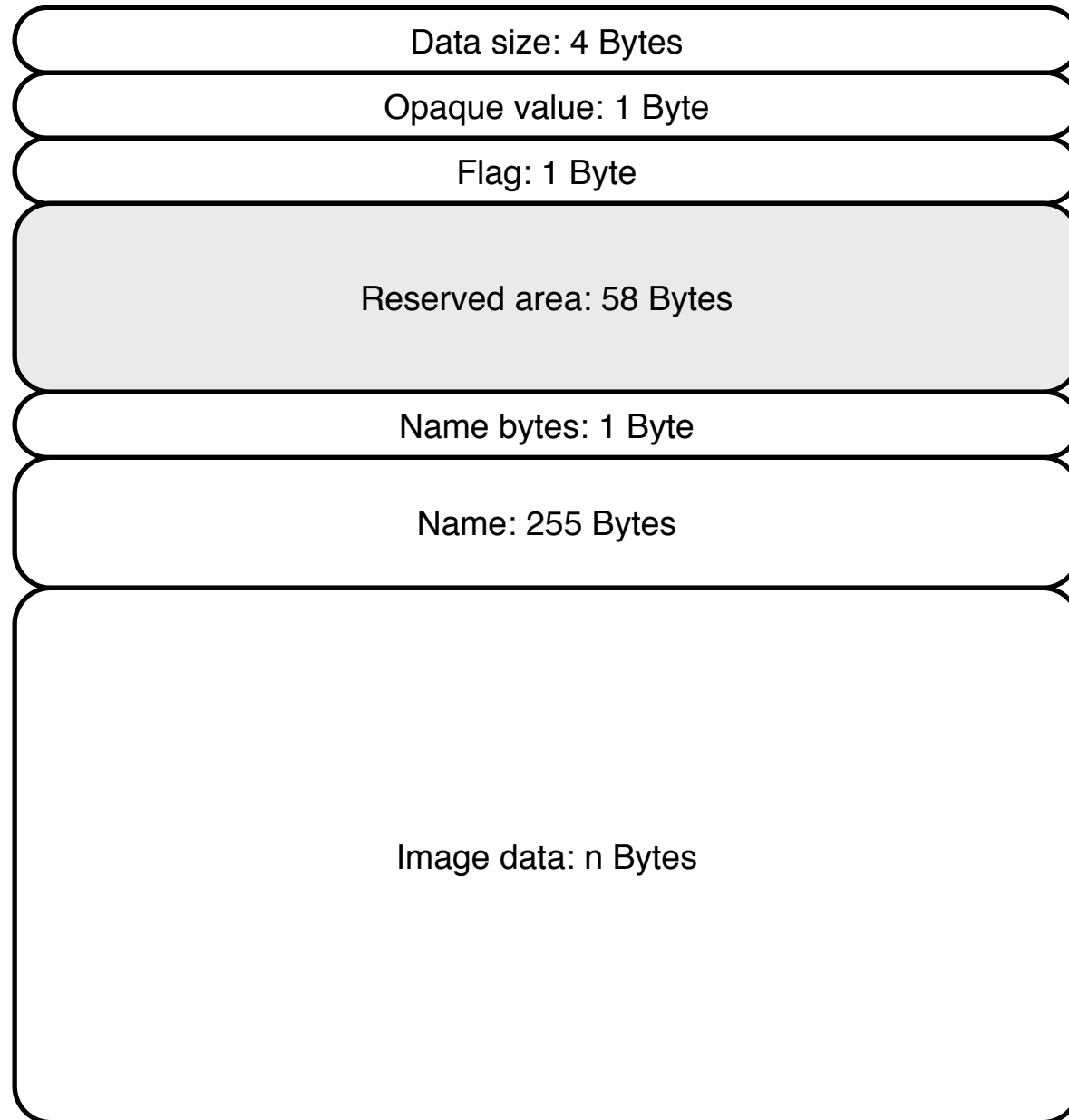


\* Setting bit0=1 at flag: activate the designation of indexed color.

※ The value is saved in big endian.

# DotShot image file format (version 4.0.0)

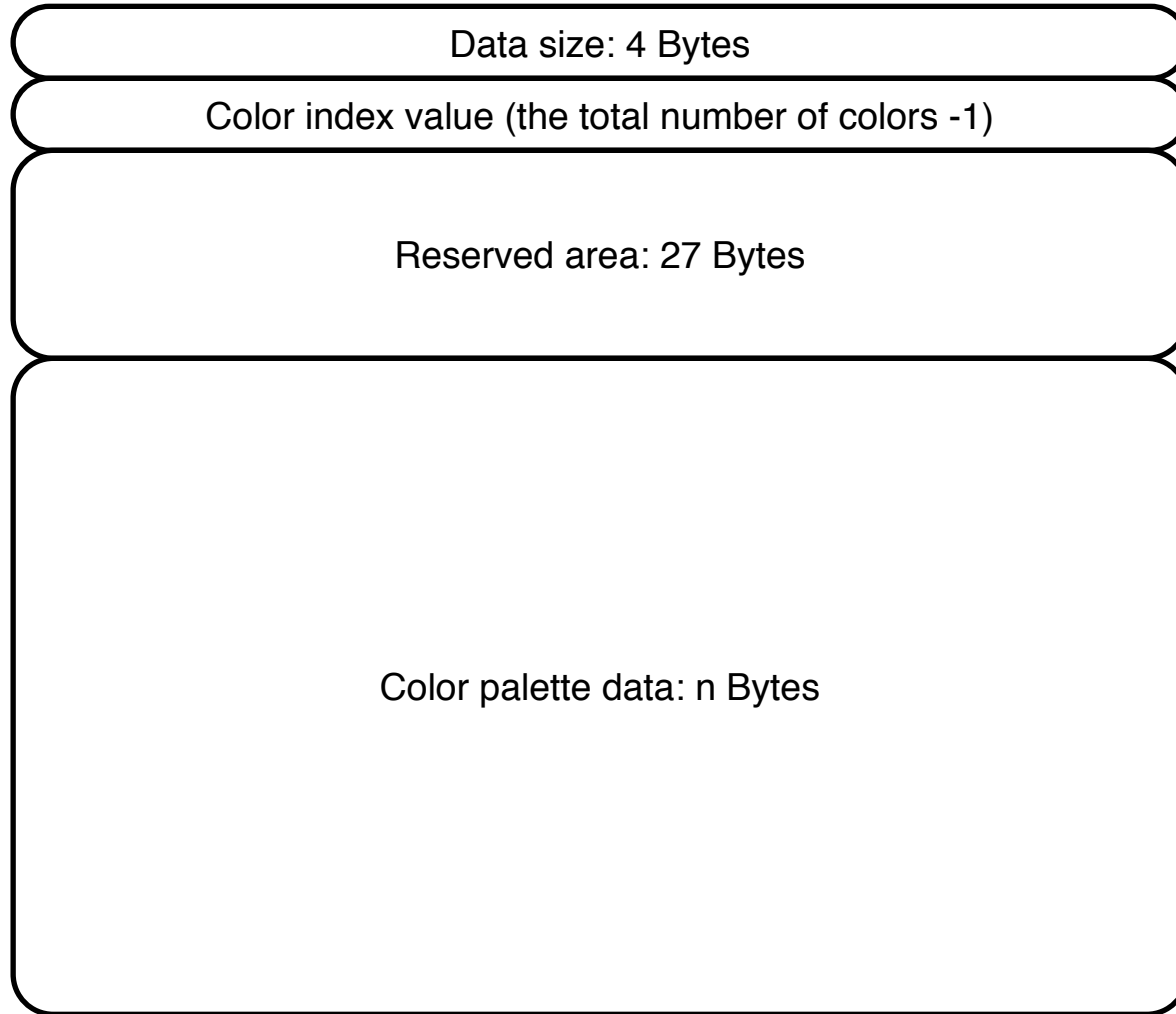
- Image block (image data per one layer)



※ The value is saved in big endian.

# DotShot image file format (version 4.0.0)

- Color palette block (image data per one palette)

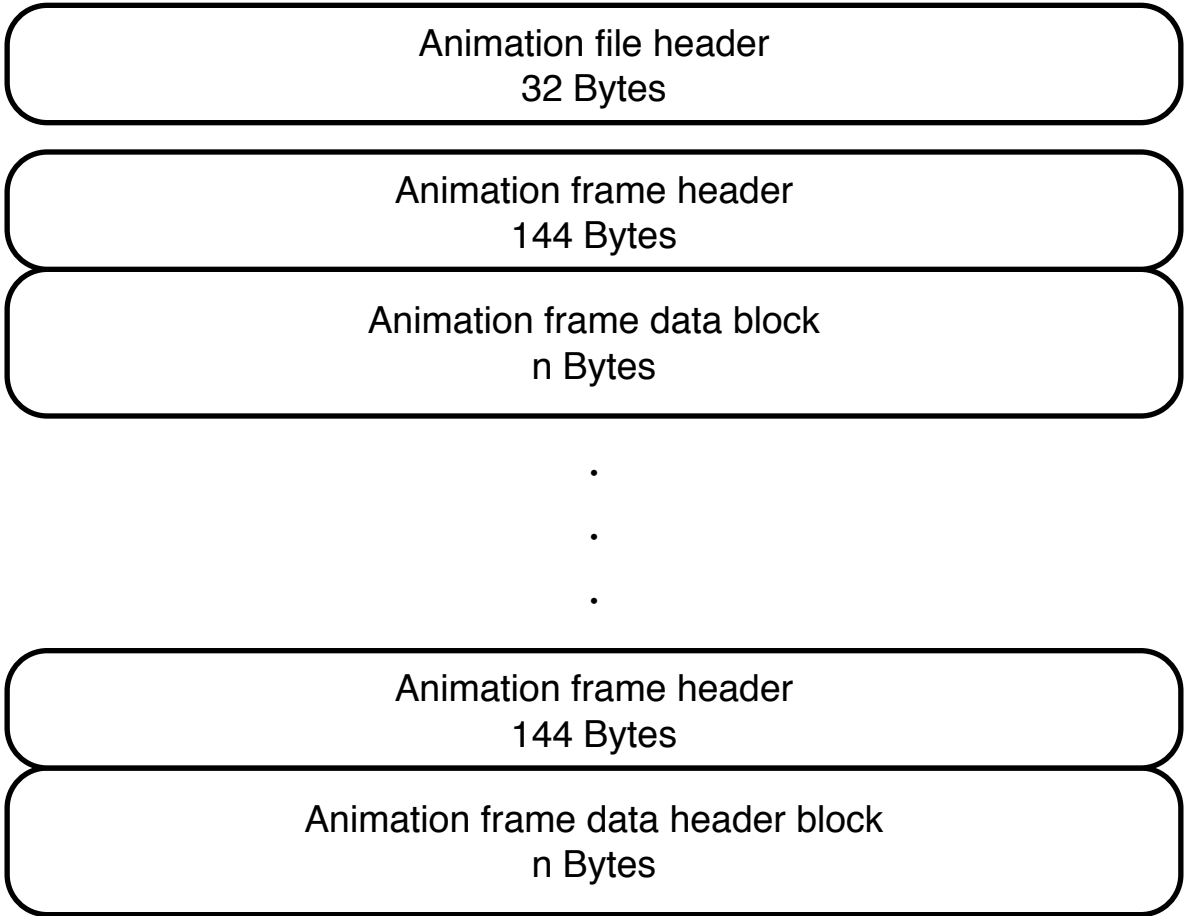


※ The value is saved in big endian.



# DotShot animation file format

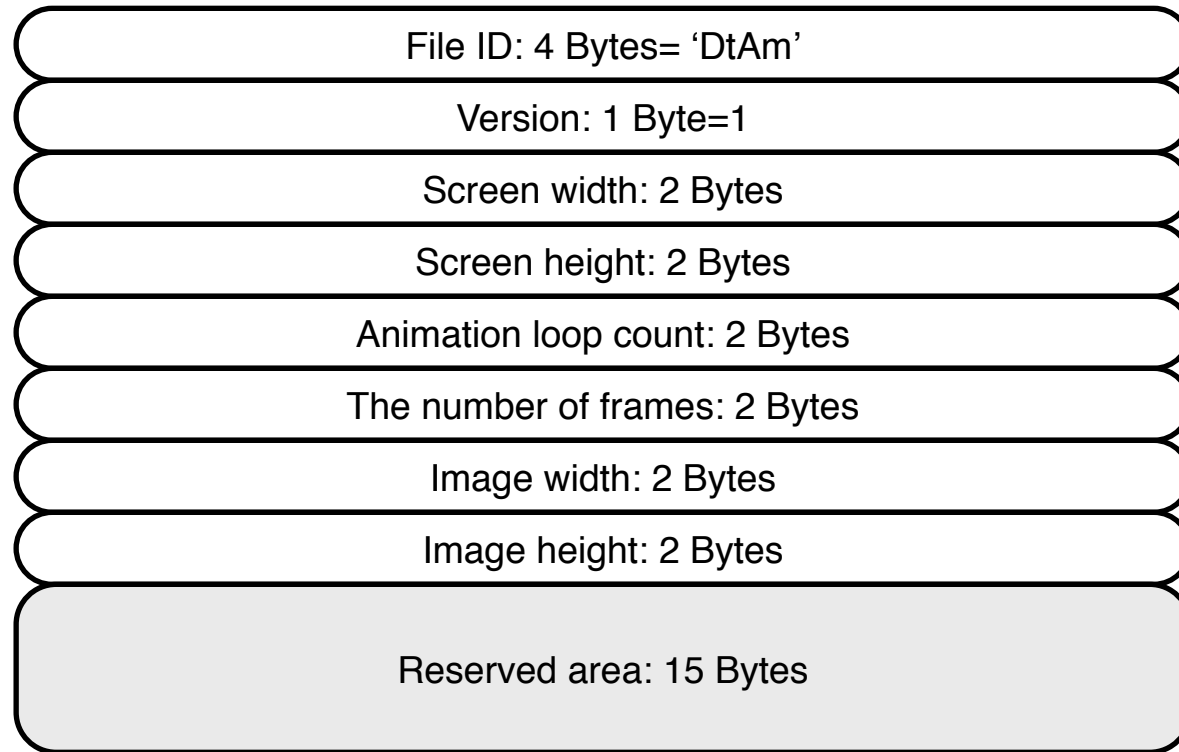
- Animation file outline



※ The value is saved in big endian.

# DotShot animation file format

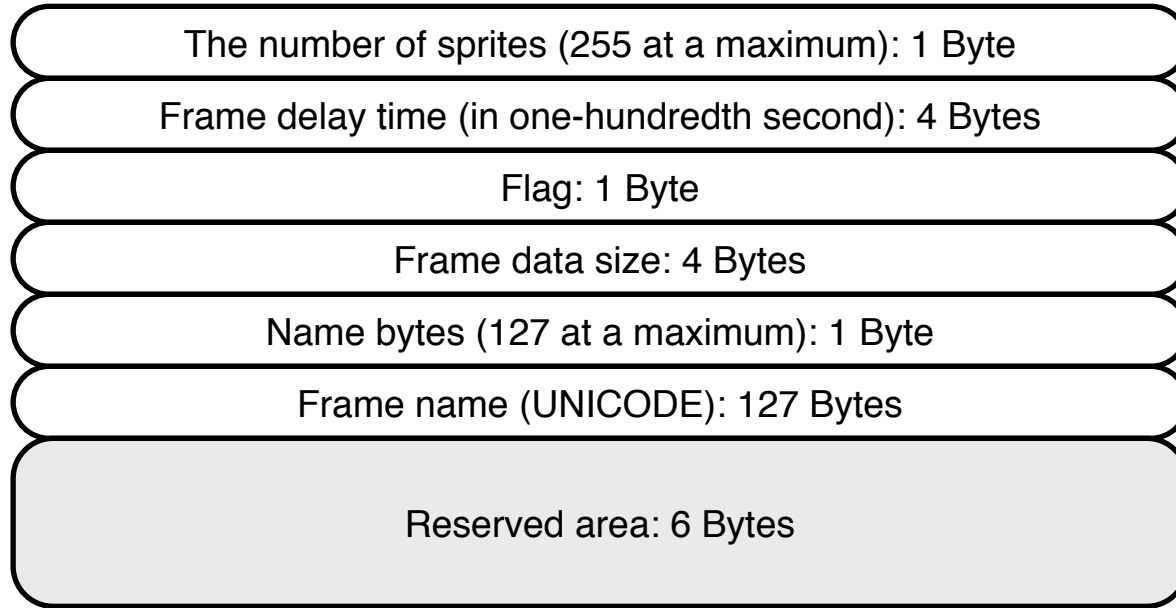
- Animation file header (32 Bytes)



※ The value is saved in big endian.

# DotShot animation file format

- Animation frame header (144 Bytes)



※ The value is saved in big endian.

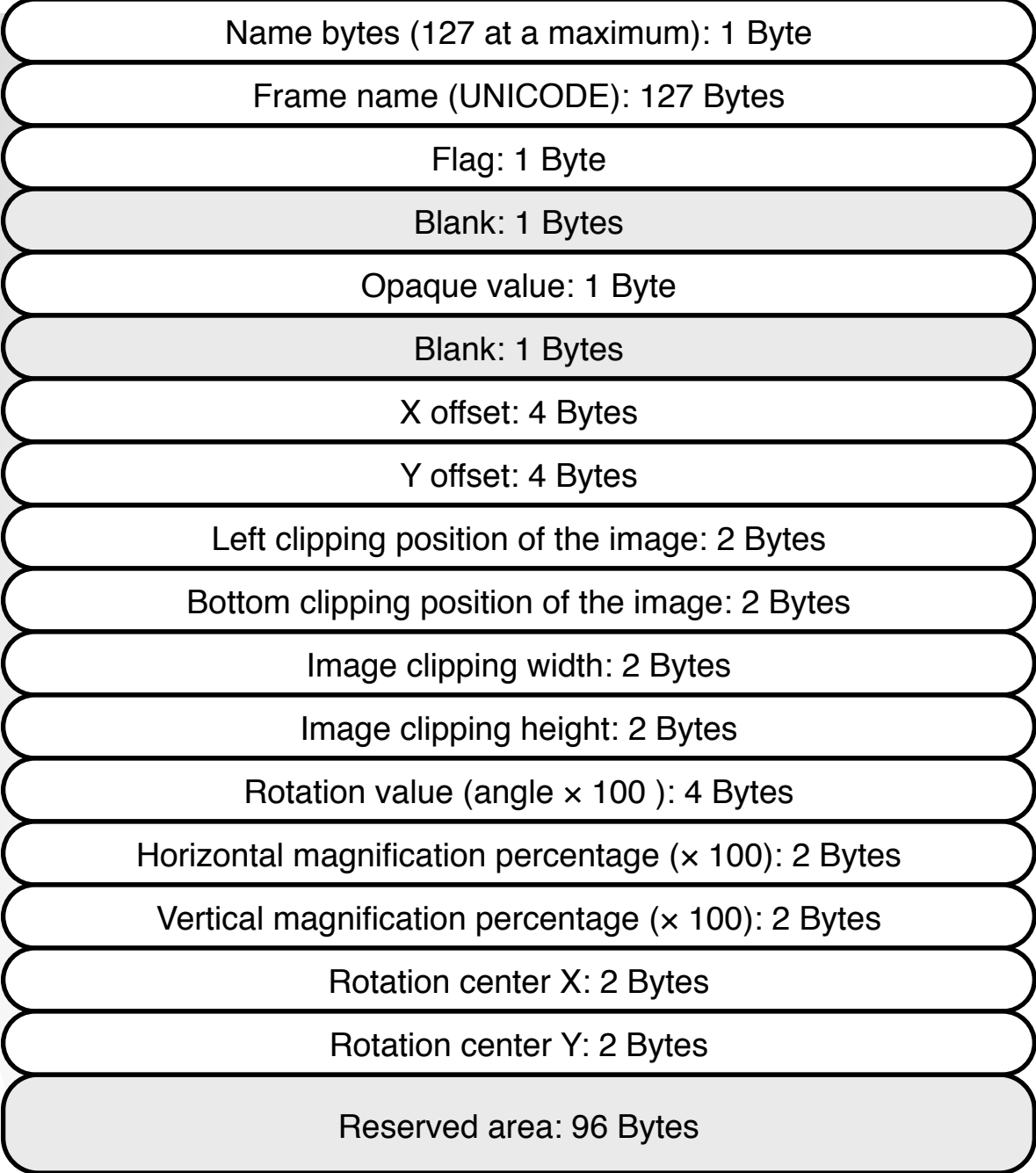
# DotShot animation file format

- Animation frame data block

Sprite data block  
256 Bytes

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Sprite data block  
256 Bytes



※ The value is saved in big endian.

# DotShot map file format

- Map file outline

File ID: 4 Bytes= 'DtMI'

Version: 1 Byte=1

The number of maps: 1 Byte

The number of pixels used horizontally in a map chip.: 1 Bytes

The number of pixels used vertically in a map chip.: 1 Bytes

Image width: 2 Bytes

Image height: 2 Bytes

Map screen block  
n Bytes

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Map screen block  
n Bytes

Map screen file header  
160 Bytes

Map chip data block  
16 Bytes

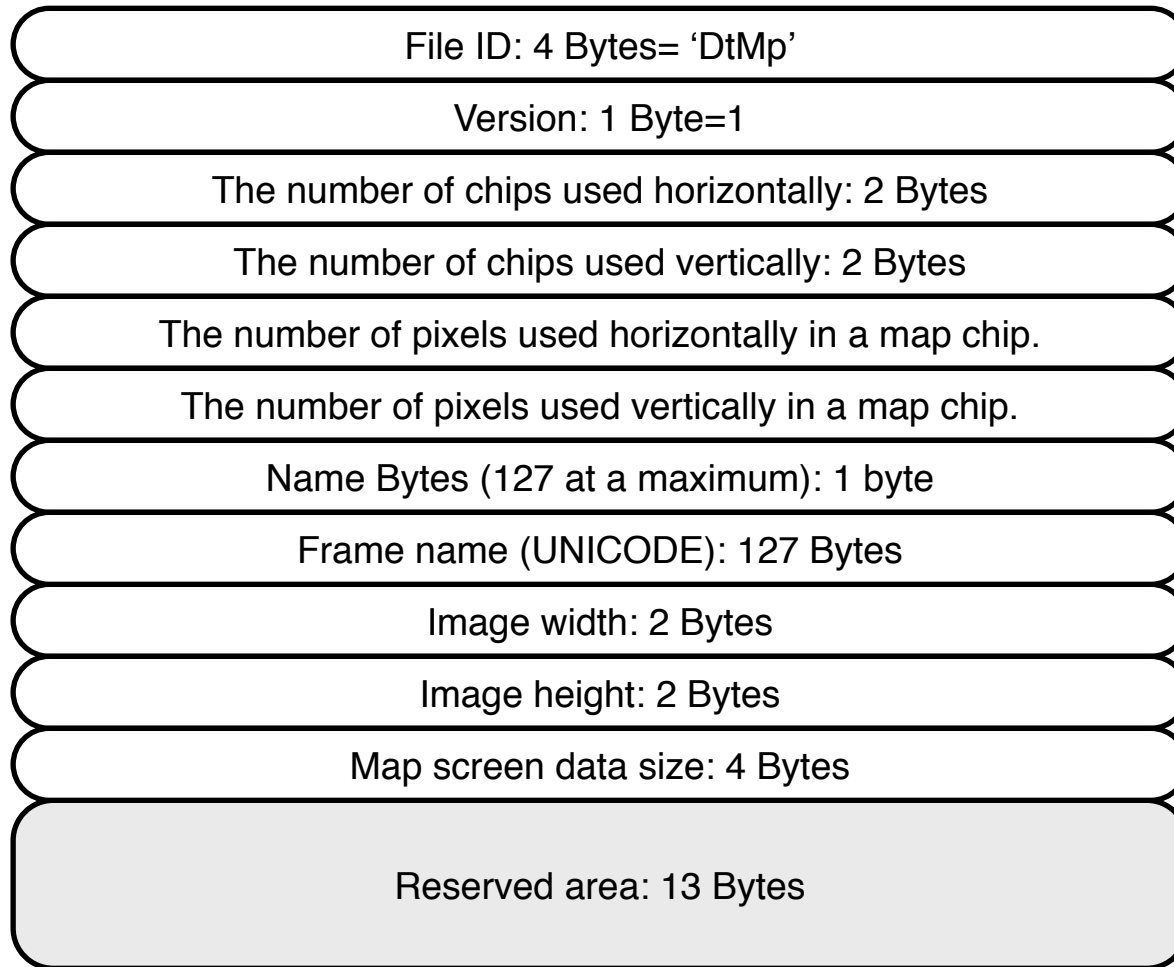
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Map chip data block  
16 Bytes

※ The value is saved in big endian.

# DotShot map file format

- Map screen file header (160 Bytes)



※ The value is saved in big endian.



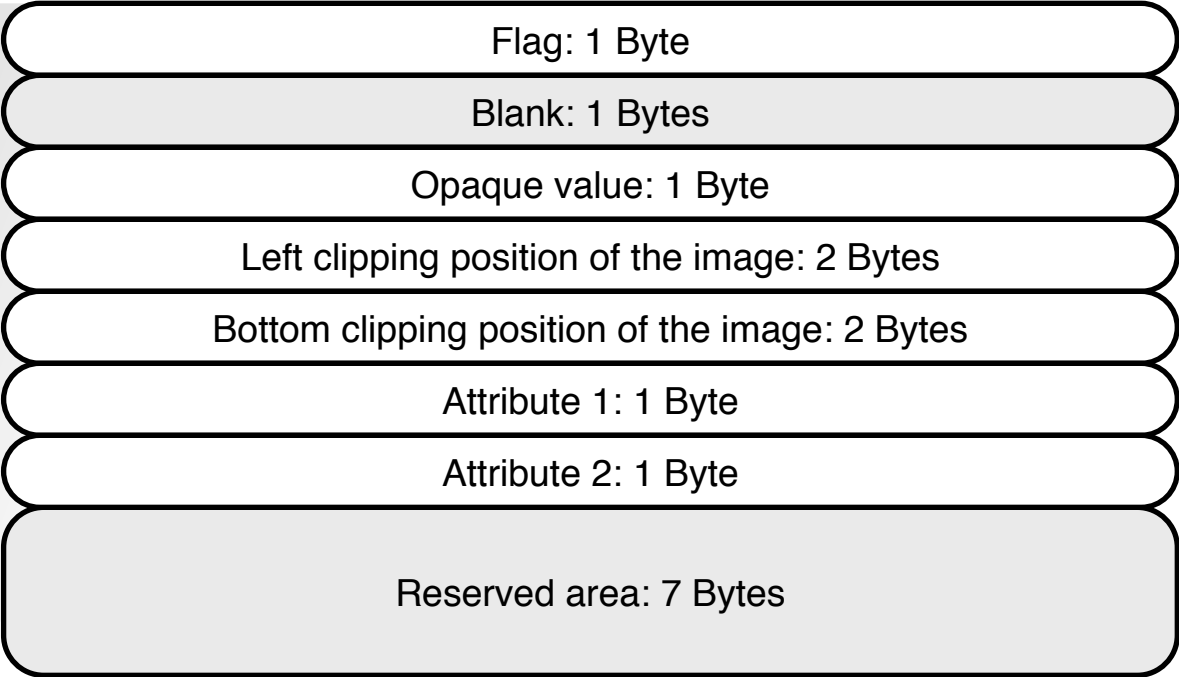
# DotShot map file format

- Map screen block

Map chip data block  
16 Bytes

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Map chip data block  
16 Bytes



※ The value is saved in big endian.