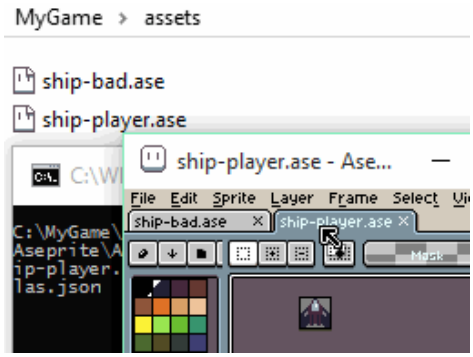
Table of content

Edit page (https://github.com/aseprite/docs/edit/main/cli.md)

Aseprite Command Line Interface

You can convert or export your sprites to other formats (or textures+json data) from the command line. See Platform-specific Details section to know how to use the command line.

- Options
- Use Cases
- Platform-specific Details
- Automating the process



Options

```
Usage:
  aseprite.exe [OPTIONS] [FILES]...

Options:
      --shell                  Start an interactive console to execute scripts
  -b, --batch                  Do not start the UI
  -p, --preview                Do not execute actions, just print what will be
                               done
      --save-as <filename>     Save the last given sprite with other format
      --palette <filename>     Change the palette of the last given sprite
      --scale <factor>         Resize all previously opened sprites
      --dithering-algorithm <algorithm>
                               Dithering algorithm used in --color-mode
                               to convert images from RGB to Indexed
      --dithering-matrix <matrix>
                               Matrix used in ordered dithering algorithm
      --color-mode <mode>      Change color mode of all previously
                               opened sprites:
                                 rgb
                                 grayscale
                                 indexed
      --data <filename.json>   File to store the sprite sheet metadata
      --format <format>        Format to export the data file (json-hash, json-array)
      --sheet <filename.png>   Image file to save the texture
      --sheet-type             Algorithm to create the sprite sheet:
                                 horizontal
                                 vertical
                                 rows
                                 columns
                                 packed
      --sheet-width <pixels>   Sprite sheet width
      --sheet-height <pixels>  Sprite sheet height
      --sheet-columns <columns>
      --sheet-rows <rows>
      --sheet-pack             Use a packing algorithm to avoid waste of space
                               in the texture
      --split-layers           Import each layer of the next given sprite as
                               a separated image in the sheet
      --split-tags             Save each tag as a separated file
      --split-slices           Save each slice as a separated file
      --split-grid             Save each grid tile as a separated file
      --layer <name> or
      --import-layer <name>    Include just the given layer in the sheet
      --all-layers             Make all layers visible
                               By default hidden layers will be ignored
      --ignore-layer <name>    Exclude the given layer in the sheet
                               or save as operation
      --tag <name>
      --frame-tag <name>       Include tagged frames in the sheet
      --frame-range from,to    Only export frames in the [from,to] range
      --ignore-empty           Do not export empty frames/cels
      --merge-duplicates       Merge all duplicate frames into one in the sprite sheet
      --border-padding <value> Add padding on the texture borders
      --shape-padding <value>  Add padding between frames
      --inner-padding <value>  Add padding inside each frame
      --trim                   Trim whole sprite for --save-as
                               or individual frames for --sheet
```

```
      --trim-sprite           Trim the whole sprite (for --save-as and --sheet)
      --trim-by-grid          Trim all images by its correspondent grid boundaries before exportin
      --extrude               Extrude all images duplicating all edges one pixel
      --crop x,y,width,height Crop all the images to the given rectangle
      --slice <name>          Crop the sprite to the given slice area
      --filename-format <fmt> Special format to generate filenames
      --tagname-format <fmt>  Special format to generate tagnames in JSON data
      --script <filename>     Execute a specific script
      --script-param name=value
                              Parameter for a script executed from the
                              CLI that you can access with app.params
      --list-layers           List layers of the next given sprite
                              or include layers in JSON data
      --list-tags             List tags of the next given sprite sprite
                              or include frame tags in JSON data
      --list-slices           List slices of the next given sprite sprite
                              or include slices in JSON data
      --oneframe              Load just the first frame
      --export-tileset        Export only tilesets from visible tilemap layers
  -v, --verbose               Explain what is being done
      --debug                 Extreme verbose mode and copy log to desktop
  -?, --help                  Display this help and exits
      --version               Output version information and exit
```

--shell

Executes Aseprite in a REPL mode (https://en.wikipedia.org/wiki/Read%E2%80%93eval%E2%80%93print_loop). You can write JavaScript code in this mode. There are plans for a specific API (https://github.com/aseprite/api-draft) for future version.

--batch

Runs Aseprite only to process command line options, then finishes. It's specially useful if you are running Aseprite from a script to automate sprite sheet generation, image conversion, etc. Example:

```
aseprite --batch
```

Or you can use the shorter form:

```
aseprite -b
```

--preview

On **v1.2-beta2**: Only show what will be done (doesn't modify files in disk).

```
aseprite --preview ...
```

--save-as

Saves the latest opened document with the given file name. It's like calling `File > Save As` from the interface. Example:

```
aseprite -b sprite.ase --save-as frame001.png
```

Will generate `frame001.png` , `frame002.png` , etc. for each frame in `sprite.ase` .

On **v1.2-beta1**: You can specify --filename-format parameters in the filename directly. For example:

```
aseprite -b sprite.ase --save-as layer-{layer}-frame-{frame01}.png
```

It's like using --split-layers and --filename-format implicitly.

--palette

On **v1.2-beta2**: Changes the color palette of the last given sprite in the command. It can be used to save one sprite with different color palettes:

```
aseprite -b ryu-template.png --palette pal1.png --save-as ryu1.png --palette pal2.png --save-as r
yu2.png
```

On **v1.1** this parameter was used to change the default program palette, but it can be done now using the *Save as Default Palette (/docs/default-palette/)* menu option.

--scale

```
aseprite ... --scale FACTOR
```

Resizes all images with the given `FACTOR` specified before `--scale` option in the command line. Example:

```
aseprite -b original.png --scale 2 --save-as image-x2.png
```

--dithering-algorithm

```
aseprite -b sprite.ase --dithering-algorithm ALGORITHM
```

Dithering algorithm used in --color-mode indexed to convert images from RGB to Indexed.

- `--dithering-algorithm none`
- `--dithering-algorithm ordered`
- `--dithering-algorithm old`

--dithering-matrix

```
aseprite -b sprite.ase --dithering-matrix MATRIX
```

Dithering matrix used for --dithering-algorithm and --color-mode indexed to convert images from RGB to Indexed. The `MATRIX` can be:

- `--dithering-matrix bayer8x8`
- `--dithering-matrix bayer4x4`
- `--dithering-matrix bayer2x2`
- Or the identifier (`id`) of other dithering matrices in installed extensions.

These default dithering matrices (`bayer8x8` , etc.) are in the bayer-matrices (https://github.com/aseprite/aseprite/tree/master/data/extensions/bayer-matrices) extension of Aseprite, and these ids in its packages.json (https://github.com/aseprite/aseprite/blob/master/data/extensions/bayer-matrices/package.json#L10) file.

--color-mode

```
aseprite -b sprite.ase --color-mode MODE
```

Changes the color mode to the given `MODE` of all previously opened sprites. The `MODE` can be:

- `--color-mode rgb`
- `--color-mode grayscale`
- `--color-mode indexed`

Remember that --dithering-algorithm and --dithering-matrix will affect the RGB → Indexed conversion.

Examples:

```
aseprite -b idx-sprite.ase --color-mode rgb --save-as rgb-output.png
aseprite -b rgb-sprite.ase --dithering-algorithm ordered --dithering-matrix bayer8x8 --color-mode
indexed --save-as idx-output.png
```

--data

```
aseprite.exe ... --sheet file.png --data file.json
```

Saves information about the exported sprite sheet in a JSON format. Output example. (https://gist.github.com/dacap/db18e5747a4b6e208d3c)

See --sheet option to change the destination of the sprite sheet image.

--format

Changes the format used to shave the sprite sheet data specified in --data option. Available formats are:

- `--format json-hash` (default format) (example (https://gist.github.com/dacap/db18e5747a4b6e208d3c))
- `--format json-array` (example (https://gist.github.com/dacap/a32adb9248320326733a))

--sheet

```
aseprite ... --sheet SPRITESHEET.png
```

Exports all images specified in the command line before the `--sheet` option in the `SPRITESHEET.png` image (the file will be overwritten).

See --data option to change the destination of the sprite sheet JSON data.

--sheet-width

Specifies a fixed width (in pixels) for the sprite sheet in --sheet.

--sheet-height

Specifies a fixed height (in pixels) for the sprite sheet in --sheet.

--sheet-type

Type of sprite sheet when --sheet is used:

- `horizontal`
- `vertical`
- `rows`
- `columns`
- `packed` (same as --sheet-pack)

--sheet-pack

Use a special packing algorithm to avoid waste of space in the sprite sheet.

--split-layers

Splits the visible layers of the **next document** in the command line, so then you can save each layer as an independent image/item. It affects --sheet and --save-as options. **Warning**: The `--split-layers` option must be **before** your sprite.

- Example:

  ```
  aseprite.exe -b --split-layers with-layers.ase --save-as output1.png
  ```

Check that `--split-layers` must be before `with-layers.ase`. In this example, if `with-layers.ase` contains 3 frames and layers `Background` and `Layer 1`, the following command will generate 6 files (one for each frame/layer):

```
output (Background) 1.png
output (Background) 2.png
output (Background) 3.png
output (Layer 1) 1.png
output (Layer 1) 2.png
output (Layer 1) 3.png
```

Since **v1.2-beta1**: If you specify `{layer}` in the --save-as filename, the `--split-layers` is implicitly used. For example

```
aseprite.exe -b with-layers.ase --save-as output-{layer}-{frame}.png
```

To save hidden layers, you can combine this with the --all-layers option:

```
aseprite.exe -b --all-layers with-layers.ase --save-as output-{layer}-{frame}.png
```

--split-tags

Since **v1.2-beta8**, splits next document tags into different files. It affects the --save-as option. Same as doing:

```
aseprite.exe -b animations.ase --save-as animations-{tag}.gif
```

--split-slices

Since **v1.2-beta8**, splits next document slices into different files. It affects the --save-as option. Same as doing:

```
aseprite.exe -b sheet.ase --save-as part-{slice}.png
```

--split-grid

```
aseprite -b --split-grid tilemaps.png --sheet tiles.png
```

Since **v1.3-beta21**: Indicates that --sheet should export each grid cell of the given file as a separate sprite in the sprite sheet.

--layer

Selects just one layer to be exported (hides all other layers). It affects --sheet and --save-as options.

```
aseprite.exe -b --layer "Body Layer" with-layers.ase --save-as body-layer.gif
```

Saves a `body-layer.gif` animation showing only the layer called `Body Layer`.

On **v1.2-beta2** you can specify multiple layers and/or groups:

```
aseprite.exe -b --layer "head/hat" --layer "body/gloves" player.ase --save-as clothes.gif
```

Will save a `clothes.gif` animation showing only the `hat` layer (which is a child of `head` group) and `gloves` layer which is a child of `body` group.

--all-layers

```
aseprite -b ... --all-layers ...
```

Includes/shows all layers for a --save-as/--sheet operation. If your sprite contains hidden layers but you want to export those layers too, you can use this option.

Example:

```
aseprite -b --all-layers player.aseprite --save-as player-{layer}-{frame}.png
```

--ignore-layer

```
aseprite -b ... --ignore-layer LAYERNAME ...
```

Hides a specific layer for the final result/render in a --save-as/--sheet operation.

You must specify this parameter before opening the `.aseprite` file. Example:

```
aseprite -b --ignore-layer "Guides Layer" player.aseprite --save-as player.gif
```

--tag

Exports the frames inside the given tag only. It works for --sheet on **v1.1**, and it works for --save-as since **v1.2-beta1**.

Example:

```
aseprite -b --tag "Run Cycle" several-animations.ase --save-as run-cycle.gif
```

--frame-range

Exports the frames inside the given `[from, to]` range only.

--ignore-empty

Ignores empty frames/layers. It affects --sheet option.

On **v1.2.10-beta3**: It affects --save-as too.

--border-padding

```
aseprite ... --border-padding N ...
```

Includes a border for the whole sheet of N pixels. It affects --sheet option only.

--shape-padding

```
aseprite ... --shape-padding N ...
```

Includes a separation between each frame of N pixels. It affects --sheet option only.

--inner-padding

```
aseprite ... --inner-padding N ...
```

Includes a border to each frame of N pixels. It affects --sheet option only.

--trim

Removes borders from sprites/layers/cels before save them. (I.e. executes the *Edit* > *Trim* option for each image to be exported.) It affects --sheet and --save-as options.

--crop

```
aseprite ... --crop X,Y,WIDTH,HEIGHT
```

Exports only the specified rectangle from all sprites/layers/cels. It affects --sheet and --save-as options.

--extrude

Since **v1.2-beta21**: Extrudes all images/sprites that are going to be exported with --sheet duplicating all edges one pixel.

--slice

Since **v1.2-beta8**:

```
aseprite ... --slice SLICE
```

Exports only the area specified by the given slice. It affects --save-as option.

--filename-format

```
aseprite --filename-format FORMAT
```

This option specifies the special string used to format filenames generated in sprite sheets on --sheet or files generated on --save-as.

The `FORMAT` string can contain some special values:

- `{fullname}` : Original sprite full filename (path + file + extension).
- `{path}` : Path of the filename. E.g. If the sprite filename is `C:\game-assets\file.ase` this will be `C:\game-assets` .
- `{name}` : Name (including extension) of the filename. E.g. If the sprite filename is `C:\game-assets\file.ase` this will be `file.ase` .
- `{title}` : Name without extension of the filename. E.g. If the sprite filename is `C:\game-assets\file.ase` this will be `file` .
- `{extension}` : Extension of the filename. E.g. If the sprite filename is `C:\game-assets\file.ase` this will be `ase` .
- `{layer}` : Current layer name.
- `{tag}` : Current tag name.
- `{innertag}` : Smallest/inner current tag name.
- `{outertag}` : Largest/outer current tag name.
- `{frame}` : Current frame (starting from `0`). You can use `{frame1}` to start from 1, or other formats like `{frame000}` , or `{frame001}` , etc.
- `{tagframe}` : The current frame in the current tag. It's `0` for the first frame of the tag, and so on. Same as `{frame}` , it accepts variants like `{tagframe000}` .
- `{duration}` The duration of the current frame.

For example, if `animation-with-layers.ase` contains three frames with two layers (named `Face` and `Background`):

```
aseprite -b animation-with-layers.ase --filename-format '{path}/{title}-{layer}-{frame}.{extensio
n}' --save-as output.png
```

Will generate files like:

```
output-Face-0.png
output-Face-1.png
output-Face-2.png
output-Background-0.png
output-Background-1.png
output-Background-2.png
```

On **v1.2-beta1**: You can specify the filename format in the same --save-as argument.

--script

```
aseprite -script filename.lua
```

Executes the given script from the command line.

--script-param

This is a way to add elements to the `app.params` (https://github.com/aseprite/api/blob/master/api/app.md#appparams) table:

```
aseprite -b -script-param key1=value1 -script test.lua
```

And then `test.lua`

```
if app.params["key1"] == "value1" then
  ...
end
```

--list-layers

```
aseprite --list-layers file.ase
```

Prints the list of layers in the given file from bottom to top. E.g.


```
C:\....> aseprite -b --list-layers file.ase
Background
Layer 1
Layer 2
```

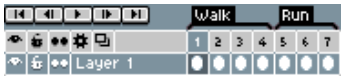
When used with --data, the layers will be available in the JSON output in the `meta` attribute. E.g.

```
{ "frames": [
  ...
 ],
 "meta": {
  ...,
  "layers": [
   { "name": "Background" },
   { "name": "Layer 1" },
   { "name": "Layer 2" }
  ]
 }
}
```

--list-tags

```
aseprite --list-tags file.ase
```

Prints the list of tags in the given file from the first one to the last one. E.g.




```
C:\....> aseprite -b --list-tags file.ase
Walk
Run
```

When used with --data, the tags will be available in the JSON output in the `meta` attribute. E.g.

```
{ "frames": [
  ...
 ],
 "meta": {
  ...,
  "frameTags": [
   { "name": "Walk", "from": 0, "to": 3 },
   { "name": "Run", "from": 4, "to": 6 }
  ]
 }
}
```

--list-slices

Since **v1.2-beta8**:

```
aseprite --list-slices file.ase
```

Prints the list of slices in the given file.

When used with --data, slices will be available in the JSON output in the `meta` attribute. E.g.

```
{ "frames": [
  ...
 ],
 "meta": {
  ...,
  "slices": [
    { "name": "cursor",
      "color": "#0000ffff",
      "keys": [{ "frame": 0,
                 "bounds": {"x": 80, "y": 0, "w": 16, "h": 16 },
                 "center": {"x": 2, "y": 2, "w": 12, "h": 12 },
                 "pivot": {"x": 8, "y": 8 } }] },
    ...
  ]
 }
}
```

--oneframe

```
aseprite -b --oneframe frame1.png --save-as frame1.pcx
aseprite -b --oneframe walk-animation.aseprite --save-as walk-thumbnail.png
```

On **v1.2-beta4**: Load just the first frame of the animation. It's useful to load just one frame in a image sequence (e.g. loading just `frame1.png` in case that `frame2.png`, `frame3.png`, etc. exist) or to load just the first frame of a full animation (e.g. useful to create a thumbnail of the animation).

--export-tileset

```
aseprite -b --export-tileset tilemaps.aseprite --sheet tilesets-sprite-sheet.png
```

Since **v1.3-beta21**: Indicates that --sheet should export tilesets of the visible/filtered layers in the given sprite.

--debug

If you execute Aseprite with the `--debug` parameter in the command line, a special `Aseprite-v1.1-dev-DebugOutput.txt` file will be created in your desktop with possible useful information to know what problem is going on (e.g. this is useful to know what is going on in case that the program don't start correctly).

On Steam, you can add this `--debug` option from the Aseprite properties (http://imgur.com/txXcgzO).

--verbose

```
aseprite --verbose
```

It will log more information in the `aseprite.log` file:

- On Windows: `aseprite.log` is located in `%AppData%\Aseprite\aseprite.log`

- On macOS and Linux: `aseprite.log` is located in `~/.config/aseprite/aseprite.log`

--help

```
aseprite --help
```

Shows available command line options in the console output.

--version

```
aseprite --version
```

Shows Aseprite version.

Use Cases

Convert Aseprite files into PNG, GIF, etc.

```
aseprite.exe -b image.ase --save-as image.png
aseprite.exe -b animation.ase --save-as animation.gif
```

Convert an animation to a sequence of PNG files (frame1.png, frame2.png, etc.)

```
aseprite.exe -b animation.ase --save-as frame1.png
```

Resize one sprite to several dimensions

```
aseprite.exe -b original.ase --scale 2 --save-as output-x2.png
aseprite.exe -b original.ase --scale 4 --save-as output-x4.png
aseprite.exe -b original.ase --scale 6 --save-as output-x6.png
aseprite.exe -b original.ase --scale 8 --save-as output-x8.png
```

Export one layers to PNG/GIF files

```
aseprite.exe -b --layer "Layer 1" animation.ase --save-as output-Layer-1.gif
```

Export all layers into different PNG/GIF files

If `animation.ase` contains 3 frames and layers `Background and Layer 1` , the following command will generate 6 files (one for each frame/layer):

```
aseprite.exe -b --split-layers animation.ase --save-as output1.png
```

Generated files will be:

```
output (Background) 1.png
output (Background) 2.png
output (Background) 3.png
output (Layer 1) 1.png
output (Layer 1) 2.png
output (Layer 1) 3.png
```

On **v1.2-beta1**: You can specify --split-layers and --filename-format implicity using something like:

```
aseprite.exe -b animation.ase --save-as output-{layer}.png
```

Export an animation to a sprite sheet

```
aseprite.exe -b animation.ase --sheet sheet.png --data sheet.json
```

Export each layer as a different animation in the same sprite sheet

```
aseprite.exe -b --split-layers animation-with-layers.ase --sheet sheet.png --data sheet.json
```

Export a specific layer from a sprite

```
aseprite.exe -b --layer=Background sprite.ase --sheet sheet.png --data sheet.json
```

Create a texture atlas from several sprites

```
aseprite.exe -b *.ase --sheet-pack --sheet atlas-bestfit.png --data atlas-bestfit.json
aseprite.exe -b *.ase --sheet-pack --sheet-width=1024 --sheet-height=1024 --sheet atlas-1024x102
4.png --data atlas-1024x1024.json
```

Platform-specific Details

On Windows, if you've installed the program it should be located `Program Files` folder, try this command:

```
"C:\Program Files (x86)\Aseprite\Aseprite.exe" --help
```

Or

```
"C:\Program Files\Aseprite\Aseprite.exe" --help
```

On macOS, if you've installed the program in `/Applications`, try the following command:

```
/Applications/Aseprite.app/Contents/MacOS/aseprite --help
```

Automating the process

If Aseprite was installed directly

You could create a `convert.bat` text file in your assets directory (i.e. where your `.ase` files are located) with some lines like these:

```
@set ASEPRITE="C:\Program Files\Aseprite\aseprite.exe"
%ASEPRITE% -b animation.ase --scale 2 --save-as animation-x2.gif
%ASEPRITE% -b animation.ase --scale 4 --save-as animation-x4.gif
```

So each time you modify the original animation in `animation.ase`, double clicking the `.bat` file you could generate `animation-x2.gif` and `animation-x4.gif` automatically from the new content.

For Mac users, you could create a `convert.sh`:

```
ASEPRITE="/Applications/Aseprite.app/Contents/MacOS/aseprite"
$ASEPRITE -b animation.ase --scale 2 --save-as animation-x2.gif
$ASEPRITE -b animation.ase --scale 4 --save-as animation-x4.gif
```

In the case of Steam

Aseprite binary is installed in the following directories.

- Mac `~/Library/Application Support/Steam/steamapps/common/Aseprite/Aseprite.app/Contents/MacOS/aseprite`
- Windows `C:\Program Files (x86)\Steam\steamapps\common\Aseprite\Aseprite.exe`
- Ubuntu `~/.steam/debian-installation/steamapps/common/Aseprite/aseprite`

Bug Report (https://github.com/aseprite/aseprite/issues/new)
Contributors (/contributors/)
Donations (/donate/)

Documentation

Quick reference (/quickref/)
Docs (/docs/) - FAQ (/faq/)
Tutorial (/tutorial/)
Blog (http://blog.aseprite.org/)

Steam Community (https://steamcommunity.com/app/431730)
/r/aseprite (https://www.reddit.com/r/aseprite/)

Development

GitHub (https://github.com/aseprite/aseprite/)
Devblog (https://dev.aseprite.org/)
Roadmap (/roadmap/)
Contribute (https://github.com/aseprite/aseprite/blob/master/CONTRIBUTIN

Social

Twitter (https://twitter.com/aseprite/)
Mastodon (https://mastodon.art/@aseprite)
Facebook (https://www.facebook.com/aseprite)
YouTube (https://www.youtube.com/user/aseprite)
Instagram (https://www.instagram.com/aseprite/)