

# Package ‘apng’

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**Type** Package

**Title** Convert Png Files into Animated Png

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**Depends** bitops

**Description** Convert several png files into an animated png file.  
This package exports only a single function ‘apng’. Call the apng function with a vector of file names (which should be png files) to convert them to a single animated png file.

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**NeedsCompilation** no

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apng-package

*Convert Png Files into Animated Png*

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**Description**

Convert several png files into an animated png file. This package exports only a single function 'apng'. Call the apng function with a vector of file names (which should be png files) to convert them to a single animated png file.

**Note**

The CRC implementation in this package was adopted from the W3 Portable Network Graphics (PNG) Specification (Second Edition): Annex D - Sample Cyclic Redundancy Code implementation. As such, special thanks go out to the authors of the specification: <https://www.w3.org/TR/PNG/#F-Relationship>.

**Author(s)**

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**References**

<https://www.w3.org/TR/PNG/>  
[https://wiki.mozilla.org/APNG\\_Specification](https://wiki.mozilla.org/APNG_Specification)

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apng

*Convert static pngs to animated png*

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**Description**

Combine multiple png files into an animated png file.

**Usage**

```
apng(input_files = c(), output_file = "output.png",  
      num_plays = 0, delay_num = 0, delay_den = 0,  
      dispose_op = APNG_DISPOSE_OP_NONE,  
      blend_op = APNG_BLEND_OP_SOURCE)
```

**Arguments**

<code>input_files</code>	to specify the names of the input files
<code>output_file</code>	the name of the output file
<code>num_plays</code>	the amount of times to repeat the animation (0 means forever)
<code>delay_num</code>	the numerator of the frame delay ( $delay = \frac{delay\_num}{delay\_den}$ )
<code>delay_den</code>	the denominator of the frame delay ( $delay = \frac{delay\_num}{delay\_den}$ )
<code>dispose_op</code>	the frame disposal strategy (APNG_DISPOSE_OP_NONE, APNG_DISPOSE_OP_BACKGROUND, APNG_DISPOSE_OP_PREVIOUS)
<code>blend_op</code>	the frame blending strategy (APNG_BLEND_OP_SOURCE, APNG_BLEND_OP_OVER) For more information on blending and frame disposal strategies see <a href="https://wiki.mozilla.org/APNG_Specification">https://wiki.mozilla.org/APNG_Specification</a> .

**Value**

Returns nothing, output is written to `output_file`.

**Examples**

```
png(filename="1.png", type="cairo-png")
plot(1:40, (1:40)^2)
dev.off()
png(filename="2.png", type="cairo-png")
plot(1:40, (-1*1:40)^3)
dev.off()
apng(c("1.png", "2.png"))
```

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APNG_BLEND_OP_OVER	<i>Blend previous frame into alpha</i>
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**Description**

When rendering a new frame, the previous frame is filled into the alpha of the new frame. For example, 50% red over blue makes purple.

**Value**

1

APNG\_BLEND\_OP\_SOURCE    *Completely replace the previous frame*

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**Description**

When rendering a new frame, the region is filled as specified exactly by the new frame. For example, 50% red over blue makes 50% red over the background.

**Value**

0

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APNG\_DISPOSE\_OP\_BACKGROUND  
                                  *Prepare region as fully transparent*

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**Description**

Before a new frame is rendered, the region is replaced by the background color.

**Value**

1

---

APNG\_DISPOSE\_OP\_NONE    *Write over the current output buffer*

---

**Description**

Nothing is done to the existing buffer when a new frame is rendered.

**Value**

0

---

APNG\_DISPOSE\_OP\_PREVIOUS  
                                  *Keep previous frame in rendering region*

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**Description**

Before a new frame is rendered, the region is restored to what it was before the previous frame.

**Value**

2

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