

Package: ti (via r-universe)

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Version 0.0.0.9000

Title A single-channel UINT8 TIFF toolkit

Description The {ti} package provides a set of tools for working with single-channel unsigned 8-bit integer TIFF images.

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Encoding UTF-8

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Imports abind, fs, ijtiff, png, purrr, std

Suggests reticulate

Remotes rogiersbart/std

Repository <https://rogiersbart.r-universe.dev>

RemoteUrl <https://github.com/rogiersbart/ti>

RemoteRef HEAD

RemoteSha a0626ccb7afb6307030a94a3a0294c1a19394670

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ff_bob2tif *Convert a brick of bytes to a TIFF image*

Description

Convert a brick of bytes to a TIFF image

Usage

```
ff_bob2tif(path, dims, out = fs::path_ext_set(path, "tif"))
```

Arguments

path	Input image path.
dims	Dimension vector for the TIF image dimensions.
out	Output image path. Defaults to the input image path, with .tif extension.

Value

The image array, invisibly.

ff_compress *Compress a TIFF image*

Description

Compress a TIFF image

Usage

```
ff_compress(path, type = "deflate", out = path)
```

Arguments

path	Input image path.
type	Type of compression to apply ("none", "LZW", "PackBits", "RLE", "JPEG", "deflate" (default) or "Zip").
out	Output image path. Defaults to the input image path.

Value

The output image, invisibly.

ff_csv2tif	<i>Convert a CSV file to a TIFF image</i>
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Description

Convert a CSV file to a TIFF image

Usage

```
ff_csv2tif(path, dims, out = fs::path_ext_set(path, "tif"))
```

Arguments

path	Input image path.
dims	Dimension vector for the TIF image dimensions.
out	Output image path. Defaults to the input image path, with .tif extension.

Value

The image array, invisibly.

ff_extract	<i>Extract specific frames from a multi-frame TIFF</i>
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Description

Extract specific frames from a multi-frame TIFF

Usage

```
ff_extract(path, frames, out = fs::path_ext_set(path, "%frame.tif"))
```

Arguments

path	Path of the multi-frame TIFF.
frames	Frame numbers to extract.
out	Path for the output single-frame images, using "%frame" as placeholder for the frame number. Defaults to the input file path with extension ".001.tif" etc.

ff_invert	<i>Invert a TIFF image</i>
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Description

Invert a TIFF image

Usage

```
ff_invert(path, out = path)
```

Arguments

path	Input image path.
out	Output image path. Defaults to the input image path.

Value

The output image, invisibly.

ff_merge	<i>Merge single-frame images into a multi-frame TIFF</i>
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Description

Merge single-frame images into a multi-frame TIFF

Usage

```
ff_merge(paths, out)
```

Arguments

paths	Paths to the single-frame images to be merged.
out	Path to the output multi-frame TIFF.

ff_numpy2tif	<i>Convert a NumPy array to a TIFF image</i>
--------------	--

Description

Convert a NumPy array to a TIFF image

Usage

```
ff_numpy2tif(path, out = fs::path_ext_set(path, "tif"))
```

Arguments

path	Input image path.
out	Output image path. Defaults to the input image path, with .tif extension.

Value

The image array, invisibly.

ff_png2tif	<i>Convert a PNG image to a TIFF image</i>
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Description

Convert a PNG image to a TIFF image

Usage

```
ff_png2tif(path, out = fs::path_ext_set(path, "tif"))
```

Arguments

path	Input image path.
out	Output image path. Defaults to the input image path, with .tif extension.

Value

The image array, invisibly.

ff_read	<i>Read a TIFF image</i>
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Description

Read a TIFF image

Usage

```
ff_read(path)
```

Arguments

path	Image path.
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ff_split	<i>Split a multi-frame TIFF into single-frame images</i>
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Description

Split a multi-frame TIFF into single-frame images

Usage

```
ff_split(path, out = fs::path_ext_set(path, "%frame.tif"))
```

Arguments

path	Path of the multi-frame TIFF.
out	Path for the output single-frame images, using "%frame" as placeholder for the frame number. Defaults to the input file path with extension ".001.tif" etc.

ff_stretch	<i>Stretch the contrast of a TIFF image</i>
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Description

Stretch the contrast of a TIFF image

Usage

```
ff_stretch(path, out = path)
```

Arguments

path	Input image path.
out	Output image path. Defaults to the input image path.

Value

The output image, invisibly.

ff_tif2bob	<i>Convert a TIFF image to a brick of bytes</i>
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Description

Convert a TIFF image to a brick of bytes

Usage

```
ff_tif2bob(path, out = fs::path_ext_set(path, "bob"))
```

Arguments

path	Input image path.
out	Output image path. Defaults to the input image path, with .tif extension.

Value

The image array, invisibly.

`ff_tif2csv`*Convert a TIFF image to a CSV file*

Description

Convert a TIFF image to a CSV file

Usage

```
ff_tif2csv(path, out = fs::path_ext_set(path, "csv"))
```

Arguments

<code>path</code>	Input image path.
<code>out</code>	Output image path. Defaults to the input image path, with .tif extension.

Value

The image array, invisibly.

`ff_tif2numpy`*Convert a TIFF image to a NumPy array*

Description

Convert a TIFF image to a NumPy array

Usage

```
ff_tif2numpy(path, out = fs::path_ext_set(path, "numpy"))
```

Arguments

<code>path</code>	Input image path.
<code>out</code>	Output image path. Defaults to the input image path, with .tif extension.

Value

The image array, invisibly.

ff_tif2png	<i>Convert a TIFF image to a PNG image</i>
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Description

Convert a TIFF image to a PNG image

Usage

```
ff_tif2png(path, out = fs::path_ext_set(path, "png"))
```

Arguments

path	Input image path.
out	Output image path. Defaults to the input image path, with .tif extension.

Value

The image array, invisibly.

ff_transpose	<i>Transpose a TIFF image</i>
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Description

Transpose a TIFF image

Usage

```
ff_transpose(path, dims, out = path)
```

Arguments

path	Input image path.
dims	The dimension permutation vector.
out	Output image path. Defaults to the input image path.

Value

The output image, invisibly.

`ff_write`*Write a TIFF image*

Description

Write a TIFF image

Usage

```
ff_write(img, path, compression = "deflate")
```

Arguments

<code>img</code>	2D or 3D array.
<code>path</code>	Path to write to.
<code>compression</code>	Type of compression to apply ("none", "LZW", "PackBits", "RLE", "JPEG", "deflate" (default) or "Zip").

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