Amtiri

AMTIRI SCRIPT

Colours

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Colours

Darker

`darker` · `darker(color: colour, factor: double)`

Darkens a colour by a factor, towards black. The result is a colour number; a style needs it as text: "#%06X".format(darker(rgb(1, 0, 0), 0.5)).

Parameters

Name	Type	Description
`color`	`colour`	The colour to darken.
`factor`	`double`	How far to darken it, 0 leaving it unchanged and 1 reaching black.

Returns `colour`: The darkened colour, as a colour number.

Examples

```
darker(rgb(1, 0.5, 0), 0.5) # 6307871
"#%06X".format(darker(rgb(1, 0.5, 0), 0.5)) # "#60401F"
```

Gradient

`gradient` · `gradient(gradient_name: name, value: double)`

Picks the colour a named gradient assigns to a value - the usual way to drive an indicator from a reading. The result is a colour number; a style needs it as text: "#%06X".format(gradient(rainbow, 0.5)).

Parameters

Name	Type	Description
`gradient_name`	`name`	The gradient's name, written bare rather than quoted - it is read as an identifier, not as text. A name the host has not registered is an error.
`value`	`double`	The reading to look up along the gradient.

Returns `colour`: The colour the gradient assigns to the value, as a colour number.

Examples

```
gradient(red2green, 0) # 16711680
"#%06X".format(gradient(red2green, 1)) # "#00FF00"
"#%06X".format(gradient(RED2GREEN, 0.5)) # "#FFFF00"
gradient(nosuch, 0.5) # error
```

HSL colour

`hsl` · `hsl(h: double, s: double, l: double)`

Builds a colour from hue, saturation and lightness - easier than RGB when a colour has to vary smoothly with a reading. The hue is in turns: 0 is red, 0.3333 green, 0.6667 blue. The result is a colour number; a style needs it as text: "#%06X".format(hsl(0.3333, 1, 0.5)).

Parameters

Name	Type	Description
`h`	`double`	The hue in turns, from 0 to 1; whole turns wrap round, so 1 is red again.
`s`	`double`	The saturation, 0 to 1.
`l`	`double`	The lightness, 0 to 1.

Returns `colour` : The colour, as a colour number.

Examples

```
"#%06X".format(hsl(0, 1, 0.5)) # "#FF0000"
"#%06X".format(hsl(0.3333, 1, 0.5)) # "#00FF00"
hsl(0.5, 1, 0.5) # 65535
```

Lighter

`lighter` · `lighter(color: colour, factor: double)`

Lightens a colour by a factor, towards white. The result is a colour number; a style needs it as text: "#%06X".format(lighter(rgb(1, 0, 0), 0.5)).

Parameters

Name	Type	Description
`color`	`colour`	The colour to lighten.
`factor`	`double`	How far to lighten it, 0 leaving it unchanged and 1 reaching white.

Returns `colour` : The lightened colour, as a colour number.

Examples

```
lighter(rgb(0.5, 0, 0), 0.5) # 13660272
"#%06X".format(lighter(rgb(0.5, 0, 0), 0.5)) # "#D07070"
```

RGB colour

`rgb` · `rgb(r: double, g: double, b: double)`

Builds a colour from red, green and blue, each a fraction from 0 to 1: rgb(1, 0, 0) is pure red, and values of 1 and above are capped. The result is a colour number; a style needs it as text: "#%06X".format(rgb(1, 0, 0)).

Parameters

Name	Type	Description
`r`	`double`	The red component, a fraction from 0 to 1.
`g`	`double`	The green component, a fraction from 0 to 1.
`b`	`double`	The blue component, a fraction from 0 to 1.

Returns `colour`: The colour, as a colour number.

Examples

```
rgb(1, 0, 0) # 16711680
"#%06X".format(rgb(0, 0.5, 1)) # "#0080FF"
rgb(128, 0, 0) # 16711680
```

This page describes Amtiri Script 5.5.0 as shipped with Data Orchester engine 6.22.0 and Site 1.27.0.