

Gura モジュールリファレンス - cairo

Updated: November 5, 2013

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Official site: <http://www.gura-lang.org/>

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1. このリファレンスについて

本リファレンスは **Gura** の **cairo** モジュールで定義されている関数やクラスの仕様について説明します。
Cairo のオフィシャルサイトは <http://cairographics.org/> です。

2. リファレンス

2.1. image クラスの拡張

2.1.1. インスタンスメソッド

```
image#cairo() {block?}
```

2.2. 定数値

2.2.1. cairo_path_data_type_t

cairo.PATH_MOVE_TO	
cairo.PATH_LINE_TO	
cairo.PATH_CURVE_TO	
cairo.PATH_CLOSE_PATH	

2.2.2. cairo_antialias_t

cairo.ANTIALIAS_DEFAULT	
cairo.ANTIALIAS_NONE	
cairo.ANTIALIAS_GRAY	
cairo.ANTIALIAS_SUBPIXEL	

2.2.3. cairo_fill_rule_t

cairo.FILL_RULE_WINDING	
cairo.FILL_RULE_EVEN_ODD	

2.2.4. cairo_line_cap_t

cairo.LINE_CAP_BUTT	
cairo.LINE_CAP_ROUND	
cairo.LINE_CAP_SQUARE	

2.2.5. cairo_line_join_t

cairo.LINE_JOIN_MITER	
cairo.LINE_JOIN_ROUND	
cairo.LINE_JOIN_BEVEL	

2.2.6. cairo_font_slant_t

cairo.FONT_SLANT_NORMAL	
cairo.FONT_SLANT_ITALIC	

cairo.FONT_SLANT_OBLIQUE	
--------------------------	--

2.2.7. **cairo_font_weight_t**

cairo.FONT_WEIGHT_NORMAL	
cairo.FONT_WEIGHT_BOLD	

2.2.8. **cairo_font_type_t**

cairo.FONT_TYPE_TOY	
cairo.FONT_TYPE_FT	
cairo.FONT_TYPE_WIN32	
cairo.FONT_TYPE_QUARTZ	
cairo.FONT_TYPE_USER	

2.2.9. **cairo_operator_t**

cairo.OPERATOR_CLEAR	
cairo.OPERATOR_SOURCE	
cairo.OPERATOR_OVER	
cairo.OPERATOR_IN	
cairo.OPERATOR_OUT	
cairo.OPERATOR_ATOP	
cairo.OPERATOR_DEST	
cairo.OPERATOR_DEST_OVER	
cairo.OPERATOR_DEST_IN	
cairo.OPERATOR_DEST_OUT	
cairo.OPERATOR_DEST_ATOP	
cairo.OPERATOR_XOR	
cairo.OPERATOR_ADD	
cairo.OPERATOR_SATURATE	
cairo.OPERATOR_MULTIPLY	
cairo.OPERATOR_SCREEN	
cairo.OPERATOR_OVERLAY	
cairo.OPERATOR_DARKEN	
cairo.OPERATOR_LIGHTEN	
cairo.OPERATOR_COLOR_DODGE	
cairo.OPERATOR_COLOR_BURN	
cairo.OPERATOR_HARD_LIGHT	
cairo.OPERATOR_SOFT_LIGHT	
cairo.OPERATOR_DIFFERENCE	

cairo.OPERATOR_EXCLUSION	
cairo.OPERATOR_HSL_HUE	
cairo.OPERATOR_HSL_SATURATION	
cairo.OPERATOR_HSL_COLOR	
cairo.OPERATOR_HSL_LUMINOSITY	

2.2.10. cairo_region_overlap_t

cairo.REGION_OVERLAP_IN	
cairo.REGION_OVERLAP_OUT	
cairo.REGION_OVERLAP_PART	

2.2.11. cairo_extend_t

cairo.EXTEND_NONE	
cairo.EXTEND_REPEAT	
cairo.EXTEND_REFLECT	
cairo.EXTEND_PAD	

2.2.12. cairo_filter_t

cairo.FILTER_FAST	
cairo.FILTER_GOOD	
cairo.FILTER_BEST	
cairo.FILTER_NEAREST	
cairo.FILTER_BILINEAR	
cairo.FILTER_GAUSSIAN	

2.2.13. cairo_content_t

cairo.CONTENT_COLOR	
cairo.CONTENT_ALPHA	
cairo.CONTENT_COLOR_ALPHA	

2.2.14. cairo_subpixel_order_t

cairo.SUBPIXEL_ORDER_DEFAULT	
cairo.SUBPIXEL_ORDER_RGB	
cairo.SUBPIXEL_ORDER_BGR	
cairo.SUBPIXEL_ORDER_VRGB	
cairo.SUBPIXEL_ORDER_VBGR	

2.2.15. `cairo_hint_style_t`

<code>cairo.HINT_STYLE_DEFAULT</code>	
<code>cairo.HINT_STYLE_NONE</code>	
<code>cairo.HINT_STYLE_SLIGHT</code>	
<code>cairo.HINT_STYLE_MEDIUM</code>	
<code>cairo.HINT_STYLE_FULL</code>	

2.2.16. `cairo_hint_metrics_t`

<code>cairo.HINT_METRICS_DEFAULT</code>	
<code>cairo.HINT_METRICS_OFF</code>	
<code>cairo.HINT_METRICS_ON</code>	

2.2.17. `cairo_surface_type_t`

<code>cairo.SURFACE_TYPE_IMAGE</code>	
<code>cairo.SURFACE_TYPE_PDF</code>	
<code>cairo.SURFACE_TYPE_PS</code>	
<code>cairo.SURFACE_TYPE_XLIB</code>	
<code>cairo.SURFACE_TYPE_XCB</code>	
<code>cairo.SURFACE_TYPE_GLITZ</code>	
<code>cairo.SURFACE_TYPE_QUARTZ</code>	
<code>cairo.SURFACE_TYPE_WIN32</code>	
<code>cairo.SURFACE_TYPE_BEOS</code>	
<code>cairo.SURFACE_TYPE_DIRECTFB</code>	
<code>cairo.SURFACE_TYPE_SVG</code>	
<code>cairo.SURFACE_TYPE_OS2</code>	
<code>cairo.SURFACE_TYPE_WIN32_PRINTING</code>	
<code>cairo.SURFACE_TYPE_QUARTZ_IMAGE</code>	
<code>cairo.SURFACE_TYPE_SCRIPT</code>	
<code>cairo.SURFACE_TYPE_QT</code>	
<code>cairo.SURFACE_TYPE_RECORDING</code>	
<code>cairo.SURFACE_TYPE_VG</code>	
<code>cairo.SURFACE_TYPE_GL</code>	
<code>cairo.SURFACE_TYPE_DRM</code>	
<code>cairo.SURFACE_TYPE_TEE</code>	
<code>cairo.SURFACE_TYPE_XML</code>	
<code>cairo.SURFACE_TYPE_SKIA</code>	
<code>cairo.SURFACE_TYPE_SUBSURFACE</code>	

2.3. cairo.surface クラス

2.3.1. インスタンスメソッド

`cairo.surface#copy_page():reduce`

`cairo.surface#finish():reduce`

`cairo.surface#flush():reduce`

`cairo.surface#get_content()`

`cairo.surface#get_device()`

`cairo.surface#get_device_offset()`

`cairo.surface#get_fallback_resolution()`

`cairo.surface#get_font_options()`

`cairo.surface#get_mime_data()`

`cairo.surface#has_show_text_glyphs()`

`cairo.surface#mark_dirty():reduce`

`cairo.surface#mark_dirty_rectangle(x:number, y:number, width:number, height:number):reduce`

`cairo.surface#set_device_offset(x_offset:number, y_offset:number):reduce`

`cairo.surface#set_fallback_resolution(x_pixels_per_inch:number, y_pixels_per_inch:number):reduce`

`cairo.surface#set_mime_data():reduce`

`cairo.surface#show_page():reduce`

2.4. cairo.pattern クラス

2.4.1. インスタンスの生成

`cairo.pattern_create_color(color:color, alpha?:number) {block?}`

`cairo.pattern_create_for_surface(surface:surface) {block?}`

`cairo.pattern_create_linear(x0:number, y0:number, x1:number, y1:number) {block?}`

`cairo.pattern_create_radial(cx0:number, cy0:number, radius0:number, cx1:number, cy1:number, radius1:number) {block?}`


```
cairo.pattern_create_rgb(red:number, green:number, blue:number) {block?}
```

```
cairo.pattern_create_rgba(red:number, green:number, blue:number, alpha:number)  
  {block?}
```

2.4.2. インスタンスメソッド

```
cairo.pattern#add_color_stop_rgb(offset:number, red:number, green:number, blue:number):reduce
```

```
cairo.pattern#add_color_stop_rgba(offset:number, red:number, green:number, blue:number,  
  alpha:number):reduce
```

```
cairo.pattern#get_color_stop_count()
```

```
cairo.pattern#get_color_stop_rgba(index:number)
```

```
cairo.pattern#get_extend()
```

```
cairo.pattern#get_filter()
```

```
cairo.pattern#get_linear_points()
```

```
cairo.pattern#get_matrix()
```

```
cairo.pattern#get_radial_circles():reduce
```

```
cairo.pattern#get_rgba()
```

```
cairo.pattern#get_surface()
```

```
cairo.pattern#set_extend(extend:symbol):reduce
```

```
cairo.pattern#set_filter(filter:symbol):reduce
```

```
cairo.pattern#set_matrix(matrix:matrix):reduce
```

2.5. cairo.region クラス

2.5.1. インスタンスメソッド

```
cairo.region#contains_point(x:number, y:number)
```

```
cairo.region#contains_rectangle(rectangle:rectangle_int)
```

```
cairo.region#equal(region:region)
```

```
cairo.region#intersect(other:region)
```

```
cairo.region#intersect_rectangle(rectangle:rectangle_int)
```

```
cairo.region#is_empty()
```

```
cairo.region#subtract(other:region)

cairo.region#subtract_rectangle(rectangle:rectangle_int)

cairo.region#translate(dx:number, dy:number)

cairo.region#union(other:region)

cairo.region#union_rectangle(rectangle:rectangle_int)

cairo.region#xor(other:region)

cairo.region#xor_rectangle(rectangle:rectangle_int)
```

2.6. cairo.context クラス

2.6.1. インスタンスの生成

```
cairo.emf_create(filename:string, width_in_points:number, height_in_points:number)
    {block?}

cairo.image_create(width:number, height:number, color?:color) {block?}

cairo.pdf_create(stream:stream, width_in_points:number, height_in_points:number)
    {block?}

cairo.ps_create(stream:stream, width_in_points:number, height_in_points:number)
    {block?}

cairo.svg_create(stream:stream, width_in_points:number, height_in_points:number)
    {block?}
```

2.6.2. インスタンスメソッド

```
cairo.context#arc(xc:number, yc:number, radius:number, angle1?:number, angle2?:number):map:reduce

cairo.context#arc_negative(xc:number, yc:number, radius:number, angle1?:number,
    angle2?:number):map:reduce

cairo.context#clip():reduce

cairo.context#clip_extents()

cairo.context#clip_preserve():reduce
```

```
cairo.context#close_path():reduce
cairo.context#copy_clip_rectangle_list()
cairo.context#copy_page():reduce
cairo.context#copy_path()
cairo.context#copy_path_flat()
cairo.context#curve_to(x1:number, y1:number, x2:number, y2:number, x3:number,
    y3:number):map:reduce
cairo.context#device_to_user(x:number, y:number)
cairo.context#device_to_user_distance(dx:number, dy:number)
cairo.context#fill():reduce
cairo.context#fill_extents():reduce
cairo.context#fill_preserve():reduce
cairo.context#font_extents()
cairo.context#get_antialias()
cairo.context#get_current_point()
cairo.context#get_dash()
cairo.context#get_fill_rule()
cairo.context#get_font_face()
cairo.context#get_font_matrix()
cairo.context#get_font_options()
cairo.context#get_group_target()
cairo.context#get_line_cap()
cairo.context#get_line_join()
cairo.context#get_line_width()
cairo.context#get_matrix()
cairo.context#get_miter_limit()
cairo.context#get_operator()
```

```

cairo.context#get_scaled_font()

cairo.context#get_source()

cairo.context#get_target()

cairo.context#get_tolerance()

cairo.context#glyph_extents()

cairo.context#has_current_point()

cairo.context#identity_matrix():reduce

cairo.context#in_clip(x:number, y:number)

cairo.context#in_fill(x:number, y:number)

cairo.context#in_stroke(x:number, y:number)

cairo.context#line_to(x:number, y:number):map:reduce

cairo.context#mask(pattern:pattern):reduce

cairo.context#mask_surface(surface:surface, surface_x:number, surface_y:number):reduce

cairo.context#move_to(x:number, y:number):map:reduce

cairo.context#new_path():reduce

cairo.context#new_sub_path():reduce

cairo.context#paint():reduce

cairo.context#paint_with_alpha(alpha:number):reduce

cairo.context#path_extents()

cairo.context#pop_group()

cairo.context#pop_group_to_source():reduce

cairo.context#push_group():reduce

cairo.context#push_group_with_content(content:symbol):reduce

cairo.context#rectangle(x:number, y:number, width:number,
    height:number):map:reduce

cairo.context#rel_curve_to(dx1:number, dy1:number, dx2:number, dy2:number, dx3:number,
    dy3:number):map:reduce

```

```

cairo.context#rel_line_to(dx:number, dy:number):map:reduce
cairo.context#rel_move_to(dx:number, dy:number):map:reduce
cairo.context#reset_clip():reduce
cairo.context#restore():reduce
cairo.context#rotate(angle:number):reduce
cairo.context#save():reduce {block?}
cairo.context#scale(sx:number, sy:number):reduce
cairo.context#select_font_face(family:string,                                slant:symbol,
                                weight:symbol):reduce
cairo.context#set_antialias(antialias:symbol):reduce
cairo.context#set_dash(dashes[:number, offset:number):reduce
cairo.context#set_fill_rule(fill_rule:symbol):reduce
cairo.context#set_font_face():reduce
cairo.context#set_font_matrix(matrix:matrix):reduce
cairo.context#set_font_options(options:font_options):reduce
cairo.context#set_font_size(size:number):reduce
cairo.context#set_line_cap(line_cap:symbol):reduce
cairo.context#set_line_join(line_join:symbol):reduce
cairo.context#set_line_width(width:number):reduce
cairo.context#set_matrix(matrix:matrix):reduce
cairo.context#set_miter_limit(limit:number):reduce
cairo.context#set_operator(op:symbol):reduce
cairo.context#set_scaled_font():reduce
cairo.context#set_source(source:pattern):reduce
cairo.context#set_source_color(color:color, alpha?:number):reduce
cairo.context#set_source_rgb(red:number, green:number, blue:number):reduce
cairo.context#set_source_rgba(red:number,                                green:number,                                blue:number,
```

```
alpha:number):reduce

cairo.context#set_source_surface(surface:surface, x:number, y:number):reduce

cairo.context#set_tolerance(tolerance:number):reduce

cairo.context#show_glyphs(glyphs[:glyph]):reduce

cairo.context#show_page():reduce

cairo.context#show_text(text:string):reduce

cairo.context#show_text_glyphs():reduce

cairo.context#stroke():reduce

cairo.context#stroke_extents()

cairo.context#stroke_preserve():reduce

cairo.context#text_extents(text:string)

cairo.context#text_path(text:string):map:reduce

cairo.context#transform(matrix:matrix):reduce

cairo.context#translate(tx:number, ty:number):reduce

cairo.context#user_to_device(x:number, y:number)

cairo.context#user_to_device_distance(dx:number, dy:number)
```