

VGLGUI

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Namespace Index

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2.1 Class Hierarchy

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Chapter 5

Namespace Documentation

5.1 execWorkflow Namespace Reference

Functions

- def [GlyphExecutedUpdate](#) (GlyphExecutedUpdate_Glyph_Id, GlyphExecutedUpdate_image)
- def [imshow](#) (im)
- def [tratnum](#) (num)

Variables

- int [nSteps](#) = 1
- string [msg](#) = ""
- [CPU](#) = cl.device_type.CPU
- [GPU](#) = cl.device_type.GPU
- float [total](#) = 0.0
- [vglLoadImage_img_in_path](#) = vGlyph.lst_par[0].getValue()
- [vglLoadImage_img_input](#) = vl.VglImage([vglLoadImage_img_in_path](#), None, vl.VGL_IMAGE_2D_IMAGE(), vl.IMAGE_ND_ARRAY())
- [vglCreateImage_img_input](#) = getImageInputByName(vGlyph.glyph_id, 'img')
- [vglCreateImage_RETVAL](#) = vl.create_blank_image_as([vglCreateImage_img_input](#))
- [vglCIBlurSq3_img_input](#) = getImageInputByName(vGlyph.glyph_id, 'img_input')
- [vglCIBlurSq3_img_output](#) = getImageInputByName(vGlyph.glyph_id, 'img_output')
- [t0](#) = datetime.now()
- [t1](#) = datetime.now()
- [t](#) = [t1](#) - [t0](#)
- tuple [media](#) = (t.total_seconds() * 1000) / [nSteps](#)
- [vglCI3dBlurSq3_img_input](#) = getImageInputByName(vGlyph.glyph_id, 'img_input')
- [vglCI3dBlurSq3_img_output](#) = getImageInputByName(vGlyph.glyph_id, 'img_output')
- [vglCIErode_img_input](#) = getImageInputByName(vGlyph.glyph_id, 'img_input')
- [vglCIErode_img_output](#) = getImageInputByName(vGlyph.glyph_id, 'img_output')
- [vglCI3dErode_img_input](#) = getImageInputByName(vGlyph.glyph_id, 'img_input')
- [vglCI3dErode_img_output](#) = getImageInputByName(vGlyph.glyph_id, 'img_output')
- [vglCINErode_img_input](#) = getImageInputByName(vGlyph.glyph_id, 'img_input')
- [vglCINErode_img_output](#) = getImageInputByName(vGlyph.glyph_id, 'img_output')
- [Erode_buffer](#) = vl.create_blank_image_as([vglCINErode_img_input](#))
- [diff](#) = [t1](#) - [t0](#)

```

• vglCINdErode_img_input = getImageInputByName(vGlyph.glyph_id, 'img_input')
    print(vglShape.getShape())
• vglCINdErode_img_output = getImageInputByName(vGlyph.glyph_id, 'img_output')
• vglShape_img_input = getImageInputByName(vGlyph.glyph_id, 'img_output')
• vglShape = vl.VglShape()
• size
• window = vl.VglStrEl()
    CASO DO TYPE.
• dictionary kernel_type_map
• input = vGlyph.lst_par[0].getValue().strip().lower()
• type = None
• str_list = vGlyph.lst_par[0].getValue()
• data = np.array(str_list, dtype=np.float32)
• vglCINdDilate_img_input = getImageInputByName(vGlyph.glyph_id, 'img_input')
• vglCINdDilate_img_output = getImageInputByName(vGlyph.glyph_id, 'img_output')
• vglCINdConvolution_img_input = getImageInputByName(vGlyph.glyph_id, 'img_input')
• vglCINdConvolution_img_output = getImageInputByName(vGlyph.glyph_id, 'img_output')
• vglCIConvolution_img_input = getImageInputByName(vGlyph.glyph_id, 'img_input')
• vglCIConvolution_img_output = getImageInputByName(vGlyph.glyph_id, 'img_output')
• vglCI3dConvolution_img_input = getImageInputByName(vGlyph.glyph_id, 'img_input')
• vglCI3dConvolution_img_output = getImageInputByName(vGlyph.glyph_id, 'img_output')
• vglCINConvolution_img_input = getImageInputByName(vGlyph.glyph_id, 'img_input')
• vglCINConvolution_img_output = getImageInputByName(vGlyph.glyph_id, 'img_output')
• Conv_buffer = vl.create_blank_image_as(vglCINConvolution_img_input)
• vglCIDilate_img_input = getImageInputByName(vGlyph.glyph_id, 'img_input')
• vglCIDilate_img_output = getImageInputByName(vGlyph.glyph_id, 'img_output')
• vglCI3dDilate_img_input = getImageInputByName(vGlyph.glyph_id, 'img_input')
• vglCI3dDilate_img_output = getImageInputByName(vGlyph.glyph_id, 'img_output')
• vglCINDilate_img_input = getImageInputByName(vGlyph.glyph_id, 'img_input')
• vglCINDilate_img_output = getImageInputByName(vGlyph.glyph_id, 'img_output')
• Dilate_buffer = vl.create_blank_image_as(vglCINDilate_img_input)
• vglCIThreshold_img_input = getImageInputByName(vGlyph.glyph_id, 'src')
• vglCIThreshold_img_output = getImageInputByName(vGlyph.glyph_id, 'dst')
• tuple med = (diff.total_seconds() * 1000) / nSteps
• vglCI3dThreshold_img_input = getImageInputByName(vGlyph.glyph_id, 'src')
• vglCI3dThreshold_img_output = getImageInputByName(vGlyph.glyph_id, 'dst')
• vglCINdThreshold_img_input = getImageInputByName(vGlyph.glyph_id, 'src')
• vglCINdThreshold_img_output = getImageInputByName(vGlyph.glyph_id, 'dst')
• vglCISwapRgb_img_input = getImageInputByName(vGlyph.glyph_id, 'src')
• vglCISwapRgb_img_output = getImageInputByName(vGlyph.glyph_id, 'dst')
• vglCIRgb2Gray_img_input = getImageInputByName(vGlyph.glyph_id, 'img_input')
• vglCIRgb2Gray_img_output = getImageInputByName(vGlyph.glyph_id, 'img_output')
• vglCIInvert_img_input = getImageInputByName(vGlyph.glyph_id, 'img_input')
• vglCIInvert_img_output = getImageInputByName(vGlyph.glyph_id, 'img_output')
• vglCISub_img_input1 = getImageInputByName(vGlyph.glyph_id, 'img_input1')
• vglCISub_img_output = getImageInputByName(vGlyph.glyph_id, 'img_output')
• vglCISub_img_input2 = getImageInputByName(vGlyph.glyph_id, 'img_input2')
• vglCIMin_img_input = getImageInputByName(vGlyph.glyph_id, 'img_input')
• vglCIMin_img_output = getImageInputByName(vGlyph.glyph_id, 'img_output')
• vglCISum_img_input = getImageInputByName(vGlyph.glyph_id, 'img_input')
• vglCISum_img_output = getImageInputByName(vGlyph.glyph_id, 'img_output')
• Closing_img_input = getImageInputByName(vGlyph.glyph_id, 'img_input')
• Closing_img_output = getImageInputByName(vGlyph.glyph_id, 'img_output')
• Closing_buffer = vl.create_blank_image_as(Closing_img_input)

```

- `Rec_img_input` = `getImageInputByIdName(vGlyph.glyph_id, 'img_input')`
- `Rec_img_output` = `getImageInputByIdName(vGlyph.glyph_id, 'img_output')`
- `n_pixel` = `np.uint32(vGlyph.lst_par[0].getValue())`
- `def elemento` = `tratnum(vGlyph.lst_par[0].getValue())`
- `x` = `np.uint32(vGlyph.lst_par[1].getValue())`
- `y` = `np.uint32(vGlyph.lst_par[2].getValue())`
- `Rec_imgt1` = `vl.create_blank_image_as(Rec_img_input)`
- `Rec_buffer` = `vl.create_blank_image_as(Rec_img_input)`
- `int result` = 0
- `int count` = 0
- `initial_value` = `int(vGlyph.lst_par[0].getValue())`
- `CONTROL.`
- `final_value` = `int(vGlyph.lst_par[1].getValue())`
- `increment` = `int(vGlyph.lst_par[2].getValue())`
- `merge_img_input1` = `getImageInputByIdName(vGlyph.glyph_id, 'img_input1')`
- `merge_img_input2` = `getImageInputByIdName(vGlyph.glyph_id, 'img_input2')`
- `merge_img_output` = `getImageInputByIdName(vGlyph.glyph_id, 'img_output')`
- `tinput` = `getImageInputByIdName(vGlyph.glyph_id, 'img_input1')`
- `trinput` = `getImageInputByIdName(vGlyph.glyph_id, 'img_input2')`
- `toutput` = `getImageInputByIdName(vGlyph.glyph_id, 'img_output')`
- `ShowImage_img_input` = `getImageInputByIdName(vGlyph.glyph_id, 'image')`
- `ShowImage_img_ndarray` = `VglImage.get_ipl>ShowImage_img_input)`
- `vglSaveImage_img_input` = `getImageInputByIdName(vGlyph.glyph_id, 'image')`
- `vpath` = `vGlyph.lst_par[0].getValue()`
- `file`
- `string msg1` = "Valor `total` do tempo médio: "+`str(total)`

5.1.1 Function Documentation

5.1.1.1 GlyphExecutedUpdate()

```
def execWorkflow.GlyphExecutedUpdate (
    GlyphExecutedUpdate_Glyph_Id,
    GlyphExecutedUpdate_image )
```

5.1.1.2 imshow()

```
def execWorkflow.imshow (
    im )
```

5.1.1.3 tratnum()

```
def execWorkflow.tratnum (
    num )
```

5.1.2 Variable Documentation

5.1.2.1 Closing_buffer

```
execWorkflow.Closing_buffer = vl.create_blank_image_as(Closing_img_input)
```

5.1.2.2 Closing_img_input

```
execWorkflow.Closing_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_input')
```

5.1.2.3 Closing_img_output

```
execWorkflow.Closing_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.4 Conv_buffer

```
execWorkflow.Conv_buffer = vl.create_blank_image_as(vglClNConvolution_img_input)
```

5.1.2.5 count

```
int execWorkflow.count = 0
```

5.1.2.6 CPU

```
execWorkflow.CPU = cl.device_type.CPU
```

5.1.2.7 data

```
execWorkflow.data = np.array(str_list, dtype=np.float32)
```

5.1.2.8 diff

```
execWorkflow.diff = t1 - t0
```

5.1.2.9 Dilate_buffer

```
execWorkflow.Dilate_buffer = vl.create_blank_image_as(vglC1NDilate_img_input)
```

5.1.2.10 elemento

```
def execWorkflow.elemento = tratnum(vGlyph.lst_par[0].getValue())
```

5.1.2.11 Erode_buffer

```
execWorkflow.Erode_buffer = vl.create_blank_image_as(vglC1NErode_img_input)
```

5.1.2.12 file

```
execWorkflow.file
```

5.1.2.13 final_value

```
execWorkflow.final_value = int(vGlyph.lst_par[1].getValue())
```

5.1.2.14 GPU

```
execWorkflow.GPU = cl.device_type.GPU
```

5.1.2.15 increment

```
execWorkflow.increment = int(vGlyph.lst_par[2].getValue())
```

5.1.2.16 initial_value

```
execWorkflow.initial_value = int(vGlyph.lst_par[0].getValue())
```

CONTROL.

CONTROL::COUNT::1:255:377::-inital_value 0 -final_value 10 increment 1

5.1.2.17 input

```
execWorkflow.input = vGlyph.lst_par[0].getValue().strip().lower()
```

5.1.2.18 kernel_type_map

```
dictionary execWorkflow.kernel_type_map
```

Initial value:

```
1 = {  
2     'gaussian': 3,  
3     'cross': 2,  
4     'mean': 4,  
5     'cube': 1  
6 }
```

5.1.2.19 med

```
tuple execWorkflow.med = (diff.total_seconds() * 1000) / nSteps
```

5.1.2.20 media

```
tuple execWorkflow.media = (t.total_seconds() * 1000) / nSteps
```

5.1.2.21 merge_img_input1

```
execWorkflow.merge_img_input1 = getImageInputByIdName(vGlyph.glyph_id, 'img_input1')
```

5.1.2.22 merge_img_input2

```
execWorkflow.merge_img_input2 = getImageInputByIdName(vGlyph.glyph_id, 'img_input2')
```

5.1.2.23 merge_img_output

```
execWorkflow.merge_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.24 msg

```
string execWorkflow.msg = ""
```

5.1.2.25 msg1

```
string execWorkflow.msg1 = "Valor total do tempo médio: "+str(total)
```

5.1.2.26 n_pixel

```
execWorkflow.n_pixel = np.uint32(vGlyph.lst_par[0].getValue())
```

5.1.2.27 nSteps

```
int execWorkflow.nSteps = 1
```

5.1.2.28 Rec_buffer

```
execWorkflow.Rec_buffer = vl.create_blank_image_as(Rec_img_input)
```

5.1.2.29 Rec_img_input

```
execWorkflow.Rec_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_input')
```

5.1.2.30 Rec_img_output

```
execWorkflow.Rec_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.31 Rec_int1

```
execWorkflow.Rec_int1 = vl.create_blank_image_as(Rec_img_input)
```

5.1.2.32 result

```
int execWorkflow.result = 0
```

5.1.2.33 ShowImage_img_input

```
execWorkflow.ShowImage_img_input = getImageInputByIdName(vGlyph.glyph_id, 'image')
```

5.1.2.34 ShowImage_img_ndarray

```
execWorkflow.ShowImage_img_ndarray = VglImage.get_ipl(ShowImage_img_input)
```

5.1.2.35 size

```
execWorkflow.size
```

5.1.2.36 str_list

```
execWorkflow.str_list = vGlyph.lst_par[0].getValue()
```

5.1.2.37 t

```
execWorkflow.t = t1 - t0
```

5.1.2.38 t0

```
execWorkflow.t0 = datetime.now()
```


5.1.2.39 t1

```
execWorkflow.t1 = datetime.now()
```

5.1.2.40 tinput

```
execWorkflow.tinput = getImageInputByIdName(vGlyph.glyph_id, 'img_input1')
```

5.1.2.41 total

```
float execWorkflow.total = 0.0
```

5.1.2.42 toutput

```
execWorkflow.toutput = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.43 trinput

```
execWorkflow.trinput = getImageInputByIdName(vGlyph.glyph_id, 'img_input2')
```

5.1.2.44 type

```
dictionary execWorkflow.type = None
```

5.1.2.45 vglCl3dBlurSq3_img_input

```
execWorkflow.vglCl3dBlurSq3_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_input')
```

5.1.2.46 vglCl3dBlurSq3_img_output

```
execWorkflow.vglCl3dBlurSq3_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.47 vglCl3dConvolution_img_input

```
execWorkflow.vglCl3dConvolution_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_↵  
input')
```

5.1.2.48 vglCl3dConvolution_img_output

```
execWorkflow.vglCl3dConvolution_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_↵  
output')
```

5.1.2.49 vglCl3dDilate_img_input

```
execWorkflow.vglCl3dDilate_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_input')
```

5.1.2.50 vglCl3dDilate_img_output

```
execWorkflow.vglCl3dDilate_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.51 vglCl3dErode_img_input

```
execWorkflow.vglCl3dErode_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_input')
```

5.1.2.52 vglCl3dErode_img_output

```
execWorkflow.vglCl3dErode_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.53 vglCl3dThreshold_img_input

```
execWorkflow.vglCl3dThreshold_img_input = getImageInputByIdName(vGlyph.glyph_id, 'src')
```

5.1.2.54 vglCl3dThreshold_img_output

```
execWorkflow.vglCl3dThreshold_img_output = getImageInputByIdName(vGlyph.glyph_id, 'dst')
```

5.1.2.55 vglClBlurSq3_img_input

```
execWorkflow.vglClBlurSq3_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_input')
```

5.1.2.56 vglClBlurSq3_img_output

```
execWorkflow.vglClBlurSq3_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.57 vglClConvolution_img_input

```
execWorkflow.vglClConvolution_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_input')
```

5.1.2.58 vglClConvolution_img_output

```
execWorkflow.vglClConvolution_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_↵  
output')
```

5.1.2.59 vglClDilate_img_input

```
execWorkflow.vglClDilate_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_input')
```

5.1.2.60 vglClDilate_img_output

```
execWorkflow.vglClDilate_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.61 vglClErode_img_input

```
execWorkflow.vglClErode_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_input')
```

5.1.2.62 vglClErode_img_output

```
execWorkflow.vglClErode_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.63 vglClInvert_img_input

```
execWorkflow.vglClInvert_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_input')
```

5.1.2.64 vglClInvert_img_output

```
execWorkflow.vglClInvert_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.65 vglClMin_img_input

```
execWorkflow.vglClMin_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_input')
```

5.1.2.66 vglClMin_img_output

```
execWorkflow.vglClMin_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.67 vglClNConvolution_img_input

```
execWorkflow.vglClNConvolution_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_input')
```

5.1.2.68 vglClNConvolution_img_output

```
execWorkflow.vglClNConvolution_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_↔  
output')
```

5.1.2.69 vglClNdConvolution_img_input

```
execWorkflow.vglClNdConvolution_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_↔  
input')
```

5.1.2.70 vglClNdConvolution_img_output

```
execWorkflow.vglClNdConvolution_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_↔  
output')
```

5.1.2.71 vglClNdDilate_img_input

```
execWorkflow.vglClNdDilate_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_input')
```

5.1.2.72 vglClNdDilate_img_output

```
execWorkflow.vglClNdDilate_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.73 vglClNdErode_img_input

```
execWorkflow.vglClNdErode_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_input')  
  
print(vglShape.getShape())
```

5.1.2.74 vglClNdErode_img_output

```
execWorkflow.vglClNdErode_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.75 vglClNdDilate_img_input

```
execWorkflow.vglClNdDilate_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_input')
```

5.1.2.76 vglClNDilate_img_output

```
execWorkflow.vglClNDilate_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.77 vglClNdThreshold_img_input

```
execWorkflow.vglClNdThreshold_img_input = getImageInputByIdName(vGlyph.glyph_id, 'src')
```

5.1.2.78 vglClNdThreshold_img_output

```
execWorkflow.vglClNdThreshold_img_output = getImageInputByIdName(vGlyph.glyph_id, 'dst')
```

5.1.2.79 vglClNErode_img_input

```
execWorkflow.vglClNErode_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_input')
```

5.1.2.80 vglClNErode_img_output

```
execWorkflow.vglClNErode_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.81 vglClRgb2Gray_img_input

```
execWorkflow.vglClRgb2Gray_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_input')
```

5.1.2.82 vglClRgb2Gray_img_output

```
execWorkflow.vglClRgb2Gray_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.83 vglClSub_img_input1

```
execWorkflow.vglClSub_img_input1 = getImageInputByIdName(vGlyph.glyph_id, 'img_input1')
```

5.1.2.84 vglClSub_img_input2

```
execWorkflow.vglClSub_img_input2 = getImageInputByIdName(vGlyph.glyph_id, 'img_input2')
```

5.1.2.85 vglClSub_img_output

```
execWorkflow.vglClSub_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.86 vglClSum_img_input

```
execWorkflow.vglClSum_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_input')
```

5.1.2.87 vglClSum_img_output

```
execWorkflow.vglClSum_img_output = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```

5.1.2.88 vglClSwapRgb_img_input

```
execWorkflow.vglClSwapRgb_img_input = getImageInputByIdName(vGlyph.glyph_id, 'src')
```

5.1.2.89 vglClSwapRgb_img_output

```
execWorkflow.vglClSwapRgb_img_output = getImageInputByIdName(vGlyph.glyph_id, 'dst')
```

5.1.2.90 vglClThreshold_img_input

```
execWorkflow.vglClThreshold_img_input = getImageInputByIdName(vGlyph.glyph_id, 'src')
```

5.1.2.91 vglClThreshold_img_output

```
execWorkflow.vglClThreshold_img_output = getImageInputByIdName(vGlyph.glyph_id, 'dst')
```

5.1.2.92 vglCreateImage_img_input

```
execWorkflow.vglCreateImage_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img')
```

5.1.2.93 vglCreateImage_RETVAL

```
execWorkflow.vglCreateImage_RETVAL = vl.create_blank_image_as(vglCreateImage_img_input)
```

5.1.2.94 vglLoadImage_img_in_path

```
execWorkflow.vglLoadImage_img_in_path = vGlyph.lst_par[0].getValue()
```

5.1.2.95 vglLoadImage_img_input

```
execWorkflow.vglLoadImage_img_input = vl.VglImage(vglLoadImage_img_in_path, None, vl.VGL_↵  
IMAGE_2D_IMAGE(), vl.IMAGE_ND_ARRAY())
```

5.1.2.96 vglSaveImage_img_input

```
execWorkflow.vglSaveImage_img_input = getImageInputByIdName(vGlyph.glyph_id, 'image')
```

5.1.2.97 vglShape

```
execWorkflow.vglShape = vl.VglShape()
```

5.1.2.98 vglShape_img_input

```
execWorkflow.vglShape_img_input = getImageInputByIdName(vGlyph.glyph_id, 'img_output')
```


5.1.2.99 vpath

```
execWorkflow.vpath = vGlyph.lst_par[0].getValue()
```

5.1.2.100 window

```
execWorkflow.window = v1.VglStrEl()
```

CASO DO TYPE.

5.1.2.101 x

```
execWorkflow.x = np.uint32(vGlyph.lst_par[1].getValue())
```

5.1.2.102 y

```
execWorkflow.y = np.uint32(vGlyph.lst_par[2].getValue())
```

5.2 readWorkflow Namespace Reference**Classes**

- class [Error](#)
- class [objGlyph](#)
- class [objGlyphParameters](#)
- class [objGlyphInput](#)
- class [objGlyphOutput](#)
- class [objConnection](#)
- class [objConnectionPar](#)

Functions

- def [procCreateGlyphInOut](#) ()
- def [procCreateGlyphPar](#) (procCreateGlyphPar_vGlyph, procCreateGlyphPar_vParameters, procCreateGlyphPar_count)
- def [procCreateGlyph](#) (procCreateGlyph_contentGly, procCreateGlyph_count)
- def [setGlyphInputReadyByIdOut](#) (setGlyphInputReadyByIdOut_vOutputGlyph_id)
- def [setGlyphDoneId](#) (setGlyphDoneId_vGlyphIdUpd)
- def [setGlyphInputReady](#) (setGlyphInputReady_vPar_glyph_id, setGlyphInputReady_vPar_name)
- def [getOutputConnection](#) (getOutputConnection_vGlyph_IdOutput)
- def [getOutputConnectionByIdName](#) (getOutputConnectionByIdName_vGlyph_idInput, getOutputConnectionByIdName_vNameParInput)
- def [setImageConnectionByOutputId](#) (setImageConnectionByOutputId_vGlyph_OutputId, setImageConnectionByOutputId_img)
- def [getImageInputByIdName](#) (getImageInputByIdName_vGlyph_idInput, getImageInputByIdName_vNameParInput)
- def [addInputConnection](#) (addInputConnection_vConnOutput, addInputConnection_vinput_Glyph_ID, addInputConnection_vinput_varname)
- def [procCreateConnection](#) (procCreateConnection_voutput_Glyph_ID, procCreateConnection_voutput_varname, procCreateConnection_vinput_Glyph_ID, procCreateConnection_vinput_varname)
- def [fileRead](#) (lstGlyph, lstConnection)

Variables

- list `lstGlyph` = []
- list `lstGlyphPar` = []
- list `lstConnection` = []
- list `lstConnectionInput` = []
- list `lstGlyphIn` = []
- list `lstGlyphOut` = []
- `vfile` = `sys.argv[1]`
- `vGlyph` = `objGlyph`
- `vGlyphPar` = `objGlyphParameters`
- `vGlyphIn` = `objGlyphInput`
- `vGlyphOut` = `objGlyphOutput`
- `vConnection` = `objConnection`
- `vConnectionOutput` = `objConnectionPar`

5.2.1 Function Documentation

5.2.1.1 addInputConnection()

```
def readWorkflow.addInputConnection (
    addInputConnection_vConnOutput,
    addInputConnection_vinput_Glyph_ID,
    addInputConnection_vinput_varname )
```

5.2.1.2 fileRead()

```
def readWorkflow.fileRead (
    lstGlyph,
    lstConnection )
```

5.2.1.3 getImageInputByIdName()

```
def readWorkflow.getImageInputByIdName (
    getImageInputByIdName_vGlyph_idInput,
    getImageInputByIdName_vNameParInput )
```

5.2.1.4 getOutputConnection()

```
def readWorkflow.getOutputConnection (
    getOutputConnection_vGlyph_IdOutput )
```

5.2.1.5 getOutputConnectionByIdName()

```
def readWorkflow.getOutputConnectionByIdName (
    getOutputConnectionByIdName_vGlyph_idInput,
    getOutputConnectionByIdName_vNameParInput )
```

5.2.1.6 procCreateConnection()

```
def readWorkflow.procCreateConnection (
    procCreateConnection_voutput_Glyph_ID,
    procCreateConnection_voutput_varname,
    procCreateConnection_vinput_Glyph_ID,
    procCreateConnection_vinput_varname )
```

5.2.1.7 procCreateGlyph()

```
def readWorkflow.procCreateGlyph (
    procCreateGlyph_contentGly,
    procCreateGlyph_count )
```

5.2.1.8 procCreateGlyphInOut()

```
def readWorkflow.procCreateGlyphInOut ( )
```

5.2.1.9 procCreateGlyphPar()

```
def readWorkflow.procCreateGlyphPar (
    procCreateGlyphPar_vGlyph,
    procCreateGlyphPar_vParameters,
    procCreateGlyphPar_count )
```

5.2.1.10 setGlyphDoneId()

```
def readWorkflow.setGlyphDoneId (
    setGlyphDoneId_vGlyphIdUpd )
```

5.2.1.11 setGlyphInputReady()

```
def readWorkflow.setGlyphInputReady (
    setGlyphInputReady_vPar_glyph_id,
    setGlyphInputReady_vPar_name )
```

5.2.1.12 setGlyphInputReadyByIdOut()

```
def readWorkflow.setGlyphInputReadyByIdOut (
    setGlyphInputReadyByIdOut_vOutputGlyph_id )
```

5.2.1.13 setImageConnectionByOutputId()

```
def readWorkflow.setImageConnectionByOutputId (
    setImageConnectionByOutputId_vGlyph_OutputId,
    setImageConnectionByOutputId_img )
```

5.2.2 Variable Documentation

5.2.2.1 lstConnection

```
list readWorkflow.lstConnection = []
```

5.2.2.2 lstConnectionInput

```
list readWorkflow.lstConnectionInput = []
```

5.2.2.3 lstGlyph

```
list readWorkflow.lstGlyph = []
```

5.2.2.4 IstGlyphIn

```
list readWorkflow.lstGlyphIn = [ ]
```

5.2.2.5 IstGlyphOut

```
list readWorkflow.lstGlyphOut = [ ]
```

5.2.2.6 IstGlyphPar

```
list readWorkflow.lstGlyphPar = [ ]
```

5.2.2.7 vConnection

```
readWorkflow.vConnection = objConnection
```

5.2.2.8 vConnectionOutput

```
readWorkflow.vConnectionOutput = objConnectionPar
```

5.2.2.9 vfile

```
readWorkflow.vfile = sys.argv[1]
```

5.2.2.10 vGlyph

```
readWorkflow.vGlyph = objGlyph
```

5.2.2.11 vGlyphIn

```
readWorkflow.vGlyphIn = objGlyphInput
```

5.2.2.12 vGlyphOut

```
readWorkflow.vGlyphOut = objGlyphOutput
```

5.2.2.13 vGlyphPar

```
readWorkflow.vGlyphPar = objGlyphParameters
```

5.3 vgl_lib Namespace Reference

Namespaces

- [opengl_context](#)
- [struct_sizes](#)
- [vglCIImage](#)
- [vglCIUtil](#)
- [vglConst](#)
- [vglContext](#)
- [vglImage](#)
- [vglShape](#)
- [vglStrEl](#)

5.4 vgl_lib.opengl_context Namespace Reference

Classes

- class [VglCIContext](#)
- class [opengl_context](#)

5.5 vgl_lib.struct_sizes Namespace Reference

Classes

- class [struct_sizes](#)

5.6 vgl_lib.vglCImage Namespace Reference

Functions

- def [vglCInit](#) (device_type=2, ocl_context_a=None, ss_a=None, bin_image_pack_size_a=None)
- def [vglCUpload](#) (img)
- def [vglCDownload](#) (img)
- def [vglCImageUpload](#) (img)
- def [vglCImageDownload](#) (img)
- def [vglCIndImageUpload](#) (img)
- def [vglCIndImageDownload](#) (img)
- def [vglCCheckError](#) (error, name)
- def [get_bin_image_pack_size](#) ()
- def [get_ocl](#) ()
- def [get_ocl_context](#) ()
- def [set_ocl](#) (ctx)
- def [get_struct_sizes](#) ()
- def [cl_channel_type](#) (img)
- def [cl_channel_order](#) (img)
- def [get_similar_oclPtr_object](#) (img, nChannels=None)
- def [create_blank_image_as](#) (img)
- def [create_blank_image_as_gray](#) (img)
- def [get_vglstrel_opencl_buffer](#) (strel)
- def [get_vglshape_opencl_buffer](#) (shape)

Variables

- [ocl](#) = None
- [ocl_context](#) = None
- [struct_sizes](#) = None
- [bin_image_pack_size](#) = None

5.6.1 Function Documentation

5.6.1.1 cl_channel_order()

```
def vgl_lib.vglCImage.cl_channel_order (
    img )
```

5.6.1.2 cl_channel_type()

```
def vgl_lib.vglCImage.cl_channel_type (
    img )
```

5.6.1.3 create_blank_image_as()

```
def vgl_lib.vglClImage.create_blank_image_as (
    img )
```

5.6.1.4 create_blank_image_as_gray()

```
def vgl_lib.vglClImage.create_blank_image_as_gray (
    img )
```

5.6.1.5 get_bin_image_pack_size()

```
def vgl_lib.vglClImage.get_bin_image_pack_size ( )
```

5.6.1.6 get_ocl()

```
def vgl_lib.vglClImage.get_ocl ( )
```

5.6.1.7 get_ocl_context()

```
def vgl_lib.vglClImage.get_ocl_context ( )
```

5.6.1.8 get_similar_oclPtr_object()

```
def vgl_lib.vglClImage.get_similar_oclPtr_object (
    img,
    nChannels = None )
```

5.6.1.9 get_struct_sizes()

```
def vgl_lib.vglClImage.get_struct_sizes ( )
```


5.6.1.10 get_vglshape_opengl_buffer()

```
def vgl_lib.vglClImage.get_vglshape_opengl_buffer (
    shape )
```

5.6.1.11 get_vglstrel_opengl_buffer()

```
def vgl_lib.vglClImage.get_vglstrel_opengl_buffer (
    strel )
```

5.6.1.12 set_ocl()

```
def vgl_lib.vglClImage.set_ocl (
    ctx )
```

5.6.1.13 vglClCheckError()

```
def vgl_lib.vglClImage.vglClCheckError (
    error,
    name )
```

5.6.1.14 vglClDownload()

```
def vgl_lib.vglClImage.vglClDownload (
    img )
```

5.6.1.15 vglClImageDownload()

```
def vgl_lib.vglClImage.vglClImageDownload (
    img )
```

5.6.1.16 vglClImageUpload()

```
def vgl_lib.vglClImage.vglClImageUpload (
    img )
```

5.6.1.17 vglClInit()

```
def vgl_lib.vglClImage.vglClInit (
    device_type = 2,
    ocl_context_a = None,
    ss_a = None,
    bin_image_pack_size_a = None )
```

5.6.1.18 vglClNdImageDownload()

```
def vgl_lib.vglClImage.vglClNdImageDownload (
    img )
```

5.6.1.19 vglClNdImageUpload()

```
def vgl_lib.vglClImage.vglClNdImageUpload (
    img )
```

5.6.1.20 vglClUpload()

```
def vgl_lib.vglClImage.vglClUpload (
    img )
```

5.6.2 Variable Documentation

5.6.2.1 bin_image_pack_size

```
vgl_lib.vglClImage.bin_image_pack_size = None
```

5.6.2.2 ocl

```
vgl_lib.vglClImage.ocl = None
```

5.6.2.3 ocl_context

```
vgl_lib.vglClImage.ocl_context = None
```

5.6.2.4 struct_sizes

```
vgl_lib.vglClImage.struct_sizes = None
```

5.7 vgl_lib.vglClUtil Namespace Reference

Functions

- def [vglClEqual1](#) (img_input, img_output)
- def [vglClEqual](#) (img_input1, img_input2)

5.7.1 Detailed Description

```
*****
***                                     ***
***                               Wrapper code for CL_UTIL                      ***
***                                     ***
*** Author: ddantas                  ***
*** 28/10/2021                      ***
***                                     ***
*****
```

5.7.2 Function Documentation

5.7.2.1 vglClEqual()

```
def vgl_lib.vglClUtil.vglClEqual (
    img_input1,
    img_input2 )
```

5.7.2.2 vglClEqual1()

```
def vgl_lib.vglClUtil.vglClEqual1 (
    img_input,
    img_output )
```

5.8 vgl_lib.vglConst Namespace Reference

Functions

- def [VGL_WIN_X0](#) ()
- def [VGL_WIN_X1](#) ()
- def [VGL_WIN_DX](#) ()
- def [VGL_WIN_Y0](#) ()
- def [VGL_WIN_Y1](#) ()
- def [VGL_WIN_DY](#) ()
- def [VGL_MIN_WINDOW_SPLIT](#) ()
- def [VGL_DEFAULT_WINDOW_SPLIT](#) ()
- def [VGL_MAX_WINDOW_SPLIT](#) ()
- def [VGL_MAX_WINDOWS](#) ()
- def [IPL_DEPTH_1U](#) ()
- def [VGL_SHAPE_NCHANNELS](#) ()
- def [VGL_SHAPE_WIDTH](#) ()
- def [VGL_SHAPE_HEIGHT](#) ()
- def [VGL_SHAPE_LENGTH](#) ()
- def [VGL_4D](#) ()
- def [VGL_MAX_DIM](#) ()
- def [VGL_ARR_SHAPE_SIZE](#) ()
- def [VGL_SHAPE_D0](#) ()
- def [VGL_SHAPE_D1](#) ()
- def [VGL_SHAPE_D2](#) ()
- def [VGL_SHAPE_D3](#) ()
- def [VGL_SHAPE_D4](#) ()
- def [VGL_ARR_CLSTREL_SIZE](#) ()
- def [VGL_STREL_CUBE](#) ()
- def [VGL_STREL_CROSS](#) ()
- def [VGL_STREL_GAUSS](#) ()
- def [VGL_STREL_MEAN](#) ()
- def [VGL_IMAGE_3D_IMAGE](#) ()
- def [VGL_IMAGE_2D_IMAGE](#) ()
- def [VGL_BLANK_CONTEXT](#) ()
- def [VGL_RAM_CONTEXT](#) ()
- def [VGL_GL_CONTEXT](#) ()
- def [VGL_CUDA_CONTEXT](#) ()
- def [VGL_CL_CONTEXT](#) ()
- def [VGL_ERROR](#) ()
- def [IMAGE_CL_OBJECT](#) ()
- def [IMAGE_ND_ARRAY](#) ()
- def [vglCLErrorMessages](#) ()
- def [CL_SUCCESS](#) ()
- def [CL_MIN_ERROR](#) ()
- def [VGL_PACK_SIZE_BITS_8](#) ()
- def [VGL_PACK_SIZE_BYTES_8](#) ()
- def [VGL_PACK_MAX_UINT_8](#) ()
- def [VGL_PACK_CL_CONST_TYPE_8](#) ()
- def [VGL_PACK_CL_SHADER_TYPE_8](#) ()
- def [VGL_PACK_OUTPUT_SWAP_MASK_8](#) ()
- def [VGL_PACK_OUTPUT_DIRECT_MASK_8](#) ()
- def [VGL_PACK_SIZE_BITS_32](#) ()
- def [VGL_PACK_SIZE_BYTES_32](#) ()

- def [VGL_PACK_MAX_UINT_32](#) ()
- def [VGL_PACK_CL_CONST_TYPE_32](#) ()
- def [VGL_PACK_CL_SHADER_TYPE_32](#) ()
- def [VGL_PACK_OUTPUT_SWAP_MASK_32](#) ()
- def [VGL_PACK_OUTPUT_DIRECT_MASK_32](#) ()
- def [VGL_PACK_SIZE_BITS_64](#) ()
- def [VGL_PACK_SIZE_BYTES_64](#) ()
- def [VGL_PACK_MAX_UINT_64](#) ()
- def [VGL_PACK_CL_CONST_TYPE_64](#) ()
- def [VGL_PACK_CL_SHADER_TYPE_64](#) ()
- def [VGL_PACK_OUTPUT_SWAP_MASK_64](#) ()
- def [VGL_PACK_OUTPUT_DIRECT_MASK_64](#) ()
- def [PACK_SIZE_8](#) ()
- def [PACK_SIZE_32](#) ()
- def [PACK_SIZE_64](#) ()
- def [VGL_PACK_SIZE_BITS](#) ()
- def [VGL_PACK_SIZE_BYTES](#) ()
- def [VGL_PACK_MAX_UINT](#) ()
- def [VGL_PACK_CL_CONST_TYPE](#) ()
- def [VGL_PACK_CL_SHADER_TYPE](#) ()
- def [VGL_PACK_OUTPUT_SWAP_MASK](#) ()
- def [VGL_PACK_OUTPUT_DIRECT_MASK](#) ()

5.8.1 Detailed Description

AS PYTHON DOESN'T HAVE CONSTANT DECLARATION, THE NEXT METHODS RETURN THE VALUES WHO NEED CONSTANT BEHAVIOR.

5.8.2 Function Documentation

5.8.2.1 CL_MIN_ERROR()

```
def vgl_lib.vglConst.CL_MIN_ERROR ( )
```

5.8.2.2 CL_SUCCESS()

```
def vgl_lib.vglConst.CL_SUCCESS ( )
```

5.8.2.3 IMAGE_CL_OBJECT()

```
def vgl_lib.vglConst.IMAGE_CL_OBJECT ( )
```

5.8.2.4 IMAGE_ND_ARRAY()

```
def vgl_lib.vglConst.IMAGE_ND_ARRAY ( )
```

5.8.2.5 IPL_DEPTH_1U()

```
def vgl_lib.vglConst.IPL_DEPTH_1U ( )
```

5.8.2.6 PACK_SIZE_32()

```
def vgl_lib.vglConst.PACK_SIZE_32 ( )
```

5.8.2.7 PACK_SIZE_64()

```
def vgl_lib.vglConst.PACK_SIZE_64 ( )
```

5.8.2.8 PACK_SIZE_8()

```
def vgl_lib.vglConst.PACK_SIZE_8 ( )
```

5.8.2.9 VGL_4D()

```
def vgl_lib.vglConst.VGL_4D ( )
```

5.8.2.10 VGL_ARR_CLSTREL_SIZE()

```
def vgl_lib.vglConst.VGL_ARR_CLSTREL_SIZE ( )
```

5.8.2.11 VGL_ARR_SHAPE_SIZE()

```
def vgl_lib.vglConst.VGL_ARR_SHAPE_SIZE ( )
```

5.8.2.12 VGL_BLANK_CONTEXT()

```
def vgl_lib.vglConst.VGL_BLANK_CONTEXT ( )
```

5.8.2.13 VGL_CL_CONTEXT()

```
def vgl_lib.vglConst.VGL_CL_CONTEXT ( )
```

5.8.2.14 VGL_CUDA_CONTEXT()

```
def vgl_lib.vglConst.VGL_CUDA_CONTEXT ( )
```

5.8.2.15 VGL_DEFAULT_WINDOW_SPLIT()

```
def vgl_lib.vglConst.VGL_DEFAULT_WINDOW_SPLIT ( )
```

5.8.2.16 VGL_ERROR()

```
def vgl_lib.vglConst.VGL_ERROR ( )
```

5.8.2.17 VGL_GL_CONTEXT()

```
def vgl_lib.vglConst.VGL_GL_CONTEXT ( )
```

5.8.2.18 VGL_IMAGE_2D_IMAGE()

```
def vgl_lib.vglConst.VGL_IMAGE_2D_IMAGE ( )
```

5.8.2.19 VGL_IMAGE_3D_IMAGE()

```
def vgl_lib.vglConst.VGL_IMAGE_3D_IMAGE ( )
```

5.8.2.20 VGL_MAX_DIM()

```
def vgl_lib.vglConst.VGL_MAX_DIM ( )
```

5.8.2.21 VGL_MAX_WINDOW_SPLIT()

```
def vgl_lib.vglConst.VGL_MAX_WINDOW_SPLIT ( )
```

5.8.2.22 VGL_MAX_WINDOWS()

```
def vgl_lib.vglConst.VGL_MAX_WINDOWS ( )
```

5.8.2.23 VGL_MIN_WINDOW_SPLIT()

```
def vgl_lib.vglConst.VGL_MIN_WINDOW_SPLIT ( )
```

5.8.2.24 VGL_PACK_CL_CONST_TYPE()

```
def vgl_lib.vglConst.VGL_PACK_CL_CONST_TYPE ( )
```

5.8.2.25 VGL_PACK_CL_CONST_TYPE_32()

```
def vgl_lib.vglConst.VGL_PACK_CL_CONST_TYPE_32 ( )
```

5.8.2.26 VGL_PACK_CL_CONST_TYPE_64()

```
def vgl_lib.vglConst.VGL_PACK_CL_CONST_TYPE_64 ( )
```

5.8.2.27 VGL_PACK_CL_CONST_TYPE_8()

```
def vgl_lib.vglConst.VGL_PACK_CL_CONST_TYPE_8 ( )
```


5.8.2.28 VGL_PACK_CL_SHADER_TYPE()

```
def vgl_lib.vglConst.VGL_PACK_CL_SHADER_TYPE ( )
```

5.8.2.29 VGL_PACK_CL_SHADER_TYPE_32()

```
def vgl_lib.vglConst.VGL_PACK_CL_SHADER_TYPE_32 ( )
```

5.8.2.30 VGL_PACK_CL_SHADER_TYPE_64()

```
def vgl_lib.vglConst.VGL_PACK_CL_SHADER_TYPE_64 ( )
```

5.8.2.31 VGL_PACK_CL_SHADER_TYPE_8()

```
def vgl_lib.vglConst.VGL_PACK_CL_SHADER_TYPE_8 ( )
```

5.8.2.32 VGL_PACK_MAX_UINT()

```
def vgl_lib.vglConst.VGL_PACK_MAX_UINT ( )
```

5.8.2.33 VGL_PACK_MAX_UINT_32()

```
def vgl_lib.vglConst.VGL_PACK_MAX_UINT_32 ( )
```

5.8.2.34 VGL_PACK_MAX_UINT_64()

```
def vgl_lib.vglConst.VGL_PACK_MAX_UINT_64 ( )
```

5.8.2.35 VGL_PACK_MAX_UINT_8()

```
def vgl_lib.vglConst.VGL_PACK_MAX_UINT_8 ( )
```

5.8.2.36 VGL_PACK_OUTPUT_DIRECT_MASK()

```
def vgl_lib.vglConst.VGL_PACK_OUTPUT_DIRECT_MASK ( )
```

5.8.2.37 VGL_PACK_OUTPUT_DIRECT_MASK_32()

```
def vgl_lib.vglConst.VGL_PACK_OUTPUT_DIRECT_MASK_32 ( )
```

5.8.2.38 VGL_PACK_OUTPUT_DIRECT_MASK_64()

```
def vgl_lib.vglConst.VGL_PACK_OUTPUT_DIRECT_MASK_64 ( )
```

5.8.2.39 VGL_PACK_OUTPUT_DIRECT_MASK_8()

```
def vgl_lib.vglConst.VGL_PACK_OUTPUT_DIRECT_MASK_8 ( )
```

5.8.2.40 VGL_PACK_OUTPUT_SWAP_MASK()

```
def vgl_lib.vglConst.VGL_PACK_OUTPUT_SWAP_MASK ( )
```

5.8.2.41 VGL_PACK_OUTPUT_SWAP_MASK_32()

```
def vgl_lib.vglConst.VGL_PACK_OUTPUT_SWAP_MASK_32 ( )
```

5.8.2.42 VGL_PACK_OUTPUT_SWAP_MASK_64()

```
def vgl_lib.vglConst.VGL_PACK_OUTPUT_SWAP_MASK_64 ( )
```

5.8.2.43 VGL_PACK_OUTPUT_SWAP_MASK_8()

```
def vgl_lib.vglConst.VGL_PACK_OUTPUT_SWAP_MASK_8 ( )
```

5.8.2.44 VGL_PACK_SIZE_BITS()

```
def vgl_lib.vglConst.VGL_PACK_SIZE_BITS ( )
```

5.8.2.45 VGL_PACK_SIZE_BITS_32()

```
def vgl_lib.vglConst.VGL_PACK_SIZE_BITS_32 ( )
```

5.8.2.46 VGL_PACK_SIZE_BITS_64()

```
def vgl_lib.vglConst.VGL_PACK_SIZE_BITS_64 ( )
```

5.8.2.47 VGL_PACK_SIZE_BITS_8()

```
def vgl_lib.vglConst.VGL_PACK_SIZE_BITS_8 ( )
```

5.8.2.48 VGL_PACK_SIZE_BYTES()

```
def vgl_lib.vglConst.VGL_PACK_SIZE_BYTES ( )
```

5.8.2.49 VGL_PACK_SIZE_BYTES_32()

```
def vgl_lib.vglConst.VGL_PACK_SIZE_BYTES_32 ( )
```

5.8.2.50 VGL_PACK_SIZE_BYTES_64()

```
def vgl_lib.vglConst.VGL_PACK_SIZE_BYTES_64 ( )
```

5.8.2.51 VGL_PACK_SIZE_BYTES_8()

```
def vgl_lib.vglConst.VGL_PACK_SIZE_BYTES_8 ( )
```

5.8.2.52 VGL_RAM_CONTEXT()

```
def vgl_lib.vglConst.VGL_RAM_CONTEXT ( )
```

5.8.2.53 VGL_SHAPE_D0()

```
def vgl_lib.vglConst.VGL_SHAPE_D0 ( )
```

5.8.2.54 VGL_SHAPE_D1()

```
def vgl_lib.vglConst.VGL_SHAPE_D1 ( )
```

5.8.2.55 VGL_SHAPE_D2()

```
def vgl_lib.vglConst.VGL_SHAPE_D2 ( )
```

5.8.2.56 VGL_SHAPE_D3()

```
def vgl_lib.vglConst.VGL_SHAPE_D3 ( )
```

5.8.2.57 VGL_SHAPE_D4()

```
def vgl_lib.vglConst.VGL_SHAPE_D4 ( )
```

5.8.2.58 VGL_SHAPE_HEIGHT()

```
def vgl_lib.vglConst.VGL_SHAPE_HEIGHT ( )
```

5.8.2.59 VGL_SHAPE_LENGTH()

```
def vgl_lib.vglConst.VGL_SHAPE_LENGTH ( )
```

5.8.2.60 VGL_SHAPE_NCHANNELS()

```
def vgl_lib.vglConst.VGL_SHAPE_NCHANNELS ( )
```

5.8.2.61 VGL_SHAPE_WIDTH()

```
def vgl_lib.vglConst.VGL_SHAPE_WIDTH ( )
```

5.8.2.62 VGL_STREL_CROSS()

```
def vgl_lib.vglConst.VGL_STREL_CROSS ( )
```

5.8.2.63 VGL_STREL_CUBE()

```
def vgl_lib.vglConst.VGL_STREL_CUBE ( )
```

5.8.2.64 VGL_STREL_GAUSS()

```
def vgl_lib.vglConst.VGL_STREL_GAUSS ( )
```

5.8.2.65 VGL_STREL_MEAN()

```
def vgl_lib.vglConst.VGL_STREL_MEAN ( )
```

5.8.2.66 VGL_WIN_DX()

```
def vgl_lib.vglConst.VGL_WIN_DX ( )
```

5.8.2.67 VGL_WIN_DY()

```
def vgl_lib.vglConst.VGL_WIN_DY ( )
```

5.8.2.68 VGL_WIN_X0()

```
def vgl_lib.vglConst.VGL_WIN_X0 ( )
```

5.8.2.69 VGL_WIN_X1()

```
def vgl_lib.vglConst.VGL_WIN_X1 ( )
```

5.8.2.70 VGL_WIN_Y0()

```
def vgl_lib.vglConst.VGL_WIN_Y0 ( )
```

5.8.2.71 VGL_WIN_Y1()

```
def vgl_lib.vglConst.VGL_WIN_Y1 ( )
```

5.8.2.72 vglCLErrorMessages()

```
def vgl_lib.vglConst.vglCLErrorMessages ( )
```

5.9 vgl_lib.vglContext Namespace Reference

Functions

- def [vglIsContextValid](#) (x)
- def [vglIsContextUnique](#) (x)
- def [vglIsInContext](#) (img, x)
- def [vglAddContext](#) (img, context)
- def [vglSetContext](#) (img, context)
- def [vglCheckContext](#) (img, context)
- def [vglCheckContextForOutput](#) (img, context)

5.9.1 Function Documentation

5.9.1.1 vglAddContext()

```
def vgl_lib.vglContext.vglAddContext (
    img,
    context )
```

5.9.1.2 vglCheckContext()

```
def vgl_lib.vglContext.vglCheckContext (
    img,
    context )
```

5.9.1.3 vglCheckContextForOutput()

```
def vgl_lib.vglContext.vglCheckContextForOutput (
    img,
    context )
```

5.9.1.4 vglIsContextUnique()

```
def vgl_lib.vglContext.vglIsContextUnique (
    x )
```

5.9.1.5 vglIsContextValid()

```
def vgl_lib.vglContext.vglIsContextValid (
    x )
```

5.9.1.6 vglIsInContext()

```
def vgl_lib.vglContext.vglIsInContext (
    img,
    x )
```

5.9.1.7 vglSetContext()

```
def vgl_lib.vglContext.vglSetContext (
    img,
    context )
```

5.10 vgl_lib.vglImage Namespace Reference

Classes

- class [VglImage](#)

Functions

- def [iplFindBitsPerSample](#) (depth)
- def [iplFindWidthStep](#) (depth, width, channels=1)
- def [vglImage3To4Channels](#) (img)
- def [vglImage4To3Channels](#) (img)
- def [vglLoadImage](#) (img, filename="")
- def [vglSaveImage](#) (filename, img)
- def [create_vglShape](#) (img)
- def [rgb_to_rgba](#) (img)
- def [rgba_to_rgb](#) (img)

5.10.1 Function Documentation

5.10.1.1 create_vglShape()

```
def vgl_lib.vglImage.create_vglShape (
    img )
```

5.10.1.2 iplFindBitsPerSample()

```
def vgl_lib.vglImage.iplFindBitsPerSample (
    depth )
```


5.10.1.3 iplFindWidthStep()

```
def vgl_lib.vglImage.iplFindWidthStep (
    depth,
    width,
    channels = 1 )
```

5.10.1.4 rgb_to_rgba()

```
def vgl_lib.vglImage.rgb_to_rgba (
    img )
```

5.10.1.5 rgba_to_rgb()

```
def vgl_lib.vglImage.rgba_to_rgb (
    img )
```

5.10.1.6 vglImage3To4Channels()

```
def vgl_lib.vglImage.vglImage3To4Channels (
    img )
```

5.10.1.7 vglImage4To3Channels()

```
def vgl_lib.vglImage.vglImage4To3Channels (
    img )
```

5.10.1.8 vglLoadImage()

```
def vgl_lib.vglImage.vglLoadImage (
    img,
    filename = "" )
```

5.10.1.9 vglSaveImage()

```
def vgl_lib.vglImage.vglSaveImage (
    filename,
    img )
```

5.11 vgl_lib.vglShape Namespace Reference

Classes

- class [VglCIShape](#)
- class [VglShape](#)

5.12 vgl_lib.vglStrEl Namespace Reference

Classes

- class [VglCIStrEl](#)
- class [VglStrEl](#)

Chapter 6

Class Documentation

6.1 readWorkflow.Error Class Reference

Inheritance diagram for readWorkflow.Error:

6.2 readWorkflow.objConnection Class Reference

Inheritance diagram for readWorkflow.objConnection:

Collaboration diagram for readWorkflow.objConnection:

Public Member Functions

- def `__init__` (self, voutput_glyph_id, voutput_varname)
- def `getImageConnection` (self)
- def `setReadyConnection` (self, statusConn)
- def `getReadyConnection` (self)
- def `addConnInput` (self, vConnPar)
- def `__init__` (self, voutput_glyph_id, voutput_varname)
- def `getImageConnection` (self)
- def `setReadyConnection` (self, statusConn)
- def `getReadyConnection` (self)
- def `addConnInput` (self, vConnPar)

Public Attributes

- `output_glyph_id`
- `output_varname`
- `lst_con_input`
- `image`
- `ready`

6.2.1 Constructor & Destructor Documentation

6.2.1.1 `__init__()` [1/2]

```
def readWorkflow.objConnection.__init__ (
    self,
    voutput_glyph_id,
    voutput_varname )
```

6.2.1.2 `__init__()` [2/2]

```
def readWorkflow.objConnection.__init__ (
    self,
    voutput_glyph_id,
    voutput_varname )
```

6.2.2 Member Function Documentation

6.2.2.1 `addConnInput()` [1/2]

```
def readWorkflow.objConnection.addConnInput (
    self,
    vConnPar )
```

6.2.2.2 `addConnInput()` [2/2]

```
def readWorkflow.objConnection.addConnInput (
    self,
    vConnPar )
```

6.2.2.3 `getImageConnection()` [1/2]

```
def readWorkflow.objConnection.getImageConnection (
    self )
```

6.2.2.4 getImageConnection() [2/2]

```
def readWorkflow.objConnection.getImageConnection (
    self )
```

6.2.2.5 getReadyConnection() [1/2]

```
def readWorkflow.objConnection.getReadyConnection (
    self )
```

6.2.2.6 getReadyConnection() [2/2]

```
def readWorkflow.objConnection.getReadyConnection (
    self )
```

6.2.2.7 setReadyConnection() [1/2]

```
def readWorkflow.objConnection.setReadyConnection (
    self,
    statusConn )
```

6.2.2.8 setReadyConnection() [2/2]

```
def readWorkflow.objConnection.setReadyConnection (
    self,
    statusConn )
```

6.2.3 Member Data Documentation

6.2.3.1 image

```
readWorkflow.objConnection.image
```

6.2.3.2 lst_con_input

`readWorkflow.objConnection.lst_con_input`

6.2.3.3 output_glyph_id

`readWorkflow.objConnection.output_glyph_id`

6.2.3.4 output_varname

`readWorkflow.objConnection.output_varname`

6.2.3.5 ready

`readWorkflow.objConnection.ready`

The documentation for this class was generated from the following file:

- interpreter/[readWorkflow.py](#)

6.3 readWorkflow.objConnectionPar Class Reference

Inheritance diagram for readWorkflow.objConnectionPar:

Collaboration diagram for readWorkflow.objConnectionPar:

Public Member Functions

- def [__init__](#) (self, vConnPar_id, vConnPar_Name)
- def [__init__](#) (self, vConnPar_id, vConnPar_Name)

Public Attributes

- [Par_glyph_id](#)
- [Par_name](#)

6.3.1 Constructor & Destructor Documentation

6.3.1.1 `__init__()` [1/2]

```
def readWorkflow.objConnectionPar.__init__ (
    self,
    vConnPar_id,
    vConnPar_Name )
```

6.3.1.2 `__init__()` [2/2]

```
def readWorkflow.objConnectionPar.__init__ (
    self,
    vConnPar_id,
    vConnPar_Name )
```

6.3.2 Member Data Documentation

6.3.2.1 `Par_glyph_id`

`readWorkflow.objConnectionPar.Par_glyph_id`

6.3.2.2 `Par_name`

`readWorkflow.objConnectionPar.Par_name`

The documentation for this class was generated from the following file:

- interpreter/[readWorkflow.py](#)

6.4 readWorkflow.objGlyph Class Reference

Inheritance diagram for `readWorkflow.objGlyph`:

Collaboration diagram for `readWorkflow.objGlyph`:

Public Member Functions

- def `__init__` (self, vlibrary, vfunc, vlocalhost, vglyph_id, vglyph_x, vglyph_y)
- def `funcGlyphAddPar` (self, `vGlyphPar`)
- def `funcGlyphAddIn` (self, `vGlyphIn`)
- def `funcGlyphAddOut` (self, `vGlyphOut`)
- def `getGlyphReady` (self)
- def `setGlyphReady` (self, status)
- def `setGlyphDone` (self, status)
- def `getGlyphDone` (self)
- def `__init__` (self, vlibrary, vfunc, vlocalhost, vglyph_id, vglyph_x, vglyph_y)
- def `funcGlyphAddPar` (self, `vGlyphPar`)
- def `funcGlyphAddIn` (self, `vGlyphIn`)
- def `funcGlyphAddOut` (self, `vGlyphOut`)
- def `getGlyphReady` (self)
- def `setGlyphReady` (self, status)
- def `setGlyphDone` (self, status)
- def `getGlyphDone` (self)

Public Attributes

- `library`
- `func`
- `localhost`
- `glyph_id`
- `glyph_x`
- `glyph_y`
- `ready`
- `done`
- `lst_par`
- `lst_input`
- `lst_output`

6.4.1 Constructor & Destructor Documentation

6.4.1.1 `__init__()` [1/2]

```
def readWorkflow.objGlyph.__init__ (
    self,
    vlibrary,
    vfunc,
    vlocalhost,
    vglyph_id,
    vglyph_x,
    vglyph_y )
```


6.4.1.2 `__init__()` [2/2]

```
def readWorkflow.objGlyph.__init__ (
    self,
    vlibrary,
    vfunc,
    vlocalhost,
    vglyph_id,
    vglyph_x,
    vglyph_y )
```

6.4.2 Member Function Documentation

6.4.2.1 `funcGlyphAddIn()` [1/2]

```
def readWorkflow.objGlyph.funcGlyphAddIn (
    self,
    vGlyphIn )
```

6.4.2.2 `funcGlyphAddIn()` [2/2]

```
def readWorkflow.objGlyph.funcGlyphAddIn (
    self,
    vGlyphIn )
```

6.4.2.3 `funcGlyphAddOut()` [1/2]

```
def readWorkflow.objGlyph.funcGlyphAddOut (
    self,
    vGlyphOut )
```

6.4.2.4 `funcGlyphAddOut()` [2/2]

```
def readWorkflow.objGlyph.funcGlyphAddOut (
    self,
    vGlyphOut )
```

6.4.2.5 funcGlyphAddPar() [1/2]

```
def readWorkflow.objGlyph.funcGlyphAddPar (
    self,
    vGlyphPar )
```

6.4.2.6 funcGlyphAddPar() [2/2]

```
def readWorkflow.objGlyph.funcGlyphAddPar (
    self,
    vGlyphPar )
```

6.4.2.7 getGlyphDone() [1/2]

```
def readWorkflow.objGlyph.getGlyphDone (
    self )
```

6.4.2.8 getGlyphDone() [2/2]

```
def readWorkflow.objGlyph.getGlyphDone (
    self )
```

6.4.2.9 getGlyphReady() [1/2]

```
def readWorkflow.objGlyph.getGlyphReady (
    self )
```

6.4.2.10 getGlyphReady() [2/2]

```
def readWorkflow.objGlyph.getGlyphReady (
    self )
```

6.4.2.11 setGlyphDone() [1/2]

```
def readWorkflow.objGlyph.setGlyphDone (
    self,
    status )
```

6.4.2.12 setGlyphDone() [2/2]

```
def readWorkflow.objGlyph.setGlyphDone (
    self,
    status )
```

6.4.2.13 setGlyphReady() [1/2]

```
def readWorkflow.objGlyph.setGlyphReady (
    self,
    status )
```

6.4.2.14 setGlyphReady() [2/2]

```
def readWorkflow.objGlyph.setGlyphReady (
    self,
    status )
```

6.4.3 Member Data Documentation

6.4.3.1 done

```
readWorkflow.objGlyph.done
```

6.4.3.2 func

```
readWorkflow.objGlyph.func
```

6.4.3.3 glyph_id

`readWorkflow.objGlyph.glyph_id`

6.4.3.4 glyph_x

`readWorkflow.objGlyph.glyph_x`

6.4.3.5 glyph_y

`readWorkflow.objGlyph.glyph_y`

6.4.3.6 library

`readWorkflow.objGlyph.library`

6.4.3.7 localhost

`readWorkflow.objGlyph.localhost`

6.4.3.8 lst_input

`readWorkflow.objGlyph.lst_input`

6.4.3.9 lst_output

`readWorkflow.objGlyph.lst_output`

6.4.3.10 lst_par

`readWorkflow.objGlyph.lst_par`

6.4.3.11 ready

readWorkflow.objGlyph.ready

The documentation for this class was generated from the following file:

- interpreter/[readWorkflow.py](#)

6.5 readWorkflow.objGlyphInput Class Reference

Inheritance diagram for readWorkflow.objGlyphInput:

Collaboration diagram for readWorkflow.objGlyphInput:

Public Member Functions

- def [__init__](#) (self, vnamein, vstatusin)
- def [getStatus](#) (self)
- def [__init__](#) (self, vnamein, vstatusin)
- def [getStatus](#) (self)

Public Attributes

- [namein](#)
- [statusin](#)

6.5.1 Constructor & Destructor Documentation

6.5.1.1 [__init__\(\)](#) [1/2]

```
def readWorkflow.objGlyphInput.__init__ (
    self,
    vnamein,
    vstatusin )
```

6.5.1.2 [__init__\(\)](#) [2/2]

```
def readWorkflow.objGlyphInput.__init__ (
    self,
    vnamein,
    vstatusin )
```

6.5.2 Member Function Documentation

6.5.2.1 getStatus() [1/2]

```
def readWorkflow.objGlyphInput.getStatus (
    self )
```

6.5.2.2 getStatus() [2/2]

```
def readWorkflow.objGlyphInput.getStatus (
    self )
```

6.5.3 Member Data Documentation

6.5.3.1 namein

```
readWorkflow.objGlyphInput.namein
```

6.5.3.2 statusin

```
readWorkflow.objGlyphInput.statusin
```

The documentation for this class was generated from the following file:

- interpreter/[readWorkflow.py](#)

6.6 readWorkflow.objGlyphOutput Class Reference

Inheritance diagram for readWorkflow.objGlyphOutput:

Collaboration diagram for readWorkflow.objGlyphOutput:

Public Member Functions

- def [__init__](#) (self, vnameout, vstatusout)
- def [setGlyphOutput](#) (self, status)
- def [__init__](#) (self, vnameout, vstatusout)
- def [setGlyphOutput](#) (self, status)

Public Attributes

- [nameout](#)
- [statusout](#)

6.6.1 Constructor & Destructor Documentation

6.6.1.1 `__init__()` [1/2]

```
def readWorkflow.objGlyphOutput.__init__ (
    self,
    vnameout,
    vstatusout )
```

6.6.1.2 `__init__()` [2/2]

```
def readWorkflow.objGlyphOutput.__init__ (
    self,
    vnameout,
    vstatusout )
```

6.6.2 Member Function Documentation

6.6.2.1 `setGlyphOutput()` [1/2]

```
def readWorkflow.objGlyphOutput.setGlyphOutput (
    self,
    status )
```

6.6.2.2 `setGlyphOutput()` [2/2]

```
def readWorkflow.objGlyphOutput.setGlyphOutput (
    self,
    status )
```

6.6.3 Member Data Documentation

6.6.3.1 nameout

`readWorkflow.objGlyphOutput.nameout`

6.6.3.2 statusout

`readWorkflow.objGlyphOutput.statusout`

The documentation for this class was generated from the following file:

- interpreter/[readWorkflow.py](#)

6.7 readWorkflow.objGlyphParameters Class Reference

Inheritance diagram for readWorkflow.objGlyphParameters:

Collaboration diagram for readWorkflow.objGlyphParameters:

Public Member Functions

- `def __init__ (self, namepar, valuepar)`
- `def getName (self)`
- `def getValue (self)`
- `def __init__ (self, namepar, valuepar)`
- `def getName (self)`
- `def getValue (self)`

Public Attributes

- `name`
- `value`

6.7.1 Constructor & Destructor Documentation

6.7.1.1 __init__() [1/2]

```
def readWorkflow.objGlyphParameters.__init__ (
    self,
    namepar,
    valuepar )
```


6.7.1.2 `__init__()` [2/2]

```
def readWorkflow.objGlyphParameters.__init__ (
    self,
    namepar,
    valuepar )
```

6.7.2 Member Function Documentation

6.7.2.1 `getName()` [1/2]

```
def readWorkflow.objGlyphParameters.getName (
    self )
```

6.7.2.2 `getName()` [2/2]

```
def readWorkflow.objGlyphParameters.getName (
    self )
```

6.7.2.3 `getValue()` [1/2]

```
def readWorkflow.objGlyphParameters.getValue (
    self )
```

6.7.2.4 `getValue()` [2/2]

```
def readWorkflow.objGlyphParameters.getValue (
    self )
```

6.7.3 Member Data Documentation

6.7.3.1 `name`

```
readWorkflow.objGlyphParameters.name
```

6.7.3.2 value

`readWorkflow.objGlyphParameters.value`

The documentation for this class was generated from the following file:

- interpreter/[readWorkflow.py](#)

6.8 vgl_lib.opengl_context.opengl_context Class Reference

Public Member Functions

- `def __init__ (self, device_type)`
- `def is_kernel_compiled (self, method_name)`
- `def get_compiled_kernel (self, filepath, kernelname)`
- `def get_vglContext_attributes (self)`
- `def load_headers (self, filepath)`
- `def getDir (self, filePath)`
- `def get_queue (self)`
- `def get_context (self)`
- `def get_build_options (self)`

Public Attributes

- [platforms](#)
- [devs](#)
- [platform](#)
- [device](#)
- [ctx](#)
- [queue](#)
- [programs](#)
- [kernel_file](#)
- [build_options](#)
- [pgr](#)

6.8.1 Detailed Description

THIS CLASS MANAGES THE PyOpenCL INICIAL INSTANCIATION AND THE SYSTEM'S DEVICES AND ITS PROPERTIES (LIKE CONTEXT AND QUEUE). IT ALSO LOAD THE HEADERS AND CONSTANTS NEEDED TO COMPILE THE KERNELS.

6.8.2 Constructor & Destructor Documentation

6.8.2.1 `__init__()`

```
def vgl_lib.opencl_context.opencl_context.__init__ (
    self,
    device_type )
```

6.8.3 Member Function Documentation

6.8.3.1 `get_build_options()`

```
def vgl_lib.opencl_context.opencl_context.get_build_options (
    self )
```

6.8.3.2 `get_compiled_kernel()`

```
def vgl_lib.opencl_context.opencl_context.get_compiled_kernel (
    self,
    filepath,
    kernelname )
```

6.8.3.3 `get_context()`

```
def vgl_lib.opencl_context.opencl_context.get_context (
    self )
```

6.8.3.4 `get_queue()`

```
def vgl_lib.opencl_context.opencl_context.get_queue (
    self )
```

6.8.3.5 `get_vglClContext_attributes()`

```
def vgl_lib.opencl_context.opencl_context.get_vglClContext_attributes (
    self )
```

6.8.3.6 getDir()

```
def vgl_lib.opencv_context.opencv_context.getDir (
    self,
    filePath )
```

6.8.3.7 is_kernel_compiled()

```
def vgl_lib.opencv_context.opencv_context.is_kernel_compiled (
    self,
    method_name )
```

6.8.3.8 load_headers()

```
def vgl_lib.opencv_context.opencv_context.load_headers (
    self,
    filepath )
```

6.8.4 Member Data Documentation

6.8.4.1 build_options

```
vgl_lib.opencv_context.opencv_context.build_options
```

6.8.4.2 ctx

```
vgl_lib.opencv_context.opencv_context.ctx
```

6.8.4.3 device

```
vgl_lib.opencv_context.opencv_context.device
```

6.8.4.4 devs

`vgl_lib.opengl_context.opengl_context.devs`

6.8.4.5 kernel_file

`vgl_lib.opengl_context.opengl_context.kernel_file`

6.8.4.6 pgr

`vgl_lib.opengl_context.opengl_context.pgr`

6.8.4.7 platform

`vgl_lib.opengl_context.opengl_context.platform`

6.8.4.8 platforms

`vgl_lib.opengl_context.opengl_context.platforms`

6.8.4.9 programs

`vgl_lib.opengl_context.opengl_context.programs`

6.8.4.10 queue

`vgl_lib.opengl_context.opengl_context.queue`

The documentation for this class was generated from the following file:

- [vgl_lib/opengl_context.py](#)

6.9 vgl_lib.struct_sizes.struct_sizes Class Reference

Public Member Functions

- def [__init__](#) (self)
- def [execute](#) (self)
- def [get_struct_sizes](#) (self)

Public Attributes

- [struct_sizes_host](#)
- [ocl_ctx](#)
- [kernel_run](#)
- [struct_sizes_device](#)

6.9.1 Constructor & Destructor Documentation

6.9.1.1 [__init__\(\)](#)

```
def vgl_lib.struct_sizes.struct_sizes.__init__ (  
    self )
```

6.9.2 Member Function Documentation

6.9.2.1 [execute\(\)](#)

```
def vgl_lib.struct_sizes.struct_sizes.execute (  
    self )
```

6.9.2.2 [get_struct_sizes\(\)](#)

```
def vgl_lib.struct_sizes.struct_sizes.get_struct_sizes (  
    self )
```

6.9.3 Member Data Documentation

6.9.3.1 kernel_run

```
vgl_lib.struct_sizes.struct_sizes.kernel_run
```

6.9.3.2 ocl_ctx

```
vgl_lib.struct_sizes.struct_sizes.ocl_ctx
```

6.9.3.3 struct_sizes_device

```
vgl_lib.struct_sizes.struct_sizes.struct_sizes_device
```

6.9.3.4 struct_sizes_host

```
vgl_lib.struct_sizes.struct_sizes.struct_sizes_host
```

The documentation for this class was generated from the following file:

- [vgl_lib/struct_sizes.py](#)

6.10 vgl_lib.opengl_context.VglCIContext Class Reference

Public Member Functions

- `def __init__(self, pl, dv, cn, cq)`

Public Attributes

- [platformId](#)
- [deviceId](#)
- [context](#)
- [commandQueue](#)

6.10.1 Constructor & Destructor Documentation

6.10.1.1 `__init__()`

```
def vgl_lib.openc1_context.VglClContext.__init__ (
    self,
    pl,
    dv,
    cn,
    cq )
```

6.10.2 Member Data Documentation

6.10.2.1 `commandQueue`

```
vgl_lib.openc1_context.VglClContext.commandQueue
```

6.10.2.2 `context`

```
vgl_lib.openc1_context.VglClContext.context
```

6.10.2.3 `deviceId`

```
vgl_lib.openc1_context.VglClContext.deviceId
```

6.10.2.4 `platformId`

```
vgl_lib.openc1_context.VglClContext.platformId
```

The documentation for this class was generated from the following file:

- [vgl_lib/openc1_context.py](#)

6.11 `vgl_lib.vglShape.VglClShape` Class Reference

Inheritance diagram for `vgl_lib.vglShape.VglClShape`:

Collaboration diagram for `vgl_lib.vglShape.VglClShape`:

Public Member Functions

- `def __init__(self, ndim=0, size=0)`

Public Attributes

- `shape`
- `offset`
- `ndim`
- `size`

6.11.1 Constructor & Destructor Documentation

6.11.1.1 __init__()

```
def vgl_lib.vglShape.VglClShape.__init__ (  
    self,  
    ndim = 0,  
    size = 0 )
```

6.11.2 Member Data Documentation

6.11.2.1 ndim

`vgl_lib.vglShape.VglClShape.ndim`

6.11.2.2 offset

`vgl_lib.vglShape.VglClShape.offset`

6.11.2.3 shape

`vgl_lib.vglShape.VglClShape.shape`

6.11.2.4 size

`vgl_lib.vglShape.VglClShape.size`

The documentation for this class was generated from the following file:

- [vgl_lib/vglShape.py](#)

6.12 vgl_lib.vglStrEl.VglClStrEl Class Reference

Inheritance diagram for `vgl_lib.vglStrEl.VglClStrEl`:

Collaboration diagram for `vgl_lib.vglStrEl.VglClStrEl`:

Public Member Functions

- `def __init__(self, ndim=0, size=0)`

Public Attributes

- [data](#)
- [ndim](#)
- [shape](#)
- [offset](#)
- [size](#)

6.12.1 Constructor & Destructor Documentation

6.12.1.1 __init__()

```
def vgl_lib.vglStrEl.VglClStrEl.__init__ (
    self,
    ndim = 0,
    size = 0 )
```

6.12.2 Member Data Documentation

6.12.2.1 data

`vgl_lib.vglStrEl.VglClStrEl.data`

6.12.2.2 ndim

`vgl_lib.vglStrEl.VglClStrEl.ndim`

6.12.2.3 offset

`vgl_lib.vglStrEl.VglClStrEl.offset`

6.12.2.4 shape

`vgl_lib.vglStrEl.VglClStrEl.shape`

6.12.2.5 size

`vgl_lib.vglStrEl.VglClStrEl.size`

The documentation for this class was generated from the following file:

- [vgl_lib/vglStrEl.py](#)

6.13 vgl_lib.vglImage.VglImage Class Reference

Inheritance diagram for `vgl_lib.vglImage.VglImage`:

Collaboration diagram for `vgl_lib.vglImage.VglImage`:

Public Member Functions

- `def __init__ (self, imgPath="", depth=None, ndim=None, clForceAsBuf=None)`
- `def printInfo (self)`
- `def getVglShape (self)`
- `def set_oclPtr (self, img)`
- `def get_oclPtr (self)`
- `def get_ipi (self)`
- `def getNChannels (self)`
- `def getWidth (self)`
- `def getHeight (self)`
- `def getLength (self)`
- `def getWidthIn (self)`
- `def getHeightIn (self)`
- `def getNFrames (self)`
- `def getBitsPerSample (self)`
- `def getWidthStep (self)`
- `def getTotalRows (self)`
- `def getTotalSizeInBytes (self)`

Public Attributes

- [ipl](#)
- [ndim](#)
- [shape](#)
- [vglShape](#)
- [depth](#)
- [nChannels](#)
- [has_mipmap](#)
- [oclPtr](#)
- [clForceAsBuf](#)
- [inContext](#)
- [filename](#)
- [fbo](#)
- [tex](#)
- [cudaPtr](#)
- [cudaPbo](#)

6.13.1 Constructor & Destructor Documentation

6.13.1.1 `__init__()`

```
def vgl_lib.vglImage.VglImage.__init__ (
    self,
    imgPath = "",
    depth = None,
    ndim = None,
    clForceAsBuf = None )
```

6.13.2 Member Function Documentation

6.13.2.1 `get_ipl()`

```
def vgl_lib.vglImage.VglImage.get_ipl (
    self )
```

6.13.2.2 `get_oclPtr()`

```
def vgl_lib.vglImage.VglImage.get_oclPtr (
    self )
```

6.13.2.3 getBitsPerSample()

```
def vgl_lib.vglImage.VglImage.getBitsPerSample (
    self )
```

6.13.2.4 getHeigth()

```
def vgl_lib.vglImage.VglImage.getHeigth (
    self )
```

6.13.2.5 getHeigthIn()

```
def vgl_lib.vglImage.VglImage.getHeigthIn (
    self )
```

6.13.2.6 getLength()

```
def vgl_lib.vglImage.VglImage.getLength (
    self )
```

6.13.2.7 getNChannels()

```
def vgl_lib.vglImage.VglImage.getNChannels (
    self )
```

6.13.2.8 getNFrames()

```
def vgl_lib.vglImage.VglImage.getNFrames (
    self )
```

6.13.2.9 getTotalRows()

```
def vgl_lib.vglImage.VglImage.getTotalRows (
    self )
```

6.13.2.10 getTotalSizeInBytes()

```
def vgl_lib.vglImage.VglImage.getTotalSizeInBytes (
    self )
```

6.13.2.11 getVglShape()

```
def vgl_lib.vglImage.VglImage.getVglShape (
    self )
```

6.13.2.12 getWidth()

```
def vgl_lib.vglImage.VglImage.getWidth (
    self )
```

6.13.2.13 getWidthIn()

```
def vgl_lib.vglImage.VglImage.getWidthIn (
    self )
```

6.13.2.14 getWidthStep()

```
def vgl_lib.vglImage.VglImage.getWidthStep (
    self )
```

6.13.2.15 prinflInfo()

```
def vgl_lib.vglImage.VglImage.prinflInfo (
    self )
```

6.13.2.16 set_oclPtr()

```
def vgl_lib.vglImage.VglImage.set_oclPtr (
    self,
    img )
```

6.13.3 Member Data Documentation

6.13.3.1 clForceAsBuf

`vgl_lib.vglImage.VglImage.clForceAsBuf`

6.13.3.2 cudaPbo

`vgl_lib.vglImage.VglImage.cudaPbo`

6.13.3.3 cudaPtr

`vgl_lib.vglImage.VglImage.cudaPtr`

6.13.3.4 depth

`vgl_lib.vglImage.VglImage.depth`

6.13.3.5 fbo

`vgl_lib.vglImage.VglImage.fbo`

6.13.3.6 filename

`vgl_lib.vglImage.VglImage.filename`

6.13.3.7 has_mipmap

`vgl_lib.vglImage.VglImage.has_mipmap`

6.13.3.8 inContext

`vgl_lib.vglImage.VglImage.inContext`

6.13.3.9 ipl

`vgl_lib.vglImage.VglImage.ipl`

6.13.3.10 nChannels

`vgl_lib.vglImage.VglImage.nChannels`

6.13.3.11 ndim

`vgl_lib.vglImage.VglImage.ndim`

6.13.3.12 oclPtr

`vgl_lib.vglImage.VglImage.oclPtr`

6.13.3.13 shape

`vgl_lib.vglImage.VglImage.shape`

6.13.3.14 tex

`vgl_lib.vglImage.VglImage.tex`

6.13.3.15 vglShape

`vgl_lib.vglImage.VglImage.vglShape`

The documentation for this class was generated from the following file:

- [vgl_lib/vglImage.py](#)

6.14 vgl_lib.vglShape.VglShape Class Reference

Inheritance diagram for `vgl_lib.vglShape.VglShape`:

Collaboration diagram for `vgl_lib.vglShape.VglShape`:

Public Member Functions

- `def __init__ (self)`
- `def printInfo (self, msg="")`
- `def vglCreateShape (self, shape, ndim, bps=8)`
- `def constructorFromVglShape (self, vglShape)`
- `def constructorFromShapeNdims (self, shape, ndim, bps=8)`
- `def constructor1DShape (self, w, h)`
- `def constructor2DShape (self, nChannels, w, h)`
- `def constructor3DShape (self, nChannels, w, h, d3)`
- `def getIndexFromCoord (self, coord)`
- `def getCoordFromIndex (self, index, coord)`
- `def getNdims (self)`
- `def getShape (self)`
- `def getOffset (self)`
- `def getSize (self)`
- `def getBps (self)`
- `def getNpixels (self)`
- `def getNChannels (self)`
- `def getWidth (self)`
- `def getHeight (self)`
- `def getLength (self)`
- `def getWidthIn (self)`
- `def getHeightIn (self)`
- `def getNFrames (self)`
- `def findBitsPerSample (self, depth)`
- `def findWidthStep (self, bps, width, nChannels)`
- `def asVglCIShape (self)`
- `def get_asVglCIShape_buffer (self)`
- `def copy_into_byte_array (self, value, byte_array, offset)`

Public Attributes

- `ndim`
- `shape`
- `offset`
- `size`
- `bps`

6.14.1 Detailed Description

```

ndim
    1D Images: is treated as 2D Image
    2D Images: is 2
    3D Images: is 3
shape
    2D Images:
        [0] Image channels (RGB=3, RGBA=4, GreyScale=1)
        [1] Image width
        [2] Image height
    3D Images:
        [0] Image Channels (RGB=3, RGBA=4, GreyScale=1)
        [1] Image width
        [2] Image height
        [3] Image depth
bps
    All Images:
        bits per sample. it defaults to 8.

UNIMPLEMENTED:
print methods ( print(String:msg) and printInfo() )

```

6.14.2 Constructor & Destructor Documentation

6.14.2.1 `__init__()`

```

def vgl_lib.vglShape.VglShape.__init__ (
    self )

```

6.14.3 Member Function Documentation

6.14.3.1 `asVglCShape()`

```

def vgl_lib.vglShape.VglShape.asVglCShape (
    self )

```

6.14.3.2 `constructor1DShape()`

```

def vgl_lib.vglShape.VglShape.constructor1DShape (
    self,
    w,
    h )

```

6.14.3.3 constructor2DShape()

```
def vgl_lib.vglShape.VglShape.constructor2DShape (
    self,
    nChannels,
    w,
    h )
```

6.14.3.4 constructor3DShape()

```
def vgl_lib.vglShape.VglShape.constructor3DShape (
    self,
    nChannels,
    w,
    h,
    d3 )
```

6.14.3.5 constructorFromShapeNdimBps()

```
def vgl_lib.vglShape.VglShape.constructorFromShapeNdimBps (
    self,
    shape,
    ndim,
    bps = 8 )
```

6.14.3.6 constructorFromVglShape()

```
def vgl_lib.vglShape.VglShape.constructorFromVglShape (
    self,
    vglShape )
```

6.14.3.7 copy_into_byte_array()

```
def vgl_lib.vglShape.VglShape.copy_into_byte_array (
    self,
    value,
    byte_array,
    offset )
```

6.14.3.8 findBitsPerSample()

```
def vgl_lib.vglShape.VglShape.findBitsPerSample (
    self,
    depht )
```

6.14.3.9 findWidthStep()

```
def vgl_lib.vglShape.VglShape.findWidthStep (
    self,
    bps,
    width,
    nChannels )
```

6.14.3.10 get_asVglClShape_buffer()

```
def vgl_lib.vglShape.VglShape.get_asVglClShape_buffer (
    self )
```

6.14.3.11 getBps()

```
def vgl_lib.vglShape.VglShape.getBps (
    self )
```

6.14.3.12 getCoordFromIndex()

```
def vgl_lib.vglShape.VglShape.getCoordFromIndex (
    self,
    index,
    coord )
```

6.14.3.13 getHeigth()

```
def vgl_lib.vglShape.VglShape.getHeigth (
    self )
```

6.14.3.14 getHeigthIn()

```
def vgl_lib.vglShape.VglShape.getHeigthIn (
    self )
```

6.14.3.15 getIndexFromCoord()

```
def vgl_lib.vglShape.VglShape.getIndexFromCoord (
    self,
    coord )
```

6.14.3.16 getLength()

```
def vgl_lib.vglShape.VglShape.getLength (
    self )
```

6.14.3.17 getNChannels()

```
def vgl_lib.vglShape.VglShape.getNChannels (
    self )
```

6.14.3.18 getNdim()

```
def vgl_lib.vglShape.VglShape.getNdim (
    self )
```

6.14.3.19 getNFrames()

```
def vgl_lib.vglShape.VglShape.getNFrames (
    self )
```

6.14.3.20 getNpixels()

```
def vgl_lib.vglShape.VglShape.getNpixels (
    self )
```

6.14.3.21 getOffset()

```
def vgl_lib.vglShape.VglShape.getOffset (
    self )
```

6.14.3.22 getShape()

```
def vgl_lib.vglShape.VglShape.getShape (
    self )
```

6.14.3.23 getSize()

```
def vgl_lib.vglShape.VglShape.getSize (
    self )
```

6.14.3.24 getWidth()

```
def vgl_lib.vglShape.VglShape.getWidth (
    self )
```

6.14.3.25 getWidthIn()

```
def vgl_lib.vglShape.VglShape.getWidthIn (
    self )
```

6.14.3.26 printInfo()

```
def vgl_lib.vglShape.VglShape.printInfo (
    self,
    msg = "" )
```

6.14.3.27 vglCreateShape()

```
def vgl_lib.vglShape.VglShape.vglCreateShape (
    self,
    shape,
    ndim,
    bps = 8 )
```

6.14.4 Member Data Documentation

6.14.4.1 bps

`vgl_lib.vglShape.VglShape.bps`

6.14.4.2 ndim

`vgl_lib.vglShape.VglShape.ndim`

6.14.4.3 offset

`vgl_lib.vglShape.VglShape.offset`

6.14.4.4 shape

`vgl_lib.vglShape.VglShape.shape`

6.14.4.5 size

`vgl_lib.vglShape.VglShape.size`

The documentation for this class was generated from the following file:

- [vgl_lib/vglShape.py](#)

6.15 vgl_lib.vglStrEl.VglStrEl Class Reference

Inheritance diagram for `vgl_lib.vglStrEl.VglStrEl`:

Collaboration diagram for `vgl_lib.vglStrEl.VglStrEl`:

Public Member Functions

- def `__init__` (self)
- def `VglCreateStrEl` (self, `data`, `vglShape`)
- def `constructorFromDataVglShape` (self, `data`, `vglShape`)
- def `constructorFromTypeNdim` (self, `Type`, `ndim`)
- def `getData` (self)
- def `getSize` (self)
- def `getNpixels` (self)
- def `getNdim` (self)
- def `getShape` (self)
- def `getOffset` (self)
- def `asVglClStrEl` (self)
- def `get_asVglClStrEl_buffer` (self)
- def `copy_into_byte_array` (self, `value`, `byte_array`, `offset`)

Public Attributes

- `vglShape`
- `data`

6.15.1 Constructor & Destructor Documentation

6.15.1.1 `__init__()`

```
def vgl_lib.vglStrEl.VglStrEl.__init__ (
    self )
```

6.15.2 Member Function Documentation

6.15.2.1 `asVglClStrEl()`

```
def vgl_lib.vglStrEl.VglStrEl.asVglClStrEl (
    self )
```

6.15.2.2 `constructorFromDataVglShape()`

```
def vgl_lib.vglStrEl.VglStrEl.constructorFromDataVglShape (
    self,
    data,
    vglShape )
```


6.15.2.3 constructorFromTypeNdim()

```
def vgl_lib.vglStrEl.VglStrEl.constructorFromTypeNdim (
    self,
    Type,
    ndim )
```

6.15.2.4 copy_into_byte_array()

```
def vgl_lib.vglStrEl.VglStrEl.copy_into_byte_array (
    self,
    value,
    byte_array,
    offset )
```

6.15.2.5 get_asVglClStrEl_buffer()

```
def vgl_lib.vglStrEl.VglStrEl.get_asVglClStrEl_buffer (
    self )
```

6.15.2.6 getData()

```
def vgl_lib.vglStrEl.VglStrEl.getData (
    self )
```

6.15.2.7 getNdim()

```
def vgl_lib.vglStrEl.VglStrEl.getNdim (
    self )
```

6.15.2.8 getNpixels()

```
def vgl_lib.vglStrEl.VglStrEl.getNpixels (
    self )
```

6.15.2.9 getOffset()

```
def vgl_lib.vglStrEl.VglStrEl.getOffset (
    self )
```

6.15.2.10 getShape()

```
def vgl_lib.vglStrEl.VglStrEl.getShape (
    self )
```

6.15.2.11 getSize()

```
def vgl_lib.vglStrEl.VglStrEl.getSize (
    self )
```

6.15.2.12 VglCreateStrEl()

```
def vgl_lib.vglStrEl.VglStrEl.VglCreateStrEl (
    self,
    data,
    vglShape )
```

6.15.3 Member Data Documentation

6.15.3.1 data

```
vgl_lib.vglStrEl.VglStrEl.data
```

6.15.3.2 vglShape

```
vgl_lib.vglStrEl.VglStrEl.vglShape
```

The documentation for this class was generated from the following file:

- [vgl_lib/vglStrEl.py](#)

Chapter 7

File Documentation

7.1 interpreter/execWorkflow.py File Reference

Namespaces

- [execWorkflow](#)

Functions

- def [execWorkflow.GlyphExecutedUpdate](#) (GlyphExecutedUpdate_Glyph_Id, GlyphExecutedUpdate_image)
- def [execWorkflow.imshow](#) (im)
- def [execWorkflow.tratnum](#) (num)

Variables

- int [execWorkflow.nSteps](#) = 1
- string [execWorkflow.msg](#) = ""
- [execWorkflow.CPU](#) = cl.device_type.CPU
- [execWorkflow.GPU](#) = cl.device_type.GPU
- float [execWorkflow.total](#) = 0.0
- [execWorkflow.vglLoadImage_img_in_path](#) = vGlyph.lst_par[0].getValue()
- [execWorkflow.vglLoadImage_img_input](#) = vl.VglImage(vglLoadImage_img_in_path, None, vl.VGL_IMAGE←
_2D_IMAGE(), vl.IMAGE_ND_ARRAY())
- [execWorkflow.vglCreateImage_img_input](#) = getImageInputByName(vGlyph.glyph_id, 'img')
- [execWorkflow.vglCreateImage_RETVAL](#) = vl.create_blank_image_as(vglCreateImage_img_input)
- [execWorkflow.vglCIBlurSq3_img_input](#) = getImageInputByName(vGlyph.glyph_id, 'img_input')
- [execWorkflow.vglCIBlurSq3_img_output](#) = getImageInputByName(vGlyph.glyph_id, 'img_output')
- [execWorkflow.t0](#) = datetime.now()
- [execWorkflow.t1](#) = datetime.now()
- [execWorkflow.t](#) = t1 - t0
- tuple [execWorkflow.media](#) = (t.total_seconds() * 1000) / nSteps
- [execWorkflow.vglCI3dBlurSq3_img_input](#) = getImageInputByName(vGlyph.glyph_id, 'img_input')
- [execWorkflow.vglCI3dBlurSq3_img_output](#) = getImageInputByName(vGlyph.glyph_id, 'img_output')
- [execWorkflow.vglCIErode_img_input](#) = getImageInputByName(vGlyph.glyph_id, 'img_input')
- [execWorkflow.vglCIErode_img_output](#) = getImageInputByName(vGlyph.glyph_id, 'img_output')
- [execWorkflow.vglCI3dErode_img_input](#) = getImageInputByName(vGlyph.glyph_id, 'img_input')

- `execWorkflow.vglCI3dErode_img_output` = `getImageInputByName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.vglCINeroe_img_input` = `getImageInputByName(vGlyph.glyph_id, 'img_input')`
- `execWorkflow.vglCINeroe_img_output` = `getImageInputByName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.Erode_buffer` = `vl.create_blank_image_as(vglCINeroe_img_input)`
- `execWorkflow.diff` = `t1 - t0`
- `execWorkflow.vglCINdErode_img_input` = `getImageInputByName(vGlyph.glyph_id, 'img_input')`
- `print(vglShape.getShape())`
- `execWorkflow.vglCINdErode_img_output` = `getImageInputByName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.vglShape_img_input` = `getImageInputByName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.vglShape` = `vl.VglShape()`
- `execWorkflow.size`
- `execWorkflow.window` = `vl.VglStrEl()`
- *CASO DO TYPE.*
- dictionary `execWorkflow.kernel_type_map`
- `execWorkflow.input` = `vGlyph.lst_par[0].getValue().strip().lower()`
- `execWorkflow.type` = `None`
- `execWorkflow.str_list` = `vGlyph.lst_par[0].getValue()`
- `execWorkflow.data` = `np.array(str_list, dtype=np.float32)`
- `execWorkflow.vglCINdDilate_img_input` = `getImageInputByName(vGlyph.glyph_id, 'img_input')`
- `execWorkflow.vglCINdDilate_img_output` = `getImageInputByName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.vglCINdConvolution_img_input` = `getImageInputByName(vGlyph.glyph_id, 'img_input')`
- `execWorkflow.vglCINdConvolution_img_output` = `getImageInputByName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.vglCIConvolution_img_input` = `getImageInputByName(vGlyph.glyph_id, 'img_input')`
- `execWorkflow.vglCIConvolution_img_output` = `getImageInputByName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.vglCI3dConvolution_img_input` = `getImageInputByName(vGlyph.glyph_id, 'img_input')`
- `execWorkflow.vglCI3dConvolution_img_output` = `getImageInputByName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.vglCINConvolution_img_input` = `getImageInputByName(vGlyph.glyph_id, 'img_input')`
- `execWorkflow.vglCINConvolution_img_output` = `getImageInputByName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.Conv_buffer` = `vl.create_blank_image_as(vglCINConvolution_img_input)`
- `execWorkflow.vglCIDilate_img_input` = `getImageInputByName(vGlyph.glyph_id, 'img_input')`
- `execWorkflow.vglCIDilate_img_output` = `getImageInputByName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.vglCI3dDilate_img_input` = `getImageInputByName(vGlyph.glyph_id, 'img_input')`
- `execWorkflow.vglCI3dDilate_img_output` = `getImageInputByName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.vglCINDilate_img_input` = `getImageInputByName(vGlyph.glyph_id, 'img_input')`
- `execWorkflow.vglCINDilate_img_output` = `getImageInputByName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.Dilate_buffer` = `vl.create_blank_image_as(vglCINDilate_img_input)`
- `execWorkflow.vglCIThreshold_img_input` = `getImageInputByName(vGlyph.glyph_id, 'src')`
- `execWorkflow.vglCIThreshold_img_output` = `getImageInputByName(vGlyph.glyph_id, 'dst')`
- `tuple execWorkflow.med` = `(diff.total_seconds() * 1000) / nSteps`
- `execWorkflow.vglCI3dThreshold_img_input` = `getImageInputByName(vGlyph.glyph_id, 'src')`
- `execWorkflow.vglCI3dThreshold_img_output` = `getImageInputByName(vGlyph.glyph_id, 'dst')`
- `execWorkflow.vglCINdThreshold_img_input` = `getImageInputByName(vGlyph.glyph_id, 'src')`
- `execWorkflow.vglCINdThreshold_img_output` = `getImageInputByName(vGlyph.glyph_id, 'dst')`
- `execWorkflow.vglCISwapRgb_img_input` = `getImageInputByName(vGlyph.glyph_id, 'src')`
- `execWorkflow.vglCISwapRgb_img_output` = `getImageInputByName(vGlyph.glyph_id, 'dst')`
- `execWorkflow.vglCIRgb2Gray_img_input` = `getImageInputByName(vGlyph.glyph_id, 'img_input')`
- `execWorkflow.vglCIRgb2Gray_img_output` = `getImageInputByName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.vglCIInvert_img_input` = `getImageInputByName(vGlyph.glyph_id, 'img_input')`
- `execWorkflow.vglCIInvert_img_output` = `getImageInputByName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.vglCISub_img_input1` = `getImageInputByName(vGlyph.glyph_id, 'img_input1')`
- `execWorkflow.vglCISub_img_output` = `getImageInputByName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.vglCISub_img_input2` = `getImageInputByName(vGlyph.glyph_id, 'img_input2')`
- `execWorkflow.vglCISub_img_input` = `getImageInputByName(vGlyph.glyph_id, 'img_input')`
- `execWorkflow.vglCISub_img_output` = `getImageInputByName(vGlyph.glyph_id, 'img_output')`

- `execWorkflow.vglCISum_img_input` = `getImageInputByIdName(vGlyph.glyph_id, 'img_input')`
- `execWorkflow.vglCISum_img_output` = `getImageInputByIdName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.Closing_img_input` = `getImageInputByIdName(vGlyph.glyph_id, 'img_input')`
- `execWorkflow.Closing_img_output` = `getImageInputByIdName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.Closing_buffer` = `vl.create_blank_image_as(Closing_img_input)`
- `execWorkflow.Rec_img_input` = `getImageInputByIdName(vGlyph.glyph_id, 'img_input')`
- `execWorkflow.Rec_img_output` = `getImageInputByIdName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.n_pixel` = `np.uint32(vGlyph.lst_par[0].getValue())`
- `def execWorkflow.elemento` = `tratnum(vGlyph.lst_par[0].getValue())`
- `execWorkflow.x` = `np.uint32(vGlyph.lst_par[1].getValue())`
- `execWorkflow.y` = `np.uint32(vGlyph.lst_par[2].getValue())`
- `execWorkflow.Rec_imgt1` = `vl.create_blank_image_as(Rec_img_input)`
- `execWorkflow.Rec_buffer` = `vl.create_blank_image_as(Rec_img_input)`
- `int execWorkflow.result` = 0
- `int execWorkflow.count` = 0
- `execWorkflow.initial_value` = `int(vGlyph.lst_par[0].getValue())`
- *CONTROL.*
- `execWorkflow.final_value` = `int(vGlyph.lst_par[1].getValue())`
- `execWorkflow.increment` = `int(vGlyph.lst_par[2].getValue())`
- `execWorkflow.merge_img_input1` = `getImageInputByIdName(vGlyph.glyph_id, 'img_input1')`
- `execWorkflow.merge_img_input2` = `getImageInputByIdName(vGlyph.glyph_id, 'img_input2')`
- `execWorkflow.merge_img_output` = `getImageInputByIdName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.tinput` = `getImageInputByIdName(vGlyph.glyph_id, 'img_input1')`
- `execWorkflow.trinput` = `getImageInputByIdName(vGlyph.glyph_id, 'img_input2')`
- `execWorkflow.toutput` = `getImageInputByIdName(vGlyph.glyph_id, 'img_output')`
- `execWorkflow.ShowImage_img_input` = `getImageInputByIdName(vGlyph.glyph_id, 'image')`
- `execWorkflow.ShowImage_img_ndarray` = `VglImage.get_ipl(ShowImage_img_input)`
- `execWorkflow.vglSaveImage_img_input` = `getImageInputByIdName(vGlyph.glyph_id, 'image')`
- `execWorkflow.vpath` = `vGlyph.lst_par[0].getValue()`
- `execWorkflow.file`
- `string execWorkflow.msg1` = `"Valor total do tempo médio: "+str(total)`

7.2 execWorkflow.py File Reference

Namespaces

- `execWorkflow`

Functions

- `def execWorkflow.GlyphExecutedUpdate` (`GlyphExecutedUpdate_Glyph_Id`, `GlyphExecutedUpdate_image`)
- `def execWorkflow.imshow` (`im`)
- `def execWorkflow.tratnum` (`num`)

7.3 interpreter/readWorkflow.py File Reference

Classes

- `class readWorkflow.Error`
- `class readWorkflow.objGlyph`
- `class readWorkflow.objGlyphParameters`
- `class readWorkflow.objGlyphInput`
- `class readWorkflow.objGlyphOutput`
- `class readWorkflow.objConnection`
- `class readWorkflow.objConnectionPar`

Namespaces

- [readWorkflow](#)

Functions

- def [readWorkflow.procCreateGlyphInOut](#) ()
- def [readWorkflow.procCreateGlyphPar](#) (procCreateGlyphPar_vGlyph, procCreateGlyphPar_vParameters, procCreateGlyphPar_count)
- def [readWorkflow.procCreateGlyph](#) (procCreateGlyph_contentGly, procCreateGlyph_count)
- def [readWorkflow.setGlyphInputReadyByIdOut](#) (setGlyphInputReadyByIdOut_vOutputGlyph_id)
- def [readWorkflow.setGlyphDoneId](#) (setGlyphDoneId_vGlyphIdUpd)
- def [readWorkflow.setGlyphInputReady](#) (setGlyphInputReady_vPar_glyph_id, setGlyphInputReady_vPar_name)
- def [readWorkflow.getOutputConnection](#) (getOutputConnection_vGlyph_IdOutput)
- def [readWorkflow.getOutputConnectionByIdName](#) (getOutputConnectionByIdName_vGlyph_idInput, getOutputConnectionByIdName_vNameParInput)
- def [readWorkflow.setImageConnectionByOutputId](#) (setImageConnectionByOutputId_vGlyph_OutputId, setImageConnectionByOutputId_img)
- def [readWorkflow.getImageInputByIdName](#) (getImageInputByIdName_vGlyph_idInput, getImageInputByIdName_vNameParInput)
- def [readWorkflow.addInputConnection](#) (addInputConnection_vConnOutput, addInputConnection_vinput_glyph_ID, addInputConnection_vinput_varname)
- def [readWorkflow.procCreateConnection](#) (procCreateConnection_voutput_glyph_ID, procCreateConnection_voutput_varname, procCreateConnection_vinput_glyph_ID, procCreateConnection_vinput_varname)
- def [readWorkflow.fileRead](#) (lstGlyph, lstConnection)

Variables

- list [readWorkflow.lstGlyph](#) = []
- list [readWorkflow.lstGlyphPar](#) = []
- list [readWorkflow.lstConnection](#) = []
- list [readWorkflow.lstConnectionInput](#) = []
- list [readWorkflow.lstGlyphIn](#) = []
- list [readWorkflow.lstGlyphOut](#) = []
- [readWorkflow.vfile](#) = sys.argv[1]
- [readWorkflow.vGlyph](#) = objGlyph
- [readWorkflow.vGlyphPar](#) = objGlyphParameters
- [readWorkflow.vGlyphIn](#) = objGlyphInput
- [readWorkflow.vGlyphOut](#) = objGlyphOutput
- [readWorkflow.vConnection](#) = objConnection
- [readWorkflow.vConnectionOutput](#) = objConnectionPar

7.4 readWorkflow.py File Reference

Classes

- class [readWorkflow.Error](#)
- class [readWorkflow.objGlyph](#)
- class [readWorkflow.objGlyphParameters](#)
- class [readWorkflow.objGlyphInput](#)
- class [readWorkflow.objGlyphOutput](#)
- class [readWorkflow.objConnection](#)
- class [readWorkflow.objConnectionPar](#)

Namespaces

- [readWorkflow](#)

Functions

- def [readWorkflow.procCreateGlyphInOut](#) ()
- def [readWorkflow.procCreateGlyphPar](#) (procCreateGlyphPar_vGlyph, procCreateGlyphPar_vParameters, procCreateGlyphPar_count)
- def [readWorkflow.procCreateGlyph](#) (procCreateGlyph_contentGly, procCreateGlyph_count)
- def [readWorkflow.setGlyphInputReadyByIdOut](#) (setGlyphInputReadyByIdOut_vOutputGlyph_id)
- def [readWorkflow.setGlyphDoneId](#) (setGlyphDoneId_vGlyphIdUpd)
- def [readWorkflow.setGlyphInputReady](#) (setGlyphInputReady_vPar_glyph_id, setGlyphInputReady_vPar_↵ name)
- def [readWorkflow.getOutputConnection](#) (getOutputConnection_vGlyph_IdOutput)
- def [readWorkflow.getOutputConnectionByIdName](#) (getOutputConnectionByIdName_vGlyph_idInput, get↵ OutputConnectionByIdName_vNameParInput)
- def [readWorkflow.setImageConnectionByOutputId](#) (setImageConnectionByOutputId_vGlyph_OutputId, set↵ ImageConnectionByOutputId_img)
- def [readWorkflow.getImageInputByIdName](#) (getImageInputByIdName_vGlyph_idInput, getImageInputById↵ Name_vNameParInput)
- def [readWorkflow.addInputConnection](#) (addInputConnection_vConnOutput, addInputConnection_vinput_↵ Glyph_ID, addInputConnection_vinput_varname)
- def [readWorkflow.procCreateConnection](#) (procCreateConnection_voutput_Glyph_ID, procCreateConnection↵ _voutput_varname, procCreateConnection_vinput_Glyph_ID, procCreateConnection_vinput_varname)
- def [readWorkflow.fileRead](#) (lstGlyph, lstConnection)

7.5 vgl_lib/___init___py File Reference

Namespaces

- [vgl_lib](#)

7.6 vgl_lib/opengl_context.py File Reference

Classes

- class [vgl_lib.opengl_context.VglCIContext](#)
- class [vgl_lib.opengl_context.opengl_context](#)

Namespaces

- [vgl_lib.opengl_context](#)

7.7 vgl_lib/struct_sizes.py File Reference

Classes

- class [vgl_lib.struct_sizes.struct_sizes](#)

Namespaces

- [vgl_lib.struct_sizes](#)

7.8 vgl_lib/vglCIImage.py File Reference

Namespaces

- [vgl_lib.vglCIImage](#)

Functions

- def [vgl_lib.vglCIImage.vglCIInit](#) (device_type=2, ocl_context_a=None, ss_a=None, bin_image_pack_size_↔ a=None)
- def [vgl_lib.vglCIImage.vglCIUpload](#) (img)
- def [vgl_lib.vglCIImage.vglCIDownload](#) (img)
- def [vgl_lib.vglCIImage.vglCIImageUpload](#) (img)
- def [vgl_lib.vglCIImage.vglCIImageDownload](#) (img)
- def [vgl_lib.vglCIImage.vglCINdImageUpload](#) (img)
- def [vgl_lib.vglCIImage.vglCINdImageDownload](#) (img)
- def [vgl_lib.vglCIImage.vglCICheckError](#) (error, name)
- def [vgl_lib.vglCIImage.get_bin_image_pack_size](#) ()
- def [vgl_lib.vglCIImage.get_ocl](#) ()
- def [vgl_lib.vglCIImage.get_ocl_context](#) ()
- def [vgl_lib.vglCIImage.set_ocl](#) (ctx)
- def [vgl_lib.vglCIImage.get_struct_sizes](#) ()
- def [vgl_lib.vglCIImage.cl_channel_type](#) (img)
- def [vgl_lib.vglCIImage.cl_channel_order](#) (img)
- def [vgl_lib.vglCIImage.get_similar_oclPtr_object](#) (img, nChannels=None)
- def [vgl_lib.vglCIImage.create_blank_image_as](#) (img)
- def [vgl_lib.vglCIImage.create_blank_image_as_gray](#) (img)
- def [vgl_lib.vglCIImage.get_vglstrel_openccl_buffer](#) (strel)
- def [vgl_lib.vglCIImage.get_vglshape_openccl_buffer](#) (shape)

Variables

- [vgl_lib.vglCIImage.ocl](#) = None
- [vgl_lib.vglCIImage.ocl_context](#) = None
- [vgl_lib.vglCIImage.struct_sizes](#) = None
- [vgl_lib.vglCIImage.bin_image_pack_size](#) = None

7.9 vgl_lib/vglCIUtil.py File Reference

Namespaces

- [vgl_lib.vglCIUtil](#)

Functions

- def [vgl_lib.vglCIUtil.vglCIEqual1](#) (img_input, img_output)
- def [vgl_lib.vglCIUtil.vglCIEqual](#) (img_input1, img_input2)

7.10 vgl_lib/vglConst.py File Reference

Namespaces

- [vgl_lib.vglConst](#)

Functions

- def [vgl_lib.vglConst.VGL_WIN_X0](#) ()
- def [vgl_lib.vglConst.VGL_WIN_X1](#) ()
- def [vgl_lib.vglConst.VGL_WIN_DX](#) ()
- def [vgl_lib.vglConst.VGL_WIN_Y0](#) ()
- def [vgl_lib.vglConst.VGL_WIN_Y1](#) ()
- def [vgl_lib.vglConst.VGL_WIN_DY](#) ()
- def [vgl_lib.vglConst.VGL_MIN_WINDOW_SPLIT](#) ()
- def [vgl_lib.vglConst.VGL_DEFAULT_WINDOW_SPLIT](#) ()
- def [vgl_lib.vglConst.VGL_MAX_WINDOW_SPLIT](#) ()
- def [vgl_lib.vglConst.VGL_MAX_WINDOWS](#) ()
- def [vgl_lib.vglConst.IPL_DEPTH_1U](#) ()
- def [vgl_lib.vglConst.VGL_SHAPE_NCHANNELS](#) ()
- def [vgl_lib.vglConst.VGL_SHAPE_WIDTH](#) ()
- def [vgl_lib.vglConst.VGL_SHAPE_HEIGHT](#) ()
- def [vgl_lib.vglConst.VGL_SHAPE_LENGTH](#) ()
- def [vgl_lib.vglConst.VGL_4D](#) ()
- def [vgl_lib.vglConst.VGL_MAX_DIM](#) ()
- def [vgl_lib.vglConst.VGL_ARR_SHAPE_SIZE](#) ()
- def [vgl_lib.vglConst.VGL_SHAPE_D0](#) ()
- def [vgl_lib.vglConst.VGL_SHAPE_D1](#) ()
- def [vgl_lib.vglConst.VGL_SHAPE_D2](#) ()
- def [vgl_lib.vglConst.VGL_SHAPE_D3](#) ()
- def [vgl_lib.vglConst.VGL_SHAPE_D4](#) ()
- def [vgl_lib.vglConst.VGL_ARR_CLSTREL_SIZE](#) ()
- def [vgl_lib.vglConst.VGL_STREL_CUBE](#) ()
- def [vgl_lib.vglConst.VGL_STREL_CROSS](#) ()
- def [vgl_lib.vglConst.VGL_STREL_GAUSS](#) ()
- def [vgl_lib.vglConst.VGL_STREL_MEAN](#) ()
- def [vgl_lib.vglConst.VGL_IMAGE_3D_IMAGE](#) ()
- def [vgl_lib.vglConst.VGL_IMAGE_2D_IMAGE](#) ()
- def [vgl_lib.vglConst.VGL_BLANK_CONTEXT](#) ()
- def [vgl_lib.vglConst.VGL_RAM_CONTEXT](#) ()
- def [vgl_lib.vglConst.VGL_GL_CONTEXT](#) ()
- def [vgl_lib.vglConst.VGL_CUDA_CONTEXT](#) ()
- def [vgl_lib.vglConst.VGL_CL_CONTEXT](#) ()
- def [vgl_lib.vglConst.VGL_ERROR](#) ()
- def [vgl_lib.vglConst.IMAGE_CL_OBJECT](#) ()
- def [vgl_lib.vglConst.IMAGE_ND_ARRAY](#) ()

- [def vgl_lib.vglConst.vglCIErrMessages \(\)](#)
- [def vgl_lib.vglConst.CL_SUCCESS \(\)](#)
- [def vgl_lib.vglConst.CL_MIN_ERROR \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_SIZE_BITS_8 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_SIZE_BYTES_8 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_MAX_UINT_8 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_CL_CONST_TYPE_8 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_CL_SHADER_TYPE_8 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_OUTPUT_SWAP_MASK_8 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_OUTPUT_DIRECT_MASK_8 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_SIZE_BITS_32 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_SIZE_BYTES_32 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_MAX_UINT_32 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_CL_CONST_TYPE_32 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_CL_SHADER_TYPE_32 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_OUTPUT_SWAP_MASK_32 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_OUTPUT_DIRECT_MASK_32 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_SIZE_BITS_64 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_SIZE_BYTES_64 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_MAX_UINT_64 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_CL_CONST_TYPE_64 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_CL_SHADER_TYPE_64 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_OUTPUT_SWAP_MASK_64 \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_OUTPUT_DIRECT_MASK_64 \(\)](#)
- [def vgl_lib.vglConst.PACK_SIZE_8 \(\)](#)
- [def vgl_lib.vglConst.PACK_SIZE_32 \(\)](#)
- [def vgl_lib.vglConst.PACK_SIZE_64 \(\)](#)
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- [def vgl_lib.vglConst.VGL_PACK_CL_CONST_TYPE \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_CL_SHADER_TYPE \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_OUTPUT_SWAP_MASK \(\)](#)
- [def vgl_lib.vglConst.VGL_PACK_OUTPUT_DIRECT_MASK \(\)](#)

7.11 vgl_lib/vglContext.py File Reference

Namespaces

- [vgl_lib.vglContext](#)

Functions

- [def vgl_lib.vglContext.vglIsContextValid \(x\)](#)
- [def vgl_lib.vglContext.vglIsContextUnique \(x\)](#)
- [def vgl_lib.vglContext.vglIsInContext \(img, x\)](#)
- [def vgl_lib.vglContext.vglAddContext \(img, context\)](#)
- [def vgl_lib.vglContext.vglSetContext \(img, context\)](#)
- [def vgl_lib.vglContext.vglCheckContext \(img, context\)](#)
- [def vgl_lib.vglContext.vglCheckContextForOutput \(img, context\)](#)

7.12 vgl_lib/vglImage.py File Reference

Classes

- class [vgl_lib.vglImage.VglImage](#)

Namespaces

- [vgl_lib.vglImage](#)

Functions

- def [vgl_lib.vglImage.iplFindBitsPerSample](#) (depth)
- def [vgl_lib.vglImage.iplFindWidthStep](#) (depth, width, channels=1)
- def [vgl_lib.vglImage.vglImage3To4Channels](#) (img)
- def [vgl_lib.vglImage.vglImage4To3Channels](#) (img)
- def [vgl_lib.vglImage.vglLoadImage](#) (img, filename="")
- def [vgl_lib.vglImage.vglSaveImage](#) (filename, img)
- def [vgl_lib.vglImage.create_vglShape](#) (img)
- def [vgl_lib.vglImage.rgb_to_rgba](#) (img)
- def [vgl_lib.vglImage rgba_to_rgb](#) (img)

7.13 vgl_lib/vglShape.py File Reference

Classes

- class [vgl_lib.vglShape.VglCShape](#)
- class [vgl_lib.vglShape.VglShape](#)

Namespaces

- [vgl_lib.vglShape](#)

7.14 vgl_lib/vglStrEl.py File Reference

Classes

- class [vgl_lib.vglStrEl.VglCStrEl](#)
- class [vgl_lib.vglStrEl.VglStrEl](#)

Namespaces

- [vgl_lib.vglStrEl](#)

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