

# Diagrams

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# About

- ▶ powerful

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- ▶ powerful
- ▶ flexible

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- ▶ declarative

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- ▶ domain-specific language (DSL)

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- ▶ declarative
- ▶ domain-specific language (DSL)
- ▶ vector graphics

# Features

- ▶ vector graphics
- ▶ 2D, 3D in progress
- ▶ interactive diagrams

# Examples

```
{-# LANGUAGE NoMonomorphismRestriction #-}  
  
import Diagrams.Prelude  
import Diagrams.Backend.SVG.CmdLine  
  
main = defaultMain (circle 1)
```

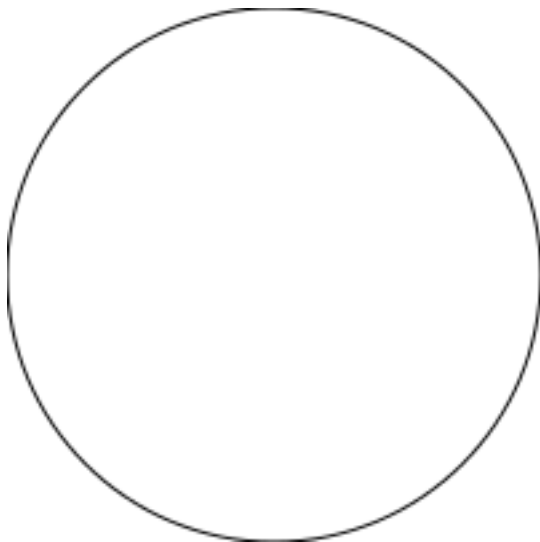


# Examples

```
$ ./test1 -o ../img/test1.svg -w 100
```

```
$ convert ../img/test1.svg ../img/test1.png
```

# Examples

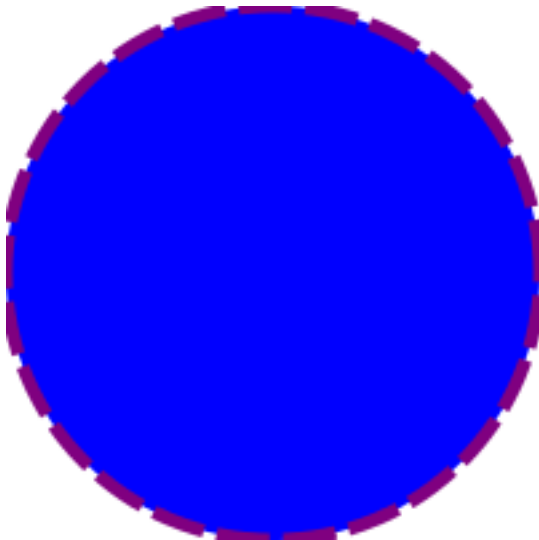


# Examples

```
circle1 = circle 1 # fc blue  
           # lw 0.05  
           # lc purple  
           # dashing [0.2,0.05] 0
```

```
-- x # f === f £ x
```

# Examples

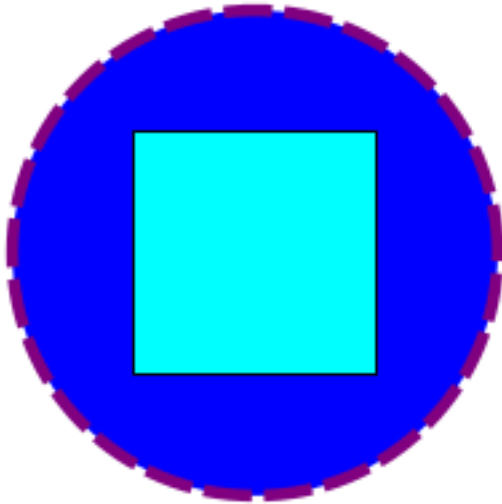


# Examples

```
circle1 = circle 1
# fc blue
# lw 0.05
# lc purple
# dashing [0.2,0.05] 0

pCircle1 = circle1 # pad 1.1
circleSq = square 1 # fc aqua 'atop' pCircle1
```

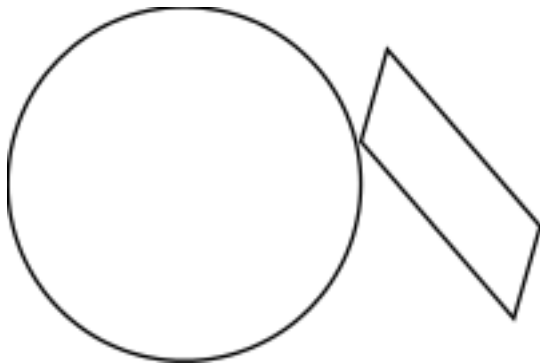
# Examples



# Examples

```
circleRect =  
  circle 1 # scale 0.5  
  |||  
  square 1 # scaleX 0.3  
           # rotateBy (1/6)  
           # scaleX 0.5
```

# Examples



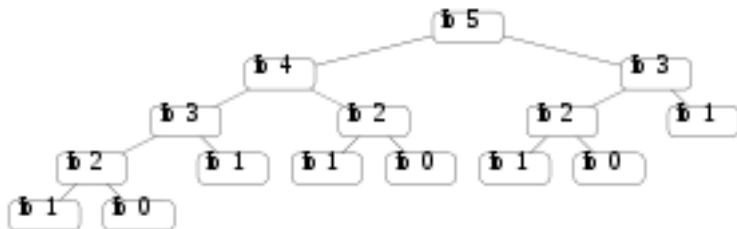


# Examples

```
Just t = uniqueXLayout 2 2 (fibCalls 5)

example = pad 1.1 . lw 0.03 . centerXY
$ renderTree
  (\n -> (text ("fib " ++ show n)
    <> roundedRect 3 1.3 0.3 # fc white)
  )
  (~~) t
```

## Examples

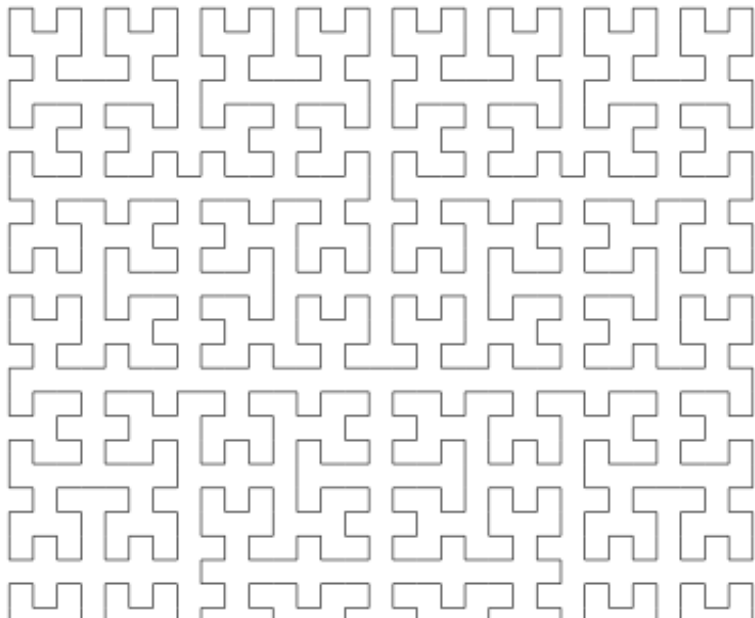


# Examples

```
hilbert = iterate expand mempty
  where
    expand t = alignBL $ hcat [u, hrule 1, reflectX u]
      where
        u = vcat [t, alignT $ vrule 1, rotateBy (3/4) t]

example = pad 1.1 . centerXY . lw 0.05 $ hilbert!!5
```

# Examples



# Contribute

- ▶ Diagrams project
- ▶ Diagrams wiki