

box transformation in pdf-trans.tex



before



after



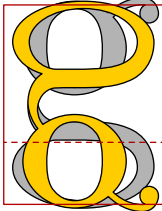
bounding box

Yoga

```
\boxflipx <box>
```

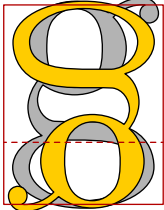
```
\boxflipx
```

Yoga



```
\boxflipy <box>
```

```
\boxflipy
```

Y o  a

`\boxflipxy <box>`

`\boxflipxy`

Yoga a

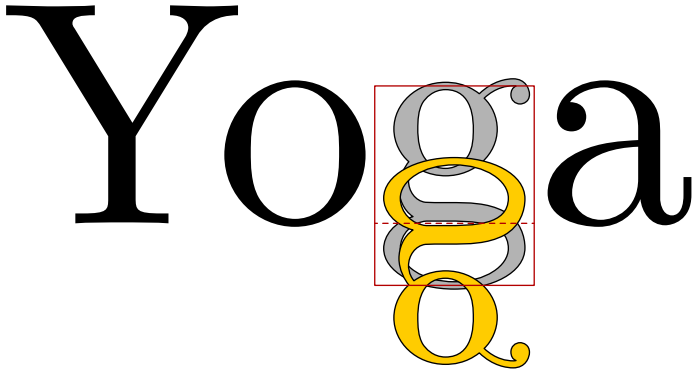
```
\boxflipbase <box>
```

```
\boxflipbase
```

Yoga

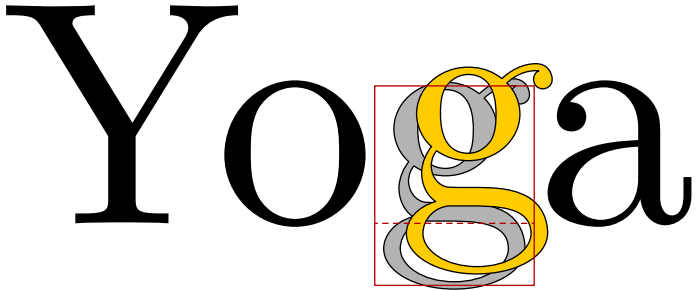
```
\bboxtrans {<trans>} <box>
```

```
\bboxtrans \boxflipbase
```



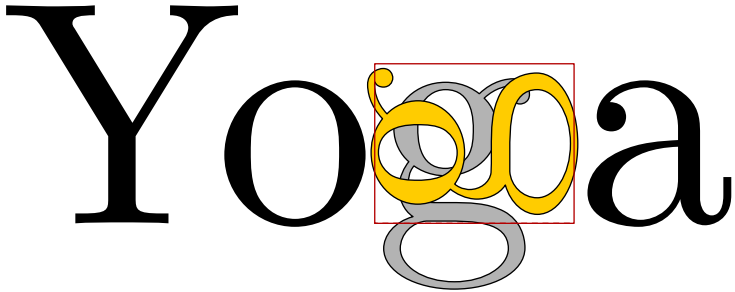
```
\cboxtrans {<trans>} <box>
```

```
\cboxtrans \boxflipbase
```



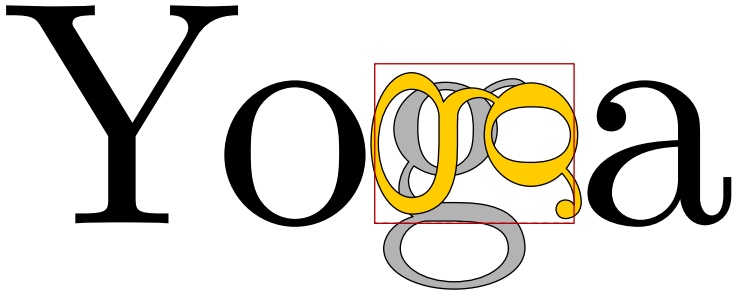
```
\boxtranslate {<dimexpr>}{<dimexpr>} <box>
```

```
\boxtranslate {3mm}{2mm}
```

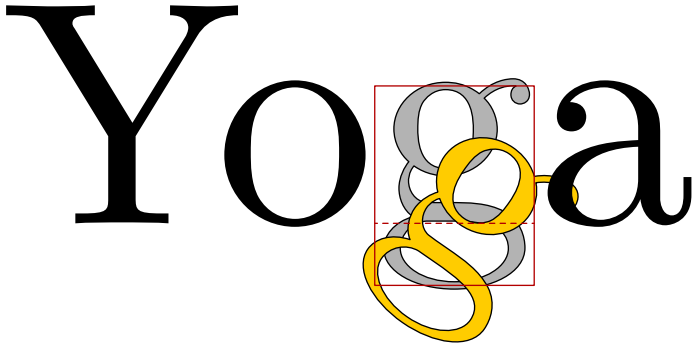
`\boxrevolveleft <box>`

`\boxrevolveleft`



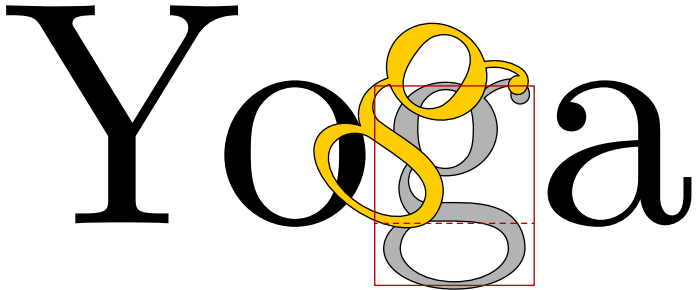
`\boxrevolveright <box>`

`\boxrevolveright`



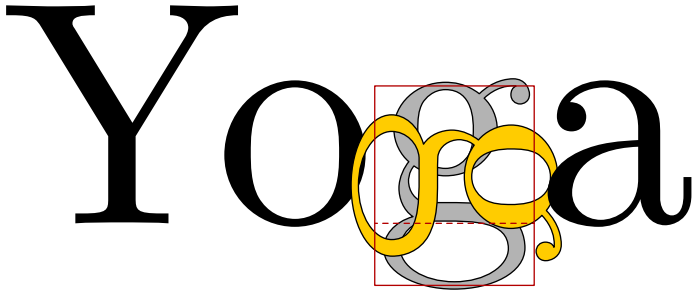
```
\boxrotate {<angle>} <box>
```

```
\boxrotate {394.7}
```



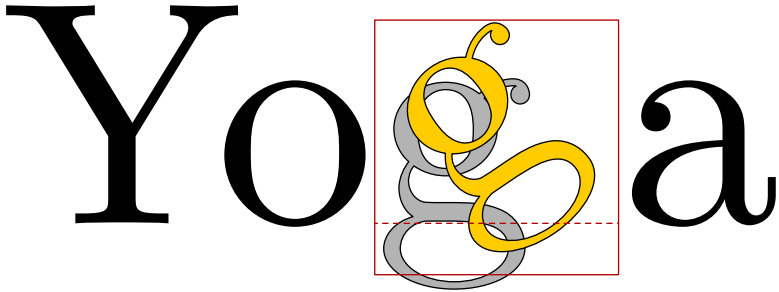
```
\boxrotatexy {<angle>}{<dimexpr>}{<dimexpr>} <box>
```

```
\boxrotatexy {34.2}{\wd \transbox }{\ht \transbox }
```



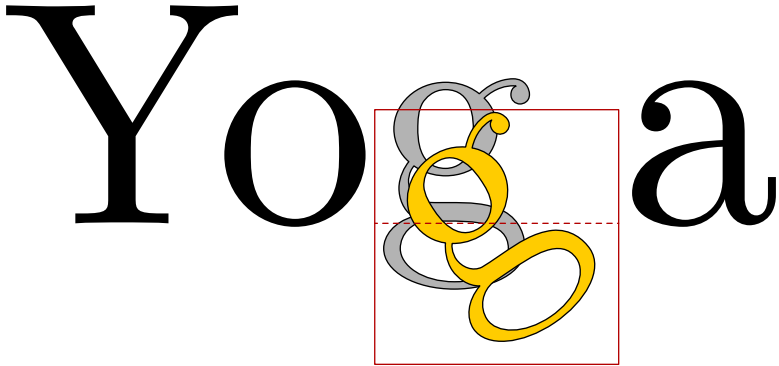
```
\boxrotatec {<angle>} <box>
```

```
\boxrotatec {90}
```



```
\boxrotatebb1 {<angle>} <box>
```

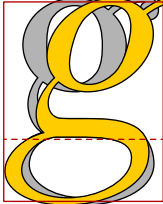
```
\boxrotatebb1 {-34.1}
```



```
\boxrotatebbr {<angle>} <box>
```

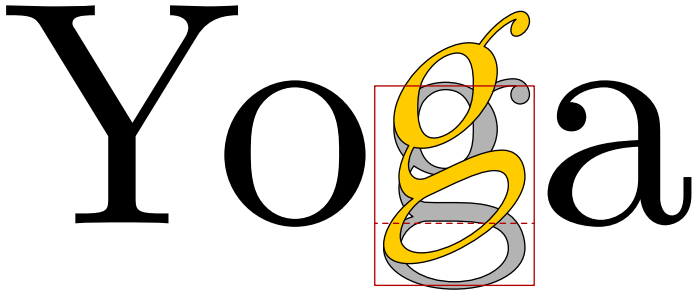
```
\boxrotatebbr {-34.2}
```

Yoga



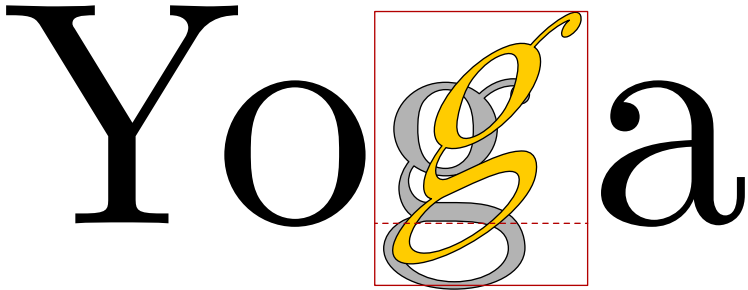
```
\boxslantx {<angle>} <box>
```

```
\boxslantx {15.2}
```

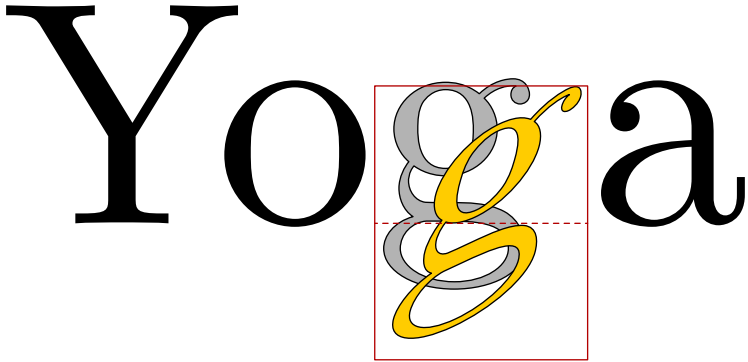
```
\boxslanty {<angle>} <box>
```

```
\boxslanty {25.3}
```



```
\boxslantbb1 {<angle>}{<angle>} <box>
```

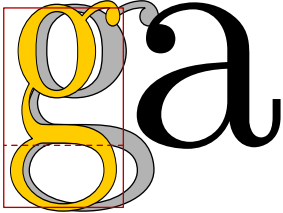
```
\boxslantbb1 {15}{25}
```



```
\boxslantbbr {<angle>}{<angle>} <box>
```

```
\boxslantbbr {15}{25}
```

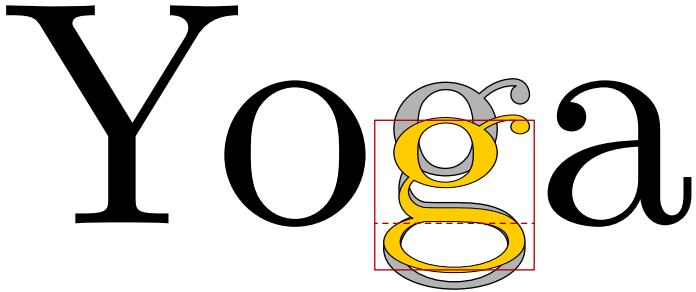
Yoga



```
\boxscalex {<numexpr>} <box>
```

```
\boxscalex {75}
```

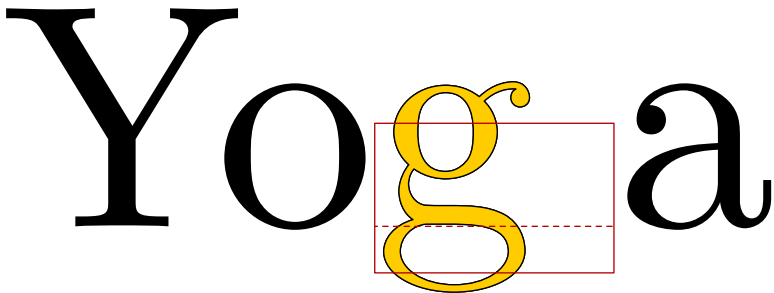
Yoga



```
\boxscaley {<numexpr>} <box>
```

```
\boxscaley {75}
```

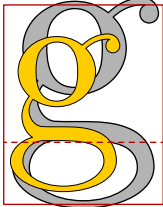
Yoga a



```
\boxscalexy {<numexpr>}{<numexpr>} <box>
```

```
\cboxtransoff \boxscalexy {150}{75}
```

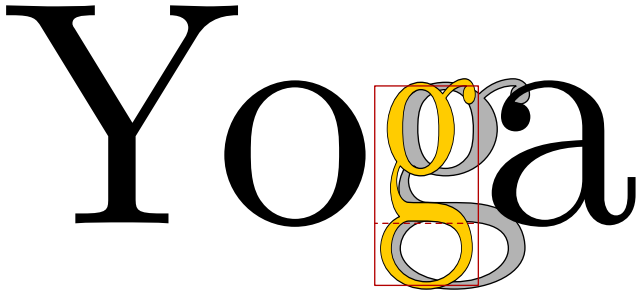
Yoga



```
\boxscale {<numexpr>} <box>
```

```
\bboxtransoff \boxscale {75}
```

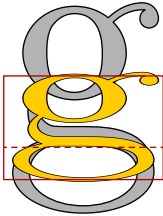
Yoga



```
\boxscaleto {<dimexpr>} <box>
```

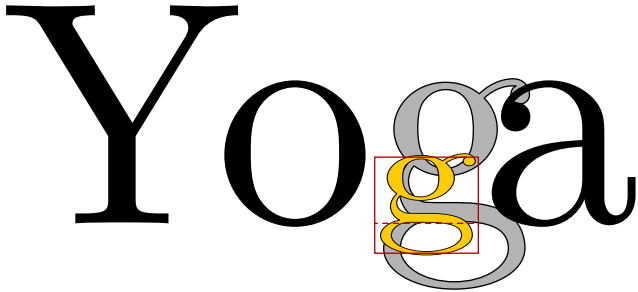
```
\boxscaleto {.5in+.1cm}
```


Yoga

The image shows the word "Yoga" in a black serif font. The second 'g' is rendered in a light gray color. A red rectangular box is drawn around the central part of this 'g'. Overlaid on the box is a yellow spiral graphic that starts from the center and winds outwards, resembling a spring or a stylized 'g'.

```
\boxscaleyto {<dimexpr>} <box>
```

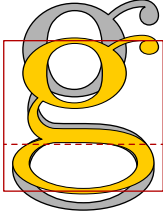
```
\boxscaleyto {.5in+.1cm}
```



```
\boxscalexyto {<dimxpr>}{<dimexpr>} <box>
```

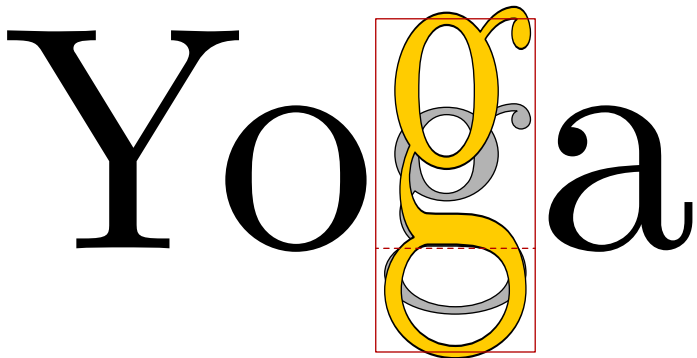
```
\boxscalexyto {.5in+.1cm}{1in/2}
```

Yoga



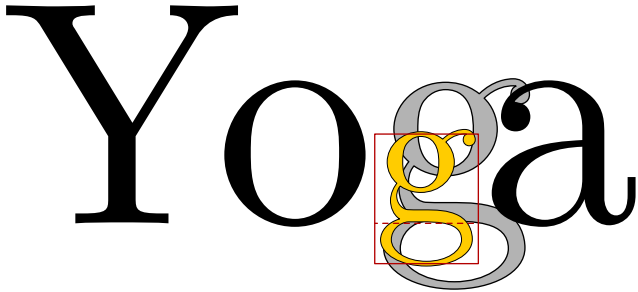
```
\boxscalehtto {<dimexpr>} <box>
```

```
\boxscalehtto {.5in+.1cm}
```



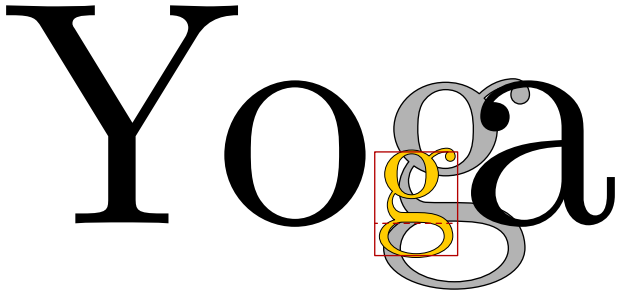
```
\boxscaledpto {<dimexpr>} <box>
```

```
\boxscaledpto {.5in+.1cm}
```



```
\boxuniscalexto {<dimexpr>} <box>
```

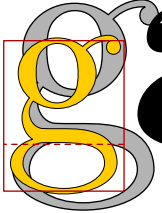
```
\boxuniscalexto {.5in+.1cm}
```



```
\boxuniscaleyto {<dimexpr>} <box>
```

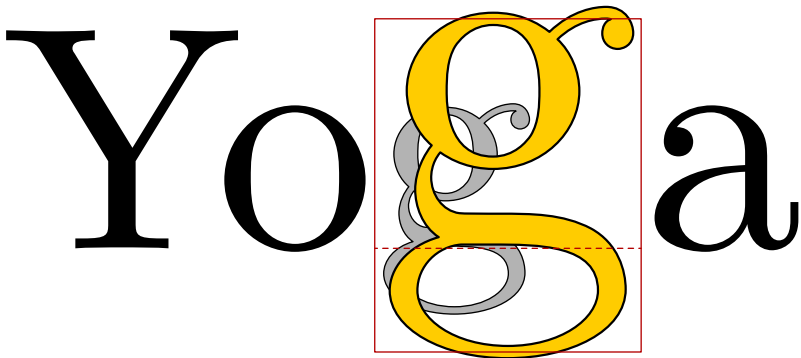
```
\boxuniscaleyto {.5in+.1cm}
```

Yoga



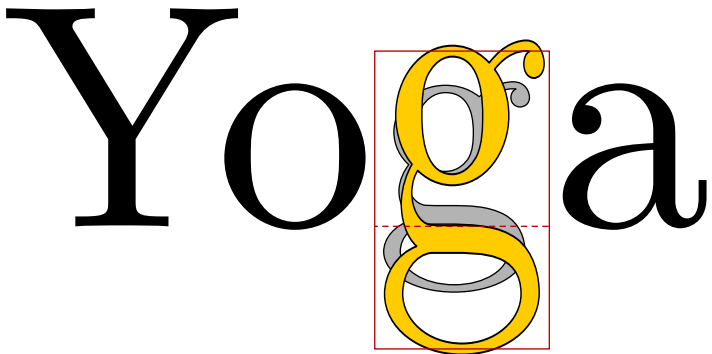
```
\boxunyscaletto {<dimexpr>} <box>
```

```
\boxunyscaletto {.5in+.1cm}
```



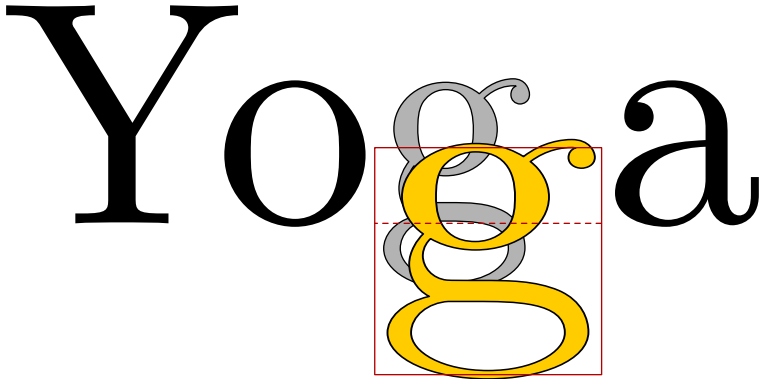
```
\boxuniscaldpto {<dimexpr>} <box>
```

```
\boxuniscaldpto {.5in+.1cm}
```

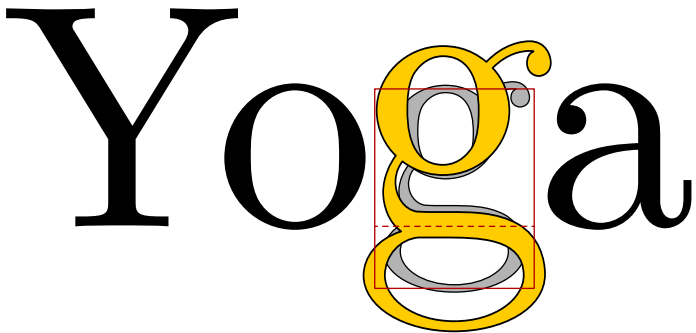
```
\boxextscale {<dimexpr>}{<dimexpr>}{<dimexpr>} <box>
```

```
\boxextscale {2mm}{5mm}{8mm}
```



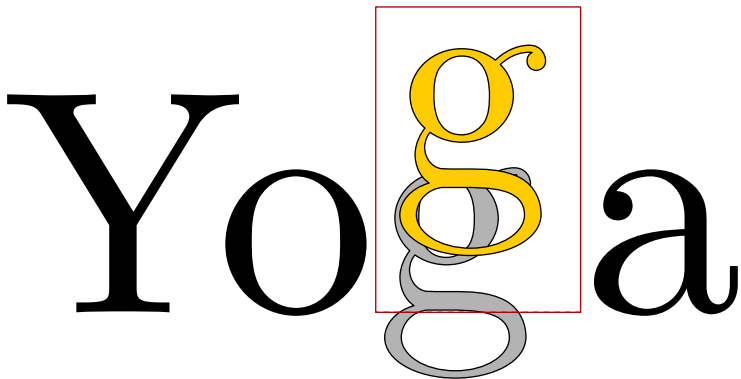
```
\boxextscaleto {<dimexpr>}{<dimexpr>}{<dimexpr>} <box>
```

```
\boxextscaleto {3cm}{1cm}{2cm}
```



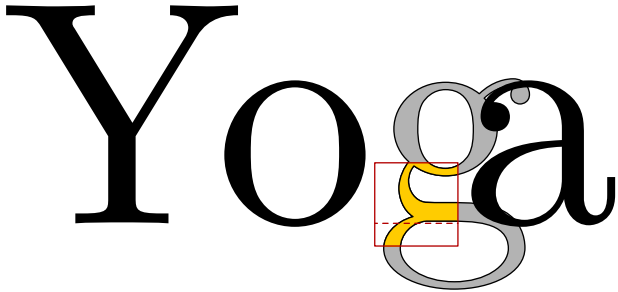
```
\boxexts {<dimexpr>}{<dimexpr>}{<dimexpr>}{<dimexpr>} <box>
```

```
\boxexts {3mm}{3mm}{5mm}{5mm}
```



```
\boxextents {<dimexpr>}{<dimexpr>}{<dimexpr>}{<dimexpr>} <box>
```

```
\boxextents {2mm}{4mm}{6mm}{8mm}
```



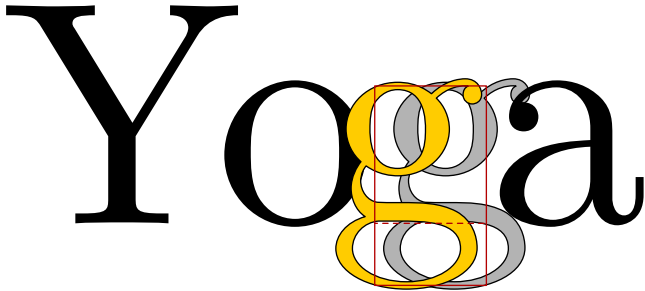
```
\boxxformspec resources{/Foo /Bar} \boxxform <box>
```

```
\boxxformspec resources{\the \pdfpageresources } \boxxform \boxresizeto {11mm}{8mm}{3mm}
```

Yoga

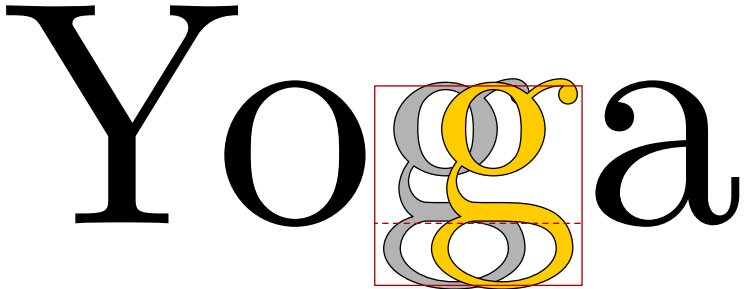
```
\boxclip <box>
```

```
\boxclip \boxresizeto {}{8mm}{3mm}
```



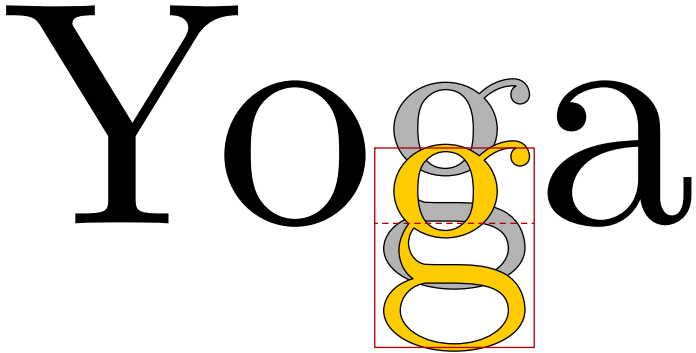
```
\boxmoveleft {<dimexpr>} <box>
```

```
\boxmoveleft {.3\wd \transbox }
```



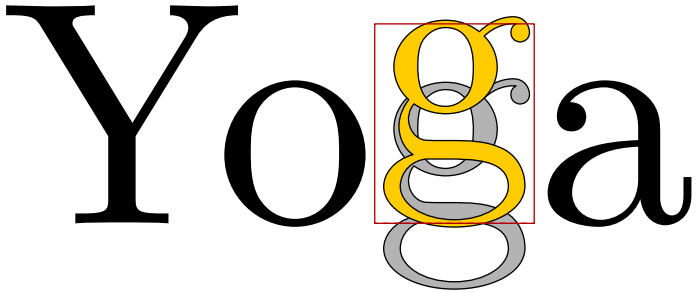
```
\boxmoveright {<dimexpr>} <box>
```

```
\boxmoveright {.3\wd \transbox }
```

```
\boxlower {<dimexpr> } <box>
```

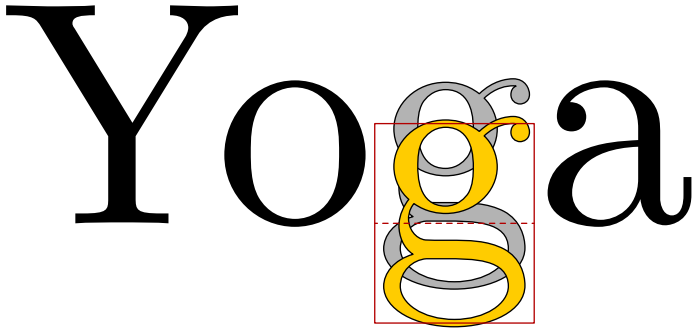
```
\boxlower { \dp \transbox }
```



```
\boxraise {<dimexpr>} <box>
```

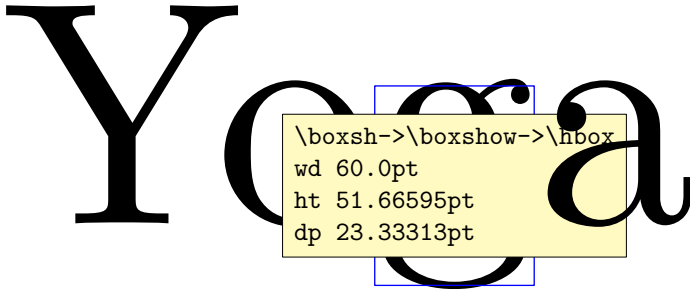
```
\boxraise {\dp \transbox }
```

Yoga



```
\boxbaseline {<numexpr>} <box>
```

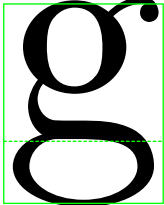
```
\boxbaseline {50}
```



```
\boxinfo <box>
```

```
\boxinfo \boxsh
```

Yoga



```
\boxshow {<gsspec>}{<gsspec>}{<gsspec>} <box>
```

```
\boxshow {0 1 0 RG}{[1 1]0 d}{}
```

Yoga

```
\boxmarkers {<dimexpr>}{<dimexpr>}{<gsspec>} <box>
```

```
\boxmarkers {-12pt}{3pt}{1 0 0 RG 1 J}
```

Yoga

```
\boxpath {<gsspec>}{<paintop>} <box>
```

```
\boxpath {3 w .7 0 0 rg 1 .8 0 RG}{B}\bboxtrans {\boxextscale {3mm}{3mm}{3mm}}\boxmoveright {3mm}
```

Yoga

```
\boxroundpath {<dimexpr>}{<gsspec>}{<paintop>} <box>
```

```
\boxroundpath {4mm}{3 w .7 0 0 rg 1 .8 0 RG}{B}\boxextent {3mm}
```


Yoga

```
\boxedgpath {<dimexpr>}{<gsspec>}{<paintop>} <box>
```

```
\boxedgpath {4mm}{3 w .7 0 0 rg 1 .8 0 RG}{B}\boxextent {3mm}
```

Each transformation expands to <box> (\hbox in most cases).

Each transformation must be followed by a <box>.

<box> states for any kind of \TeX box; \hbox, \vbox, \vtop, \box, \copy

<trans> is a list of box transformations

<dimexpr> states for dimen in e \TeX form

<numexpr> states for integer in e \TeX form

<angle> is an integer or float-like string

<gsspec> is a literal pdf content stream

<paintop> means pdf painting operator (S, f, B, W...)

See the code for more.