

Package ‘gridBase’

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Title Integration of base and grid graphics

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Description Integration of base and grid graphics

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baseViewports *Generate grid Viewports from Base Plot*

Description

This will generate a list of grid viewports which correspond to the current inner, figure, and plot regions of the current base plot.

Usage

```
baseViewports()
```

Details

The figure region is relative to the inner region so you must push the inner region before pushing the figure region. Similarly, the plot region is relative to the figure region so this should only be pushed after the previous two.

Value

A list with three elements:

<code>inner</code>	A viewport corresponding to the inner region of the current plot.
<code>figure</code>	A viewport corresponding to the figure region of the current plot.
<code>plot</code>	A viewport corresponding to the plot region of the current plot.

Warning

If you resize the device, all bets are off!

Author(s)

Paul Murrell

See Also

[Grid](#), [viewport](#)

Examples

```
par(oma=rep(1, 4), mfrow=c(1, 2), xpd=NA)
plot(1:10)
vps <- baseViewports()
pushViewport(vps$inner)
grid.rect(gp=gpar(lwd=3, col="red"))
pushViewport(vps$figure)
grid.rect(gp=gpar(lwd=3, col="green"))
pushViewport(vps$plot)
grid.rect(gp=gpar(lwd=3, col="blue"))
grid.points(1:10, 10:1)
```

Set Base Plot Regions

Set Base Plotting Regions from Grid Viewport

Description

These functions can be used to align base plotting regions with the current grid viewport. This can be used to draw base plots within a grid viewport.

Usage

```
gridOMI()  
gridFIG()  
gridPLT()  
gridPAR()
```

Details

For this to be useful, you will have to make liberal use of `par(new=TRUE)` to prevent base from moving to a new page.

With care, these can even be used to draw multiple base plots within a grid viewport (see the examples below), but in general, base plotting functions that draw multiple panels (e.g., `coplot`) should not be expected to work.

Value

`gridOMI` returns a value that can be used to set the `par(omi)` parameter.
`gridFIG` returns a value that can be used to set the `par(fig)` parameter.
`gridPLT` returns a value that can be used to set the `par(plt)` parameter.
`gridPAR` returns a value that can be used to set some graphical parameters (currently, `lwd`, `lty`, and `col`).

Warning

If you resize the device, all bets are off!

Author(s)

Paul Murrell

See Also

[Grid](#), [viewport](#)

Examples

```
opar <- par(no.readonly=TRUE)  
# gridFIG  
grid.newpage()  
pushViewport(viewport(width=0.5, height=0.5))  
grid.rect(gp=gpar(col="grey", lty="dashed"))  
par(fig=gridFIG())  
par(new=TRUE)  
plot(1:10)  
# multiple plots  
# NOTE the use of par(mfg)  
# gridOMI  
par(opar)  
grid.newpage()
```

```

pushViewport(viewport(width=0.5, height=0.5))
grid.rect(gp=gpar(col="grey", lty="dashed"))
par(omi=gridOMI())
par(mfrow=c(2, 2), mfg=c(1, 1), mar=c(3, 3, 1, 0))
for (i in 1:4) {
  plot(i)
}
# gridPLT
par(opar)
grid.newpage()
pushViewport(viewport(width=0.5, height=0.5))
grid.rect(gp=gpar(col="grey", lwd=5))
par(plt=gridPLT())
par(new=TRUE)
plot(1:10)
# gridFIG with par(omi) set
par(opar)
grid.newpage()
par(omi=rep(1, 4))
pushViewport(viewport(width=0.5, height=0.5))
grid.rect(gp=gpar(col="grey", lwd=5))
par(fig=gridFIG())
par(new=TRUE)
plot(1:10)
# gridPLT with par(omi) set
par(opar)
grid.newpage()
par(omi=rep(1, 4))
pushViewport(viewport(width=0.5, height=0.5))
grid.rect(gp=gpar(col="grey", lwd=5))
par(plt=gridPLT())
par(new=TRUE)
plot(1:10)
# gridPAR
par(opar)
grid.newpage()
pushViewport(viewport(width=0.5, height=0.5,
  gp=gpar(col="red", lwd=3, lty="dotted")))
grid.rect(gp=gpar(col="grey", lwd=5))
par(fig=gridFIG())
par(gridPAR())
par(new=TRUE)
plot(1:10, type="b")

```

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