Quick start guide for the `visreg` package
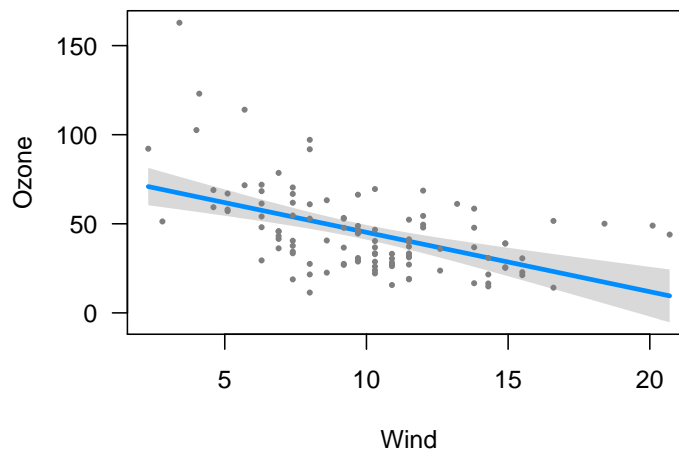
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This guide is intended to briefly demonstrate the basic usage of `visreg`. For more details, see the documentation (`?visreg`, `?plot.visreg`, and `?visreg2d`), as well as the other vignette.

The basic idea of visreg is that you fit some sort of regression model and visreg provides a convenient interface for visualizing it. Let's fit the following model:

```
> fit <- lm(Ozone ~ Solar.R + Wind + Temp,data=airquality)
```

We can then visualize what the model says about the relationship between the outcome and, say, "Wind", with:
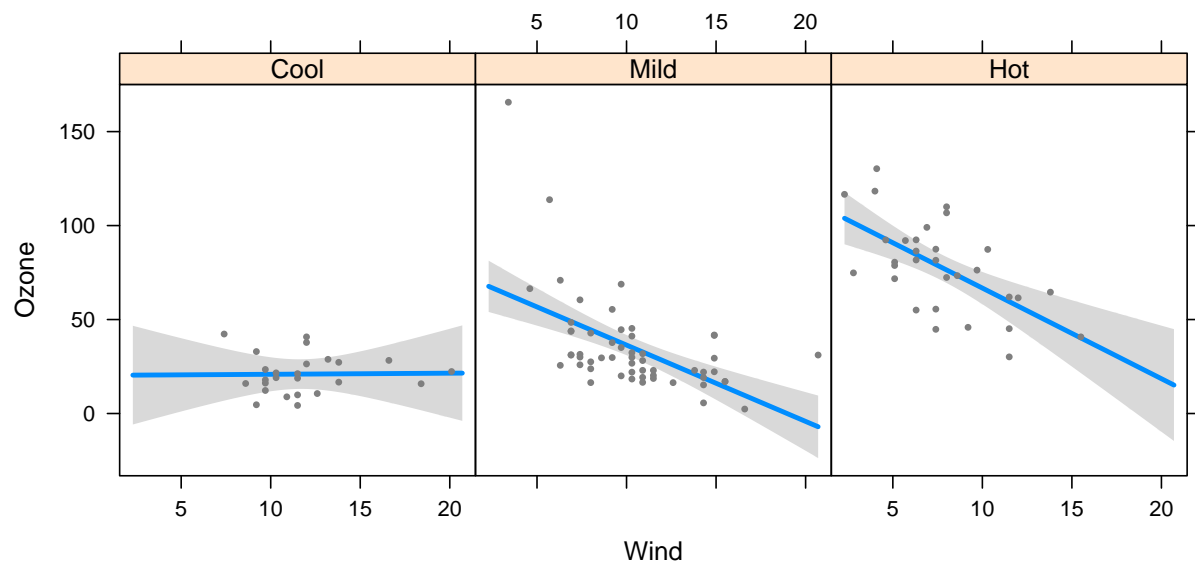
```
> visreg(fit, "Wind")
```


The plot displays (a) the model's estimated relationship between wind and ozone, (b) a confidence band about that estimate, and (c) the partial residuals, so that one can assess model fit.

`visreg` correctly displays factors, transformations, etc., and has many options to produce many types of plots. As another example, suppose the model contains an interaction:

```
> airquality$Heat <- cut(airquality$Temp, 3, labels=c("Cool","Mild","Hot"))
> fit.in1 <- lm(Ozone~ Solar.R + Wind*Heat,data=airquality)
```
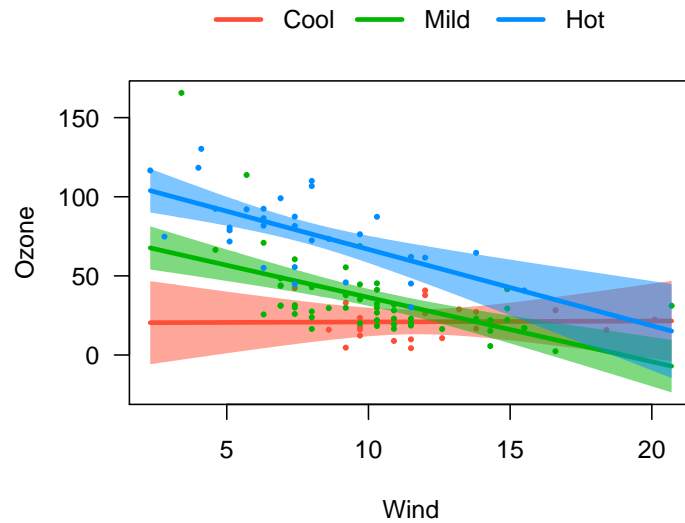
Visreg can plot cross-sections of this fit, either in separate panels:

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```
> visreg(fit.in1, "Wind", by="Heat")
```
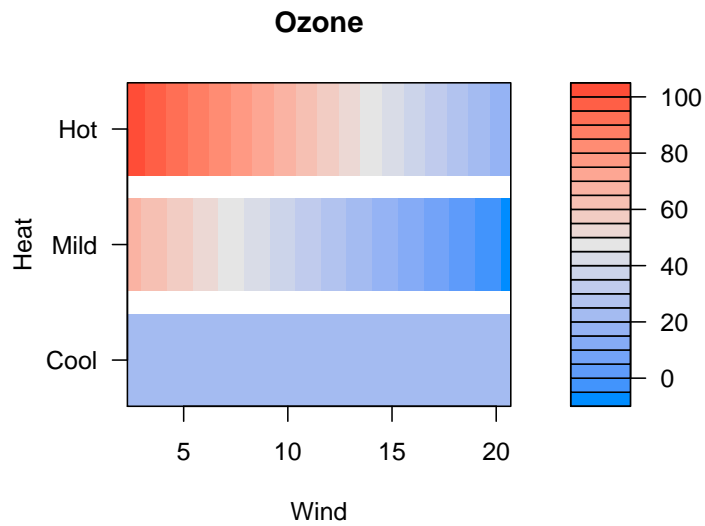

Or overlaid on top of one another:

```
> visreg(fit.in1, "Wind", by="Heat", overlay=TRUE)
```


Or as a two-dimensional filled contour plot (level plot):

```
> visreg2d(fit.in1, "Wind", "Heat")
```

Ozone

Heat — Wind

visreg is not limited to linear regression models. It can be used with virtually any type of model in R that provides generic functions for `model.frame` and `predict`, such as `glm`, `coxph`, `rlm`, `gam`, `locfit`, `quantreg`, `gbm`, `randomForest`, etc. If there is a model that you think should work with `visreg` but doesn't, please open an issue at https://github.com/pbreheny/visreg/issues.