

Quick start guide for the **visreg** package

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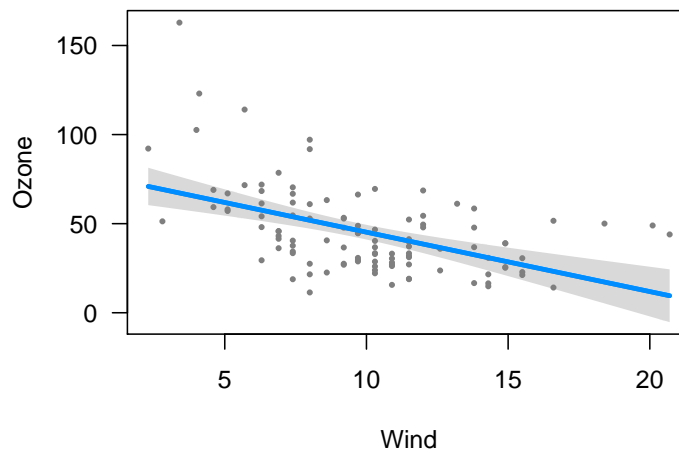
This guide is intended to briefly demonstrate the basic usage of **visreg**. For more details, see the documentation (`?visreg`, `?plot.visreg`, and `?visreg2d`), as well as the other vignette.

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")
```



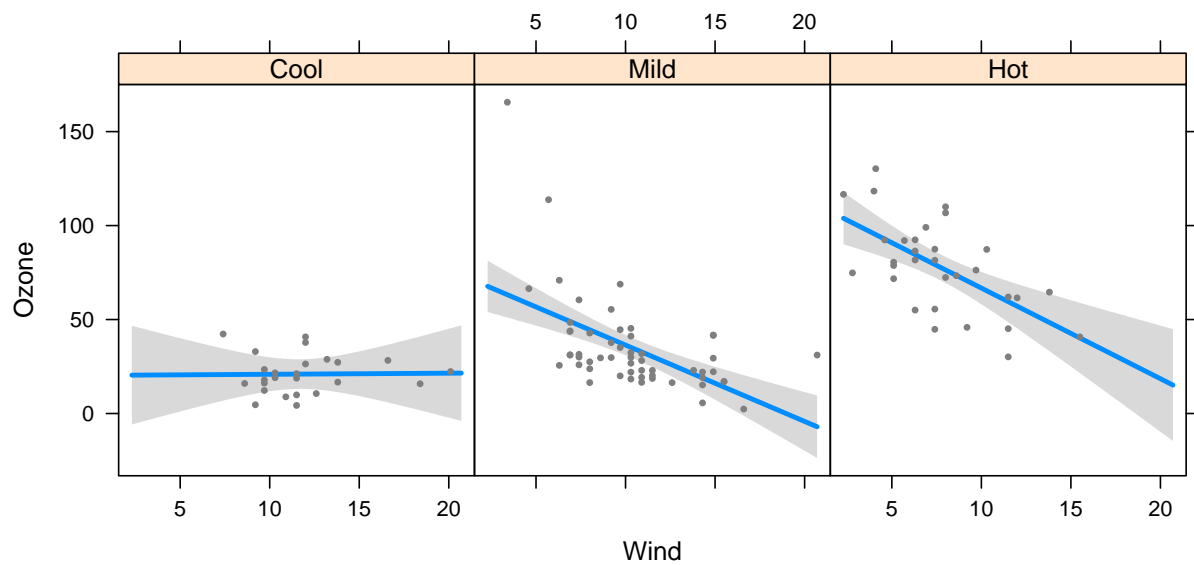
The plot displays (a) the model's estimated relationship between wind and ozone, (b) a confidence band about that estimate, and (c) the partial residuals, so that one can assess model fit.

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)
```

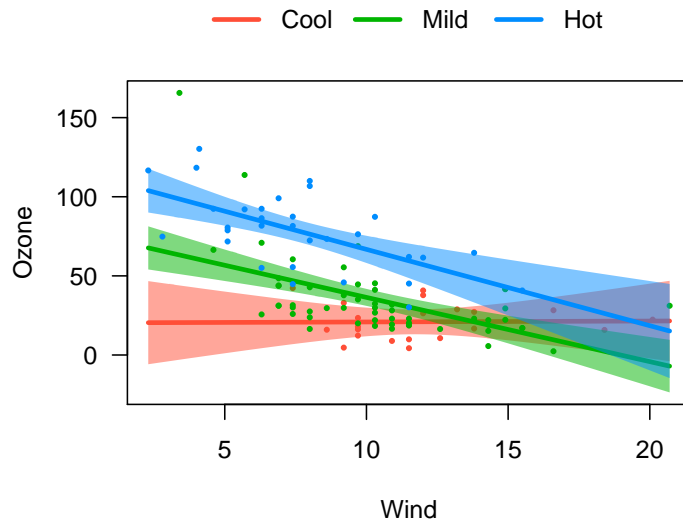
Visreg can plot cross-sections of this fit, either in separate panels:

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



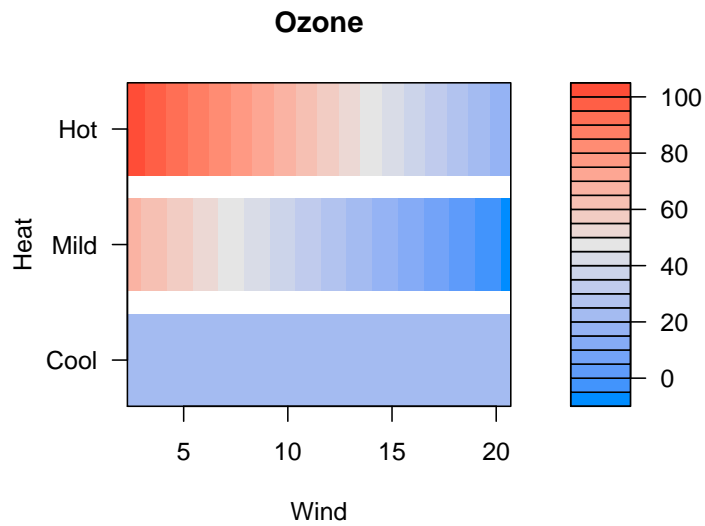
Or overlaid on top of one another:

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



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

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



`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>.