
Subject: Preferred way to get multiple returns from a function

Posted by [James\[2\]](#) on Fri, 11 Feb 2011 23:32:24 GMT

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I am writing a function that fits an ellipse to a $2 \times N$ array of points. There are three values to return: the center, semi-major axis, and semi-minor axis. This is a simple program, but it brings up a more general question: what is the preferred IDL way to return multiple values from a function?

Currently, my program returns a structure containing the elements {center, major, minor}. However, a lot of built-in IDL routines take named variable inputs that are set to the appropriate value on output - so instead of something like:

```
ellipse_struct = fit_ellipse(points)
```

I would have:

```
fit_ellipse, points, center, major, minor
```

I'm not sure which is better. C programming has taught me to appreciate structures, but I'd like to code in the conventions of the language. Which would you prefer, and why?
