
Subject: Re: How to speed up large FOR loops?

Posted by [Craig Markwardt](#) on Tue, 10 Apr 2012 18:21:50 GMT

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On Tuesday, April 10, 2012 12:26:27 PM UTC-4, Saurav Dhital wrote:

> Yes. More specifically, I reform arrays and assign them to the new
> FITS structure. This happens a lot.

This is a problem. A pattern like this,

```
L = [0]
```

```
for i = 0, 1000000-1 do L = [L, i]
```

will run quickly at first and then slow down as L gets longer and longer.

The trick is to pre-allocate your lists like L. If the size of L is not known in advance, then pre-allocate a reasonable fixed size to begin with, and then grow it by factors of 2 as needed (up to a point).

At the end, you will need to trim the unused portion of L.

I do this kind of pattern all the time, and it can be quite efficient.

Craig
