Subject: SVDC - singular values not in decreasing order?
Posted by Andy Sayer on Wed, 28 Nov 2012 18:58:51 GMT
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Hi all,

I am interested in singular value decomposition in IDL, using the svdc routine.

I had been under the impression that the singular values in such an analysis were given in descending order (order of importance of the singular vectors); see e.g. http://alias-i.com/lingpipe/demos/tutorial/svd/read-me.html So, the first vector explains the largest portion of variance, the second the next, and so forth.

However, from my own analysis and also the example in the IDL help page (http://idlastro.gsfc.nasa.gov/idl_html_help/SVDC.html ), this is not the case (they are not in decreasing order). So, my questions are:

1. Is this intentional?
2. What does it mean? To find the 'n' most significant vectors, should I be taking the first 'n' returned by IDL, or the 'n' with the largest singular values?

Any advice would be appreciated!

Andrew