
Subject: Re: Feature with PV-WAVE routine INVERT
Posted by [thompson](#) on Mon, 03 Jul 1995 07:00:00 GMT
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black@signal.dra.hmg.gb (John Black) writes:

- > This is a followup to a message that I posted a few days ago, but it's expired
- > here so I can't continue the thread.

- > I've detected a feature with the PV-WAVE routine invert, which inverts a matrix.

- > This routine has an optional parameter, status, which has the following states

- > 0 = everything ok
- > 1 = matrix was singular
- > 2 = a small pivot element was used and it is likely that significant accuracy
- > was lost (the routine uses Gaussian elimination)

- > I looked at the value of status & for every example I tried status was set to 2
- > However on doing

- > PRINT, (INVERT(INVERT(matrix))-matrix)/matrix

- > ie finding the fractional error, this turns out to be on the 10e-6 to 10e-7
- > level. Status was always 2.

Just for the record, it appears that the INVERT function in IDL will give STATUS=0 for well-behaved matrices.

Bill Thompson
