Subject: Re: Feature with PV-WAVE routine INVERT
Posted by thompson on Mon, 03 Jul 1995 07:00:00 GMT
View Forum Message <> Reply to Message

black@signal.dra.hmg.gb (John Black) writes:

> This is afollowup to amessage 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