This was a bug report I made some time ago and the second message is the
bottomline answer from idl user support. Since they are not making it
public I am. I wish the readers in this newsgroup who have used velovect
in the past good luck!
Emanuele Bohm
 *** *************

To: support@rsinc.com
Cc: emanuele
Subject: Major bug in velovect.pro
Date: Wed, 29 Mar 95 12:06:02 -0500
From: emanuele
X-Mts: smtp

MEMO to: RSI user support
from: Emanuele Bohm

I found a major bug in velovect.pro (in the graphics routines of IDL)
Namely the statement:
maxmag=max([max(ugood/x_step),max(vgood/y_step)])
should be replaced by:
max([max(abs(ugood/x_step)),max(abs(vgood/y_step))])

I found surprising that despite an 11 year-long modification history
such a trivial mistake could escape the quality control procedures that
you MUST have.
Note that:
;   January, 1994, KDB. Fixed integer math which produced 0 and caused
;   divide by zero errors.
does NOT work if you have a field that has negative x and y components
and even just one point where u or both u and v are zero. Worse yet any
field in which the largest component (in absolute value) is not
positive in sign will be rescaled by an incorrect LENGTH.

I suggest the following course of action:
1) Notify all registered IDL users of this error and explain the
consequences on data that might have been already published
2) Send me a copy of the notification e-mail message
3) correct the bug for the next release of IDL

Even though such an error raises doubts about the general reliability
of your software of which every user should be aware I trust that you
will make the necessary improvements to your quality control procedures
in order to prevent such mistakes in the future. I really depend on IDL
for my work and I think it is great. This is why I am passing to you

the responsibility of letting the users know in a way that is least
damaging to your image and I am NOT broadcasting this message.

Sincerely,

Emanuele Bohm
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 ** *************

RSI final reply (I am skipping the intermediate messages to save your time)

Return-Path: support@rsinc.com
Received: from gateway.rsinc.com by meadsp.nrrc.ncsu.edu (5.65/SAM 12-13-90 16:56:22)
 id AA01367; Mon, 3 Apr 1995 11:21:58 -0400
Posted-Date: Mon, 3 Apr 1995 09:27:01 -0600 (MDT)
Received-Date: Mon, 3 Apr 1995 11:21:58 -0400
Received: by rsinc.com (8.6.9/8.6.9) with ESMTP id JAA04876 for
<emanuele@meadsp.nrrc.ncsu.edu>; Mon, 3 Apr 1995 09:22:32 -0600
Date: Mon, 3 Apr 1995 09:27:01 -0600 (MDT)
From: RSI email support <support@rsinc.com>
To: emanuele@meadsp.nrrc.ncsu.edu
Subject: Re: Major bug in velovect.pro
In-Reply-To: <9504031514.AA01297@meadsp.nrrc.ncsu.edu>
Message-Id: <Pine.SUN.3.90.950403092021.2491A-100000@bud.rsinc.com>
Mime-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Emanuele,

 The bug is fixed in version 4.0 of idl. In terms of your other
requests concerning notifying all current idl user's about the bug, I
don't believe this is really possible. We simply do not report all of
idl's bugs in a newsletter. However, I have notified my supervisor about
your concerns of doing so.

Sincerely,
Mark