Subject: Re: Please, please, please can we have a missing data color for image()
Posted by chris_torrence@NOSPAM on Fri, 13 Jun 2014 21:48:14 GMT
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On Thursday, June 12, 2014 2:38:39 AM UTC-6, Fabien wrote:
> Thanks Gordon! I completely agree

Okay, here's some code to try. I didn't add the MISSING_VALUE/COLOR keywords yet. Instead, I'm just keying off of NaN values.

Open up lib/components/idlitvisimage__define.pro, and navigate to around line 1965. Modify the following block of code (I've included bits of code before & after for reference).

```
    pImageData = self->ByteScaleData(pImgData, data, nPlanes)
    ; Single-channel images must have a palette.
    ; This will also retrieve the red, green, blue values.
    if (nPlanes eq 1) then $
        self->EnsurePalette, red, green, blue

**** NEW CODE
    ; Handle float images with missing data.
    if (~self._isByteData && nPlanes eq 1) then begin
      good = FINITE(*pImgData)
      if (~ARRAY_EQUAL(good, 1b)) then begin
        nPlanes = 2
        d = TEMPORARY(data)
        data = BYTARR(imgDims[0], imgDims[1], 2)
        data[0,0,0] = TEMPORARY(d)
        data[0,0,1] = 255b*good
      endif
    endif
**** END NEW CODE

    ; Map projections. This may modify both the data and nPlanes.
    self->_UpdateMapProjection, data, nPlanes, red, green, blue
    imgDims = (SIZE(data, /DIMENSIONS))[0:1]
```

Then, try your test case, but be sure to use /BITMAP when writing to the PDF file (to avoid alpha channel issues):

```
data = findgen(100, 100) - 5000.
data[30:60,30:60] = !values.f_nan
im1 = image(data, RGB_TABLE=70, POSITION=[0.1, 0.1, 0.9, 0.9])
cb1 = colorbar(TARGET=im1)
im1.save,'test.pdf',/bitmap
```

Let me know if this works. If it does, I'll think about adding the MISSING_* keywords.

Cheers,
Chris
ExelisVIS