

## ISIS - Bug #1408

### caminfo - polygon=true failing for many Themis IR images

2013-01-16 12:49 PM - Lynn Weller

<b>Status:</b>	Closed	
<b>Priority:</b>	High	
<b>Assignee:</b>	Lynn Weller	
<b>Category:</b>	Applications	
<b>Target version:</b>	N/A	
<b>Impact:</b>		<b>Software Version:</b>

#### Description

I'm currently processing over 1100 Themis IR images for a project and 147 images failed caminfo with similar errors:

Group = Error

Program = caminfo

Class = "USER ERROR"

Code = 2

Message = "Cannot find polygon for image [I16696033RDR.cub]: The increment/step size might be too large"

File = ImagePolygon.cpp

Line = 251

End\_Group

I have tried various to all polygon options available to me in caminfo to get it to work, but they all fail. I have run footprintinit successfully on these images so it's not clear to me why caminfo is having a problem. These images reside at mid to high latitudes and some are near the 0/360 boundary, but I don't see anything consistently similar about the images that are failing. They are not necessarily near the pole or the 0/360 boundary.

Does caminfo use the footprint on the image blob or does it try to recalculate it for some reason. If the latter is true, why wouldn't it be identical to what footprintinit calculates (that is when I set the poly linc and sinc to the same values I used in footprintinit)? Not sure how the polygon parameter works in this program.

#### Steps to reproduce:

Prior to caminfo:

- thm2isis

- spiceinit

- camstats from=I16696033RDR.cub attach=true linc=50 sinc=30

- footprintinit from=I16696033RDR.cub linc=50 sinc=30

Then caminfo:

caminfo from=I16696033RDR.cub to=I16696033RDR\_Poly.pvl isislabel=true geometry=true originallabel=false statistics=true camstats=true linc=50 sinc=30 polygon=true

There are clearly many images this works on and I have a whole set of DayIR data in the same geographic area that had no failures at all. I'm not sure what the problem is.

I have placed a couple of images that fail with polygon=true in the data location indicated below. All images had the same command line applied.

#### History

##### #1 - 2013-01-16 02:18 PM - Lynn Weller

I have tried initializing the failing data to an ellipsoid during spiceinit in hopes that using a dem may have something to do with the problem but caminfo hangs with this input (when polygon=true). Seems like a whole other problem!

Although this particular output is not essential to processing Themis IR data for tile control, having a spatial (GIS) database would make aspects of troubleshooting and processing more efficient (this is the need for caminfo with polygon=true). I am concerned that if there is a high failure rate for this data because it is linescan (not sure if this is why it fails), that other data sets/projects might have similar difficulties with caminfo (i.e. laser proposals using LROC data; UPC/PILOT (does have known issues with polygon=true; ect.).

I will make do for the time being by rerunning caminfo polygon=false on failed images so that I can get other pertinent info into my DB and do without

a complete spatial database for this tile. I would hope this problem could be addressed this FY if not this support quarter.

**#2 - 2013-01-16 03:22 PM - Tammy Becker**

UPC batch processing has encountered this problem also.

**#3 - 2013-01-16 04:31 PM - Janet Barrett**

After being made aware of this problem by John, I spent some time talking to Bob to see what problems he is having. It sounds like the ability was added to caminfo fairly recently to generate a footprint in the labels (using a copy of the code that footprintinit uses). The code in caminfo does not appear to be working right. Also, I spent some time talking to Lynn about the problems she posted here and we noticed that the GUI for caminfo is not working properly for the POLYGON option. However, Lynn was able to successfully run the program from the command line. It does not make sense to have the footprint code in both footprintinit and caminfo, so it would make sense to remove the code from caminfo and either 1) replace it with a call to launch the footprintinit program if the image labels are missing a footprint, or 2) entirely remove the capability to generate a footprint from the caminfo program. I will need to talk to Kris Becker to see how this would affect Messenger processing. The ability to put the footprint blob into a PVL file would still remain in the caminfo program.

**#4 - 2013-01-16 04:42 PM - Lynn Weller**

With a little brainstorming with Bob and Janet Barrett, I have solved the problem. By default, =maxincidence120 and this is what was causing some of my images to fail when polygon=true. My images are night ir where incidence angles can easily exceed 120. I set maxincidence=180 and ran all of my failed images through caminfo again and all ran successfully! That was the problem. I will reopen this post if this problem occurs again, but in the meantime it is definitely solved.

**#5 - 2013-01-16 04:43 PM - Lynn Weller**

not a problem any more!

**#6 - 2013-06-13 05:24 PM - Stuart Sides**

- *production\_build\_date* changed from to 2013-01-01