

ISIS - Question #4545

findfeatures

2016-11-22 03:25 AM - Stepan Tulyakov

Status:	Acknowledged
Priority:	Normal
Assignee:	Kris Becker
Category:	Applications
Software Version:	
Description	
Hello,	
I am trying to generate control point network for bundle adjustment using interest point detector.	
findfeatures algorithm="surf@hessianThreshold:100/surf" \ match=P21_009149_1752_XI_04S222W.cal.cub \ fromlist=cube.lis \ epitolerance=1.0 ratio=0.650 hmgtolerance=1.0 \ networkid="P21_009149_1752_XI_04S222W" \ pointid="P21_009149_1752_XI_04S222W_?????" onet=P21_009149_1752_XI_04S222W.net \ debug=true debuglog=P21_009149_1752_XI_04S222W.log	
cube.lis contains list of calibrated overlapping cubes with SPICE information..	
However, I get following error	
Object = findfeatures IsisVersion = "3.4.13.7091 stable 2016-08-10" ProgramVersion = 2016-04-15 ProgramPath = /HDD1/Programs/isis3/isis/bin ExecutionDateTime = 2016-11-22T11:08:07 HostName = Unknown UserName = tulyakov Description = "Feature-based matching algorithms used to create ISIS control networks"	
Group = UserParameters FROM = None FROMLIST = cube.lis MATCH = P21_009149_1752_XI_04S222W.cal.cub ONET = P21_009149_1752_XI_04S222W.net ALGORITHM = surf@hessianThreshold:100/surf LISTALL = No LISTMATCHERS = No LISTSPEC = No TOINFO = /dev/tty DEBUG = true DEBUGLOG = P21_009149_1752_XI_04S222W.log RATIO = 0.650 EPITOLERANCE = 1.0 HMGTOLERANCE = 1.0 FASTGEOM = false GEOMTYPE = CAMERA FILTER = None NETWORKID = P21_009149_1752_XI_04S222W POINTID = P21_009149_1752_XI_04S222W_????? POINTINDEX = 1 DESCRIPTION = "Find features in image pairs or list" NETTYPE = IMAGE GEOMSOURCE = MATCH End_Group	
Group = MatchSolution Efficiency = 0.0	

```
MinEfficiency = 0.0
MaxEfficiency = 0.0
End_Group

Group = Error
Program = findfeatures
Class = "USER ERROR"
Code = 2
Message = "No control points found!!"
File = findfeatures.cpp
Line = 339
End_Group
End_Object
```

What can be the reason?

History

#1 - 2016-11-28 10:02 AM - Tammy Becker

- Category set to Applications
- Status changed from New to Acknowledged

#2 - 2016-11-29 08:57 AM - Kris Becker

- Assignee set to Kris Becker

Hi Stepan...

You should look at the DEBUGLOG file generated from findfeatures to determine the reason for no valid points. Typically, you will see most points eliminated by the ratio test so you can increase the ratio value to decrease the number of points removed and allow other outlier detector methods to remove points. The findfeatures documentation (<https://isis.astrogeology.usgs.gov/Application/presentation/Tabbed/findfeatures/findfeatures.html>) will help explain the content of the debug log file.

The other thing to try is to use the FASTGEOM=TRUE option to apply the SPICE data to "project" each image into the camera space of the match image. This will allow you to use other feature detectors that are not scale and rotation invariant such as FASTX.

#3 - 2016-12-06 07:08 AM - Stepan Tulyakov

The error message from the log is:

"Outlier removal process failed on Query/Train image pair".. Not much details

#4 - 2016-12-07 02:58 PM - Kris Becker

Can you provide the full context of the error message? Perhaps post the full contents of the debug file output. It would also be helpful to see the list of cubes in cube.lis.

Thanks...