

Task #	Task Description	Date Opened	Reported By	Pri	Assigned To	Notes	Estimate	A&E; crib; script; suite; UG; DevG; Qref; AdmG
<b>To be Assigned or Discussed</b>								
4656	THEMIS Orbits - Discuss with Dan Cosgrove on <b>July 9th</b>	6/4/2012	Vassilis	n/a	Discuss	<b>discuss at S/W top of Meeting 7/9</b>		
4683	Aaron reported that if he switches between hardware and software rendering mode in the GUI when the level of zoom is not 100%, it changes the size of the draw area. If you do this repeatedly, the draw area gets smaller with each switch.	6/26/2012	Aaron					
4685	Widget tree expansion, IDL 8.2	6/26/2012	Pat			IDL fixed a bug which we had worked around, need a version check to enable/disable the workaround so it will work on all IDL versions.		
4686	There were several reports that the dproc window was too small in IDL 8+. It looks like this is a side effect of the font change.	6/27/2012	Pat			For whatever reason, many widget sizes are specified in characters, instead of more standard units. This means that if the base font size of a character changes, so does the size of a viewable area. Just an FYI, I'm going to be rolling this one into the font size one. I'll list it as a reason why the font size change is such a pain in the rear.		
4687	if you followed the right set of instructions, you could create a set of plots that is clipped off screen. I verified that this is not an IDL 8.2 issue and occurs on IDL 7.0 as well.	6/27/2012	Pat			" The following steps reproduce the error consistently on Mac (I was unable to reproduce it on Windows). i. increased the size of the current page (containing plots) (I used 12 x 16 inches) ii. zoom out until horizontal scroll bar disappears iii. create a new page iv. add plots to that page The plots I got were clipped on the left side. It appeared as though the dimensions of the plots from the previous page may have still been in use. Switching pages does not correct the issue. The page's dimensions can be made large enough to fit the plots, but the error reoccurs when the dimensions are returned to the default values. Zooming corrects the issue if you zoom in to 100%. Loading a saved file does not appear to reproduce the bug."		
4688	Ensure that remote_data_dir URLs end in trailing slash	6/27/2012			Ben	Add it in file_retrieve if it's missing		
4689								
4690								
<b>v7.0 QA Tasks for Review with Vassilis</b>								
<b>General</b>								
Tips of the Month			David		David	Next Candidates: Lynn Wilson Routines; Eclipse auto processing; FGM Reprocessing		
4661	I tried to load 3dp datatype pm for 2012 - the testscript says to check availability at <a href="http://sprg.ssl.berkeley.edu/data/wind/3dp/">http://sprg.ssl.berkeley.edu/data/wind/3dp/</a> and test different combinations. There are cdfs for 3dp pm for 2012 on that site, but the have are _v05 and don't load. Should they load?	6/6/2012	Lydia	1	Jim L	<b>Wait till after WIND reprocessing and see what happens to version numbers, if they're all consistent then 5 minute change to load routine. Will not do "load highest version" -- responsibility of WIND developers.</b>		
4664	Laptop locks UCB and UCLA	6/6/2012	David	0	Team			
4464	All plug-ins for v7.10 - add a section to User's Guide for Plug-ins	3/22/2012	David	1	David	Discuss at the appropriate time what the content would be. Also add a link for VM on the Software Web Page or Developers web page?		

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4647	I am reviewing a paper for GRL that uses THEMIS data incorrectly. Basically, the authors are trying to publish solar array switch spikes as evidence for DLs. I am sorry that I cannot give you more details. will notify the editors of this problem. However, it is entirely possible that such a paper could have been published and I want you to be aware of this problem. Perhaps a warning should be posted on the web site: (1) Axial boom data are not necessarily valid, particularly in the subsolar region. (2) THEMIS EFI data have unwanted "spikes" which come at four times per spin. These spikes are removed in released THEMIS data analysis programs, but the removal process can leave a residue.	6/1/2012	Bob Ergun - Colorado U	1	Emmanuel	Will discuss with David 6/18. All changes need to be approved by John Bonnell (very busy with RBSP at the moment).		
<b>Hannes</b>								
4153	maintenance of gmag stations "Exclude List"	10/11/2010	David	0	Hannes	Exclude List up to date as of 6/25/2012		
4018a	New Calibration FGM parameters and spin axis offsets	5/10/2010	Hannes	1	Hannes	6/18/12 Hannes: Attached is a new thd FGM cal-file. Please reprocess thd from 2012-03-23 on. 6/20/12 Jim M: reprocessing started.		
4080	Attitude Determination next few months	6/21/2010	Hannes	1	Hannes	Should be updated by end of June 2012.		
4472	Inter-spacecraft FGM calibration for ARTEMIS.	1/4/2012	Vassilis	1	Hannes	6/4/12 from Hannes: Artemis inter spacecraft differences		
<b>Aaron</b>								
4468	Ongoing - Review all commits by Davin, Peter, etc for impact to TDAS.	3/27/2012	David	0	Aaron	Provide weekly report and spreadsheet		
4493	2D slices, 1.5D Pitch Angle Distributions - command line in progress; GUI?	1/23/2012	Vassilis	1	Aaron	Andrei will look at this after GEM. Xuzhi: looks good		
4494	2D slices, 2D Pitch Angle Distributions - command line in progress; GUI?	1/23/2012	Vassilis	1	Aaron	Andrei will look at this after GEM. Xuzhi: looks good		
4632	Just had a question about pseudo-variables, Stefan was wondering about setting colors for pseudo variables. This is a features that we have not yet implemented. (You can set colors on pseudo variable components, but not at the top level).	5/21/2012	Pat	1	Aaron	4-8 hours with testing to add the custom colors feature for pseudo variables. Once in place it may be easier to add other similar features as well	4-8 hrs	
4669	(Not 8.2) The slices code should output percent progress to the status bar and/or IDL console. The processing times are usually short ( < 1 second per cut for basic slices) but depending on data type and resolution they can be much longer. With the recent addition of averaging over multiple planes the time per slice can easily exceed 30 seconds, making progress reports necessary when taking multiple cuts.	6/7/2012	Aaron	2	Aaron		4-6 hrs	
4463	file_http_copy support for proxy servers <b>talk to Lydia</b>	12/12/2011	IUGONET	1	Aaron	Testing at UCLA, JWL to notify IUGONET team when ready to test with their config	1-3 hrs	
4536	GUI Slices:Step 8 g) Annotation precision only changes z axis labels (not x, y) . Is that as intended?	3/1/2012	Lydia	1	Aaron	Aaron completed analysis - it can be done.	4 hrs	
4653	version tests (win): save/load: The cadence spinner on the Time Interpolate Options window should be increased to 1.	6/4/2012	Aaron	1	Aaron		5-10 min	
4675	Excessive console messages from getspec. Example: "THM_SST_ATTEN_SCALE(63): Attenuator flags are invalid: 0" was repeatedly printed when producing a gyro spectrum for THA.	6/11/2012	Aaron	1	Aaron	Some may have been fixed post-TDAS 7.	1 hr	

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4676	(Not 8.2) The fixed min/max spinners in the z-axis options window are slightly too large for their base, resulting in their labels being clipped a bit.	6/11/2012	Aaron	1	Aaron		10 min	
<b>Ben</b>								
4616	Chile having download issues	4/26/2012	Marina Stepanova	0	Ben	awaiting for them		
3093	Automate processing of eclipse sunpulse data from FGM team	2/22/2010	Jim L	1	Ben	Once prod reprocessing complete send announcement.		
3093g	production cron job	2/22/2010	Jim L	1	Ben	testing in progress		
4458	Horae (rsync server for mirror sites) is dying and needs to be migrated to a VM Astrea2. Once UCLA rsync done run SPDF test against UCLA Mirror Site.	12/8/2011	Jon L	1	Ben	in progress - they have new rsync		
4458a	migrate Japan mirror site	40885	Jon L	1	Ben	in progress - they have new rsync		
4458b	migrate France mirror site	40885	Jon L	1	Ben	in progress - they have new rsync		Y
4458c	migrate Chile mirror site	12/8/2011	Jon L	1	Ben	in progress - they have new rsync		
4613	Prevent Email Storms when data servers go down	4/25/2012	Jim L	1				
4613c	Modify existing processing scripts to log to the database rather than send their own emails	4/25/2012	Jim L	1	Ben	cronwatch script converted, next will be VC, L0->L1, ephemeris, state V02, overview plot scripts.		
<b>Cindy</b>								
4358	Every 6 months check that the UCLA Mag Cal have not changed.	9/6/2011	David	0	Lydia	Next October 2012		
4548	Panel options: But if I start by entering 99 for the Column value and click OK, I get the dialog message, and upon OK-ing it, the Panel options window will close. Now, returning to Panel options I see that the Column value is still 99, but changing it to anything else followed by an OK or APPLY doesn't change the actual plot. The only way now to change that Column value is via the "Cols Per Page" value in Plot/Layout Options.	3/15/2012	Ben	1	Cindy	Formerly QA279. See also #4531 (consolidate layout options and panel options). Having this functionality in two places that must be kept synchronized is a bit complicated and error prone.		
4682	GUI API for easily adding tabs for other mission's load routines	6/20/2012	GEM	2	Cindy			
4481	New data product, AE index from THEMIS+std sites	1/9/2012	Vassilis	1	Cindy	awaiting Russian data		
<b>Jim L</b>								
4612	GOES 2008 Data	4/20/2012	Andrei Runov	0	Jim L / Ben	Jim to sent email to Howard - on hold until data arrives. Email sent on xx/xx/12.		
3093i	reprocess entire mission - notify Jim M and Tami before doing	2/22/2010	Jim L	1	Jim L	To start week of July 1		
4027b	Reprocessing GOES Data	4/5/2010	Tami - SPDF	3	Jim L	Reprocessing on hold until Howard Singer delivers another batch of binary GOES data files. In conjunction with task 4612.		
4034a2	thm_parts_moments update (spin moments mods)	11/22/2010	Vassilis	0	Jim L	initial simple way, final fix is to fix esa and sst 3D data structures. Probably a good idea to make a THEMIS-specific moment calculation routine, to avoid extensive changes to WIND code currently being used. Jim McFadden (as of 3/26/12) said he would review what Jim L sends him. Waiting on Ben to finish 3093 so I can start testing.		

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4509	Some array accesses still use () instead of [].	2/6/2012	A. Breneman	1	Jim L	For example the ESA packet loading routines, thm_load_peif, thm_load_peek. Work to be done when 4034a2 work continues		
Jim M								
4152	verify the location of the sun-contaminated bins for each spacecraft and any change in location over time(they should change very slowly if at all). They would then re-activate the sun contamination masking. It was previously disabled because the masking was originally in the from place. Davin said that he wants to create the new configuration files that would be uploaded to the spacecraft.	10/8/2010	Vassilis and Davin	0	Jim M	Persons that can provide information are: Davin, Deron Pease/McDonald, Michael Luldam and Robert Abiad. Awaiting task 4365 (same process)		
4152b	change the ESA tables such that the minimum magnetospheric electron energy becomes lower (about 3eV, or lower). McFadden can specify the lower energy	10/20/2011	Vassilis	0	Jim M	only ARTEMIS probes - Need to talk to Jim McFadden. Also need MOC Support		
4152c	change the ESA tables such that electrons and ions can be changed separately into magnetospheric and solar wind modes.	10/20/2011	Vassilis	0	Jim M			
4639	Also, there are a bunch of other calibration files that are used FGM and other instruments. The installation of these files is not detailed in the admin guide yet. I created a new section, with only one entry for this particular cal file type. If we want to be thorough, we should probably do the others.	5/30/2012	Pat	1	Jim M			
4658	version tests (win): save/load:: Received the following error while loading a themis document that tested replay of data processing: "VALUE_LOCATE: Array X does not have enough elements." Last IDL Error: % VALUE_LOCATE: Array X does not have enough elements. % Execution halted at: INTERPOL 161 C:\Program Files\ITT\IDL706\lib\interp.pro % SMOOTH_IN_TIME 302 C:\Documents and Settings\laflores\Desktop\tdas_7_00\idl\ssl_general\misc\smooth_in_time.pro	6/5/2012	Aaron	1	Jim M	in progress 6/15/2012		
4663	version tests (mac): dproc: A high pass filter operation failed when loading a themis document. This occurred on IDL 8.2 (Mac) and 7.0.6 (Windows). Last IDL Error: % Illegal subscript range: ARRAY_X. % Execution halted at: TEMP_T_INTEGRATION 34	6/6/2012	Aaron	1	Jim M			
Lydia								

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4649	I see that the IDL 8.2 development environment now checks to see if there are multiply-defined routines on your IDL path. Below is a list of the duplicate definitions it finds in tdas_7_00. Many of them have more than one definition within TDAS, but some of the conflicts are with IDL 8.2 builtin routines.	6/1/2012	Jim L	1	Lydia	Most of these conflicts should be easily resolved: For conflicts between TDAS routines and IDL 8+ new features: Rename the TDAS routine and .pro file with a thm_ prefix, then find all references to the old name and update them by adding the prefix. For multiply defined routines within TDAS: Most of these are probably helper routines that didn't have their own .pro file; someone probably cloned the .pro file and left the helper function definition in place. For these cases, first check that the definitions are truly identical; if so, pull them out into their own .pro file and remove them from the two conflicting .pro files. If any of the "duplicate" routines have diverged since the fork, we would have to either merge both copies into a common routine that works for all call locations, or rename one of them and make sure the appropriate version is called everywhere. There may be references outside the originally conflicting .pro files, so that would have to be checked. 6/15/2012: Several conflicts resolved, asked Davin for input on what to do with ssl_general routines.		
4665	Laura confirmed that teachers used both the EPO .jpg files from the data archive at <a href="http://sprg.ssl.berkeley.edu/themis/GEONS/">http://sprg.ssl.berkeley.edu/themis/GEONS/</a> and also data in ascii format (though she was not certain from what website they obtained that).	6/6/2012	Laura P (EPO)	1	Lydia	ASCII file list processing restarted. Needs to be more efficient. option 1: only generate lists for current year. Option 2: Replace filesystem search with database inserts/queries. Lydia to investigate feasibility of (2). 6/15/2012: Probably a hybrid approach (use database, restrict filesystem searches to current year) will be best. In progress. Also, we were missing some "joined" files from 2007, reprocessing in progress.		
4680	bug/feature annotation text justification	6/20/2012	Pat	1	Lydia	It looks like the text doesn't justify properly when doing annotations in the 10^x format. (In particular, it is right justified, which makes the text seem to bounce around. We should probably fix this, not sure about priority. Image showing the issue is attached. A brief note about the solution for whoever gets this: Using the left justify option for the IDLgrAxis object won't work because there is a bug with the left-justification such that the annotations will collide with the axis. Fixing this would probably entail guaranteeing that each exponent has the same number of characters. Right now, it clips trailing zeros, and doesn't do anything special for negative exponents. We would want a space added to any non-negative exponents and we would want to clip trailing zeros, only if it doesn't make the annotation shorter than any of the other annotations. Since the formatannotation routine isn't aware of how the other annotations are being formatted when it is being used as a callback by IDLgrAxis, we would probably need to add a preprocessing stage before the axis is drawn which would loop through all the annota	2-4 hrs	

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4681	I came across some strange x axis tick behaviour and I'm not certain what is causing it. I can't reproduce it by repeating the same steps (but I do have a saved document), so it is probably not very important. I plotted some gmag data and set a marker on all panels and then chose subset-> marker. On the new page (page 4 of the attached THEMIS document), if I open y axis options and click apply (without changing anything) the tick labels change on the X axis.	6/20/2012	Lydia	?	Lydia	Aesthetic ticks issue -- need to separate requested ticks from displayed ticks?		
4551	Annotation precision with decimal notation was confusing for me eg I had two ticks at 452.59 and 0.148 when the precision was set to 1.234. When you click auto without changing the precision it changes the annotations to 452.6 and 0.1484	3/15/2012	Lydia	1	Lydia			
4550	Major ticks by number/major ticks by interval: It might be nice to have major ticks by interval default to something logical rather than $10^n$ . If you change 'Major ticks every' then 'Major ticks by number' is updated to something that closely matches that interval, but the reverse isn't true. I'm not sure if we necessarily need 'Major ticks every' to update when 'Major ticks by number' is changed, but it might be good to have it default at the beginning to something that sort of matched.	3/15/2012	Lydia	2	Lydia			
Pat								
	Updated FGM calibrations for solar array currents, ADC nonlinearity available?	5/30/2012	Vassilis	0	Pat	Last Recieved - May 2012. May need to remind FGM team if we go a long time without updates.		
4458	Create a set of Benchmark Tests against IDL future versions (now for v8.2 beta). Run these tests and produce a report. In addition present this report to Exelis in a web conference with a demo of TDAS. Benchmark Tests should include tests for PC, Mac (leopard and lion) and Linux O/S.	3/21/2012	David	1	Pat	Write up findings and present to Exelis		
4545	Axis options: Major ticks by interval/Annotate every: For a non-time axis, switching between log/linear doesn't update the major tick every field as might be logical. ie. if you set to every 10000 $10^n$ on linear then switch to log it still tries 10000 $10^n$ . Usually this means it fails to place any ticks/annotations if you switch between log/linear with either major ticks by interval or annotate every set.	3/14/2012	Lydia	1	Pat	Formerly QA271. If you have major tick every set and a mix of log and linear axes on the page and then use set all panels, you're bound to end up with no ticks on the panel with different scaling.		
4537	Deletion of data not reflected in saved/reloaded THEMIS document. Formerly QA206. Also remember to overwrite prompt setting (yes to all, etc)	3/2/2012	Lydia		Pat	I loaded data for probes b and c and then went to plot the data and realised I should have loaded a and b for the tests. I returned to the load data panel and loaded the probe a data before deleting the probe c data. After saving as a themis document and reopening, the c data was loaded but not deleted. The data that was loaded and deleted using delete all data following the testscript does not appear when you reopen the document (as you'd expect).		