

Task #	Task Description	Date Opened	Reported By	Pri	Assigned To	Notes	Estimate	A&E; crib; script; suite; UG; DevG; Qref; AdmG
To be Assigned or Discussed								
4829	New keywords for thm_part_moments, 1-count subtraction					Pat has some code to routinely subtract 1count/s from the moments. I am including the snippet below. I suggest that we do this routinely in thm_part_moments, using the following new keywords with defaults: zerolevel=1 for subtraction and mincounts=5.e-3.		
4832								
4833								
Hannes								
4153	maintenance of gmag stations "Exclude List"	10/11/2010	David	0	Hannes	Exclude List up to date as of 9/20/2012		
4018a	New Calibration FGM parameters and spin axis offsets	5/10/2010	Hannes	1	Hannes	12/06/2012: Cal files updates, all probes from mid-August 2012 on.		
4080	Attitude Determination next few months	6/21/2010	Hannes	1	Hannes	10-22-2012 Updated for 2012-04-01 – 2012-06-30		
4472	Inter-spacecraft FGM calibration for ARTEMIS.	1/4/2012	Vassilis	1	Hannes	6/4/12 from Hannes: Artemis inter spacecraft differences show good results with current calibration		
Aaron								
4468	Ongoing - Review all commits by Davin, Peter, etc for impact to TDAS.	3/27/2012	David	0	Aaron	Provide weekly report and spreadsheet		
4034a2	thm_parts_moments update (spin moments mods)	11/22/2010	Vassilis	1	Aaron	Testing on 2-13-2010/THB eclipse looks good, looking at other eclipses under different conditions to assess performance of eclipse corrections.		
4810	Slices – add sun position to data structures rather than loading on demand	11/30/2012			Aaron	in progress		
4795	thm_part_dist_array memory allocation optimization	11/13/2012	Pat	1	Aaron	Scan common blocks and preallocate all needed memory rather than doing incremental allocation/copies.		
4777	thm_part_dist_array modification	10/2/2012	Aaron	1	Aaron	The task would be to vectorize thm_part_dist_array by having it directly access the common blocks where particle data are stored instead of looping over thm_part_dist. This would mean writing some vectorized sub-fuctions that recreate the operations done in datatype-specific routines called by thm_part_dist. Also, for this to work and be most effective all background/contamination removal and other similar routines would need to work on arrays of data structures. May be rather complicated...assess level of effort, then prioritize.		
Cindy								
4358	Every 6 months check that the UCLA Mag Cal have not changed.	9/6/2011	David	0	Cindy	Next March 2013		
4781	GMAG station status: troubleshoot stations with no data reported				Cindy			
	Ping Sasha for status of back AE station data					Next March 2013		
4721b	Add NRCAN GMAG sites (EHB, actually chain of 5 GMAGs)	8/3/2012	Cindy	1	Cindy	In progress – working with Ian Schofield and Martin Connors to get data back to 2007. 8/24/2012: Vassilis is working with them to see if the data can be made available en masse rather than requesting individual plots.		
4760	Add McMac magnetometer network (12 sites) to our data set.	9/17/2012	Vassilis		Cindy	Pinged Peter Chi, 12/12		
4761	Add STEP polar magnetometer network (6 sites) to our data set.	9/17/2012	Vassilis		Cindy	12/12/2012 Ian Schofield is gathering Dr. Hayashi's data for us, will get back to us after Jan 1.		
4783	OMNI load routine for GUI	10/15/2012	Vassilis	2	Cindy	Working well in preliminary tests, final testing & API documentation updates in progress.		
4823	epo_jpg_check.ksh still using lock file, should be using call_script style checking instead.	12/17/2012	Jim L		Cindy	Lock file /tmp/epo_jpg_check_lock already exists, exiting.		
Eric								

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4523	GUI Load Data: Console errors when selecting "None" from instrument type dropdown	2/17/2012	Jim L		Eric	Not trivial to remove the "None" selection from the instrument type combobox. "None" was basically a placeholder for the "load ASI" feature that might not be implemented for a long time, if ever. Consequently, the code for changing between instrument types is looking for hard-coded array indices into the combobox list and treating them as special cases. Dropdown error msg fixed, but code still badly needs a rewrite.		
4827	IUGONET plugin forked some TDAS routines, some updates probably now moved into TDAS, any remaining incompatibilities? SVN URL: svn+ssh://thmsvn@ambrosia.ssl.berkeley.edu/repos/thmsoc/trunk/i dl/iugonet	12/20/2012	Pat		Eric	file_http_copy and file_retrieve changes already in trunk, changes to thm_ui_calendar now ported to trunk. Now year dropdown has a very long list of years back to 1880. Maybe start year should be a parameter when the widget is created, so people who only work on THEMIS data won't have to deal with scrolling past dates in the 1800's?		
803	Would be nice to have a way to move different panels from one page to another	11/22/2011	Oldie	3	Pat	sort how level of effort to accomplish. On hold, after QA		
1266	Our numerical entry fields only accept exponential notation entries of the form (1.23e-3) but not the more traditional format(1.23*10^-3). We may want to leverage the code base from the mini language so that we can interpret these entries as numbers.		Pat	EL		Still happening?	3 days	
1497	State Reduced: The save document dialog remembers your previous selection, but it doesn't do it quite right. It puts the expanded path of the file in the selection area. For example("/Users/pcruce/temp/state.tgd"). It should instead use the "path" keyword to dialog_pickfile so that the initial directory is the directory of your current selection ("/Users/pcruce/temp/") and the path keyword so that your initial selection is not the expanded path("state.tgd").		Pat	EL		"Save THEMIS Document"	1 hr	
1498	State Reduced: When Opening a Themis Document, it should list the directory of your previous selection.		Pat	EL		"Open THEMIS Document" (see 1497)	3 hrs	
2107	Add a new feature that allows the user to delete variables from the data processing window (avoids having to open the manage data window every time)		Aaron	tbd		Still needed?		
2217	I loaded some ACE data with a long name 'ace_h1_mfi_SC_pos_GSE_x. It is supposed to draw a larger legend when names are long, but there must be a problem because the labels and the numbers are colliding in this example.	8/13/2009	Pat	3		Still happening? (See thm_ui_load_themis_data.txt for example of loading/plotting ACE data) Couldn't reproduce, must have been fixed already.	<2 hrs	
	Jim L							
4831	Admin guide updates: eclipse spin corrections, chk_bfds_archive	1/3/2013			Jim L			
4817	Eclipse correction for onboard moment tensor quantities doesn't look right.	12/11/2012	Aaron		Jim L	Sinusoidal features get worse when corrections applied to onboard moments; Aaron's ground moment corrections show improvement. Onboard correction applied in wrong direction? 1/03/2013: Transposed rotation matrices, looks better...Aaron checked ground vs. onboard eclipse corrections and then now match.		
4815	Developer guide updates for GUI API, placeholders for rest of SPEDAS to plugin interface	12/7/2012	Vassilis					
4816	Eclipse spin model processing: some eclipses not being processed with current code, but Ferdinand's code is giving results?	12/7/2012	Ferdinand		Jim L	Ferdinand has updated eclipse model parameters for inner probes		
4709	Manual eclipse processing resets "last processed" date for automated processing; some processing logs not preserved	7/24/2012	Jim L	1	Jim L	If the automated processing is up to date, and I manually reprocess a time range early in the mission, the "last processed" date will get reset to the earlier date, which could trigger an unintended reprocessing of the full mission. "last processed" date should only be updated if it moves forward in time.		
4716	Add examples of eclipse spin model corrections to crib sheets (fgm, efi, scm, fit, mom)	7/27/2012	Vassilis	1	Jim L	fgm, fit, mom, updated; efi, scm, new eclipse crib in progress.		

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4718	ESA energy table updates – L0->L1 processing mods (tmttools)	8/2/2012	Jim L	0	Jim L	Modified tables will need a new ESA config word – tmttools L0->L1 code needs to be updated to recognize it as a valid ESA mode. Waiting for Jim McFadden to help us update the mode spreadsheet with new config words and table configuration. 9/28/2012: New modes & config words may already be present in latest ETC spreadsheet.		
4142	issue with FGS processing - timestamps	9/30/2010	Vassilis	1	Jim L	not trivial. After 4764		
2266	Timing of Spin Fit data	10/16/2009	Jim McFadden	1	Jim L	See 4142 After 4764		
	Jim M							
4824	Xuzhi help request – ESA moment calculation	12/17/2012	Xuzhi	1	Jim M	No potential subtraction in L2? Responded w/ email, anything left to do on this?		
4799	Possible issue with onboard moments, or transform to GSM coords			1	Eric	Only present in online plots. Problem fixed, reprocessing in progress.		
4784	Add RBSP orbit data to THEMIS plots	10/16/2012	Vassilis		Jim M	10/26/2012: John B will provide link for RBSP orbit data. I received a request to plot RBSP data on the THEMIS plots. Maybe as a fourth click to show both inner probes and RB?		
4820	Need IDL-only FITS reader code suitable for inclusion in SPEDAS	12/11/2012	Mini-GEM		Jim M			
4821	Use improved IDLDOC procedure to generate TDAS HTML documentation?	12/11/2012	Mini-GEM		Jim M	better format, more web-friendly? IDL 8.0+ versions OK since it won't be distributed with TDAS, only the HTML output.		
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. 8/10/2012: FLATSAT energy weights don't match Jim McFadden's spreadsheet, need to discuss with him, possibly 8/10/2012. 9/10/2012: Energy weight table discrepancy resolved, flatsat and probe EEPROM tables are fine. 9/28/2012: New modes & config words may already be present in latest ETC spreadsheet.		
	Nick							
	Update FBK, FFT, ESA, SST configuration history HTML pages				Nick	Update monthly for now.		
4828	thm_load_fit produces NaN-filled FGS and probably EFS samples	12/20/2012	Jim L		Nick	Most likely at packet boundaries (L0->L1 processing), possibly related to spikes seen in calibrated FGS? Causes NaN-filled matrices in tvector_rotate.		
4830	Astraea2 crontab errors, some long lines got cut off?	1/3/2013	Nick		Nick	Happened in SVN revision 9542, restore affected lines to version from rev 9541		
4804	ESA, SST configuration history	11/20/2012	Jim L		Nick	HTML reports now available. Next step: put time intervals in a database so we can produce different views (ascii tables, timeline, interactive views) with php scripts that pull from the same database.		
4818	thm_load_sst, thm_load_mom have no way of loading ESA or SST config variables from L1 CDFs	12/12/2012	Jim L		Nick			
4819	Generic "terms of use/rules of the road" popup for SPEDAS	12/11/2012	Mini-GEM		Nick	Caller provides some sort of mission identifier & custom message; after displaying message, give user a chance to accept/decline; if accepted, remember for rest of IDL session (common block?) and don't prompt again (for that mission ID). Should work in CL or GUI environment.		
4541	tvector_rotate: some rotation matrices produced by rot_testscript are all NaNs.	3/13/2012	Jim L			2 matrices out of 27895 (indices 18783 and 23042) are all NaNs, rest OK. Possibly missing FGM data points at those sample times? No action required for QA. Formerly QA268. See task 4828, some NaN-filled samples produced by thm_load_fit.		

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1063	Axis Options: #1 When I turn off show-line and turn on mirror, the mirror doesn't show. This is not important, because it is not incorrect that it doesn't show, but we could maybe gray out the mirror check box + others when the show flag is not checked.		Pat	1	Nick	Still an issue.	1 day	
1298	One item that I think we forgot about when discussing the spinner issues is that it returns strings in it's event structures but doubles when using get_value from widget_control. We should make it more consistent by returning doubles in the event structu		Aaron	BL		Discuss with Aaron/team. May impact lots of call locations.		
1058	Right now, if you make changes to lines via the line options and select 'Ok', then cancel out of the changes in the layout options, it will cancel the changes you made in the line options. I think we might want to consider a way to prevent this. Alterna			EL		Can't reproduce, closing.	2 days	
1125	Var options - would be nice to have Panel droplist return to the Panel that was last modified. Right now it always opens with Panel 1.		Cindy	EL		Not sure where to store last modified panel information. Discuss w	1/2 day	
4635	It looks to me like the administrator's guide is out of date. For the table that lists which machine each script runs on, it lists the pre-VM machine name, not the post-VM machine name. For example, for overplot.ksh, is lists	5/29/2012	Pat	1+	Nick	Check admin guide against crontabs. Some machine names have changed, gaia->gaia2, python->python2. Some obsolete scripts removed or commented out of crontabs? Crontab SVN URL is: svn+ssh://thmsvn@ambrosia.ssl.berkeley.edu/repos/thmsoc/trunk/src/config/crontabs	3-5 hrs	
1250	If I select edit and a spectral is selected, the z-axis settings open, but the first spectral panel is always selected. The panel that the selected trace is on should be selected.		Pat	EL		In Layout Options panel when a spectral quantity is highlighted	2 hrs (? Done)	
1317	I noticed that when X is not time and set to log10 scaling, the annotations are still in scientific notation instead of 10^X format. In natural log scaling, the format is e^X. Just wondering if this was supposed to be consistent.		Michael	EL		Already fixed.		
1576	I was thinking it would be nice if we enabled resize on the overview plot key window. That way on larger monitors, users could extend the window so that they can see the whole key at once.		Pat	4		Discuss with team.		
2109	Calculate If the cursor is clicked onto the the last line in the program area, and if that line is blank, then inserted data names will appear either at the top of the field or at a recently clicked location.		Aaron	tbd		Can't reproduce.		
	Pat							
	Updated FGM calibrations for solar array currents vs. spin phase?	5/30/2012	Vassilis	0	Pat	Last Recieved - May 2012. May need to remind FGM team if we go a long time without updates. David Fischer will probably have updates after Jan 1.		
4826	Keyword to convert SST data into an omni spectrum before moments are calculated	12/19/2012	Drew		Pat			
4713	Since the diode degradation will be modeled as shifting the minimum energy of the SST up, we'll need to interpolate the SST efficiency parameters to the new energy bins.	7/24/2012	Vassilis	0	Pat	This may not actually be done by someone on the software team, but I thought I'd report it anyway, so that it doesn't get lost in the shuffle once the other calibrations are completed.		
4773	Redo SST calibrations with new scheme: match intervals during quiet periods early in the mission, to establish relative efficiencies, then later in the mission to estimate degradation.	10/1/2012	Vassilis	0	Drew			
4771	Writeup for new SST calibration	9/28/2012		0	Pat/Drew	For senior review. After 4773.		
4723	tplot feature request: formatting callbacks	8/7/2012	Pat	1	Pat	There doesn't appear to be a way to explicitly format a var_label in tplot using a callback function, the same way that I can format an annotation using a callback in normal IDL-plot. This is a pretty big limitation on the var_labels. Right now it only		

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4809	Crash loading GOES or ACE data with iugonet code on IDL_PATH with bleeding edge	11/29/2012	Jim L		Pat	call_sequence API has changed, IUGONET includes modified call_sequence code using the older API and needs to be updated. Pat to update IUGONET code (easy), then advise plugin developers how to handle call_sequence calls through API.		
4519	getspec (CL) rewrite for maintainability	2/21/2012	Pat, Aaron, Jim M	1	Pat/Vassilis	Code has become prone to bugs, very difficult to understand and maintain, would benefit greatly from rewriting from scratch with "lessons learned" up to this point. Level of effort? Pat and Vassilis to go over code, improve documentation, and identify areas that could be improved.		
4519a	Aaron has identified some "cut points" for sections that can be pulled out as separate procedures.				Pat	Extract procedures, figure out which variables are used/required in each section.		
4711	GUI cotrans error checking	7/24/2012	Pat	1	Pat	When looking at the replay/overwrite logic in the GUI, I noticed a small issue. If you try to cotrans a variable that is not a 3-vector, it still asks you if you want to load the support data that is necessary for the transformation. I'm wondering if it might be better for it to check whether the variable can be transformed at all, before it tries to load the support data needed to run the transformation.		