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							
4750	Add support for aGSM coordinates to thm_cotrans	08/02/13	Eric			Requires solar wind velocity as support data (OMNI data should work)		
4751								
4752								
4753								
	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	5-24-2013 Updated for 2012-12-01 – 2013-02-21, tha, thd, the		
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							
4711a	Getspec rewrite, sanitize ESA	05/23/13			Aaron	Convert to physical units, standard internal representation, strip extraneous fields to save memory		
4711c	Getspec rewrite, Apply theta,energy,phi limits	05/23/13			Aaron	disables bins based on user specified limits		
4711g	Getspec rewrite, Make PA/Theta spec	05/23/13			Aaron	Tracking down last few discrepancies (e.g. fringing)		
4711h	Getspec rewrite, Make Gyro/Phi spec	05/23/13			Aaron			
4711i	Getspec rewrite, Make En spec	05/23/13			Aaron			
4740	Getspec rewrite, bells, whistles, keywords etc.	07/08/13			Aaron	~1 week work remaining		
4741	Getspec rewrite, GUI modifications to support new code	07/08/13			Aaron			
4314d	combination of ESA and SST data could only be done in the Geometric mode. Would be great if it could be done in other modes as well.	8/11/2011	Xuzhi	4	Aaron	on hold, after mods to support combined ESA/SST moments	1 hr	
4825	Implement error estimates (/get_error) for angular spectrograms	12/10/2012	Vassilis			In progress, some questions about moment code?		
	Cindy							
4720	Update GMAG master CDFs with correct GIMA PI credited	06/05/13	Dieter B		Cindy	Master CDFs first, data CDFs when convenient to reprocess		
4842	GUI API – Plugin access to GUI configuration settings dialog (remote, local data dirs, etc)	1/18/2013		1	Cindy	Convert to tabbed interface, like "load data" panel.		
4743	Clean up GMAG processing scripts		Cindy	2	Cindy	many variations of wget wrappers, will be much cleaner when code is consolidated.		
	Eric							
4731	Add support for loading netcdf files	06/25/13	GEM-SPEDAS	1	Eric	Implement netcdf2tplot as first step, then work with Janet Green to develop load routine for GOES netcdfs. Load routine now working for particle & mag data, working on some bug fixes, where should routines go in SVN ?		
4749	OMNI solar wind velocity missing coordinate system attribute	08/02/13	Eric		Eric			
4736	Add support for aGSM coordinates to neutral sheet model	06/27/13	Eric	2	Eric			
	Jim L							
4748	Jumps in FGS and FGL around times of FGM range changes	07/29/13			Jim L	May be a dropped sample at the time of the range change? Problem goes away with the start of the next L0 packet.		
4142	issue with FGS processing - timestamps	9/30/2010	Vassilis	0	Jim L	not trivial. After 4764		
2266	Timing of Spin Fit data	10/16/2009	Jim McFadden	0	Jim L	See 4142 After 4764		
	Jim M							

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4732	Rename TDAS to SPEDAS for next release	06/25/13	GEM-SPEDAS		Jim M	Issues with thm prefixes -> spedas or spd, repository organization. First step may be to rename things in the release build scripts without disturbing the repository, if practical. Make separate nightly zip file with SPEDAS rather than TDAS "branding".		
4746	Crash in moments_3d	07/26/13	Pat		Jim M	I was accidentally using values in the energy extrapolation that went too high and the extrapolations in my sst code generated values that were quite a bit too large. When passed into thm_part_moments I got a crash: % TRIQL: Too many iterations in tqli. % Execution halted at: MOMENTS_3D 330 /home/pcruce/IDLWorkspace82/TDAS/idl/ssl_general/science/wind/moments_3d.pro % THM_PART_MOMENTS 297 /home/pcruce/IDLWorkspace82/TDAS/idl/themis/spacecraft/particles/moments/thm_part_moments.pro % $MAIN$ The issue occurs because particle routines use floats and the numbers grew big enough during the calculation that they rolled into +-inf, which broke the routine that finds the eigenvalues/vectors for the moment matrix. The Particle routines intentionally use floats for storage because it saves memory. I say that this is not a big issue because the inputs were probably large enough that they wouldn't ever come up(correctly) for earth physics, but they weren't *that* far outside realistic ranges either. It would be preferable if the routine outputs a value(like infinity) or terminates with a clearer error message. Possible solutions would be to put a catch block in for the error, check the moment matrix for invalid values before triql, or cast to double before the operation and cast back to original data type afterward.		
	Nick							
4734	trange keyword doesn't clip for thm_load_state	06/25/13	GEM-TDAS tutorial		Jim L	By design (to avoid clipping spin model). Leave spin model alone, but clip other tplot variables?		
4747	wavpol compile error	07/29/13			Nick	Changed gamma(x,y) to gammy[x,y] to avoid conflict with IDL's gamma() function. Lots of other array references using () syntax are there and should be changed too.		
4704	Web site code & files should be checked into SVN	5/9/2013	Jim L		Nick	Workflow to update web site might need to change to keep in sync with repository. After 4706		
4745	tplot_ascii formatting bug	07/25/13	Andre Runov		Nick	He was trying to print spectral tplot variables with values a few values that are very small negative numbers. (e.g. -1.23456789e-14, caused by round-off error in operations that would ideally be producing a result that is zero.) What he found is that the spaces between the columns can disappear which breaks parsing when he tries to read the values back in. #1 This should be fixed. It should detect if it needs additional space to write a number and use wider columns. #2 There is no keyword in tplot_ascii to manually control formats. There should be.(The workaround I gave him was to edit tplot_ascii.pro, obviously no ideal)		
4729	Investigate bug tracking/wiki support for SPEDAS developers	06/25/13	GEM-SPEDAS		Nick?	Trac & wiki installed, testing to see if it's a good fit for us or if we want something simpler?		
4738	User-friendly indication of availability of various THEMIS products over time (e.g. no L2 MOM until boom deployment)	06/25/13	GEM-TDAS tutorial		Nick?	In progress.		
	Pat							

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4771	Writeup for new SST calibration	9/28/2012		1	Pat/Drew	For senior review. After 4844. Incorporating feedback from Drew & other researches. Memory footprint/processing speed significantly improved.		
4711b	Getspec rewrite, sanitize SST	05/23/13			Pat	Convert to physical units, standard internal representation, strip extraneous fields to save memory		
4711d	Getspec rewrite, FAC transform	05/23/13			Pat	In progress. Needed to test some of Aaron's code updates.		
4711e	Getspec rewrite, Regrid	05/23/13			Pat			
4711f	Getspec rewrite, Apply PA and gyro limits	05/23/13			Pat			
4740	Getspec rewrite, bells, whistles, keywords etc.	07/08/13			Pat	Adding support for new SST calibrations, about 1 week effort remaining		
4744	Add combined ESA/SST moments capability to new particle routine	07/24/13	Pat		Pat	I was talking to Drew about particle stuff yesterday and we got to talking about how our goal for THEMIS particles should be combined ESA/SST particle products. (Spectra and moments) Doing this for spectra should be pretty easy with the new routine. (Just pass in a concatenated structure and it should work.) Doing this for moments would be pretty tricky in the current configuration because it makes a lot of assumptions about the particular instrument that it is working with. But Aaron and I were thinking that we could probably add moments capability to the the new particle routine pretty easily and this could be done in a way that was sufficiently generic that it would not choke on a combined particle distribution struct. I don't think it would be more than a week for one of us to do this.		