

Task #	Task Description	Date Opened	Reported By	Pri	Assigned To	Notes	Estimate	A&E	Crib	QA Suite or Script	UG	Qref	Adm Guide	Dev Guide	Web
To be Assigned or Discussed															
4271	Introduce Ben	7/5/2011	David												
4268	Review with Jon Loran and Programmers -VM Hardware - migration and QA testing	7/5/2011	David	1	tbd										
4270	Review TDAS Functions that need backup programmer knowledge (Oct - Dec 2011)	7/5/2011	David	1	tbd	Draw Object, Slices, L1-L2 and Summary Plots, what else?									
4269	Review Streamlining of the GMAG Processing	7/5/2011	Vassilis	?	Lydia										
4274	Bob Clauer mentioned that he was interested in importing his Antarctic gmaps into TDAS.	6/30/2011	Bob Clauer	?	?										
4275	There was a suggestion that we use dprint more consistently in our debugging output so that it is possible to disable all of the text that the GUI and other TDAS software prints to the command line.	6/30/2011	Pat	?	?										
4276	We got a crash when we tried to transform tha_fgl_dsl into GSE in the GUI. The specific error:Expression must be a structure in this context: D Execution halted at thm_cotrans_update_dlimits: 113 thm_contrans.pro	6/30/2011	Pat	?	?										
4277	We couldn't add markers in the GUI on the mac. I'm not sure if we just forgot the right keyboard combination or if this is a bug.	6/30/2011	Pat	?	?										
4278	Set-up TDAS functionality backups starting in August 2011	7/6/2011	David	1	David										
4279	I noticed that NASA has a link to a newer version of their CDF patch. We might want to update our documentation. Their newest: http://cdf.gsfc.nasa.gov/html/cdf_patch_for_idl6x_new3.html Ours: http://cdf.gsfc.nasa.gov/html/cdf_patch_for_idl6x_new.html We should probably test with this version too, just to be sure. We link to a patch for version 3.2.4, their newest is 3.3.1	7/7/2011	Pat	1	Jim L										
4281	In the routine particles/ESA/thm_esa_slice2d/dat_avg.pro, it calls the routine "interpolate" as a procedure, but this built in IDL routine is actually a function. This will cause a runtime error when run.	7/7/2011	Pat	1	Aaron										
4282	We need to put on the themis web site a routine plot that shows Artemis around the moon (under data->summary plots->orbits). This would plot *only* P1 and P2, and the moon, and would come up after the 3rd click in a series (i.e., first you get THEMIS, click once you get all 5, click twice you get ARTEMIS only scaled properly - then it cycles). The advantage is that ARTEMIS only will autoscale and thus show P1/P2 with better clarity. The axes need to be R_L (Lunar radii) not R_E on this plot.	7/3/2011	Vassilis	0	Pat										
4283	It looks like there is a little bug in our installation instructions in our documentation.(users guide and quick reference) For the install instructions(windows & linux) it says to go to "File->preferences", but on later versions of IDL(7.0 or greater), the preferences is under Window->preferences. We should probably update both documents. This can be doubly confusing because there is a File->properties menu in these versions which is completely unhelpful for installation.	7/8/2011	Pat	1	Pat										

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4286	Create and maintain a list of FBK and FFT (and possibly other?) configuration parameters versus time, to be used by other researchers to located time intervals containing data that was acquired in a particular configuration. Examples (totally made up): THEMIS A Filter Bank Source Selections: 2007-02-23 - 2008-01-01 e12dc, scm3; 2008-01-01 - 2008-05-01 scm2, e34ac; THEMIS A FFT configuration: 2007-02-23 - 2008-01-01 16 frequency bins, e12dc, e56dc, scm1, scm3; 2008-01-01 - 2008-05-01 32 frequency bins, e12dc, e56dc, scm1, scm3	7/15/2011	SPDF - Jim L	?	?										
4287	Switching SST Load routines to thm_sst_load2 for SST calibrated data	7/15/2011	Pat	1	Pat										
4288	Slices - Tips of the month	7/15/2011	David	1	Aaron										
4289	thm_ui_axis_options: Multiple copies of information are being stored (e.g there is a state.panels and state.windowStorage also contains panels property). This could cause problems if methods update one copy but not another. It would be good to slightly reorganise the code to remove redundancy and reduce	7/15/2011	Lydia	?	Lydia										
4290															
4291															
4292															
4293															
4294															
General															
4249	UCB will look at enhancing the search tags for themis and artemis as well as a link from the NASA web site for each.	6/9/2011	Dieter - SPDF	n/a	Emmanuel	In Progress - on beta site									
4043	Paper on interdependencies of FGM and STATE Reprocessing	4/19/2010	Pat	1	Jim L	David - Put Paper into themis doc format									
447	Save THEMIS document: Attempting to save to a read only file in Windows outputs the correct error message, but IDL crashes immediately afterwards.	2/24/2011	Team	1	David - Pat	IDL Error report to ITT - Bjorn at ITT 6/22: what I see it has been fixed in IDL 8.1 which is available for download from our website. Let us know how things work out after you install IDL 8.1 and test this out.									

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Harald															
	L1's and mosaics are up-to-date and available through June 30, 2011				Harald										
	Thumbnail Data: - cdf files done until May 2011 - overview plots done until May 2011 - movies done until May 30, 2010				Harald	Updates ready 7-10th of the next month									
	Full-resolution raw data: - complete for 2007, 2008, 2009 - Up to date and complete until April 2010				Harald										
	Full resolution data: - data cdf done for all 2007 and 2008 and up to date and complete through April 2010 - keogram cdf done for 2007-2008, 2008-2009 and up to date and complete through April 2010				Harald										
	Web site mosaics and movies: - Mosaics and movies reprocessed for 2007, 2008, 2009 and 2010 seasons - Mosaics and movies up to date until May 31, 2010														
	Web site overview plots with full resolution data: - overview plots done for 2007-2009 and until April 2010														
2069d	UCLA – mirror site set-up		Vassilis	1	Harald	UCLA has 2-1TB and 2-2TB bricks.									
Hannes															
4153	maintenance of gmag stations "Exclude List"	10/11/2010	David	0	Hannes	Exclude List updated 7/11/11									
4018a	New Calibration FGM parameters and spin axis offsets	5/10/2010	Hannes	1	Hannes	offsets sent to instr scientists ; email from Braunschweig: Karl-Heinz will produce new Artemis calibration files in 2-3 weeks (first week in June).									
4080	Attitude Determination next few months	6/21/2010	Hannes	1	Hannes	Attitude determinations to resume, results should be available ~2 weeks dependent on 4018a									
4034b	Ferdinand sent was an attempt on his part to automate the shadow processing. He wanted feedback whether the products produced are adequate and if the code is amenable to automation. We can pick it up with him once you have gone through it.	4/14/2010	Vassilis	1	Hannes	Waiting for feedback from Ferdinand about state of inner probe eclipse models, long & short eclipse models									
4154	GSE-GSM	10/11/2010	Vassilis	1	Hannes										
4058	This is getting a bit out of hand I think. How about a configuration file? The software just reads keywords from a configuration file. With such a configuration file it is possible to set keywords automatically (for the scientists) but additionally it would give us the possibility to keep track of what the software does automatically. When I do calibrations I can then save the configuration file together with the results and not worry about the things that the software might have done automatically.	5/10/2010	Hannes	3	Hannes	Hannes sent out new version for review.									
2074c	quality flag for FGM data		Vassilis	3	Hannes	on hold									

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2082a	Spin modeling during shadows BugZid=43		Vassilis	3	Hannes	Jim L to write routine. Hannes send info.									

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Aaron															
4254b	The slice algorithm needs to be modified to handle reduced data correctly.	6/17/2011	Aaron	1	Aaron	in progress - give Vassilis a demo to ascertain of speed up techniques needed									
4254c	Angular boundaries for bins on all data types should be checked for gaps.	6/17/2011	Aaron	1	Aaron	in progress - give Vassilis a demo to ascertain of speed up techniques needed									
2013af	Mark one count level (dashed line)		Vassilis	2	Aaron	Have Andrea and Xuzhi, Shanshan and Stefen check it out. Also a meeting scheduled with some of the students, will solicit feedback.									
4204	The enhancement for QA 156 is to add a "lazy ytitles" option to the GUI. This means that a ytitle that has separators like spaces or underscores will have newlines inserted in their place so that long titles can fit in crowded layouts. This is a standard command line feature.	3/2/2011	Pat	2	Aaron		2 days								
QA076a	SST Test Suite: (Feature) Reports that default labels are cluttered. Specifically, sst_en_efflux y-label is long, & the content of the label is more appropriate for the z-axis. I agree, but making the defaults work better will take some effort.	2/3/2011	Pat (from Michael)	2	Aaron	see 4204									
4012	When Cindy & I tried to load tha_eff on 2007-03-23, it didn't load and said some calibration quantity couldn't be found. When I tried to load the same thing, I didn't have a problem. So the trick would be to find out what changed from my computer to Cindy's computer and to figure out how often our user's computers are going to have the same problem that Cindy's computer had.	3/22/2010	Pat	2	Aaron	Jim M: I have no trouble with EFF data either for linux or windows.	4-6 hrs								
3014	We don't have support for filled symbols. This means symbols are only outlines.	12/11/2009	Pat	2	Aaron										
3031	GUI Overview plots sometimes have diamond shaped artifacts in the sample rate bar. Should fix.	1/5/2010	Vassilis	2	Aaron	This is a side-effect of the a way that symbols are used as a hack to generate the sample rate bar. Fix after 3014 is fixed.	1/2 day								
QA038	Windows - Layout option	1/21/2011	Christine	2											
QA038a	6.a) I forgot to click Add to make new panels for each spacecraft's data and thus ended up with all data on one panel. The only way to fix this, that I saw, was to delete all the data and then start over, making sure to add a panel before selecting each dataset. As a user, I feel there should be an option to move data from one panel to another without having to remove it and select it again. For instance, we should be able to click and drag a piece of data from one panel to another panel.	1/21/2011	Christine	2	Aaron	checkbox - toggle	1-2 days								
QA038c	6.f) When the 5 panels have been made of the data, the type of data in each panel is labeled but the spacecraft is not included in the label. You only know which spacecraft is represented if you hover your mouse over the panel. I think the panel should have the sc label, especially for printing purposes.	1/21/2011	Christine	2	Aaron	come up with how to fix options with level of effort									

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QA038d	REALLY don't like how when you select the dependent variable, the window slides over to center it. I want it to stay where it was unless I slide the window myself. Otherwise I'm constantly sliding it back to the left in order to see which variable I want to select.	1/21/2011	Christine	2	Aaron	fix only for windows									
QA038g	10.c,d) If you change the panel row number, you have to also change the panel row number to which you are changing it to. Ex. 10.c) asks to select the 3rd panel and click the up arrow key twice, and click apply. You can't do this unless you ALSO select panel 1 and click the down arrow key twice. Same for 10.c and d...You can't apply panel 3 to row change to 5 unless you change 5 to some unused row number. Should this be automated? If not then at least the suite's directions should be altered.	1/21/2011	Christine	2	Aaron	alter test suite and resolve for simple case - talk to Christine									
QA038h	10.h) If you don't click cancel, but apply it and hit ok and go back to manually change it back to the original plot, the plot keeps the same width for each panel as when there were 3 columns, even now there is only 1, so each panel is very short instead of being its full, one-column size. This shouldn't be the case.	1/21/2011	Christine	2	Aaron	analysis - for discussion with level of efforts									
1579	When importing a variable with a valid 'V' component in its data struct, but no spec flag set in its meta data, the loaded data object fails to load the y-axis. This should be fixed, as it ends up incorrectly loading certain spectral quantities.		Pat	4	Aaron										
2121	When thm_load_fit is called requesting a single data type it will also return some auxiliary data types. For example: thm_load_fit,probe='b',datatype='fgs' returns: 1 thb_fit_code 2 thb_fit_npts 3 thb_fgs. load bug or test script bug) b. The relpathnames all keyword is broken.			4	Aaron										
2029	From Hannes		Hannes	4	Aaron										
2029a	Provided is the most common plot used by scientists that look at magnetic field data. Four panels Bx By Bz Bt and the position X Y Z as variables. Often the radial distance R is another variable. It would be great if someone enters e.g. tplot,'tha_fgs_gsm' such a useful default plot would appear. I am currently not able to produce such a plot using tplot. Another useful plot would be instead of one trace per panel, 5 traces per panel. One for each spacecraft and 5 sets of positions as variables at the bottom. For example: tplot,'th?_fgs_gsm' could produce such a plot. Also some standard plots that combine ground and spacecraft data could be useful. Notes from Vassilis: define keyword /positions default 'none', allow GSM X Y Z, R Lat Long,.....		Hannes	4	Aaron										
2029b	The level 2 CDF files at http://themis.ssl.berkeley.edu/data_download.shtml should contain position in various coordinate systems as well. Preferably in the same resolution as the data. Otherwise Scientists need to get the position from another source. Notes from Vassilis: option to introduce the data in RE with keyword (one RE =6,478 kilometers ???). Like thm_load_fgm /pos_units= 'RE'. Also thm_load_state keyword out_coord = 'GSM', 'GSE',...etc.		Hannes	4	Aaron										

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2029c	If one loads fgm data from probe 'a' and let's say there are no data for the chosen interval. The variables tha_fgl and tha_fgl_gsm etc. should all be empty. It could be those variables still contain data from the previously loaded interval.		Hannes	4	Aaron										
2030	upgrade thm_load to work with probe assignments		Vassilis	4	Aaron										
2031	move functionality of thm_load_state2 into thm_load_state and delete thm_load_state2		Vassilis	4	Aaron										
2032	Multiple enhancements concerning keywords, valid_names and thm_load routines		Vassilis	4	Aaron										
2013w	Integrate our own slicer3.pro gui with regular 2-D slice plots.		Vassilis	4	Aaron	on hold	2 days	Y	Y	Y	Y				

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Ben															
4001	Document: Administrators Guide	3/1/2011	David	1		50% time									
4214	THEMIS Pipeline proof of concept regression tests														
4214a	VC->L0	3/23/2011	Jim L	1	Ben	50% time									
4214b	L0->L1	3/23/2011	Jim L	1	Ben										
4214d	emppermeris->state v00	3/23/2011	Jim L	1	Ben										
2046	Create a more efficient & productive prototype QA Instrument Command Line Script - first template (s) functional blocks then scripts for FGM, ASK, SCM, FIT, MOM, ASI, EFI, FFT, FBK, Gmag, State, SST, ESA		Vassilis	1	Ben	In progress. Several templates created, selecting the appropriate command line routines to test.									
4200	Yuri has generated a 3 parameters for the THEMIS spacecraft L,L*,Mat. These parameters are very useful scientifically. The task would be to archive these parameters in CDF and add a load routine in TDAS to read them. Currently, the data will be made available to us by Yuri via tab separated ascii files.	1/19/2011	Yuri Shprits	2	Ben	part of the state cdf									
4214	THEMIS Pipeline proof of concept regression tests														
4214c	L1>L2	3/23/2011	Jim L	2	Ben										
4214e	GMAG	3/23/2011	Jim L	2	Ben										
4214f	AE Index	3/23/2011	Jim L	2	Ben										
4214g	ASI	3/23/2011	Jim L	2	Ben										
4214h	mosaics	3/23/2011	Jim L	2	Ben										
4214i	summary plots	3/23/2011	Jim L	2	Ben										
2149g	write a routine to check time tag monotonicity and repair tplot variable if necessary (with options for "replace with NaN" and "delete")		Jim L	2	Ben	Create a routine to clean up tplot variables. Use in the load routines were suscepible. Recommend that we just remove what is needed to make the time tags monotonic, and issue a warning indicating that the user should consult the THEMIS software team about that data.									
2149h	integrate time tag fixer-upper with TDAS load routines		Jim L	2	Ben										
4135	Now that the L1 ESA/SST/MOM reprocessing is underway, these CDFs will soon contain the full ESA and SST configuration words, in addition to the solar wind flags, sweep modes, and so forth. With the full configuration data available, if someone wants to use a property of these instrument configurations that's not already present as a L1 variable, we don't need to reprocess L1 to add it -- we just write a little more code for TDAS, to extract the new attribute from the configuration data that's already present.	9/10/2010	Jim L	3	Ben		2-4 hrs								
4135a	Write some TDAS routines that take an apid and a configuration word, and return a structure with all the relevant properties of that configuration. This is basically reimplementing some logic that's already in the L0->L1 processing code (written in C). If anyone ever needs other attributes of the instrument configuration (for example: the angle maps corresponding to each configuration), we would update these routines to return the additional information.	9/10/2010	Jim L	3	Ben										

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4135b	In the load and/or calibration routines for ESA, SST, MOM: rather than using the ESA solar wind flags and sweep mode from the L1 CDFs, use the ESA full configuration instead (which is present in all three L1 types, for convenience), and use the routines from 4135a to extract the solar wind flags, sweep mode, and any other useful attributes. I think SST does not have any configuration flags similar to the ESA quantities (there's the attenuator status, but that's separate from the instrument configuration word), but it needs them in the future, they should be handled the same way as ESA (extract from SST configuration word instead of adding L1 variables). I can do this, but if the routines from part (a) are well-documented, any of us could probably do this part.	9/10/2010	Jim L	3	Ben										
2078	bau_sunpulse_met assumes x86 endiannes (BugzID=13)		Vassilis	3	Ben										
4027b	Reprocessing GOES Data	4/5/2010	Tami - SPDF	1	Ben	Reprocessing on hold until Howard Singer delivers another batch of binary GOES data files.									
	Cindy														

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Jim L															
4034a	Ferdinand sent was an attempt on his part to automate the shadow processing. He wanted feedback whether the products produced are adequate and if the code is amenable to automation. We can pick it up with him once you have gone through it.	4/14/2010	Vassilis	0	Jim L										
	Option1) Just to recap: it will be more difficult than I thought to support switching between the default spin model and the eclipse spin model from F. Plaschke et al. It can't be implemented as a simple correction to the default model -- I would have to introduce a whole new set of variables in the L1 STATE CDF, duplicating the existing set of spin model variables, to be able to switch between corrected and uncorrected models. And eventually, we'll probably end up using the corrected model exclusively, so we'd end up with a lot of unused variables cluttering up the state CDFs.	4/16/2010	Vassilis	0	Jim L	TDAS side - select on the fly to get the correction or not (keyword) - can build both standard and eclipse spin models from new state CDFs, keeping changes out of trunk until I get back from vacation	5 days	Y	Y						
4034a1	Code modifications: 1. Add keyword "use_eclipse_corrections" to spinmodel_interp_t (defaults to "don't use") 2. Add informational message to state whether corrections are in use or not 3. Add similar keyword & informational message to other routines as necessary (thm_cotrans, ssl2dsl, thm_cal_fgm, etc)	11/22/2010	Vassilis	0	Jim L	must change everything that the calls the spin model - in progress; FGM, EFI, SCM (wavelets) and Spin Fits complete and Jim sent email to Vassilis, Hannes and Ferdinand to take for a tst drive (5/9-10); Others to do: particle distributions (esa distributions , sst distributions , mom); 6/24/11 - mom in progress. when starting esa see Jim M who will help get code propergated to Jim McFadden's code.		Y	Y					Y	
4236	Ferdinand P. suggests that we make available a diagnostic quantity produced by the eclipse spin modeling procedure. Add "phase" diagnostic quantity (from eclipse spin modeling process) to L1 STATE CDF, to give end users a sense of the expected angular error in the eclipse spin model.	5/23/2011	Ferdinand	1	Jim L										
4142	issue with FGS processing - timestamps	9/30/2010	Vassilis	1	Jim L	not trivial	3-5 days	Y							
2266	Timing of Spin Fit data	10/16/2009	Jim McFadden	1	Jim L	see 4142									
2047	Separate E and B timestamps for spin fits: a) make a revised V02 master CDF with E and B separated b) change thm_load_fit to support V01 and V02 of the L1 CDFs c) change the L0->L1 processing code d) change the L1->L2 processing code e) test the changes, then reprocess to create the V02 CDFs (keeping the V01 files around for a while to ease the transition)	before the millenium started and when bugzilla's roam the free world	Vassilis	1	Jim L	Hard for SPDF to deal with, with their plotting tools - review priority with Vassilis; Check again with John Bonnel regarding timing differences between fgm and efi spin fits	4-5 days								
4030	cross-check SST psir6 and psif data types for excess counts in psir6	4/8/2010	Jim McFadden	1	Jim L	Jim L talked to Davin and sounds like we can shut the data off. Jim L will send email on the time saved by shutting this off.									

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4030a	Review Onboard Scripts for possible error.	5/17/2010	Jim Lewis	1	Jim McFadden, Davin, Robert Abiad	can duplicate on flatsat. Jim Mcfadden and Davin to review Jim L's email.									
4030b	Correct Existing Data	5/17/2010	Jim McFadden	1	Jim L	4030a prerequisite									
4030c	If scripts change - make changes to processing scripts	5/17/2010	Jim Lewis	1	Jim L	4030a prerequisite									
4070	"Add support to thm_cotrans, ssl2gse, and ssl2dsl for /pseudo_dsl keyword. If keyword is present, look for and apply eclipse delta_phi corrections as appropriate."	6/1/2010	Jim L	1	Jim L	thm_load_fit and thm_load_mom, add keyword. In progress - Will review code Davin checked-in concerning tensor quantities in thm_load_mom.									
QA110	as you know we have a few folks here in our SPDF group who are using the THEMIS-B and C data for a lunar project. They have found and I've confirmed through CDAWeb, that the time stamps and associated data measurements for October, 9, 2010 THEMIS-B ESA, after time 15:58:40.695 are of a different resolution and the data values are either 0.0 or -NaN.	2/7/2011	Tami	1	Jim L	Web Site - instruments will have a web page with "Sources of Data Anamolies". The first one being the ESA issue									
4207a	Each of us should probably take a look at all the shell scripts we're responsible for, scrub them for issues like this, and in the case of jobs running on gaia (and any other hosts that were recently upgraded), check the recent processing logs to make sure any failures are not signs of these or other incompatibilities.	3/11/2011	Jim L	1	Jim L										
2248	once in a while (maybe 10-20 occurrences per probe during the entire mission), the FGM range doesn't change on all three axes at once:	9/10/2009	Jim L	2	Jim L		2 hrs								
4022	Update L1 master cdfs to support SPDF hosting	3/25/2010	David	3+	Jim L	I think 4022 is a an end-of-mission task: basically clean up all the L1 CDFs, so they are fully ISTP compliant and as compatible as possible with SPDF's tools. But "ISTP compliant" is a moving target -- they keep adding new checks to the SKTEditor software -- so I think we made a task to do one final cleanup and reprocessing at the end of the mission, as opposed to reprocessing every time they introduce a new SKTEditor check that renders our L1 files non-ISTP-compliant. So 4022 = final end-of-mission adjustments to master CDFs, 4023=final reprocessing. Both should remain open, with no immediate action required as far as I know.									

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3093	Automate processing of eclipse sunpulse data from FGM team	2/22/2010	Jim L	3+	Jim L										
4040	Spinfits - separate E&B timestamps?	4/15/2010	Jim L	3	Jim L	SPDF has issue creating plots on the L1 data with their software									
4046	either thm_load_fit or the GUI code that calls thm_load_fit should split the data into separate tplot variables for E and B, before importing them into the GUI data model. I think thm_load_fit already does something like this. See task 4040	4/23/2010	Pat	3	Jim L	Jim M 4/23: thm_load_fit also splits into efit and bfit variables, so unless you need to look at raw bytes, the 'fit' datatype is not needed. Pat: Agreed. Short term, excluding the data type from the GUI seems like an easy solution.									
2082a	Spin modeling during shadows BugZid=43		Vassilis	3	Hannes	Jim L to write routine. Hannes send info.									
2038	STATE Web Page (s)		Vassilis	3	Jim L	review web pages									
2039	bad timing sun pulse times (early January 2009)		Vassilis	3	Jim L	Clarification needed									
2040	L1 Data Processing History Info: SCM, EFI, STATE		Vassilis	3	Jim L	Lydia???									
2043	Refactor repeated CDF library code in CDF processing tools BugZid=50		Vassilis	3	Jim L										
2077	Non Monotonic timestamps. BugzID=72		Vassilis	3	Jim L										
2047	task 2047 in my name: "Seperate E and B timestamps for spin fits", which is also a change to the L1 FIT master CDF and associated TDAS code. But unlike the spacecraft potential enhancement (which only adds new CDF variables, and is more or-less backward compatible), 2047 would require us to bump the L1 FIT CDF version number to V02, and produce both V01 and V02 for a while, so users of TDAS 5.20 and earlier will still be able to load L1 FIT data. So I'm not sure whether the spacecraft potential task should include 2047, or not.	3/2/2010	Jim L	4+	Jim L										
4075	describe the FBK data type, time tag specified to correspond to the beginning of the time interval of the data that went into the FBK data, the middle, or the end, or is that unspecified, and what's happening here is that the time tagging is being changed in year 3+ of the mission - in the L1 file definition document, at least, does not define the time-tagging conventions to this level of detail.	6/11/2010	John Bonnell	4	Jim L										
4023	Before EOM reprocess L1 cdf's due to master cdf changes for SPDF	3/25/2010	David	4	Jim L										
2080	Phantom packets" cause non-monotonic distribution times. BugzID=25, low priority.		Vassilis	4	Jim L										
2081	Evaluate CDF compression algorithms BugZid=81		Vassilis	4	Jim L										
2083	Add "last processed" time to L1 (and L2?) CDFs BugZid=115		Vassilis	4	Jim L										

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2084	. transforming one data point from SM coordinates to GSM coordinates. ct=time_double('2008-02-16/04:50:00') dipole=[[0],[0],[1]] v=[1,2,3] store_data,'dipole_sm',data={x:ct,y:dipole,v:v} cotrans,'dipole_sm','dipole_gsm',/SM2GSM cotrans,'dipole_gsm','dipole_gse',/GSM2GSE get_data,'dipole_gse',data=dipole_gse xdipgse=dipole_gse.y[0] ydipgse=dipole_gse.y[1] zdipgse=dipole_gse.y[2] tilt=atan(xdipgse,zdipgse) When I check the data for 'dipole_gsm', the values are 0,0,0. I'm not sure what they SHOULD be, but I know that their magnitude should equal 1. $\sqrt{x^2+y^2+z^2}=1$		Christine	4	Jim L	Lydia???									
4097	cdf's with MD5 checksum	7/19/2010	Jim L	4	Jim L	Jim L to send email with subtasks and estimates									
4201	Kyoto final data - may have different URL naming scheme	2/2/2011	Jim L	4	Jim L	they are only up to 2003 in final									
Jim M															
4241	Dieter and I have tested the variables, there are two that don't seem to have data for the mission, and their catdesc's seem to indicate that they won't... so can we "turn these off", or is there a plan to use them in the future? EFS_Q_MAG (Data Quality Parameter: set to NaN for EFS, as there is no good measure of data quality.) EFs_Q_PHA (Data Quality Parameter: Set to NaN, as there is no good way to measure data quality for EFS data.)	6/6/2011	Tami Kovalick	0	Jim M	They are empty at the moment, by design -- we may have a use for them in the future. Nothing needs to be done with SPDF. Look into EFS_Q_PHA and check with John Bonnell about the future.									
4256	thm_parts_moments2 and thm_part_getspec - negative angles issue	6/13/2011	Stefan	0	Jim M	Fixed - ask Stefan to check if it fixes his issue. Problem with anular limits when the energy keyword is set. Ping stefan..									
2283a	Solar Wind moments corrected (Stephan Erickson) 5/27/11: found a bug in the handling of the suffix keywords. It'll take the afternoon to fix the bug and change the crib sheet...	4/18/2011	Vassilis	1	Jim M	Jim McFadden is ok with 2283a where we use ground-based ESA moments to get the dead-time correction for on-board moments.; then to Alaska PI and James Weygand; sent to stephen									
2283b	There is another aspect to this problem. Dead-time corrections are severe for ion ESA SW data and there are no dead-time corrections for onboard moments. Some algorithm will have to be developed that does this correction after the fact. Davin developed an algorithm like this for Wind 3DP. That algorithm may not work directly due to differences in energy sweeps, but something like it could be developed for THEMIS. Davin and I can provide some advice and direction. Similarly electron onboard moments in the SW may also need some corrections -- this should also be worked out at the same time.	11/2/2009	Jim Mcfadden	1	Jim M	Jim McFadden showed me what he had in mind for improving the corrections for ground-processed moments. This involves calculating the dead-time correction based on a higher resolution energy grid, with 4 different points per output energy channel. I told him I'd take a shot at it..									
4233	Angular Correction for particle data - use Jim McFadden's code if available	1/9/2011	Vassilis	2	Jim M										
4218	thm_part_moments angular restriction	4/4/2011	Vassilis	3	Jim M										

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2027e	Finishing the coordinate transformation of the thm_load_state data at input, to include transformation of spinaxis attitude, need to determine keyword switch, implement the rotation of the spinaxis elevation/azimuth from gei to arbitrary coordinates (consult with Pat, Vassilis)		Vassilis	2	Jim M	not allow velocity to go bad									
2224	thm_load_mom: for quantities like velocity, the coordinate system isn't stored in the meta data, and none of the units are stored in the place we normally try to store them (from Pat - Vassilis concurs) Will take a look.		Vassilis	2	Jim M										
2035	Split L1 ESA (using Thomas's routine) in master ESA data cdf		Vassilis	2	Jim M	On Hold - awaiting Jim McFadden release: Then send David Sub Task List; Calibration variables removed from L1 data master CDF. (Side note: found and reported a bug in SKTEditor, which the Goddard team has agreed to fix...) Waiting for feedback from Jim McFadden about how calibration data should be handled (TH-A ASCII calibration file (used for all probes) doesn't match anything I removed from the data CDF).									
4208a	Enhanced MOM Instrument Web Pages	3/5/2010	David	2	Jim M	Talked to David first.									
4003	Document: ESA File and Calibration Processing	3/5/2010	David	3	Jim M										
2091	Once Jim McFadden completes his mods for n_3d_new_3 reprocess L2 cdf's - entire mission		Vassilis	3	Jim M										
2055	ESA L2 from L1 (not packets) - create L2 and test thoroughly, then reprocess ESA		Vassilis	3	Jim M	On Hold; awaiting Jim L to split L1 into master cdf									
4042	Script to run every two weeks to runs IDL TDAS and checks if a file can be loaded from THEMIS SPDF file (s)	4/19/2010	Pat	3	Jim M										
2090	that streamlines the generation of gmag stackplots and a crib to show how to do this. (< than a day)		Vassilis	3	Jim M		2 hrs								
2093	AE Indexes Issue Jan 8-12, keyograms Jan 12-13, Stripes-Vassilis: minor nuisance		Vassilis	4	Jim M										
2094	Overview plot change: mode bar seems thick		Vassilis	4	Jim M	nothing we can do easily									
2095	Mosaic Processing - permanent script needed		Vassilis	4	Jim M										
2100d	DC offset between 4sdo and 2sdo in boom plane		John Bonnell	4	Jim M	Which is better? Assigned to J. B. (low priority).									
2100h	Try to track down frequency scaling problem in DPWRSPC (dlimit setting? Compare to old plots?).		John Bonnell	4	Jim M	On Hold - low priority									
2100p	Modify THM_CAL_FIT to treat efs datatype - Install E12/E34 conditional based on th?_fit_code TPLOT variable. If E12 switched to E34 software needs to be revised to handle		John Bonnell	4	Jim M										

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Lydia															
4210	Modeling SST fluxes	3/12/2011	Vassilis	1	Lydia	on hold		?	?						
4259	Bugs found	6/15/2011	Lydia		Lydia	all seem to occur in both ver 6.00 and the bleeding edge									
4259a	Loading the standard test data/plots and then setting the column number for panel 3 to 9 or higher results causes a crash. Traceback Report from THM_UI_LAYOUT_OPTIONS_EVENT:	6/15/2011	Lydia	1	Lydia	in progress - discuss at software meeting									
4259b	With the standard test data loaded, open X axis panel, uncheck "is time", check "Autorange", check "bound autoscaling range", set minimum to anything less than -1. Click apply. This results in a message in the main GUI window status bar saying "Draw Object Error: Updating Panels, Please check history". No noticeable error message in the X Axis panel. After this no other changes made in the X Axis panel take effect (though no messages are issued) until the panel is closed and reopened.	6/15/2011	Lydia	1	Lydia										
4263	Minor bug in Plot/Layout options: If there is no data the add line button is desensitized, but if you add a panel it is sensitized and clicking it causes an error. The add line button should remain desensitized if you add a panel while no data is loaded.	6/24/2011	Lydia	1	Lydia										
4265	Minor bugs in the x axis options panel (a and b)	6/27/2011	Lydia	1	Lydia										
4265a	Problem with log scaling and "Is time". Plot some data in two panels. In Panel 1 unclick "is time" and set the scaling to log. Change to Panel 2 (where "is time" is still set) and click apply. The tick spacing on Panel 2 changes even though you have not made any changes to Panel 2 settings. If you do try to change the tick settings on Panel 2 it acts as if it is a log axis (lets you choose "log minor tick type" etc).	6/27/2011	Lydia	1	Lydia										
4265b	Align ticks at: If you change the value of "Align ticks at" it does not save the new value. When you click apply it resets the value in the text box to the previous value.	6/27/2011	Lydia	1	Lydia										
4265c	Y axis options panel: 3. The default value for the floating center span is calculated in such a way that it can be negative. This means that in some cases the default value is not an allowed value.	6/27/2011	Lydia	1	Lydia										
4272	Line Options: If you delete data that appears in a plot and then attempt to open the line options panel it will crash.	7/6/2011	Lydia	1	Lydia										
4273	Axis options: Invalid entries (e.g. non-numeric) in the fixed max and min fields for a time axis cause a crash.	7/6/2011	Lydia	1	Lydia										
4280	I have encountered a minor bug/issue in the x axis options panel. Take a standard plot with a time x axis: unclick "is time", set the scaling to log 10, click Apply. It will create one major tick if aesthetic ticks is selected regardless of the number of major ticks you enter. This might be reasonable behaviour, except that if you click apply again without changing any more settings it will set the number of major ticks to 0. I think this is a draw object issue.	7/7/2011	Lydia	1	Lydia										

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4284	Layout options: If you have the standard test data loaded, opening Plot/Layout options and clicking Add to add a new panel causes a crash.	7/13/2011	Lydia	1	Lydia	is a result of some change that was made, in March I think, but after v6.0. I think it probably only occurs with locked panels and variables so isn't quite as general as it sounds.									
4285	Load Data: This issue may have come up previously. In Windows only (I think), if you add some data then immediately click the trash can to delete the datatype you just added it will delete all data as the top of the data tree becomes selected in addition to the datatype just added. If possible, we should stop it from selecting the top of the tree. Perhaps we should have a warning message saying all data will be deleted if the user clicks the trash can with the top node selected (just as there is a warning message if the user clicks Delete All Data). Also, currently clicking the Delete All Data gives a warning about deleting all data even if there is no data to be deleted.	7/13/2011	Lydia	1	Lydia										
2175	L2 File Definitions Document	3/1/2011	David	2	Lydia	25% time - in progress									
2088	Themis Developers Guide		David	3	Lydia	25% time after 2175 completed									
2062	Alberta - At the moment the data files are from Dawson (daws), Churchill (fchu), Island Lake (isll) and Fort McMurray (mcmu). I will add Rabbit Lake and Taloyoak at some time but we have some issues with mag pointing at those 2 sites. If you recall, the agreement between Ian and Vassilis was that this data wouldn't be copied to become part of a mirrored archive like the existing data we provide. Instead, each file would be obtained from this site each time it is requested (using curl or some such). This means we can use our own logs to monitor data usage. Themis Software to be able to retrieve from Alberta		Vassilis	3	Lydia	Email sent to Ian at Alberta on 5/31. Awaiting feedback.									
4120	Add title support to plotxy	8/27/2010	Christine	3	Lydia	email Christine and ask her to take a look									
4121	Add multi-row/column span to plotxy	8/27/2010	Christine	3	Lydia	email Christine and ask her to take a look									
2267	if you want to load a template, you need to pass the template path in via a keyword, or select an option to open it from the THEMIS->File Menu. I think we should consider adding the template path to the configuration file that we save, so that it can be loaded automatically.	10/19/2009	Pat	3	Lydia	see Pat									
4013	Plot Description Doc Button	3/22/2010	David	3	Lydia	see Pat									
2036	GOES 10-12 Test data: h. update labels (Howard's request - minor tweak)		Vassilis	3	Lydia	see Jim L									
3086	add MACCS gmag data from 2007 to our data archive. We already have MACCS data for some years and a process that automatically downloads it/converts to CDF. So the task would involve finding missing files from 2007 and feeding them into our pre-existing processing framework. It should be pretty straightforward, but probably non-trivial because of learning curve/unexpected details.	2/19/2010	James Weygand	3	Lydia	see Pat - on hold as MACCS data base in transition									

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2028	Variable units – generic solution - thm_load_spin, _state, _hsk, _sst, _esa, _bau, _fgm, _fbk, _fft, _fit, _scm, _efi, _trg, _asi, _gmag, _ask, _mom, _esa_pkt		Vassilis	3	Lydia										
4005	The TDAS Software will be enhanced to incorporate data from the STEREO mission. (CL and GUI) ? For Vassilis	3/8/2010	David	3	Lydia	see Pat or Jim L									
4006	add the following ancillary ground-based observations: MAGDAS Network, Auroral Electrojets (AE) and Ground Radars (SuperDam, AMISR and Sondrestorm)	3/8/2010	David	4	Lydia	see Pat									
3007	EPO-GMAG msgs: modify the script and only issue this message if > 2 days	12/8/2009	David	4	Lydia	see Pat									

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Pat															
2069	Support Mirror Sites		Vassilis	0	Pat	(Rumi - not always up to date for gmaps)									
2069a	Japan (ISAS)		Vassilis	0	Pat										
2069b	Austria		Vassilis	0	Pat										
2069c	France		Vassilis	0	Pat										
2070	Support gmag data remote sites.		Vassilis	0	Pat										
2070a	Augsburg (MACC's)		Vassilis	0	Pat										
2070b	Alberta		Vassilis	0	Pat										
4138f	Run simulation for range of initial positions around the full sphere.	9/17/2010	Davin	1	Pat	Software to be purchased or build the geometry by hand.									
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	1	Pat	Pat has enough info to generate tables to send to the S/C, Davin to ask Peter Harvey for more info. Davin will talk to Peter next week.									
4267	SST Tasks	6/27/2011	Pat	1	Pat										
4267a	Provide plots(to Vassilis & Drew) of distribution across energy with & without efficiencies applied for FT, F, & O channels so that we can decide on a plan to create a merged F & FT data product for L1-calibrated/L2	6/27/2011	Pat	1	Pat										
4267b	Write code to generate L1-calibrated merged FT/F data product.	6/27/2011	Pat	1	Pat										
4267c	Write code to remove proton and electron contamination from the electron and proton distributions using data and efficiencies from the F & O channels.	6/27/2011	Pat	1	Pat	in progress									
4072	Put eclipse spin model correction code in SST as already has been done for esa packet pgm	6/8/2010	Jim M	1	pat	wait for SST calibrations									
4068	Lynn Wilson possible enhancements	6/1/2010	Lynn Wilson	1	Pat	Review Lynn's software and generate list of features									
4156	Calibration of different anodes - energy efficiency	10/18/2010	Vassilis	1	Pat	info from Vassilis to move forward									
447	Save THEMIS document: Attempting to save to a read only file in Windows outputs the correct error message, but IDL crashes immediately afterwards.	2/24/2011	Team	2	David - Pat	IDL Error report to ITT - Bjorn at ITT 6/22: what I see it has been fixed in IDL 8.1 which is available for download from our website. Let us know how things work out after you install IDL 8.1 and test this out.									
2060	L2 cdf Quality Flags: for SST		Vassilis	2	Pat										
4002	Document: SST File and Calibration Processing	3/5/2010	David	2	Pat										
4208b	Enhanced SST Instrument Web Pages	3/5/2010	David	2	Pat	Talked to David first.									
3091	Add a configuration setting "force_download", which if enabled, will download data even if the remote file is older than the local file. This comes up if you're switching back and forth between using QA data and production data; once you've downloaded QA data, it's hard to download (usually older) production data without manually removing any QA files. This should apply to all data sources -- THEMIS, GOES, WIND, etc.	2/22/2010	Vassilis	3	Pat										

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3065	68. GUI z-axis options -- when Fixed Min/Max selected, value in spinners does not reflect current range as it does for X and Y axes. Displayed range when spinners desensitized is inaccurate.	2/10/2010	Aaron	4	Pat	check draw object									
2279	How's it going with the stats? I noticed the query takes some time because it's looking at the whole table. It could be refined for specific time periods. The delay in return could be what's causing Dave to have access problems - or the SSL firewall?	10/23/2009	Tim	4	Pat	see 2277									
2135	I didn't realize the cotrans messed up the velocities for earth centered coordinates. Maybe what we really need to do is modify cotrans so that it correctly transforms velocities. Users can incorrectly transform velocities just as easily using thm_cotrans on the command line, as they can using the coord keyword.		Pat/Jim L	4	Pat										
2124	I loaded a plot which had the line color as white. Because the legend plots in the same color as the line, the legend text did not show up. We should probably just put in a check for this case. If the line is white and the background is white then draw the text in black		Pat	4	Pat										
2063	Problem with edit3dbins is being caused by IDL's mouse system variable not being updated correctly on Macs. The ctime procedure, used to interactively select a time from a tplot window, relies on this variable to determine when a selection has been made in the tplot window. If the variable is never updated then ctime gets caught in an infinite loop. It's unclear whether this is specific to a particular OS version, but the routine should probably be modified at some point to maximize compatibility with Macs. In the meantime the alternate method of calling gettime that I copied you on yesterday should provide a temporary way around this bug.		Aaron	4	Pat	verify note in quick reference guide and then task will be closed									
2106	Add the ability to right-click on a variable in the widget-tree and display a popup with basic information about the quantity such as dimensions, range, or other meta data as well as the ability to rename variable		Pat	4	Pat	originally part of task 64, however, after further evaluation, it was determined this best belonged with the widget tree rather than the analysis window									
2220	I found a small bug in the z-axis panel in the gui. If I change the z-axis annotation size of a layout with 2-panels each with one spectrogram, when I apply this change, it gets applied to both panels, even if set-all is off.	8/27/2009	Pat	4	Pat										
3063	40. CL tplot options -- setposition test plots all look the same	1/15/2010	Pat	4	Pat	Long-standing tplot bug, may not ever be fixed									
4029	One of Michael Hartinger (a grad student in atmos) is having trouble with thm_part_getspec when the SST is in fast survey mode. The routine can take a very long time to run because of the higher resolution. I think we should put a feature request on the list to automatically downsample the particle data in time. Normally, I would suggest that uses downsample using one of our interpolation routines, but because the particle data is stored in a special common block, there is no easy way for end users to perform this operation.	4/6/2010	Michael Hartinger / Pat	4	Pat	Michael supplied code for thm_part_moments	4-8 hrs								