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
	To be Assigned or Discussed													
4268	Kickoff Meeting -VM Hardware - migration and QA testing (week of 8/22-8/26)	7/5/11	David	1	Team	Greg and Jon to attend								
4313	While on the telecon with Alberta, I was looking at the IDL documentation for their built in http download object. It actually makes it look like the http authentication, with username and password would not be too difficult. Since this keeps coming up, we might want to consider dedicating a few hours of programming time to see how hard it actually is to do authenticated downloads. If it turns out not to be too hard, it would probably give us the capability to extend our system to a lot more types of data.	8/11/11	Pat	?	?									
4314a	The SST data cannot be displayed in Geometric mode if rotation is selected as 'xyz'.	8/11/11	Xuzhi	?	Aaron	From Aaron 8/10/11: 99% sure that number 1 isn't a bug (the SST data doesn't cross the xy-plane in DSL). **Check-in with Xuzhi**								
4314b	In the 2D interp mode, the SST data can be displayed only in some of the cases (rotation keyword-dependent, and seemingly time-dependent...)	8/11/11	Xuzhi	?	Aaron	From Aaron 8/10/11: likely a combination of too few data points in the SST data and the specific way in which points are selected for the 2D interpolation method (it's the same as the old slices code). **Check-in with Xuzhi**								
4315	Possible swithch overe the three web DP Processing functions that are not working to Bryce's comparable reports.	8/12/11	Jim L	1	?	Demo for Vassilis on 8/17								
4316	I found a bug in thm_part_moments2. If you don't set the trange keyword and you try to load data that isn't available the routine will crash instead of failing gracefully. The error occurs on line 172 of thm_part_moments2 Here is an example, ERROR - tha peir data not loaded % Variable is undefined: TRANGE. % Execution halted at: THM_PART_MOMENTS2 172 /home/pcruce/IDLWorkspace/themis/spacecraft/particles/moments/thm_part_moments2.pro % THM_PART_GETSPEC 420 /home/pcruce/IDLWorkspace/themis/spacecraft/particles/thm_part_getspec.pro % THM_PART_MOMENTS2 58 /home/pcruce/IDLWorkspace/themis/spacecraft/particles/moments/thm_part_moments2.pro % THM_PART_GETSPEC 420 /home/pcruce/IDLWorkspace/themis/spacecraft/particles/thm_part_getspec.pro	8/12/11	Pat	1	?									
4317	An additional bug, this may be related to the feature request that I reported earlier. (That thm_part_getspec often loads data even when you've already loaded it.) In this case, it appears that the routine isn't loading data that should be loaded. I think that it may have gotten confused because I had previously loaded data for that day, but only for a short interval. In specific, I had loaded level 2 esa data on 2007-07-16/15:00-17:00, and generated pitch angle spectra for that time using thm_part_getspec autoloading the l0 data. Then when I tried to do the full day,I got the error. But if it was working correctly, it should have realized that I didn't have the whole day and reloaded the data.	8/12/11	Pat	1	?									
4318														
4319														
4320														
	General													
4043	Paper on interdependentcies of FGM and STATE Reprocessing	4/19/10	Pat	1	Jim L	David - Put Paper into themis doc format								

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447	Save THEMIS document: Attempting to save to a read only file in Windows outputs the correct error message, but IDL crashes immediately afterwards.	2/24/11	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.								
4307	Data Processing Status Reports not up to date	8/1/11	Jim L	1	Bryce									
4307a	Science Data (VC3) Dump Verification	8/1/11	Jim L	1	Bryce									
4307b	Engineering Data (VC1) Dump Verification	8/1/11	Jim L	1	Bryce									
4307c	Virtual Channel (VC) File Stats	8/1/11	Jim L	1	Bryce									
4013	Plot Description Doc Button	3/22/10	David	3	Emmaunel	see Pat								
4306	Overview web page navigation	8/1/11	Vassilis	1	Emmaunel	see Pat								
	Harald													
	L1's and mosaics are up-to-date and available through June 2011				Harald									
	Thumbnail Data:				Harald	Updates ready 7-10th of the next month								
	- cdf files done until June 2011													
	- overview plots done until June 2011													
	- movies done until June 2010													
	Full-resolution raw data:				Harald									
	- complete for 2007, 2008, 2009													
	- Up to date and complete until September 2010													
	Full resolution data:				Harald									
	- data cdf done for all 2007 and 2008 and up todate and complete through September 2010													
	- keogram cdf done for 2007-2008, 2008-2009 and up to date and complete through September 2010													
	Web site mosaics and movies:													
	- Mosaics and movies reprocessed for 2007, 2008, 2009 and 2010 seasons													
	- Mosaics and movies up to date until June 2010													
	Web site overview plots with full resolution data:													
	- overview plots done for 2007-2009 and until September 2010													
	Hannes													
4153	maintenance of gmag stations "Exclude List"	10/11/10	David	0	Hannes	Exclude List updated 7/11/11								
4018a	New Calibration FGM parameters and spin axis offsets	5/10/10	Hannes	1	Hannes	working on the Tha Thd and The zero levels. I submitted the first set to Braunschweig. I will submit the final set that makes the offsets up to date for Tha Thd and The by tomorrow. ; 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	6/21/10	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.	4/14/10	Vassilis	1	Hannes	Waiting for feedback from Ferdinand about state of inner probe eclipse models, long & short eclipse models								
4154	GSE-GSM	10/11/10	Vassilis	1	Hannes									

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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.	5/10/10	Hannes	3	Hannes	Hannes sent out new version for review.								
2074c	quality flag for FGM data		Vassilis	3	Hannes	on hold								
2082a	Spin modeling during shadows BugZid=43		Vassilis	3	Hannes	Jim L to write routine. Hannes send info.								
	Aaron													
4305	General Slices feedback from UCLA (Stefan, Andrei, Shanshan and Xuzhi) and UCB (Jim McFadden)	8/1/11	Vassilis	1	Aaron	**check in on Thursday 8/12**								
4308	This issue is on the border between bug and feature. At the moment, thm_part_getspec reloads SST or ESA data, even if the correct data is already loaded into memory. This makes the routine run longer than it needs to and can cause errors if the data that is currently in memory gets overwritten unexpectedly by the routine. I think we should change it so that it checks if it needs to load the data before it loads the data.	8/5/11	Pat	1	Aaron	**overwrites time span if you use trange - in progress - eta 8/12**								
4314c	A minor one is that the keywords of plot contour lines (as well as the number of these contour lines) are not working for 2D interp mode.	8/11/11	Xuzhi	1	Aaron	**eta 8/12**	**1 hr**							
QA038	Windows - Layout option	1/21/11	Christine	2		**start 8/15**								
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.	1/21/11	Christine	2	Aaron	checkbox - toggle								
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.	1/21/11	Christine	2	Aaron	come up with how to fix options with level of effort								
QA038d	REALLY don't like how when you select the dependent variable, the window slides over to center it. I want it to stay wehre 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.	1/21/11	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.	1/21/11	Christine	2	Aaron	alter test suite and resolve for simple case - talk to Christine								

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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.	1/21/11	Christine	2	Aaron	analysis - for discussion with level of efforts								
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.	3/22/10	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.	12/11/09	Pat	2	Aaron									
3031	GUI Overview plots sometimes have diamond shaped artifacts in the sample rate bar. Should fix.	1/5/10	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							
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.	8/11/11	Xuzhi	4	Aaron	**On Hold**								
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	Aaron									
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									

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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									
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			
	Ben													
4309	Python migration - series of tools and scripts	8/5/11	Jim L	1	Ben	in progress								
4214	THEMIS Pipeline proof of concept regression tests				Ben									
4214a	VC->L0	3/23/11	Jim L	1	Ben	50% time								
4214b	L0->L1	3/23/11	Jim L	1	Ben	in progress								
4214d	empermeris->state v00	3/23/11	Jim L	1	Ben									
4001	Document: Administrators Guide	3/1/11	David	1	Ben	checked in a version - will revise as needed								
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*,Mlat. 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.	1/19/11	Yuri Shprits	2	Ben	part of the state cdf								
4214	THEMIS Pipeline proof of concept regression tests				Ben									
4214c	L1>L2	3/23/11	Jim L	2	Ben									
4214e	GMAG	3/23/11	Jim L	2	Ben									
4214f	AE Index	3/23/11	Jim L	2	Ben									
4214g	ASI	3/23/11	Jim L	2	Ben									

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4214h	mosaics	3/23/11	Jim L	2	Ben									
4214i	summary plots	3/23/11	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 susecptible. 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	needs a prerequisite written - see 2149g								
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.	9/10/10	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.	9/10/10	Jim L	3	Ben									
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.	9/10/10	Jim L	3	Ben									
2078	bau_sunpulse_met assumes x86 endiannes (BugzID=13)		Vassilis	3	Ben									
4027b	Reprocessing GOES Data	4/5/10	Tami - SPDF	1	Ben	Reprocessing on hold until Howard Singer delivers another batch of binary GOES data files.								
	Cindy													
	Jim L													
4310	state files: including P1, P2 SSE and SEL coordinates	8/8/11	Vassilis	0	Jim L									
4310g	take Jasper's code and incorporate into thm_cotrans	8/8/11	Vassilis	0	Jim L									
4310a	Edit master CDFs to include the new variables	8/8/11	Vassilis	0	Jim L									
4310b	Change the V00 and V02 ascii ephemeris to state CDF processing to include the new SSE and SEL ephemeris variables	8/8/11	Vassilis	0	Jim L									
4310c	Change thm_load_state to allow loading the new variables	8/8/11	Vassilis	0	Jim L									

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4310d	Test that revised CDFs have correct data	8/8/11	Vassilis	0	Jim L									
4310e	Deploy code changes and new master CDFs for use in the automated processing	8/8/11	Vassilis	0	Jim L									
4310f	Reprocess state CDFs for entire mission	8/8/11	Vassilis	0	Jim L									
4034a2	thm_parts_moments update	11/22/10	Vassilis	1	Jim L	initial simple way, final fix is to fix esa and sst 3D data structures								
4034a3	awaiting feedback and performing analysis	11/22/10	Vassilis	1	Jim L	Tips of the Month at some point?								
4268e	astrea - come up with a test , verification and migration plan	7/18/11	David	1	Jim L	Lydia will do gmag								
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.	5/23/11	Ferdinand	1	Jim L									
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	7/7/11	Pat	1	PC-Aaron, Linux-Pat, Mac-Jim L	check if there is an issue writing cdf's.								
4142	issue with FGS processing - timestamps	9/30/10	Vassilis	1	Jim L	not trivial	3-5 days	Y						
2266	Timing of Spin Fit data	10/16/09	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	4/8/10	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.								
4030a	Review Onboard Scripts for possible error.	5/17/10	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	5/17/10	Jim McFadden	1	Jim L	4030a prerequisite								
4030c	If scripts change - make changes to processing scripts	5/17/10	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."	6/1/10	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.								

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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.	2/7/11	Tami	1	Jim L	Web Site - instruments will have a web page with "Sources of Data Anamolies". The first one being the ESA issue								
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	7/15/11	SPDF - Jim L	2+	Jim L	**phase 1 - list for next Tips of the month, phase 2 - cdf or web page: To be done before the Map in early 2013**								
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.	6/30/11	Pat	2+	Jim L	to take a look at a possible standard and then review with all								
4301	"bad" themis l2 files - instrument files; L0->L1 processing produces incomplete/empty CDFs	8/1/11	Tami	2	Jim L	**one fixed - one priority 2**								
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:	9/10/09	Jim L	2	Jim L		2 hrs							
4022	Update L1 master cdfs to support SPDF hosting	3/25/10	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.								
3093	Automate processing of eclipse sunpulse data from FGM team	2/22/10	Jim L	3+	Jim L									
4040	Spinfits - separate E&B timestamps?	4/15/10	Jim L	3	Jim L	SPDF has issue creating plots on the L1 data with their software								

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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_fft already does something like this. **See task 4040**	4/23/10	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.	3/2/10	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.	6/11/10	John Bonnell	4	Jim L									
4023	Before EOM reprocess L1 cdf's due to master cdf changes for SPDF	3/25/10	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									
4097	cdf's with MD5 checksum	7/19/10	Jim L	4	Jim L	Jim L to send email with subtasks and estimates								
4201	Kyoto final data - may have different URL naming scheme	2/2/11	Jim L	4	Jim L	they are only up to 2003 in final								
	Jim M													
4295	Update Nightly build script, other directory changes	7/25/11	Jim M	1	Jim M	**in progress - davin's file yet to be completed 8/24**								

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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.	11/2/09	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. In progress**								
4311	MOM dead=time correction the default for L1 MOM inputs, with a keyword to turn it off.	8/8/11	Vassilis	1	Jim M									
4312	Quality flags for efi are wrong including electric field offsets in computation. On hold until Michael Hartinger sorts out.	8/8/11	Vassilis	1	Jim M	**On Hold**								
4233	Angular Correction for particle data - use Jim McFadden's code if available	1/9/11	Vassilis	2	Jim M									
4218	thm_part_moments angular restriction	4/4/11	Vassilis	3	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.)**	6/6/11	Tami Kovalick	2	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.**								
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	3/5/10	David	2	Jim M	Talked to David first.								
4003	Document: ESA File and Calibation Processing	3/5/10	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								

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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									
	Lydia													
4302	"bad" themis thg l2 files - mag files	8/1/11	Tami	0	Lydia	**all files recovered; fix checking return code idl_make_cdf (priority zero) and then sort out use and multiple versions of idl_make_cdf (priority 3)**								
4268e	astrea gmag - come up with a test , verification and migration plan	7/18/11	David	1	Lydia									
4274	Bob Clauer mentioned that he was interested in importing his Antarctic gmags into TDAS.	6/30/11	Bob Clauer	2	Lydia	Bob email us and said he would provide necessary data.								
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.	2/19/10	James Weygand	2	Lydia	**Downloading of two sites for 2007 in progress eta 8/19. Email requesting other 2007 sites to be put on ftp site.**								
2175	L2 File Definitions Document	3/1/11	David	2	Lydia	**25% time - in progress**								
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	**Discuss with Vassilis what timespan would a user typically download of Alberta data.**								
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.	10/19/09	Pat	3	Lydia	**done and review with Cindy on the Mac**								
4298	the slices code should probably have a keyword to use the new SST calibrations.	7/27/11	Pat	2	Lydia	On hold till the SST calibrations have found wider use.			Y		Y			
2088	Themis Developers Guide		David	3	Lydia	25% time after 2175 completed								
2036	GOES 10-12 Test data: h. update labels (Howard's request - minor tweak)		Vassilis	3	Lydia	see Jim L								
4006	add the following ancillary ground-based observations: MAGDAS Network, Auroral Electrojets (AE) and Ground Radars (SuperDarn, AMISR and Sondrestorm)	3/8/10	David	3	Lydia	see Vassilis								
4042	Script to run every two weeks to runs IDL TDAS and checks if a file can be loaded from THEMIS SPDF file (s)	4/19/10	Pat	3	Lydia	see Pat								
2090	that streamlines the generation of gmag stackplots and a crib to show how to do this. (< than a day)		Vassilis	3	Lydia	see Jim M								

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4210	Modeling SST fluxes	3/12/11	Vassilis	3	Lydia	on hold								
3007	EPO-GMAG msgs: modify the script and only issue this message if > 2 days	12/8/09	David	4	Lydia	see Pat								
	Pat													
4138f	Run simulation for range of initial positions around the full sphere.	9/17/10	Davin	1	Pat	**Software to be purchased and build the geometry by hand. (working with Rob Lewis) in progress**								
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.	10/8/10	**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. 7/26/11 David reminded Davin**								
4267c	Write code to remove proton and electron contamination from the electron and proton distributions using data and efficiencies from the F & O channels.	6/27/11	Pat	1	Pat	**in progress - code in written, need data from Drew to test code**								
4156	Calibration of different anodes - energy efficiency	10/18/10	Vassilis	1	Pat	**data received for themis A, extended crib sheet in progress; need data for other probes; A&E ; sent to Vassilis, Drew and Davin**								
4068	Lynn Wilson possible enhancements	6/1/10	Lynn Wilson	1	Pat	Review Lynn's software and generate list of features								
4287	Switching SST Load routines to thm_sst_load2 for SST calibrated data	7/15/11	Pat	1	Pat									
4303	I've got a feature request. edit3dbins, a useful utility for viewing time slices of particle data, only shows data on a normalized linear z-axis. We should add an option for a log z-axis. It is almost always useful to view particle data on a log axis, and I've found that this limitation to edit3dbins has slowed me down when working with SST data. For example, when I want to remove sun contaminated bins from SST data, I have to run edit3dbins multiple times because I can't see all the contaminated bins on a linear scale.	8/2/11	Pat	1	Pat									
447	Save THEMIS document: Attempting to save to a read only file in Windows outputs the correct error message, but IDL crashes immediately afterwards.	2/24/11	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 Calibation Processing	3/5/10	David	2	Pat									
4208b	Enhanced SST Instrument Web Pages	3/5/10	David	2	Pat	Talked to David first.								
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.	2/10/10	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?	10/23/09	Tim	4	Pat	see 2277								

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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.	8/27/09	Pat	4	Pat									
3063	40. CL tplot options -- setposition test plots all look the same	1/15/10	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.	4/6/10	Michael Hartinger / Pat	4	Pat	Michael supplied code for thm_part_moments	4-8 hrs							