Task #	Task Description	Date Opened	Reported By	Pri	Assigned To	Notes	Estimate (hrs)
	To be Assigned or Discussed						
4103	Possible changes to Solar Wind flags, tables.	8/30/2010	Jim McFadden	1	Jim L, Pat	actual mode bits - Jim L to send writeup	
4104	**8/30/2010 Pat forwarded email from Igor to Davin. Davin thinks it may have to do with attenuator status flag. Will check onboard versus ground moments.**	4/19/2010	Igor Kirpichev	?	?	Vassilis wants to talk to Davin. **8/30/2010 Pat forwarded email from Igor to Davin.**	
4109a	Note: L1 Reprocessing ESA, SST, MOM	8/9/2010	Jim L	0	Jim L	on hold until justice annual backup completed and solar wind issue resolved	
4109b	Note: L2 Reprcoessing all the above	8/9/2010	Jim M	0	Jim M	awaiting 4109a completion	
4122	Next Release of TDAS v5.3 or v6.0	9/2/2010	David	?	All		
4123	Remove IDL Save Sets (e.g. MOM)	9/2/2010	David	?	All		
4125							
4126							
4127							
	General						
2186	I noticed that the Data->Collaboration Tools->(subcategories...) fall behind the ARTEMIS graphic.	7/28/2009	Michael	3	Amanda	Run Compatiability View in Internet Explorer	
4043	Paper on interdependentcies of FGM and STATE Reprocessing	4/19/2010	Pat	1	Jim L	David - Put Paper into themis doc format - tips du jour?	
4000	Document: Developers Guide	3/5/2010	David	3	Team		
4001	Document: Administrators Guide	3/5/2010	David	3	Team		
	Incorporate electron calibration into data	10/25/2009	Vassilis		Davin		
	Enhanced SST and MOM Instrument Web Pages		David		Davin		
4078	help request Martin - SST	6/18/2010	Martin Birch	0	Davin		
	Harald						
	ASI software - running fine as of 25 May 2010, L1's and mosaics are up-to-date.				Harald		
	Thumbnail Data:				Harald	Updates ready 7-10th of the next month	
	- cdf files done until April 30, 2010						
	- overview plots done until April 30, 2010						
	- movies done until April 30, 2010						
	Full-resolution raw data:				Harald		
	- complete for 2007, 2008, 2009						
	- reasonably complete until mid February 2010						
	Full resolution data:				Harald		
	- data cdf done for all 2007 and 2008 and mid Nov-2009						
	- keogram cdf done for 2007 and 2008 and until mid Nov-2009						
	Web site mosaics and movies:						
	- Mosaics and movies reprocessed for 2007/2008 and 2008/2009 seasons						
	- Mosaics and movies up to date until April 30, 2010						
	Web site overview plots with full resolution data:						
	- overview plots done for 2007 and 2008 and until mid-November 2009						
	- overview plots with thumbnails done until April 30, 2010						
2069d	UCLA – mirror site set-up		Vassilis	1	Harald	UCB 4 bricks received fromUCLA 7/30. After brick transfer UCLA will need to supply SSH key - RSYNC Key.	
	Hannes						
4080	Attitude Determination next few months	6/21/2010	Hannes	1	Hannes	will send out new attitude correctionsfor tha, thd and the. 8/30/2010: **Thb and thc while in lunar orbit based upon sun angles. Work with UCB Ops folks (Dan Cosgrove).**	
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	?	Hannes	**8/30/2010 Jim L has put th-C into QA area. Hannesis running code received from Ferdinand code for th-C.**	
4018a	New Calibration FGM parameters and spin axis offsets	5/10/2010	Hannes	1	Hannes	in progress	
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	
2082a	Spin modeling during shadows BugZid=43		Vassilis	3	Hannes	Jim L to write routine. Hannes send info.	
	Aaron						
2013	2-D, 3-D slices enhancements		Vassilis	1	Aaron		
2013aa	Possible Contacts: APL, ITT IDL teacher - **bug causing software to hang**		Vassilis	1	Aaron	plots sent to vassilis and Xuzhi	
2013ae	Verify re-gridded ESA plots against older plots. Check SST eflux values against angular plots.		Vassilis	1	Aaron	plots sent to vassilis and Xuzhi	4-6 hrs
2013r	Check on position of SST sun contamination (appears to be in the wrong place)		Vassilis	1	Aaron	**maybe fixed**	6-8 hrs
2013x	User's Guide write-up and then review with Xuzhi		David	1	Aaron		
3046	Fix labels/change coords for on-board moment velocity plots. Data is DSL, label says GSM	1/25/2010	Vassilis / Miyashita	1	Aaron		

3042	33. QA: GUI panel options -- only updates panel titles on startup. Changes while window is open not applied until it's re-opened.	1/15/2010	Aaron	1	Aaron		
3001	I'm getting a crash in the calculate window after I delete the text in the program area and then click on a data quantity from the tree. The error message is below.	12/7/2009	Aaron	1	Aaron	found during EFI testing	
3079	110. GUI -- spinner widget, inconsistencies between actual and displayed value for very small numbers	2/12/2010	Pat	2	Aaron	Support exponential notation for very small values	
3079a	Spinner Part	2/12/2010	Pat	2	Aaron		
3079b	FormatAnnotation Part	2/12/2010	Pat	2	Aaron	The format routine is incorrectly deciding the # of significant digits in a number when using decimal format. I think this may have been done originally for simplicity but it should be fixed	4-5 hrs
3083	137. GUI spinner controls -- when inputing value >= 2^16/2 in grid thickness spinner, causes error message and value reset to -32768. Pat: Problem is not the spinner. Object definitions using short ints when long ints should have been used.	2/16/2010	Pat	2	Aaron	Probably short data type used where long required, affects many of the spinner controls	6-10 hrs
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	Aaron	not allow velocity to go bad	1 hr
2013af	Mark one count level (dashed line)		Vassilis	2	Aaron	**Vassilis wants to talk to Jim Mcfadden about this. Jim McFadden to review email.**	
2013s	combine SST and ESA slices into a single plot?		Vassilis	2	Aaron		2 days
2013t	Allow for loading of user-specified distributions in gui. 8/23/10 Per Vassilis: For 2013t instead of allowing user specified distributions in the gui I will be adding an option to compare slices with specified functions		Vassilis	2	Aaron		4-6 hrs
2013w	Integrate our own slicer3.pro gui with regular 2-D slice plots.		Vassilis	2	Aaron		2 days
3014	We don't have support for filled symbols. This means symbols are only outlines.	12/11/2009	Pat	3	Aaron		
3016	There is no way to control the variable font size from the variable panel. There was a barrier to adding features to the variable panel when this came up before, in terms of a design that was too complex to modify reliably. When I fixed some previous bugs in this panel I simplified the code considerably. I now think that adding this feature is feasible.	12/11/2009	Pat	3	Aaron		1 day
3031	GUI Overview plots sometimes have diamond shaped artifacts in the sample rate bar. Should fix.	1/5/2010	Vassilis	3	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
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		
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	4	Aaron		
2029	From Hannes		Hannes	4	Aaron		
2029a	Provided is the most common plot used by scientists that look at		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		
Cindy							
Jim L							
4102	L0-L1 Processing bug - solar wind flag. Send users tips du jour cocenring all aspects of the solar wind flags.	7/26/2010	Pat	0	Jim L	**fixed in trunk; add to next tmtoils release and reprocess L0->L1>L2 MOM, ESA, SST eta week of 9/7-9/11. Jim to send David a writeup of new full configuration mode for SST, ESA and MOM.**	

ID	Description	Date	Name	Pri	Assigned	Comments	Est
4117	I am a postdoc from UCLA working on the THEMIS data. The recently added FFF data is very helpful in our study with higher frequency resolution and longer time availability. I looked at FFF data and compared with FFP data during particle burst and attached a couple of examples as follows. In the attached figures, top three panels are electric field (1. FFP, 2. FFF, 3. closest FFP data at FFF recording times), and bottom three panels are magnetic field (4. FFP, 5. FFF, 6. closest FFP data at FFF recording times). As we can see from the figures, FFF data generally agrees well with FFP data, but sometimes is associated with a short time shift (e.g., ~10-05-12/12:51:54 UT). **When closed a warning needs to be sent to users.**	8/16/2010	Wen Li	0	Jim L	I've had a chance to take a closer look at the FFF (apid 44f) vs. FFP (apid 44d) timing discrepancy you pointed out. I have a tool that tries to match the FFF samples bin-by-bin with the FFP samples, to locate the data points that are common to the two data sets, report the matching indices, and show any time differences found for the matching samples. Please refer to the attached output file fff_ffp_comparison.txt. It seems that the IDPU is occasionally skipping over some of the FFP samples, and not copying them into the FFF data stream **.** **8/30/2010 Jim L to send out an email (high priority) to get a flatsat case setup.**	
4030	cross-check SST psir6 and psif data types for excess counts in psir6	4/8/2010	Jim McFadden	1	Jim L	**Talk to Davin as well.**	
4030a	Review Onboard Scripts for possible error.	5/17/2010	Jim Lewis	1	Jim McFadden, Davin, Robert Abiad	**can duplicate on flatsat. Jim Mcfadden to review Jim L's email.**	
4030b	Correct Existing Data	5/17/2010	Jim McFadden	1	Jim L	4030a prerequsite	
4030c	If scripts change - make changes to processing scripts	5/17/2010	Jim Lewis	1	Jim L	4030a prerequsite	
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	1	Jim L	**Jim to review eclipse flag. Jim to review th-C from Ferdinand. eta week of 8/16-8/20**	
4074	possible 2 sec error in L1 FBK timestamps	6/10/2010	Vassilis	1	Jim L	**all will be closed with the reprocessing**	
4074a	Figure out whether there's a problem with L1 FBK, and whether L1 FFT is also susceptible to a similar problem.	6/10/2010	Vassilis	1	Jim L		
4074b	If necessary, update the L0->L1 processing code, and verify that this fixes the problem	6/10/2010	Vassilis	1	Jim L		
4074c1	Respond to SPDF's email concenring L1 cdf's. Include words as to what is in the L1 cdf's that are not in the L2 cdf's that users may want to use.	3/25/2010	David	1	Jim L		
4074c2	Build new release of tmtools, reprocess L1 FBK and L1 FFT for the entire mission.	6/10/2010	Vassilis	1	Jim L	**all remaining 4074 tasks eta week of 8/16-8/20**	
4074d	Reprocess L2 FBK and L2 FFT	6/10/2010	Vassilis	1	Jim M	dependent on 4074c to be completed	
4074e	Build new release of tmtools, reprocess L1 SST for the entire mission.	6/10/2010	Vassilis	1	Jim L	in progress - awaiting task 4030 for SST tmtools mods	
4074f	Reprocess L2 SST	6/10/2010	Vassilis	1	Jim M	dependent on 4074f to be completed	
4027a	In reviewing the metadata in these GOES masters, it seems the value of the global attributes TEXT has gotten cut off	4/5/2010	Tami - SPDF	1	Jim L	Done, pending SPDF approval of latest revision of master CDFs.	
4027b	Reprocessing GOES Data	4/5/2010	Tami - SPDF	1	Jim L	Reprocessing on hold until Howard Singer delivers another batch of binary GOES data files.	
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.**	
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	1	Jim L	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.	
2266	Timing of Spin Fit data	10/16/2009	Jim McFadden	1	Jim L		
3048b	spinmodel_interp_t loops over each time segment individually. If we vectorize this operation, we could get serious speed increases. Would generate speedups EFI and for other calibration routines.	1/25/2010	Pat	1	Jim L		
2149h	integrate time tag fixer-upper with TDAS load routines		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	1	Jim L	see 2149g and h	
4008a	He requested some extra datetime formats. A. Numerical month & time (ie 2007-03-23/00:00:00). this option isn't listed.	3/12/2010	Pat from a scientist (Martin	1	Jim L		
4008b	He said there is an ANSI standard to separate date & time using a capital T and requested the option to put datetimes in this format. (ie '2007-03-23T00:00:00')	3/12/2010	Pat from a scientist (Martin Connors?)	1	Jim L		2 hrs
4016	Our "save data as" menu doesn't remember the previous directory > that the user saved to. It could and it should.	3/12/2010	Pat from a scientist (Martin Connors?)	1	Jim L		see above
4116	Unintended installation of state CDFs during selective L0->L1	8/16/2010	Jim L	1	Jim L		
4022	Update L1 master cdfs to support SPDF hosting	3/25/2010	David	3+	Jim L		
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_fft 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.	3-4 days

ID	Description	Date	Assigned	Pri	Owner	Notes	
2035	Split L1 ESA (using Thomas's routine) in master ESA data cdf		Vassilis	3	Jim L	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).	
2036	GOES 10-12 Test data: h. update labels (Howard's request - minor tweak)		Vassilis	3	Jim L	determine if to be reassigned	
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		
2043	Refactor repeated CDF library code in CDF processing tools BugZid=50		Vassilis	3	Jim L		
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	3	Jim L	In progress. Several templates created, selecting the appropriate command line routines to test.	
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) BugzID=45		Vassilis	3	Jim L	Discuss with SPDF whether having one variable with multiple data sources is difficult for them	
2047a	FGS sample times and values, showing repeated timestamps. BugzID=113 (BugzID=67 must be done first)		Vassilis	3	Jim L		
2047b	Repeated timestamps and gaps in spin fit data BugzId=113 (#67 may fix this one as well).		Vassilis	3	Jim L		
2077	Non Monotonic timestamps. BugzID=72		Vassilis	3	Jim L		
2078	bau_sunpulse_met assumes x86 endiannes (BugzID=13)		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		
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		
4097	cdf's with MD5 checksum	7/19/2010	Jim L	4	Jim L	Jim L to send email with subtasks and estimates	
	Jim M						
4033b	Add solar wind mode flag to L2 MOM, ESA and SST then reprocess. Start - Stop Times	4/12/2010	Team	1	Jim M	we will have to reprocess again MOM once two bugs fixed.	
4100	thm_load_mom bug - solar wind flag	7/26/2010	Pat	0	Jim M	fixed - I believe and then reprocess (waiting for Jim L)	
4115	Jim M - partial FGM reprocessing, also FBK and FFT reprocessing	8/16/2010	Jim M	0	Jim M	new fgm calibration files	
2057	SCM CAL File Processing Doc		Vassilis	1	Jim M	5/21/10 Olivier will review - pinged Olivier again on 7/30/10	
4004	Sort out if TDAS software can run off SPDF cdf's	3/5/2010	David	1	Jim M	**sent Tami list of Calibration files - Jim M needs to check if zeros directory online**	
3099f	Revise the calibration code for the particle data types (ESA, perhaps also SST or MOM?) to look for spacecraft potential in L1 FIT, if the moments are decimated	3/2/2010	Jim L	1	Jim M	**Run independent test on thm_load_esa_packet. Awaiting Jim McFadden to send code of separate routine.**	

3090	Then one needs to correct the particle distributions to be introduced in the same orientation. I.e., should use the corrected spinphase upon being introduced (on the fly). This means the particle loading software needs to read the above difference between corrected and uncorrected spinphase, and apply a rotation to the distribution functions upon reading. This should be done with a keyword first, and routinely when we get into orbit (by which time the shadow spinphase determinations will hopefully be automated). I think McFadden is the one to do this but he can also assign it.	2/22/2010	Vassilis	1	Jim McFadden	**3089 is prerequisite** - Vassilis 4/23: un-rotate the V's from the dphi and the onboard spinphase) and compare with the ground-processed V from the distribution functions. ESA and MOM code to use new features of spin model. In progress and being done in conjunction with 3099f. **Jim Lewis needs to review spinmodel2 and thm_load_esa_packet to see how to incoporate spin model correctly.**	
3051	EFW spike removal	2/1/2010	Vassilis	1	Jim M	Jim can't reproduce the crash that was reported. Vassilis says there is new code coming from LASP that should work better, V will send us the updated code when it's ready to be merged into our repository.	
4092	After playing around more with the cdf tools and different cdf files I can fully confirm the problem you reported. Jimmy reported an error in the FORMAT variable of the level 2 cdf files of THEMIS FGM data. The FORMAT variable for the time data in "thc_l2_fgm_20070305_v01.cdf" (just as an example of a L2 FGM CDF) is set to E13.6, just as it is for the magnetic field data. Trying to extract the data with the cdf tools, the time information is truncated to 1.173054e+09, for instance, as a result of the wrong format string. I've looked into the L1 data of the same day "thc_l2_fgm_20070305_v01.cdf" with cdfedit, and found that the FORMAT variable belonging to the time information contains the string "F12.8". I think this should state in any time information FORMAT variable in the level 2 cdfs as well. After changing this in the L2 cdfs with cdfedit I can access the full time information up to 10 ns precision for every sample. So, the time information is there, but it is not exported correctly due to the wrong FORMAT string when using the cdf tools instead of TDAS. I guess that the routine making the l2 cdfs sets

as default for all the FORMAT variables: "E13.6". | 7/7/2010 | Jimmy Raeder and Ferdinand | 0 | Jim M | The problem is in the L2 mastercdf, test files look fine, both for TDAS and cdf tools; will reprocess of FIT, FGM, FBK, FFT, EFI and SCM the week of 7/19-7/23. ** Await Jim L reprocessing of FFT and FBK ** | |
3041	Update overview plots to handle survey FFTs? Task modified as follow as of 8/30/2010: One overview plot for the three inner probes - 4 products (FBK-2,FFF-2) and one plot for the outer two probes (4 products for each).			1	Jim M		
2103	EAC offsets	8/1/2009	John Bonnell	1	Jim M	John sent Jim M code from Chris Cully showing how the offset should be calculated (8/12) . **8-20-10 Jim M seny John B for review a database of offsets. 9-2-10: John B to have feedback by 9-11.**	
2228	one outstanding issue with THM_LOAD/THM_CAL_EFI is that for some reason when I ask for the calibrated data in SPG (which should just be adjustment of gains and offsets, and conversion from ADC units to physical units, the code is trying to do some despin operations. Since this has direct impact on my ability to evaluate the EFI data quality,	9/3/2009	John Bonnell	1	Jim M	Jim M to create an option in thm_cal_efi.pro so that data in physical units can be gotten out before any spin dependent offsets are applied. **8-20-10 Jim M committed changes and will send John B an email to review. 9-2-10: John B to have feedback by 9-11.**	
2216	Fix the sign reversal of e34.	8/13/2009	John Bonnell	1	Jim M	John sent Jim M a date/probe combination that Forrest Mozer used to establish the correct sign of e34 (8/12). Jim M will make the appropriate thm_spinfit corrections. **In progress**	
2225	L2 EFI cdf (quality flags)	8/31/2004	John Bonnell	1	Jim M	Quality flags and L2 cdf will be addresses when we have a clue about offsets, spinfits, etc	
3064	47. CL specplot -- missing peib data for tests 25 and 26	1/15/2010	Jim M	1	Jim M	**Data exists, but isn't plotted for some reason**	
3015	The data processing panel doesn't allow split components. This is fine for some operations, even required, but for some operations this doesn't make sense. For example, clipping. There is a good chance that some people will want to clip each component at separate values.	12/11/2009	Pat	1	Jim M	Jim M to assess only	tbd
3085	138. GUI SCM cotrans -- inconsistent results depending on starting/ending coordinate systems. Pass warning through to GUI	2/18/2010	Jim M	1	Jim M	Also should check if same problem exists with command line? Will take time to look at code to get an estimate	1 week
4086	Requested better instructions on how to use TDAS with other IDL libraries	6/30/2010	Strangeway	1	Jim M	(e.g. FAST, Cluster, etc). -- update documentation, suggest workarounds for specific situations (e.g. conflicts with TDAS and FAST versions of tplot)	
4087	Suggested that we bundle quickstart document in TDAS zip	6/30/2010	Strangeway	1	Jim M	Talk to David - thought we had one	
4083	GOES plots on the web	6/28/2010	Vassilis	1.5	Jim L	Vassilis wants overview plots for GOES, Jim M to write the code and generate GOES overview plots for the data we have so far. Not a daily process, because we only get binary GOES data in occasional batch updates from Howard Singer	
4056	EFI Calibration Document	4/30/2010	David	3	Jim M		
2288	had expected that this cotrans would occur at the very end, after all the	11/12/2009	Jim	3	Jim M	see 2256	
2283	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	11/2/2009	Jim Mcfadden	3	Jim M		
2058	found 3 errors in the new th*_l2_esa masters - the good news is, with them fixed in our masters, all plotting issues w/ the ESA files (in CDAWeb) seem to have been resolved.		Vassilis	3	Jim M		
2060	L2 cdf Quality Flags: for SST		Vassilis	3	Jim M		
2175	L2 File Definitions Document		David	3	Jim M		
2087	Administrator's Guide		Vassilis	3	Jim M		
2088	Themis Developers Guide		Vassilis	3	Jim M		
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	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		
2092	thm_load_mom changes - reconcile mods with Davin at an appropriate time.		Vassilis	3	Jim M		

ID	Description	Date	Name	Pri	Assigned	Comments	
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	
4003	Document: ESA File and Calibation Processing	3/5/2010	David	3	Jim M		
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		
2093	AE Indexes Issue Jan 8-12, keyograms Jan 12-13, Stripes- Vassilis:		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		
2100	EFI calibration		John Bonnell	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		
	Pat						
2069	Support Mirror Sites		Vassilis	0	Pat		
2069a	Japan (ISAS)		Vassilis	0	Pat		
2069b	Austria		Vassilis	0	Pat		
2069c	France		Vassilis	0	Pat	(Rumi - not always up to date for gmags)	
2070	Support gmag data remote sites.		Vassilis	0	Pat		
2070a	Augsburg (MACC's)		Vassilis	0	Pat		
2070b	Alberta		Vassilis	0	Pat		
2070c	Greenland - **I think the following stations in our archives are essentially unusable scientifically (non calibrated-mis labeled): nrsq amk atu dmh dnb gdh kuv naq nrd sco skt stf svs thl umq upn Following up with DTU on ways to correct. ***Periodic Download - go for it ***Old data not calibrated - what to do? ***Release Greenland to SPDF? Integrate into load routines (yes)**		Vassilis	3	Pat	On #1 Is there any way for us to calibrate the DMI data - answer is NO. Basically what he's saying is that all our old greenland data is in raw format, but none of our documentation is labeled to indicate this. Someone could easily use the greenland data by accident and think that it is actually calibrated. Replacing the old data with calibrated data would be the best option, but we may not be able do that for all dates/sites. For the remainder we should probably have very clear documentation, or maybe not distribute the data at all. Without calibrations it shouldn't be used to do science. On #2 I think HDZ is the format we want, but we generally convert H into nT. Just to verify, the conversion is(for tangent function taking radians): D(nT) = H*tan(D/60 * pi/180) Correct? **Pat must do analysis - will take a bit of time.**	
3033	GBO rsync from U Calagary is failing. Contacting Emma Spanswick to determine source of problem.	1/5/2010	Pat/Jim M	0	Pat	**SNAP - only one still missing per Emma,**	
3034	U Alaska all working	12/7/2009	Jim M	0	Pat		
2265	When new FGM Cal files come from David Fisher reprocess last 6 months.	10/16/2009	Pat	0	Pat	**awaiting next FGM reprocessing**	
4114	Once Jim completes latest round of L2 reprocessing - reprocess the Onboard moment overview plots	8/16/2010	Pat	0	Pat		
4106	Noticed a small issue with the FGM multi-probe plots. If data is missing it doesn't do anything to show that the data is missing, so that the status bars and plots can get squished together in a way that is confusing.	7/29/2010	Pat	0	Pat	Reduced SST multi probe plots - labels wrong; reprocessing to be on hold until justice annual backup done	
4124	if you look for instance at the Multi Probe Survey Memory plot on August 25 you will see that there are only 4 panels and no plot for TH-C because we don't have any data of that for this day. I would rather like to have all plots showing 5 panels and have this TH-C panel empty.	9/3/2010	Harald	0	Pat	Reprocessing will occur automatically after L2 MOM reprocessing next week.	
3025a	Determine scales and offsets for correcting on-board moments to match ground based moments during solar wind mode.				Pat		
3025b	Determine when spacecraft is in solar wind mode, and apply corrections.				Pat		
3055	SST calibrations	12/18/2009	Davin	1	Pat		
3055c	Extend thm_pdist to populate all dist struct fields(mass etc...) so that moments can be correctly generated	7/1/2010	Davin	1	Pat		
3055d	**3055d1** Energy Scales. Scales for scaled raw energy boundaries. There will be 4 parameters. One for each sensor head. **3055d2** Energy Offsets. Offsets for scaled raw energy boundaries. There will be 4 parameters. One for each sensor head. **3055d3** Geometric factors. Scaling factors for raw fluxes. There will be 4 parameters. One for each sensor head. 3**055d4** Efficiencies. Scaling factors for raw fluxes. There will be 16x4 parameters. One for each combination of energy bin/sensor head.	7/1/2010	Davin	1	Pat		
3055e	Provide initial calibration file which contains calibration parameters that were previously hard-coded. This will serve as a template for future modifications.	7/1/2010	Davin	1	Pat		
3055e	In first version, I had split time in calibration file; used separate column for year month date hour minute second, Davin asked that it be stored as one column. This is already done.	7/12/2010	Davin	1	Pat	**Davin to Review 3055c - 3055j and see if further changes needed - eta 8/16**	
3055f	The calibration file should include an additional factor: the nominal g-factor. The other 4 g-factor parameters will be corrections applied to the new factor.	7/12/2010	Davin	1	Pat		
3055g	include 4 new parameters for the sst attenuator calibration	7/12/2010	Davin	1	Pat		

ID	Description	Date	Requester	Priority	Owner	Notes	Estimate
3055h	Need to include new parameters for dead time corrections. I need to review code to determine appropriate number of parameters and **verify with davin.**	7/12/2010	Davin	1	Pat		
3055i	Need to version calibration files. Looking at FGM for version control example/precedent.	7/12/2010	Davin	1	Pat		
3055j	.Right now, the calibration files are one line only. timestamps are included in the files, but they are not yet used by calibration code. add support for time varying parameters.	7/14/2010	Davin	1	Pat		
3055k	Davin delivers SST calibration parameters	7/19/2010	Davin	1	Davin		
3055l	Install SST calibration parameters	7/19/2010	Davin	1	Pat	**dependent on 3055k**	
4072	Put eclipse spin model correction code in SST as already has been done for esa packet pgm	6/8/2010	Jim M	1	Jim M	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	
4051a	Vassilis asked me to email you about adding a task to add 4 magnetometers(PI: Martin Connors) to our data archives so that their data can be accessed via TDAS.(CL & GUI) The files are already in the RMD format, which is the raw format of our other ground magnetometer data. The task would involve small modifications to our existing scripts to accommodate periodic rsyncs to this new location, and a one time retrieval of past archives from the new location. To accomplish this task we'll require a delivery from Martin of either master cdfs or a text file with appropriate meta-data for these sites, and that they add our a public key that we provide to their list of authorized ssh keys on their archive server. The new gmags abbreviations are: LARG,LETH,ROTH, & REDR.	4/27/2010	Vassilis	1	Pat	he new gmags abbreviations are: LARG,LETH,ROTH, & REDR. **8-20-10 Routine to download is complete and routine to do calibration is in progress. Awaiting justice annual backup completed before retieving new data.**	
3048a	Profiled EFI calibration can speed up by reducing the number of calls to spinmodel_interp_t. Right now >95% of time is spent in spinmodel. It calls spinmodel_interp_t 2x for each 3d data type, could probably use a single call for multiple data types with the same cadence.	1/25/2010	Pat	1	Pat		
3052	The last time we have GBO data is 1/12/10	2/2/2010	K. Rowe	1	Pat	**send email to Katherine**	
3058	The size of the windows created by the widgets in IDL for the SCM instrument are too big (at least they were on mine). It was easily remedied by changing the size of the boxes allocated in the probe/Level-1/Level-2 lists in the program thm_ui_scmcal.pro. I simply altered the value passed to the YSIZ keyword in the WIDGET_LIST function call (lines 610 - 628, I think).	2/5/2010	Lynn Wilson	1	Pat	**Send email to Lynn**	
4062	make the load panel(and other panels) remember users' previous selections. Some of our panels already do this, but implementation is not consistent.	5/19/2010	Martin Conners	1	Pat	in progress	2-3 days
4084	Suggested that we update IDL_GEOPACK to use IGRF 2010	6/30/2010	Strangeway	1	Pat	**send email to Bob**	
4002	Document: SST File and Calibation Processing	3/5/2010	David	2	Pat		
4119a	Reorganize sun contamination keywords. (Add 'manual' option to method_sunpulse_clean)	8/26/2010	Vassilis	2	Pat		1-2 hrs
4119b	Add 'automatic' option to method_sunpulse_clean which will sum across time range provided by user in new keyword.	8/26/2010	Vassilis	2	Pat		4-6 hrs
4119c	Create a new crib that shows only a few simplified options to the users.	8/26/2010	Vassilis	2	Pat	4119a and b prereq's	2-4 hrs
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	Pat	**Jim M: I have no trouble with EFF data either for linux or windows.**	
2187	I noticed a bug in the x-axis options panel. It probably also applies to the y-axis options. If the set-all button is selected on the grid tab, then changing panels doesn't update the settings on the grid tab to the settings currently displayed for that panel.	7/29/2009	Pat	2	Pat	set to most recent user action for all routines	
2041	thm_load_state out_coord velocity calculations wrong		Vassilis	2	Pat		
2285	Christine brought to my attention a bug that occurs if you use the TDAS tsyganenko routines in a way that is not really something that I expected, but seems to be a legitimate use of the routines. If passing in a set of input parameters that are stored in tplot variables but are not in time-series, the routine produces incorrect results.	11/4/2009	Christine	2	Pat		
4045	For the beta and official sites we want to add a button at the bottom to the right of the existing two buttons. Official site web page url: http://themis.ssl.berkeley.edu/summary.shtml?autoload=1 Please center the 3 buttons. The new button will have the words "Plot Descriptions" and if clicked will link to the following: ftp://apollo.ssl.berkeley.edu/pub/THEMIS/3 Ground Systems/3.2 Science Operations/Science Operations Documents/THEMIS Summary Plot Description Tables	4/19/2010	Pat	2	Pat		

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	Pat		
4120	Add title support to plotxy	8/27/2010	Christine	3	Pat		2 hrs
4121	Add multi-row/column span to plotxy	8/27/2010	Christine	3	Pat		6 hrs
2090	that streamlines the generation of gmag stackplots and a crib to show how to do this. (< than a day)		Vassilis	3	Jim M		
3053	102. Tplot_gui -- overwrite warning when importing data, even if variable gets renamed.	2/3/2010	Pat	3	Pat		
2115	tplot does not fail gracefully after illegal margin set. In this case: tplot_options,'xmargin',[100,100], tplot does not fail gracefully after illegal margin set. In this case: tplot_options,'xmargin',[-1,-1] -tplot does not fail gracefully after illegal margin set. In this case: tplot_options,'ymargin',[100,100]			3	Pat		
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	Pat		16
4013	Plot Description Doc Button	3/22/2010	David	3	Pat		40
2176	I ran into a small annoyance today when loading a themis document. I had originally loaded ESA and SST data for one time period, then overwrote that data by loading the same quantities but for a different time period. I did this several times and then saved the document for later. When re-opening the document I got a series of prompts asking whether I would like to re-write each quantity. It would speed up and streamline the process in this case if data that was later overwritten is not loaded when you open the document.	7/20/2009	Aaron	3	Pat	I spoke to Pat about this yesterday and we both agreed that while we cannot be sure which quantities should be re-loaded and which shouldn't (some may have been used temporarily for calculations). However, we can store the users's original choice to overwrite the data or not. So while we may not be able to save on loading time we can still keep the user from having to click multiple messages and from having to remember what they chose originally. The latter is particularly important since they may receive errors or get corrupted data if they do not choose the correct option	
2201	One feature that was never implemented for the mini-language is globbing.(The ability to use '*' and '?' to reference multiple tplot variables at once.) This is a feature that is standard with many of our other tplot data processing routines. I think it would be very useful to include in the mini-language.	8/5/2009	Pat	3	Pat		
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	Pat		
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		8 hrs
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	chech draw object	4 hrs
4005	The TDAS Software will be enhanced to incorporate data from the STEREO mission.	3/8/2010	David	4	Pat		
4006	add the following ancillary ground-based observations: MAGDAS Network, Auroral Electrojets (AE) and Ground Radars (SuperDarn, AMISR and Sondrestorm)	3/8/2010	David	4	Pat		
3007	EPO-GMAG msgs: modify the script and only issue this message if > 2 days	12/8/2009	David	4	Pat		
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		4-8 hrs
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	4 hrs
4029	One of Michael Hartinger (a grad student in atmos) is having trouble	4/6/2010	Michael	4	Pat	Michael supplied code for thm_part_moments	
	Misc						
447	Save THEMIS document: Attempting to save to a read only file in Windows outputs the correct error message, but IDL crashes immediately afterwards.			1		IDL Error report to ITT	16-24 hours