

Task #	Task Description	Date Opened	Reported By	Pri	Assigned To	Notes	Estimate (hrs)
<b>To be Assigned or Discussed</b>							
3042	33. QA: GUI panel options -- only updates panel titles on startup.	01/15/10	Aaron				
3043	36. GUI interpolate -- error with multiple quantities selected and one is out of range -- bad item not skipped, following items not processed.	01/15/10	Pat			#2 Loaded data for data 2007-03-24. Types: efi_vaw, tha_fgl_dsl, tha_fgh_dsl. Make all data active. In the order above (I believe exact order is important). Open interpolate panel, select "cadence"	
3044	38. QA: GUI interpolate -- Interpolating state data to match efi_vaw, "data out of range" error if no state samples fall within the efi_vaw time range.	01/15/10	Pat			#4 Date 2007-03-24, data efi_vaw, tha_state_pos. Make state active. Select "interpolate", select "match" match to quantity "efi_vaw", select "interpolate". Select limit time range	
3045	42. QA: CL plotxyz -- /noticks test has tick marks	01/15/10	Jim M				
3046	Fix labels/change coords for on-board moment velocity plots. Data is DSL, label says GSM	01/25/10	Vassilis/Miyashita				
3047	ESA electrons since July 2009 plotted from 20 eV and above, revert minimum to 5 eV	01/21/10	Vassilis				
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.	01/25/10	Pat				
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.	01/25/10	Pat				
<b>General</b>							
2186	I noticed that the Data->Collaboration Tools->(subcategories...) fall behind the ARTEMIS graphic.	7/28/2009	Michael	2	Amanda	Run Compatability View in Internet Explorer	
	Revise the Data Products Web page		David		David		
	Incorporate electron calibration into data	10/25/2009	Vassilis		Davin		
	Enhanced SST and MOM Instrument Web Pages		David		Davin		
2103	EAC offsets	8/1/2009	John Bonnell	2	John B	John has taken AC coupled data -> he	
2216	Fix the sign reversal of e34.	8/13/2009	Michael	tbd	John B	Etc 10/23	
	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,	9/8/2009	Jim M		John B	Review Jim's fix, Eta 10/23	
<b>Harald</b>							
	ASI software - running fine as of 11 January 2010, L1's and mosaics are up-to-date.				Harald		
	Thumbnail Data (updates will come around November 16):				Harald	Updates ready 7-10th of the next month	
	- cdf files done until November 30, 2009						
	- overview plots done until November 30, 2009						
	- movies done until November 30, 2009						
	Full-resolution raw data:				Harald	2 new Calgary disks containing full resolution data until mid April 2009. Finished processing everything until 2/28/2009. March in process.	
	- complete for 2007 and 2008						
	- reasonably complete until mid April-2009						
	Full resolution data:				Harald	need to finish processing of data that were on transfer drives from Calgary	
	- data cdf done for all 2007 and 2008 and until 03/31/09						
	- keogram cdf done for 2007 and 2008 and until 02/28/09						
	Web site mosaics and movies:						
	- Mosaics and movies reprocessed for 2007/2008 season						
	- Mosaics and movies reprocessed for 2008/2009 season					November 2008 mosaics to be reprocessed	
	Web site overview plots with full resolution data:						
	- overview plots done for 2007 and 2008 and until 02/28/09					Need to update with data on transfer drives from Calgary	

2069d	UCLA – mirror site set-up		Vassilis	1	Harald	UCB has sent 4 bricks to UCLA. After brick transfer UCLA will need to supply SSH key - RSYNC Key.	
Hannes							
2273	Attitude Determination changed based on spin tone removals?	10/19/2009	Hannes	0	Hannes	Hannes will process See 3023	
2074c	quality flag for FGM data		Vassilis	2	Hannes	on hold	
2082a	Spin modeling during shadows BugZid=43		Vassilis	2	Hannes	Jim L. to write routine. Hannes send info.	
Vladimir							
Aaron							
2033	VMO file generation		David	1	Aaron		
2033a	One variable change to ASI files and possibly the whole repository		David	1	Aaron	changes sent to Jan	
2033b	SCM and EFI L2 variables		David	1	Aaron	Ready to go	
2033c	V03 L2 STATE - revision needed?		David	1	Aaron	send Jan an email	
2013	2-D, 3-D slices enhancements					Talk to Andrea, Christine, Shanshan	
2013m	User's Guide write-up and then review with Xuzhi		David	1	Aaron	First create outline,	
2013h	Main: Temporal slider Bar - in progress Export to .png file Allow for use outside GUI	11/13/2009	Vassilis	1	Aaron	in progress	
2013j	Plotting: Contour lines Display min/max Title information (same as old slices code) Specify x,y,z ranges Axes titles Axes ticks Plot ESA boundary		Vassilis	1	Aaron	on hold until 2013h completed	
2013k	Create our own version of slicer3.pro that can take user input to setup colors, orientation, etc. when it's called.		Vassilis	1	Aaron	will be completed when 2013h completed	
2013l	Integrate our own slicer3.pro gui with regular 2-D slice plots.		Vassilis	1	Aaron	will be completed when 2013h completed	
3014	We don't have support for filled symbols. This means symbols are	12/11/2009	Pat	2	Aaron		1 day
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	2	Aaron		1/2 day
3031	GUI Overview plots sometimes have diamond shaped artifacts in the sample rate bar. Should fix.	01/05/10	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.	
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	2	Aaron	found during EFI testing	
2253	Fix crib errors - Christine's list of 9/23/09	9/23/2009	Christine	2	Aaron		
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	
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	3	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.			3	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	3	Aaron		
2029	From Hannes		Hannes	3	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	3	Aaron		
2029b	The level 2 CDF files at <a href="http://themis.ssl.berkeley.edu/data_download.shtml">http://themis.ssl.berkeley.edu/data_download.shtml</a> 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	3	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	3	Aaron		
2030	upgrade thm_load to work with probe assignments		Vassilis	3	Aaron		
2031	move functionality of thm_load_state2 into thm_load_state and delete thm_load_state2		Vassilis	3	Aaron		
2032	Multiple enhancements concerning keywords, valid_names and thm_load routines		Vassilis	3	Aaron		
	<b>Cindy</b>						
2239b	Load Panel Bug: Loading state data for any probe and requesting level 1 data type "*", it doesn't load all the support types(spinras etc...). This also doesn't work if I shift-select all the quantities in the type list.	11/13/2009	Cindy	1	Cindy	This week	
2239c	Load Panel Bug: When trying to load gmag data from the gui station=kian, I got the following crash: % Attempt to subscript NEW_TVARS with NEW_VARS_IND is out of range. % Execution halted at: THM_UI_NEW_LOAD_DATA2OBJ 543	11/13/2009	Cindy	1	Cindy	This week	
2297	Update the User's Guide for v5.2	12/2/209	David	2	Cindy		
	<b>Jim L</b>						
3035	Copy attitude-corrected version 02 state data into v03 files	1/11/2010		0	Jim L	Awating V02 state (Hannes (2273))	

2034f	revised QA script for FGM (path finder for other scripts to be revised later), instrument tests for load and calibration in progress		Vassilis	1	Jim L	In progress.	
3037	Support new apid 44F (survey FFT) in tmttools L0 packet processing code.			1	Jim L		
3038	Update sample timing code to be compatible with apid 44F decimated FFTs.			1	Jim L		
3039	Create new master L1 CDFs for new datatype, based on FFW and FFP (new data product name TBD, probably FFF (FFT fast survey) or FFS (FFT slow survey) depending on expected usage.			1	Jim L		
3040	Update load & cal routines to handle survey FFTs			1	Jim L		
3041	Update overview plots to handle survey FFTs?			1	Jim L		
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 and Michael	1	Jim L	assign when 2149e started. Michael: Since it is difficult or impossible (in post-processing) to identify all of the bad time tags (or even some of them -- e.g., the fast->slow case), I 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		
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	
3000a	Review and update if needed Variable Desc Document	12/3/2009	David	2+	Jim L	For L1 cdf's variables	
2082a	Spin modeling during shadows BugZid=43		Vassilis	2	Hannes	Jim L to write routine. Hannes send info.	
2035	Split L1 ESA (using Thomas's routine) in master ESA data cdf		Vassilis	2	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	2	Jim L	determine if to be reassigned	
2038	STATE Web Page (s)		Vassilis	2	Jim L	review web pages	
2039	bad timing sun pulse times (early January 2009)		Vassilis	2	Jim L	Clarification needed	
2040	L1 Data Processing History Info: SCM, EFI, STATE		Vassilis	2	Jim L		
2043	Refactor repeated CDF library code in CDF processing tools BugZid=50		Vassilis	2	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	2	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	2	Jim L		
2047a	FGS sample times and values, showing repeated timestamps. BugZid=113 (BugZid=67 must be done first)		Vassilis	2	Jim L		
2047b	Repeated timestamps and gaps in spin fit data BugZid=113 (#67 may fix this one as well).		Vassilis	2	Jim L		
2077	Non Monotonic timestamps. BugZid=72		Vassilis	2	Jim L		
2078	bau_sunpulse_met assumes x86 endiannes (BugZid=13)		Vassilis	2	Jim L		
2080	Phantom packets" cause non-monotonic distribution times. BugZid=25, low priority.		Vassilis	3	Jim L		
2081	Evaluate CDF compression algorithms BugZid=81		Vassilis	3	Jim L		
2083	Add "last processed" time to L1 (and L2?) CDFs BugZid=115		Vassilis	3	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 xdigpse=dipole_gse.y[0] ydigpse=dipole_gse.y[1] zdigpse=dipole_gse.y[2] tilt=atan(xdigpse,zdigpse) 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	3	Jim L		
Jim M							
3006	While looking at some plotting issues Jim McTiernan and I found an issue with the burst summary plots. Maybe that this was intended some time ago but I don't think it's right. I attach two plots. The file Tohban_esaburst_20091201_0024.png is what you get on the web site. The bursts on THA, THD, and THE all appear as about 6 hours long. My own plot burst_20091201.gif shows all the bursts with their correct time durations. Somehow the overview plot routing extends each burst by something like +-3 hours. I don't think that this is correct and I suggest it should be changed.	12/8/2009	Vassilis	0	Jim M	All Overview Plots will be reprocessed post L2 reprocess.	
3010	March 1-15 mosaics should get reprocessed	12/9/2009	Harald	0	Jim M	Processing March 9 2002 currently	
3036	Reprocess L2 FGM products with enhanced code		FGM Team	0	Jim M	Awaiting V03 state (Hannes 2273, Jim L 3035)	
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	tbd	Jim M	Jim M to assess	1 week
2056	SCM L2 cdf		Vassilis	1	Jim M	Awaiting feedback -Olivier needs a ping.	
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	fix awaiting JB review, eta 10/15	
2225	L2 EFI cdf (quality flags)	8/31/2004	Vassilis	1	Jim M	in progress all done except quality flags. That to come 02/2010. Then test files to be sent to SPDF and Jon Bonnell	
2227	L2 SST cdf revisions	8/31/2004	Vassilis	2+	Jim M	awaiting SST calibrations	
3021	Data Processing History Web Pages - SST, SCM, FGM, FBK, FIT	12/15/2009	David	2+	Jim M	Also activate links from Data Desc	
2288	had expected that this cotrans would occur at the very end, after all the calibration code. But the calibration itself seems to be affected,	11/12/2009	Jim	2	Jim M	see 2256	
2057	SCM CAL File Processing Doc		Vassilis	2	Jim M	text completed. Put into std document format and send to Olivier for review	
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 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	2	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	2	Jim M		
2060	L2 cdf Quality Flags: for SST		Vassilis	2	Jim M		

2175	L2 File Definitions Document		David	2	Jim M		
2062	Alberta - At the moment the data files are from Dawson (daws), Churchill (fchu), Island Lake (isl) 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	2	Jim M		
2087	Administrator's Guide		Vassilis	2	Jim M		
2088	Themis Developers Guide		Vassilis	2	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	2	Jim M		
2090	that streamlines the generation of gmag stackplots and a crib to show how to do this. (< than a day)		Vassilis	2	Jim M		
2091	Once Jim McFadden completes his mods for n_3d_new_3 reprocess L2 cdf's - entire mission		Vassilis	2	Jim M		
2092	thm_load_mom changes - reconcile mods with Davin at an appropriate time.		Vassilis	2	Jim M		
2055	ESA L2 from L1 (not packets) - create L2 and test thoroughly, then reprocess ESA		Vassilis	2	Jim M	On Hold; awaiting Jim L to split L1 into master cdf	
2093	AE Indexes Issue Jan 8-12, keyograms Jan 12-13, Stripes- Vassilis: minor nuisance		Vassilis	3	Jim M		
2094	Overview plot change: mode bar seems thick		Vassilis	3	Jim M	nothing we can do easily	
2095	Mosaic Processing - permanent script needed		Vassilis	3	Jim M		
2100	EFI calibration		John Bonnell	3	Jim M		
2100d	DC offset between 4sdo and 2sdo in boom plane		John Bonnell	3	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	3	Jim M	On Hold - low priority	
2100p	Modify THM_CAL_FIT to treat efs datatype - Install E12/E34 conditional based on th_fit_code TPLLOT variable. If E12 switched to E34 software needs to be revised to handle		John Bonnell	3	Jim M		
	<b>Pat</b>						
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 gmag)	
2070	Support gmag data remote sites.		Vassilis	0	Pat	The -12 days ones are ones that Kathryn indicated are on the fritz: BMLS,UKIA,HOTS,PINE.	
2070a	Augsburg (MACC's)		Vassilis	0	Pat		
2070b	Alberta		Vassilis	0	Pat		
2070c	Greenland		Vassilis	0	Pat		
3033	GBO rsync from Ucalagary is failing. Contacting Emma Spanswick to determine source of problem.	01/05/10	Pat/Jim M	0	Pat	Received response, following up with more info. Got files for 2010/01/11...	
3034	Rsync to GIMA server is failing. Ualaska Server was replaced and renamed.	12/07/09	Jim M	0	Pat	Working out problems with SSH public-key authentication...maybe try http	
2265	When new FGM Cal files come from David Fisher reprocess last 6 months.	10/16/2009	Pat	0	Pat	ongoing	
3025	SST Code development	12/18/2009	Davin	1	Pat	Vassilis to call Davin	
	Debug source code from Davin to determine source of crash	12/18/2009	Davin	1	Pat	waiting for receipt of code from Davin. He said that it crashes on 1/10 days but doesn't yet know why.	
	Add modification to SST moment - calculations(thm_part_moments/thm_part_moments2) that would allow application of scalar corrections to moments when the spacecraft is in solar wind. Corrections will be provided by Davin, task involves providing framework to apply corrections at the correct times.	12/18/2009	Davin	1	Pat	I sent an email asking for clarifications to Davin, specifically which method out of several should I use to determine whether spacecraft is in solar wind. I've also talked to Jim Lewis about different methods. Jim suggested that it may be worthwhile to add solar wind flags from the data source selected to the SST L1 cdf so that we do not create dependency between SST data calibrations and other data types.(For example, if we don't add flags to SST cdf we might end up needing to load ESA data every time we want to calibrate SST data)	

3029	This happened on a fresh session after loading all L1 EFI variables for 2009-02-09 probe C and attempting to plot the fast survey data (I had similar problems last month plotting EFI wave burst data). The plots still appeared in the draw window after Layout Options crashed, but panel tracking was off, the gui ran very slow, and even after removing some deleting variable to free memory I had to reset IDL to get everything working. Traceback Report from THM_UI_LAYOUT_OPTIONS_EVENT:	1/4/2010	Aaron	1	Pat	Discuss possible solutions. Provide better information to use on data size so that user can avoid problem themselves. E.g., right click on a variable and have the GUI tell you how much memory.	
2280	Retrieval of ASCII Data - Including 2009.	10/29/2009	Laura	1	Pat	Reprocessing is in progress. After	
2136	When we implemented tplot_gui, we gave it support for the most important tplot options, but not many of the more obscure ones. It might be worthwhile to create a task for someone to go through exhaustively and implement as many tplot options as is feasible. That way people can more easily use the gui like an interactive version of tplot. Right now I feel like the more obscure options end up leading to gui plots that still look reasonably different from tplot plots.		Pat	2	Pat	in progress	
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]			2	Pat		16
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	2	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	2	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	
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	2	Pat		
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		
3007	EPO-GMAG msgs: modify the script and only issue this message if > 2 days	12/8/2009	David	3	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	3	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	3	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	3	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	3	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	3	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	4-8 hrs
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	3	Pat		4 hrs
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
							4 hrs



Task #	Task Description	Reported By
<b>To be Assigned or Discussed</b>		
2110	Tplot User's Guide (David and Vassilis to talk further)	
2111	print, dprint, msg continue, verbose options for a standard	
2112	Tplot FAQ's (Amanda) Maybe replaced by #1	
<b>Bugs</b>		
	She asked about generating ASI plots, like the ones done online, with the ASI data superimposed on a map. Ultimately, we may be able to implement this in a method similar to the method used for overview plots. Before we could do this, we would need a me	Xiaoyan
1298	One item that I think we forgot about when discussing the spinner issues is that it returns strings in it's event structures but doubles when using get_value from widget_control. We should make it more consistent by returning doubles in the event structu	Aaron
1507	The issue with 1467, is that users are able to create quantities that don't necessarily make sense as tplot variables with the 'calc' routine. I think I've got a workaround, but other variations on this problem will still exist. A long run solution would be to provide the user with better information on the dimensions of the variables. To that end, I'd like to put a feature request on the list. When a user right-clicks a variable on the widget-tree, it should display a popup with basis information about the quantity, ie dimensions, perhaps range. I don't think there barriers in IDL to implementing this, and making the change in the widget tree, would mean that pretty much every one of our panels would inherit this feature	Pat
<b>Enhancements</b>		
1125	Sometimes when the Annotate Last option is turned off (as it is by default) it will keep ticks relatively far away from the end of the axis from being annotated. If there are three or less ticks on an axis this may cause a large portion of it to be annotationless making it difficult to read.	Aaron
1225	Spinner for zoom control redraws every key stroke	Jim L
1277	Add note to user's guide re: printing	Pat/Jim M
267	The Layout panel doesn't allow shift selection in the panel portion of the widget.	Vassilis
63	Up/Down Arrows to scroll draw area	
1155	We should enable tabbing on some of the text boxes in part_getspec, particularly any sets of min/max values such as the angular limits, energy range, time range, etc. All that's required is to set a flag on the base containing the widgets.	Aaron
537	Message Bar bigger or bigger letters	David
492	Work with Harald to be able to load a reasonable amount of ASI data and add tools into Analysis and DP to process this data.	Vassilis
1311	Add capability to go into landscape mode (page pull down menu)	Pat

1497	State Reduced: The save document dialog remembers your previous selection, but it doesn't do it quite right. It puts the expanded path of the file in the selection area. For example("/Users/pcruce/temp/state.tgd"). It should instead use the "path" keyword to dialog_pickfile so that the initial directory is the directory of your current selection ("/Users/pcruce/temp/") and the path keyword so that your initial selection is not the expanded path("state.tgd").	Pat
1501	Overview Plots: Applying any y-axis settings to the roi panel turns the data black making it somewhat hard to read.	Aaron
1250	If I select edit and a spectral is selected, the z-axis settings open, but the first spectral panel is always selected. The panel that the selected trace is on should be selected.	Pat
1057	Add version # to GUI (Help -> About...)	Bryan
810	Replace the Set All Panel checkbox, with an 'Apply All' button at the bottom of the window. More intuitive. Need to check all panels for consistency	
751	Add tabs to each window	
1498	State Reduced: When Opening a Themis Document, it should list the directory of your previous selection.	Pat
928	Ticks/Margin Spinners When setting the Ticks and Margin spinners to decimal values, it appears the code truncates the value entered (i.e. 5.99 becomes 5). But the spinner should be updated upon Apply to update to the truncated value. Suggest low priorit	Bryan
1133	When I am removing panels in the layout panel, it always resets the selection to the bottom panel in the list after I remove a panel. This can be annoying if there are several panels because I have to keep scrolling up and clicking.	Pat
1266	Our numerical entry fields only accept exponential notation entries of the form (1.23e-3) but not the more traditional format( 1.23*10^-3). We may want to leverage the code base from the mini language so that we can interpret these entries as numbers. She asked about Importing data from Ascii. Jim L would probably have a better idea how long this will take.	Pat Xiaoyan
959	When removing a middle panel with locked axes on and you have more than 2 panels, the space the removed panel occupied is drawn blank, rather than moving the panels below it up.	Cindy
808	IDL Format Code -currently have no way to insert a different font in the middle of a string (e.g. adding a symbol to a string in NewTimesRoman) She asked about more extensive options to control the legend. Like being able to add units and move the legend around. I believe this is already listed, but not prioritized. I would estimate this task would take 1-1.5 weeks.	Xiaoyan

1001	Just a thought for the next phase; instead of over zealous error checking on spinners we could pass in limits at the spinner's creation that will be implemented only on the spinner's 'spin' function, keeping it from spinning to non-valid values but allowi	Aaron
960	Add a change all pages option in the Page Options panel	Aaron
1063	Axis Options: #1 When I turn off show-line and turn on mirror, the mirror doesn't show. This is not important, because it is not incorrect that it doesn't show, but we could maybe gray out the mirror check box + others when the show flag is not checked.	Pat
1149	If you accidentally close an overview plot page, it would be nice to be able to recreate the plot without having to reload all the data.	Bryan
1150	If you open and close the overview panel, it doesn't store the current data. (or use the one that is available from the loaded data panel) It probably should.	Pat
519	We should extend our data model to support 3-dimensional distributions and 3-dimensional image data. This will entail modifications to load widgets, the loaded data object, the tree widget, the data processing widgets, and the addition of a means to draw	
955	Incorporate user profiles - Have a configuration panel that lets you set default values (e.g. a user always wants annotation time style to be of a certain format, size, or font). This way they don't have to change everything everytime they start a new ses	Marissa
1241	This is just a minor nuisance. If you delete button is hit with no entries in the GUI Data pane, the Delete GUI data confirmation dialog still pops up. Perhaps the delete and examine icons should be desensitized when there's no data loaded in the GUI.	Bryan
1125	Var options - would be nice to have Panel droplist return to the Panel that was last modified. Right now it always opens with Panel 1.	Cindy
1266	Revise test suites, make new suites with check lists. (check on manage/verify test suite and zoom test suite)	Pat
1301	The draw object takes a long time to render spectrograms when they are very zoomed in. It should be possible to put a special case in that would make this work more quickly.	Pat
778	Need capability to read in ASCII, CDF?, SPLASH files. IDL has a built in widget to specify ASCII formats.	
362	Implement Save with Data.	
25	Add checkbox to append data array. This is to allow a variable to be loaded and contain data for multiple days	
663	ASK only has one data type, but it still makes you click in the window to select this. We could probably auto-select the '*' to resolve this.	
692	"support additional time formats for Save Data As ASCII"?	

725	Need a template or way to store certain global window values (time, spinner value, text boxes, etc...) so when window is reopened it will have same values.	
716	When I swapped between traces on the line window there was a noticeable screen flicker and the line window was moved back to the center of the viewing area.(even though I had positioned the window off center. The flicker can be eliminated by turning upda	
1000	Panel Options: The panel name appearing to the right of the panel number in the Panels combobox is only updated when the window is started. I think we should either update the combobox as people enter title text or remove the titles from the combobox.	Aaron
949	Page Options - Text tab: Step 6q (enter negative numbers for font sizes): Title and Footer font size spinners don't give a warning for size < 0. None of the font size spinners revert to the last valid value if a negative number is entered. Step 6r (enter	Jim L
998	Nudge Traces: If a trace is nudged enough then the title will exceed the size of the combobox. When this happens a scroll bar is automatically added to the bottom of the combobox making it difficult to see the traces if the list is small (e.g. 3 or less	Aaron
1128	Out of the four format styles we have currently two are only available when using the auto-format option. It would be nice to allow the user to specify exactly which one is desired by replacing the current buttons with a combobox. Instead of Auto, Numer	Aaron
1139	We should turn on the hourglass and/or include a progress indicator when we generate angular spectra.	Pat
1058	Right now, if you make changes to lines via the line options and select 'Ok', then cancel out of the changes in the layout options, it will cancel the changes you made in the line options. I think we might want to consider a way to prevent this. Alterna	
1177	The above Axis Annotation tab buttons should probably get changed from "first/last" to "range min/max". They used to apply to tick positions, but now are really just the plot box (range) min/max.	Michael
764	Add widget to allow user to set space between labels in axis options label tab	
312	Keep Probe selected highlighted in Themis Load Data when selecting different instruments.	David
1178	I accidentally tried to plot wavelets as lines and got a memory error. I do not know if there is any way of intercepting this, but it would be nice if there were. Traceback Report from THM_UI_LAYOUT_OPTIONS_EVENT: Unable to allocate memory: to make array	Michael
923	Scrolling issue with rubberbanding	Jim M
943	Getspec window is slightly larger than my 1024x768 screen. Minor issue, probably a Phase 2 task. The vertical size of the Loaded Data pane in the Data Processing window is not consistent across platforms. On my linux box, it's only about half the height	Bryan

811	Add capability for user to elect not to use all features, maybe an 'Advanced' check box. This would provide the power to the user when needed, but defaults to a simpler, faster way to plot. less	
933	Web forms allow users to go to the next text input box with a tab. Can we do that on our widgets? E.g., the GUI_TPLOT Verify Data would work well that way	Michael
539	I noticed a way we might be able to simplify our error catch blocks in the future. The error_message() function that I'm calling to inform the user of an error will by default print the traceback info that our for loop prints now. We could get rid of t	
740	If the user opens the running history with Word right in the middle of their session, then the history will not get saved at all after that point. Our fix to wait until the file is free will not allow us to save the file at any time. We should put an er	
760	It is somewhat confusing to the user about the zoom in and zoom out of the page. Another way to make this clearer, might be to draw a border around the draw area, so that the user is more aware of the difference between the two. We'll also have another wa	
743	GetProperty/SetProperty object methods - replace methods with error handling - would be nice to have a panel for users to enter error information. Possibly ftp that panel info to our ftp site. Create a script to email to David. Basically replace error report form with widget	
534		
552	Pass in a calling (or main) widget status bar object into a child widget (see dproc), so that an appropriate message could be left behind after the child widget was closed or killed. I think this would be a good thing to do generally	
736	Users Guide in HTML	
803	Would be nice to have a way to move different panels from one window to another	
1289	It seems redundant to have row/column position and span options in both layout and panel options. I suggest we remove it from panel options	Aaron
799	Add '*' shortcut for navigating the tree widget	
50	Color Widget on various panels only seems to display 256 colors.	
745	Windows: using arrow keys in spinners (spin it with up/down	
361	Using Vista the variable names inside plot position box are fuzzy. I believe this might have to do with computer screen size and not Vista. I ran the GUI on Vista and everything was ok. But, watching Marissa run it on her small laptop, I noticed the the a	David
1317	I noticed that when X is not time and set to log10 scaling, the annotations are still in scientific notation instead of 10^X format. In natural log scaling, the format is e^X. Just wondering if this was supposed to be consistent.	Michael
1283	Something we might want to put on the list is looking into making the overview plots load faster and use less memory. Right now they are much less efficient than they could be.	Pat

1315	Issues with Loaded Data - need routines built for configuration/save for ACE, WIND, IST. Currently, only have configuration routines for THEMIS and GOES.	Pat
1299	The algorithm for determining on-screen clicks, particularly the difference between an x-axis click and a variable click could use improvement. Right now it does an approximation using the size of the margin, but a better solution would be for it to accommo	Michael
	I noticed that, currently, when a nudge is performed it splits the component out of its group to create the new nudged quantity. We might want to consider allowing users to nudge entire groups to prevent this problem	Pat
1387	Line Options: The Edit X-Axis/Y-Axis Variable trees are a bit small making them difficult to use. Perhaps we should move them to their own tab to allow for more space.	Aaron
1419	It is essentially impossible to get more aesthetic ticks on a log axis when ticks are spaced 1 order of magnitude apart. There	Pat
1420	is a fix that could fit more aesthetic ticks in We should add an option that allows the user to determine if minor ticks should be log-spaced or not. On plots with very large ranges, logarithmically spaced minor ticks are not helpful.	Pat
1416	This is probably partially an IDL/OS thing, but trying to highlight and copy out of the status bar has become quite tricky. It often will scroll over to a completely different message. Ideally, it should not change your message selection unless you sele	Pat
1447	Look into file compressions methods - possibly apply to redraw	Pat
1445	Load Themis Data: The status bar update showing what quantities have been selected to be loaded would be much easier to read if we added a space or two between the entries. This would be a very quick fix.	Aaron
1453	Layout - when variables are added to a selected panel in the layout window, but the user switches to a different panel while in the variable options window. when the user is returned to the layout window, the variables will not be displayed since the sele	Cindy
1483	When trying to open a non-THEMIS document, such as a text file or png file, I get the following system error dialog: "THM_UI_OPEN-->IDLFFXMLDOMDOCUMENT::LOAD: Error encountered during the parse operation." and here's the console output: Traceback Report	Jim L
1496	State Reduced: The themis document doesn't keep track of the current page. Maybe it should.	Pat
805	Implement Undo/Redo	
1512	Cancel load process	
2108	Manage Data: The manage data fields should be made tabable.	Aaron
2109	Calculate If the cursor is clicked onto the the last line in the program area, and if that line is blank, then inserted data names will appear either at the top of the field or at a recently clicked location.	Aaron

2107	Add a new feature that allows the user to delete variables from the data processing window (avoids having to open the manage data window every time)	Aaron
1576	I was thinking it would be nice if we enabled resize on the overview plot key window. That way on larger monitors, users could extend the window so that they can see the whole key at once.	Pat
1301	The draw object takes a long time to render spectrograms when they are very zoomed in. It should be possible to put a special case in that would make this work more quickly.	Pat
2140	A suggestion: The function used by tsub_average to return the median or average of the data can also be used to return the standard deviation. Since a single panel will probably be made for both the subtract average and subtract median options we could also add a third option to add/subtract the standard deviation.	Aaron
802	Would be nice to have a THEMIS color palette quickly available, maybe a dropdown menu with the 5 themis colors, or a check box to say use 5 default colors?	
806a	Markers -1) Allow feature for user to control marker lines (style, color,size) marker text (font, format, color, size), and marker shaded region (color, opacity) 2) Add logic to check when tracking all is on so that selected markers will be selected for all panels. 3) If multi-panel tracking is on, subset all visible panels at the same time-range.	
227a	Variable options - 1) It looks like the variable options panel doesn't have an apply button. It probably should, this issue must have just slipped through the cracks. 2)After removing a variable the '-' delete button remains sensitive yet no variables are selected and clicking it does nothing. Either the button should be desensitized or another trace (first or adjacent maybe) should be selected after a delete. 3) I also noticed that the attributes text boxes still contains the old information in them from the variable that was just deleted. It is purely aesthetic but we may want to clear these fields if nothing is selected. 4) Move variable text settings from page options to variable options window.	
1197	Add titles to the x and y axes. Jim M partially accomplishes this in the overplots by adding an extra label object, but there's no way for the user to do this on their own. I envision the user entering x and y t	Bryan
1061	Add capability to control Legend text, font, format, size, color	
808	IDL Format Code -currently have no way to insert a different font in the middle of a string (e.g. adding a symbol to a string in NewTimesRoman). Possibly enable formatting like we did for the z axis labels	
24	<ul style="list-style-type: none"> <li>• Page Options (for printing) <ul style="list-style-type: none"> <li>o allow user to toggle landscape/horizontal</li> <li>o ungray widget to allow user to modify canvas settings</li> <li>o add window size to page settings template</li> <li>o need algorithm to print a large canvas</li> </ul> </li> </ul>	



447 Save THEMIS document: Attempting to save to a read only file in Windows outputs the correct error message, but IDL crashes immediately afterwards.

1512 Cancel Load process

Bob  
Strangeway  
and other(s)

1061 Add capability for user to control legend options (size,color,font)

Bob  
Strangeway  
and other(s)

2207 I just got a suggestion from a scientist. He said he was used to level 2 data types have gaps filled or marked, and was surprised that we don't do this. That said, I'm not sure that filling gaps is necessarily a good idea. I think we leave the gaps as they are for good reason, but we might consider posting better warnings to indicate that (1) our data may have time gaps. (2) that an individual data quantity may change cadence mid-time-series.

8/6/2009

Paul L

2217 I loaded some ACE data with a long name 'ace\_h1\_mfi\_SC\_pos\_GSE\_x. It is supposed to draw a larger legend when names are long, but there must be a problem because the labels and the numbers are colliding in this example.

8/13/2009

Pat

Pri	Assigned To	Notes	Estimate (hrs)
tbd	tbd		
tbd	tbd		
tbd	tbd		
BL	tbd		
BL	tbd		
BL	tbd	Michael may have put some code in the original GUI that fixes this	
EL	Aaron		4 hrs (? Done)
EL	Aaron		1 hr
EL	Cindy		1 hr (see pat/jim email)
EL	Aaron		1 hr
EL	Pat		3 days
EL	Bryan		1 hr
EL	Aaron		1/2 day
EL	Aaron		tbd
EL	tbd		1 day

EL	tbd	1 hr
EL	tbd	4 hrs
EL	Aaron	2 hrs (? Done)
EL	Cindy	2 hrs
EL	Aaron	4 hrs
EL	Cindy	1 day
EL	tbd	3 hrs
EL	Aaron	to discuss
EL	Aaron	1/2 day
EL	Aaron	3 days
EL	tbd	
EL	Aaron	2 days
EL	Pat	1 week
EL	tbd	1.5 weeks

EL	Aaron	From Pat: That sounds like an interesting idea, although it'd be nice to implement one solution that would resolve spinner error checking for both the spinning operation and the text-entry operation.	
EL	Aaron		2 days
EL	Aaron		1 day
EL	Aaron		tbd
EL	Aaron		tbd
EL	Aaron		3 weeks - Bryan write 3-D distributions then extend to GUI
EL	Cindy		2.5 weeks
EL	Cindy		1 day
EL	Cindy		1/2 day
EL	Cindy		3 days
EL	tbd		
EL	Aaron		3 weeks - Bryan write 3-D distributions then extend to GUI
EL	Aaron		3 weeks
EL	Cindy		
EL	Cindy		1/2 day
EL	Cindy		3 days

EL	Cindy		
EL	Pat		
EL	Aaron		1 day
EL	Aaron	Title Footer - messages output are confusing, always says panel spacing changed. Need to buffer messages. Need to inform user negative value not accepted	
EL	Aaron		1 day
EL	Aaron		1 week
EL	Bryan		get spec overhaul - 2 hr
EL	Cindy		2 days
EL	Cindy		for discussion, 2 hrs
EL	Cindy		1 day
EL	Cindy		1/2 day
EL	Pat	need to talk with michael	
EL	Pat	discussion - 1 day to investigate, need original notes	
EL	Pat		1 day

EL	tbd	
EL	tbd	Phase III
EL	Aaron	1 day (done in some - need to resolve in all windows)
EL	Aaron	2 days
EL	Aaron	2 hrs
EL	Aaron	1 week
EL	Aaron	
EL	Cindy	
EL	Pat	
EL	Cindy	2 hrs
EL	Pat	tbd
EL	Pat	
EL	Pat	
EL	tbd	
EL	tbd	
EL	tbd	2 days

EL	tbd
----	-----

EL                  Pat    2 days

EL tbd

EL            tbd            discuss

EL	tbd
----	-----

EL tbd

EL tbd

EL tbd

EL	tbd
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EL tbd

EL tbd

EL tbd

EL tbd

EL	How to implement within GUI? Command line? Tbd
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tbd	tbd
-----	-----

tbd	tbd
-----	-----



tbd	tbd		
4	Pat		
4	Pat		
tbd	tbd	Subtracting the stand. dev. from a quantity may not make sense in the way that subtracting the average/median does. We may just want to direct people to the calculate panel, possibly adding a function to calc. stand dev. - Pat	
low	tbd		4
3	tbd	Vassillis reviewed on 7/20/09	
3	tbd	Vassillis reviewed on 7/20/09	1 week
3	tbd	Vassillis reviewed on 7/20/09	
3	tbd	Vassillis reviewed on 7/20/09	1 day
3	tbd	Vassillis reviewed on 7/20/09	4 days
3	tbd	Vassillis reviewed on 7/20/09	1 day
3	tbd	Vassillis reviewed on 7/20/09	
			3 days

1	Jim L	IDL Error report to ITT
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No - twice	tbd	This is not only a tricky one but it involves all the thm_load command line routines. We briefly looked at this before and were not certain how we would go about it. However, just about everyone I've trained or talked with has requested this.	1+ weeks
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No Twice	tbd		24-32 hrs
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No	tbd
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3	tbd	<2 hrs
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Task #	Task Description	Date Opened	Reported By	Pri	Assigned To
64	Analysis Panel - Need to provide a way for users to select a new variable name when data is manipulated. A default name will be provided, but need an editable text box for user to enter a different name. Loaded Data - add suffix to L0 to L1 processing: look ahead to the next packet before processing the current packet. BugzID=67				Cindy
2044			Vassilis	2	Jim L
2079a	FGL issue. We have learned that FGL data from probes C, D and E has a 0.25 sec timing error, starting in summer 2007, and continuing to the present (Feb 2008) time. We would like to fix these timestamps in the L1 CDF files. Process should be generic so future corrections can be easily handled. Low Priority steps or tasks: a. create a flag for the affected L1 variables somehow, to prevent confusion about which corrections have or have not yet been applied. So each entry in the proposed correction file should have some sort of tag identifying what the correction is, which could be looked up in the		Vassilis	3	Jim L
2079b	Change L0-L1 code to take corrections into account		Vassilis	3	Jim L
2127	When the smooth() function is called for the y-data the width is applied to each dimension. This causes the function to fail when it's applied to the second dimension, usually containing 3 elements, since the width is almost always larger. We could solve the problem by either looping over each row in the array or by passing the smooth function a vector specifying the width of the extra dimension. It's possible the second solution could have undesirable effects on the data, but that should be straightforward and easy to test for.  % SMOOTH: Width must be nonnegative and smaller than array dimensions: <DOUBLE ( 99.000000)>		Aaron	1	Aaron
2128	The '-1' applied on the same line to the n_elements() call ends up being applied to the user specified width as well (e.g. in the error message for the first bug the number is 99, it should have been 100). This can be fixed simply by adding parentheses.		Aaron	1	Aaron

1404	Making data active, then selecting clear active, then trying to make data active again(without reselecting), does nothing. It should add the data quantities that are still highlighted in the tree. This probably a result of the panel maintaining a list that duplicates the widget-state rather than querying the widget state as needed, and can probably be most reliably fixed by just replacing this list with queries to the widget tree.	Pat	1	Aaron
227b	Variable options - 2)After removing a variable the '-' delete button remains sensitive yet no variables are selected and clicking it does nothing. Either the button should be desensitized or another trace (first or adjacent maybe) should be selected after a delete.		1	Aaron
551	Change a setting, then check "set all", then click Apply (as opposed to checking "set all", then changing a setting, then clicking Apply). The change should still propagate to all panels. This is probably a phase II bug.		1	Aaron
1296	Analysis: Include keywords - analysis of needed changes	Vassilis	1	Aaron
1067	Axis Options: 1) Insufficient precision for Unix times in bound autoscale min/max. 2) The first time I tried setting the autoscale min/max, I used 0 and 20. When I applied the change, I got a cryptic status bar message "Draw Object Error: Updating panels". I think this is because none of the data had an X axis value in that range. If so, that should be checked for, and result in a warning dialog rather than a status bar message. 3) Floating Center: Span not calculated correctly for logarithmic scales; for a time axis the calculated span is way too large. It looks like it	Pat	1	Aaron
2002	Sit-in on GEM PPT Slide Reviews	David	1	Bryan
2021	It looks like there's a bug that limits specplot's ability to handle short timespans of data when setting the DATAGAP. Until we can get a fix out, you should be able to get the output you want by using the \options command to set the 'overlay' to 1 options, 'tha_ffp_??_*', 'overlay', 1. then you might have too reset the color bar with the zlim command: zlim, 'tha_ffp_??_*', 10e-14, 10e-5			Bryan Bryan

1248	D Power Spectrum doesn't seem to work on thg_pseudoAE. The dproc status bar returns "thg_pseudoAE Not processed." The seems to be some problem with loading the resulting tplot variable into the GUI as the console reports: STORE_DATA(177): Creating tplot variable: 243 thg_pseudoAE_dpwrspc STORE_DATA(76): "" not a valid handle name	Bryan	1	Bryan
2025	This also happens with the neif density thm_part_moments2 so that it properly handles single-angle energy spectra when pitch/gyrophase constraints are requested by the user.	Vassilis	1	Bryan
2026	Get Spec - 1) Step 11,b,i: Throws a CL error (after the popup): Traceback Report from THM_UI_PART_GETSPEC_OPTIONS_EVENT: Array subscript for PASPEC must have same size as source expression. Execution halted at: THM_PART_MOMENTS2 1070	Vassilis	1	Bryan
2000	Prep for GEM - sort out projector, PPT slides, make trip	David	1	Cindy
2022	Train Jim L to give GUI Training at SSL	David	1	Cindy
64	Analysis Panel - Need to provide a way for users to select a new variable name when data is manipulated. A default name will be provided, but need an editable text box for user to enter a different name. Loaded Data - add suffix to variable names		1	Cindy
1510	If you get an invalid marker error during marking, with either track one or track all turned on. (For example by starting/ending a marker outside of a panel), the vertical/horizontal bars don't get turned back on. after marking is complete.	Pat	1	Cindy
1220	The panel that the selected trace is on should be selected.	Bryan	1	Cindy
1434	Markers: If I get a warning because I ctrl-click without dragging.(ie "Could not create marker because marker had insufficient width") It will treat the CTRL as if it is off, even if I leave it pressed. We might want to fix this, although it doesn't appear to be doing anything too harmful.	Pat	1	Cindy
1066	Layout Options: I noticed that if the user has 'Show Data Components' checked but they forgot to or don't realized they must select both X and Y variables then no message is given to inform them. This may be confusing for the user as they'll have no way of knowing why the 'Add ->' button isn't working in such a case.	Aaron	1	Cindy

1304	<p>This is not super important, but I noticed that the "draw between points" option in the line options window offers the same units regardless of whether the quantity being plotted is a time or not.</p> <p>For example, If I plot state_pos_x vs state_pos_y, I can go into the line options, and set "Do not draw between points if separated by more than 1 hour", and instead it will not draw between points if the separation is more than 3600 km.</p> <p>To fix, The convention we've adopted on the other panels, is to show the time related options(seconds,minutes,hours,days) when</p>	Pat	1	Cindy
703	<p>Suggestions: The plot for a given panel disappears if logarithmic scaling is chosen for a fixed axis with negative limits. No error is thrown and the plot reappears when the values or scaling are changed. In the future we may want to send a notification to the user as to what</p>		1	Cindy
1267	<p>We don't currently have any messages going to the status bar saying whether a rubber band operation succeeded or failed. It would probably be help to the user if we did.</p>	Pat	2	Cindy
1550	<p>Calculate: When saving your calculations to a file the extension is not automatically included requiring the user to add it manually later.</p>	Aaron	2	Cindy
2014a	<p>Put together a simulation of ETC VHDL Design.</p>	Peter	1	Hithesh
2014b	<p>learn VHDL - . Look at the ETC VHTL programs and understand themis</p>	Peter	1	Hithesh
2023	<p>Install latest release on Stephen Mende's Mac</p>	David	1	Jim L
2129	<p>GUI Script Training from Cindy</p>	David	1	Jim L
2131	<p>Research Data Permissions with Tim</p>	Jim L	1	Jim L
2123	<p>Reprocess L0-&gt;L1 BAU cdf's due to bug fix</p>	Jim L	1	Jim L
2034	<p>V03-L2 cdf STATE -attribute structure</p>	Vassilis	1	Jim L
2064	<p>In the process of using XDEGAP in THM_CAL_EFI to check for data gaps, I found that XDEGAP does not do any type checking. Integer inputs do not get recast, so NaNs cannot be assigned. Instead, those assignments become zeros. I propose to for the output to be at least float (no need to do anything, if the input</p>	Michael	1	Michael
2065	<p>A related enhancement to XDEGAP would be to add a FLAG kw to allow the user to choose different flags to fill the gaps (NaNs, by default).</p>	Michael	1	Michael

2100a	Insert CL message for the begin/end times of the encountered gaps. Also, output to kw and recored # gaps in metadata.	John Bonnell	1	Michael
2100b	Implement nominal and minimum # of spins, and NaN data where intervals are shorter than min # of spins.	John Bonnell	1	Michael
2100c	Implement my suggestion to put the EDC offset output into a structure w/ one tag for ea. datatype.	John Bonnell	1	Michael
2100e	Reason for detecting frequent gaps?	John Bonnell	1	Michael
2100f	Check burst mode behavior w/ on-the-fly offset	John Bonnell	1	Michael
2100g	Updated metadata, CL, and keywords to work with on-the-fly offset method.	John Bonnell	1	Michael
2100i	Poor despinning bug fix	John Bonnell	1	Michael
2100j	Kepko and efi offsets	John Bonnell	1	Michael
2100l	Deconvolution -- LASP does this, but needs	John	1	Michael
2100m	The EFI program headers should include what inputs are valid for each keyword. Documentation	John Bonnell	1	Michael
2100o	efs data deleted when thm_load_fit run twice, second time only fgs data requested	John Bonnell	2	Michael
2099b	Modify THM_SCPOT2DENS to work stand-alone and with THM_FITGMOM_OVERVIEWS.	Jim McFadden	1	Michael
2100q	Correlate to onboard spin fits using EFP data. Look at FGM.	John Bonnell	1	Michael
2101b	Needs to run faster	John Bonnell	2	Michael
2101c	John to get me example code from Chris Cully.	John Bonnell	2	Michael
2102a	Resolve conflict bet C. Cully and John B's bin center values. Conflict resolved. John agrees with Chris	John Bonnell	2	Michael
2102b	Derive bin centers from CDFs (currently the bin centers are hard coded).	John Bonnell	2	Michael
2001	Prep for GEM - sort out projector, PPT slides, make trip	David	1	Pat
2003	SPLIT_VEC routine changes From Michael: SPLIT_VEC should also split the labels (as well as the traces), if there are the same number of labels as traces. Otherwise, you get the error: MPLOT: Incorrect number of labels and often also the wrong label displayed for the split trace. From Vassilis - Colors also, preserving the dlimits	Michael Vassilis	1	Pat



2004	wavepol.pro and twavepol.pro - Put Olivier's into the distribution, test	Vassilis	1	Pat
608	Variables: When axes are locked, draw object should recalculate space needed between panels to display variables.		1	Pat
2005	str_element does not add to embedded structures (BugzID=60)	Vassilis	1	Pat
1456	Page Options: When the font on the variables is set to monospace symbol, the following warning shows on the command line: % IDLGRSRCDEST::DRAW: Select Charmap failure (Encoding: 0x756e6963) (FreeType error info: (38) invalid charmap handle). Setting the annotations to "Scientific Notation" and the Font to "Monospace Symbol" or "Symbol", generates many copies of this error on the console: % IDLGRSRCDEST::DRAW: Select Charmap failure (Encoding: 0x756e6963) (FreeType error info: (38) invalid charmap handle). This probably has something to do with the IDL formatting commands that we've inserted into the annotation string.	Pat	1	Pat
2007	Error msg for when timestamps of data do not match in tvector_rotate, tdotp, and tcrossp.	Pat	1	Pat
2008	Tplot auto scaling. BugzID=41.	Pat	1	Pat
2143	I noticed a small bug when I was running the ASICrib. When you use the command 'ctime,/cut' to generate the movies, it generates an error if you scroll out of bounds. Since everything continues to work functionally, I wouldn't think it is very high priority.	Pat	1	Pat

2142	<p>I just found a crash that occurs when trying to export more than one data quantity at once. It looks very simple to fix, but I'm pretty certain that it went out with 5.1 Compiled module: ERROR_MESSAGE. Traceback Report from THM_UI_MANAGE_DATA_EVENT: THM_GUI_NEW_EVENT          &lt;/home/pcruce/IDLWorkspace/themis/thm_ui_new/thm_gui_new.pro( 260)&gt;          THM_UI_MANAGE_DATA          &lt;/home/pcruce/IDLWorkspace/themis/thm_ui_new/panels/thm_ui_manage_data.pro( 391)&gt;          XMANAGER          &lt;/usr/local/itt/idl70/lib/xmanager.pro( 704)&gt;          XMANAGER_EVLOOP_REAL_MODAL          &lt;/usr/local/itt/idl70/lib/xmanager.pro( 506)&gt;          THM_UI_MANAGE_DATA_EVENT          &lt;/home/pcruce/IDLWorkspace/themis/thm_ui_new/panels/thm_ui_manage_data.pro( 131)&gt;          Last IDL Error:          % Expression must be a scalar or 1 element array in this context: &lt;BYTE Array[2]&gt;. %          Execution halted at:          THM_UI_MANAGE_DATA_EVENT 241</p>	Pat	2	Pat
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2155	<p>The manage data window crashes when I try to load ASI data into the gui. Two pop-up messages are produced prior to the crash notifying the user that the data has the wrong dimensions to be loaded (this should happen), the first of the messages below was from one of those pop-ups. Traceback Report from THM_UI_LOADED_DATA::ADDDATA: THM_UI_MANAGE_DATA          &lt;C:\GUI\THEMIS_GUI\themis\thm_ui_new\panels\thm_ui_manage_data.pro( 391)          THM_UI_MANAGE_DATA_EVENT          &lt;C:\GUI\THEMIS_GUI\themis\thm_ui_new\panels\thm_ui_manage_data.pro( 213)&gt; Traceback Report from THM_UI_MANAGE_DATA_EVENT: &lt;C:\GUI\THEMIS_GUI\themis\thm_ui_new\panels\thm_ui_manage_data.pro( 391)&gt; % Variable is undefined: SUCCESS.</p>	Aaron	2	Pat
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2011	Christine's code to rotate the XY coord's along Earth direction was very effective. Also it was used by others. We need to streamline it, and it's very similar to the others you've already written.	Pat	3	Pat
2012	GMAG L2 attributes error - from Pat (very low priority - revisit)	Pat	3	Pat
2066	While generating an overview plot for probe c on 2009-6-3 I received a number of (~30-40) conversion errors (some where on line 400), get email from Aaron or David	Pat	3	Pat
2016	Review FSW Specifications document for v5 changes. Need to add documentation on external memory dump	Peter	1	Hithesh
2017	ESA – investigate invalid configs from Survey to burst mode in IDPU scripts.	Vassilis	1	Hithesh
2019	Assisting Deron on EFI sensor diagnostics test		1	Hithesh
1549	Get Spec - It would be nice if we organize some of the options in the top-right so that we can tell exactly when they are applied and how they interact. For example, we could desensitize the regrid option when it doesn't apply. Or perhaps organize the bases with a frame. Right now it almost looks like "normalize spectrum" is related to regrid, even though they are separate settings.	Pat	tbd	tbd
2133	I found that VARNAMES was not working. It turns out that it is not an input as given in the doc'n, but an output from CDF_LOAD_VARS.PRO. That is also fixed b/c it needed CDF_DATA to be set (?). It is probably supposed to be paired w/ the CDF_DATA kw, so I will just put it that way in the doc'n for now, and we will just call everything closed.	Michael	tbd	tbd
1549	Get Spec - It would be nice if we organize some of the options in the top-right so that we can tell exactly when they are applied and how they interact. For example, we could desensitize the regrid option when it doesn't apply. Or perhaps organize the bases with a frame. Right now it almost looks like "normalize spectrum" is related to regrid, even though they are separate settings.	Pat	2	Cindy

2138	I just noticed a bug in exporting. The default resolution when exporting spectral plots is set too high. In the example I was looking at which contained one line plot and one spectral plot, this meant that a file that should have been 1.0 MB ended up 1.5 MB. It is a trivial fix	Pat	2	Cindy
2150	minor bug in both the clip and deflag routines. If the "flag" argument is set to zero the keyword_set() function does not recognize that the option was called and the routine continues as though the argument was never set. We've had this problem elsewhere whenever zero is a desired value for a keyword parameter. It should be a simple matter to fix it.	Aaron	2	Cindy
806b	Add marker titles		3	Cindy
1560	Variable Options: The widget tree in variable options is not being updated with the state of the other trees.	Aaron	2	Cindy
2152	Layout Options produced multiple errors then crashed upon startup after I imported a tplot variable composed of byte data. I could not open the window until the data was deleted. % TIME_STRUCT: Improper time input % TIME_STRING: Improper time input 1) Type conversion error: Unable to convert given STRING to Integer. 2) Detected at: THM_UI_WIDGET_TREE::ADDGROUP 585 3) Type conversion error: Unable to convert given STRING to Integer. Detected at: THM_UI_WIDGET_TREE::ADDGROUP 618 4) WIDGET_TREE: String expression required in this context: <INT ( 0)>. % Execution halted at: THM_UI_WIDGET_TREE::ADDGROUP 618	Aaron	1	Cindy
1267	We don't currently have any messages going to the status bar saying whether a rubber band operation succeeded or failed. It would probably be help to the user if we did.	Pat	4	Cindy
481a	We need to add a meta data structure to spectra data objects so that they y-axis for these plots will be automatically set to linear or logarithmic depending on the type of spectra.	Bryan	1	Bryan
946	Print - Step 3) I can create eps files, and verify that the .eps file is ok using ghostview or ps2pdf, but these do not print out. The 2 copies option does not seem to work. Step 4) The PCL4 file has only 35 bytes and does not print. The PCL5 file is larger, but does not print.	Jim M	1	Pat

2096	Inventory of Products, monitoring and building new alarms for Production Data Processing. Draft document produced. Next version with Harald's info as well		Vassilis	2	Tim
2097	Create checksum files for gmag (completed), ASI then Probe files		Vassilis	3	Tim
2144	When running tests on rotation crib-sheets, I found a problem with some field aligned coordinate variants. Specifically, the Rgeo and mRgeo transformation don't normalize the y-axis vector of the transformation matrix such that the output matrix generated will not be a proper rotation matrix, but will also scale some of the components by a factor.(I think the scaling factor should be the Sine of the angle between the radial position vector and the magnetic field vector). Requires changes in both		Pat	1	Pat
1156	Part_Getspec: The hourglass cursor does not seem to be appearing consistently while waiting	Aaron	BL	Open	Bryan
2027a	For STATE CDF files, the following variable attributes should be defined, consistent with they way they are defined in the L2 FGM file: units, coordinate_system (consult with Jim L.)		Vassilis	2	Bryan
2027b	Once defined in the CDF, thm_load_state should take the values from the dlimits.cdf.vatt to set the metadata for the tplot variables: dlimits.data_att.units, dlimits.data_att.coord_sys		Vassilis	2	Bryan
2027c	For thm_load_state, the suffix gets added to support data, but support data is not transformed: if you call thm_load_state, coord='gse', suffix='_gse', /get_support_data		Vassilis	2	Bryan
2027d	only the pos and vel get transformed, but all get in thm_load_state, the code to delete support data that was loaded for coordinate transformation should be just del_data, '*_state_temp' e. THC braid photoelectrons		Vassilis	2	Bryan
1318	I noticed a bug in the GetVarData method on the loaded data object. If it's called with the dlimits option and then called later on the same quantity but w/ the dlimits option set the original pointer will be replaced with an null pointer.		Aaron	1	Aaron
593	Bug with writing flat-file, the code is being too restrictive with its types. Need a standing rule to always promote bytes to 4-byte integers.			1	Aaron
2153	A crash occurred that shut down IDL when trying to open a THEMIS document. Some possible causes, a. R/W protection of the file? b. Incorrect file name/path? c. Second opening of the same file?		Pat/Cindy	1	Cindy

2166	<p>On Unix-like platforms (Linux, Solaris, Mac), thm_init crashes if it can't connect to an X windows display. For example, if I ssh from my Windows machine to a Linux host, and I don't have an X server running on the PC, the first call to thm_init will crash my IDL session, even if I'm only doing command-line operations that don't require a graphical display.</p> <p>thm_init is trying to load a color table, and that operation requires either a working X display, or a command like set_plot,'ps' to set another graphics device. It should first check the environment, and skip loading the color table if</p>	7/7/2009	Jim L	1	Cindy
2132	<p>While working on documentation, I tested the kw: THEMIS&gt; thm_load_efi, probe = 'c', datat = 'eff', cdf_data = cdf_data Level = ['l1'] probes = ['c'] Datatypes = ['eff'] Type = 'calibrated' Variable is undefined: NSNAMES. Execution halted at: THM_LOAD_EFI 93 C:\My Documents\THEMIS\software\THEMREPOS\themis\spacecraft\fields\thm_load_efi.pro</p>		Michael	2	Cindy
2154	<p>Bug with main image not being properly centered after a zoom. This is also a bug with IDL and thus not totally our problem, but also something we may want to try to work around. I had never seen it before except once previously with the Mac and the projector attached. Possible causes? a. It may be that having a projector attached somehow tricked IDL into improperly reporting the screen dimensions/resolution. b. I noticed that when Cindy typed in the text to zoom, she typed 5//100, then backspaced off the '/' so it will have read 5100% zoom for a second. There should</p>		Pat/Cindy	2	Cindy
2156	<p>When writing the tplot export crib, I noticed that tplot_ascii doesn't export any of the y-axis scaling information for tplot spectral quantities(this is typically the d.v or d.v1 component of a tplot variable) Without this information, it is not possible to accurately reconstruct a spectral quantity. To keep things</p>		Pat	2	Cindy
2158	<p>I noticed an issue with the z-axis labels on the overview plots. The text from adjacent plots runs together and this makes them essentially unreadable. This should be very simple to fix. We just need to modify ui_overplot so that it sets the z-axis label margin to values which will stagger the z-axis labels. We should probably also remove the '!C' characters from the default labels, as '!C' is currently ignored by the gui</p>	7/2/2009	Pat	2	Cindy
1562a	<p>The Margin spinner behavior is too strict, as it enforces the validity of input on every keystroke instead of on Apply. This produces odd behavior when backspacing, etc. This also applies to the Row, Column, Row Span, and Column Span</p>		Bryan	3	Cindy

2018	Leftover 512 burst packets	Vassilis	1	Hithesh
2116	fac_matrix_make: do a better job putting the inputs into the correct coordinate system		tbd	tbd
759	Automatically load data if user scrolls forward or backward out of current range.	China	No	tbd
802	Add THEMIS color palette, maybe a dropdown menu with the 5 themis colors, or a check box to say use 5 default colors? Or add a special area in the existing color palette.		tbd	tbd
1135	The call_sequence object needs to track calls to the Overplot routine. That way if you save a themis document with data from an overview plot, you will still be able to get it back.	Pat	tbd	tbd
1141	Store the angle parameters that you used in get spec.	Pat	tbd	tbd
1464	Calculate: Once a quantity is selected in the Insert Field, expanding/collapsing events cause that selection to be inserted into the Program Area.	Bryan	tbd	tbd
37	Add horizontal slider bar to top of draw area, slider vertical as well		1	Aaron
1196	Overview plots - nodownload flag bugs 1.Catch error FILE_LINES: Error opening file. File: /Users/pcruce/data/themis/tha/l1/fgm/0000/tha_fgmcal.txt No such file or directory. Execution halted at: THM_CAL_FIT 79 2. Catch Error - Expression must be a structure in this context: DAT. Execution halted at: SPLIT_VEC 41. 4. Catch error - Expression must be a structure in this context: TMP. Execution halted at:	Pat	1	Aaron
1065	Another bug is that when Apply is hit (continuing from the procedure in bug #1, separate e-mail), the fixed scaling (both limits) is updated in log space when I had asked for only the lower limit to be changed to center^2/(upper limit). This is not a difficult mod, but it seems to be in the draw object, and I do not know how to step through the code b/c the focus shifts away from the	Michael	1	Aaron
1572	The # of Minor Ticks spinner isn't reset to a valid value after a non-numerical value is applied.	Aaron	2	Aaron
1573	No message is given to the user within the gui if an overview plot fails due a date that is too early or too late (e.g. a date in 2001 or a week from today).	Aaron	2	Aaron



2152	Layout Options produced multiple errors then crashed upon startup after I imported a tplot variable composed of byte data. I could not open the window until the data was deleted. % TIME_STRUCT: Improper time input % TIME_STRING: Improper time input 1) Type conversion error: Unable to convert given STRING to Integer. 2) Detected at: THM_UI_WIDGET_TREE::ADDGROUP 585 3) Type conversion error: Unable to convert given STRING to Integer. Detected at: THM_UI_WIDGET_TREE::ADDGROUP 618 4) WIDGET_TREE: String expression required in this context: <INT ( 0)>. % Execution halted at: THM_UI_WIDGET_TREE::ADDGROUP 618	Aaron	2	Aaron	
2068	Data Recovery	Vassilis	1	Tim	
962	When selecting data, L1 and L2 can be selected at the same time and the result was confusing. since the low-level commands can only load one or the other, the GUI interface should enforce the same restriction	David Sibeck	1	Cindy	
2165	Update FBK Test Suite	7/6/2009 David - Pat	2	Cindy	
1551	The hourglass cursor does not stay on consistently while an overview plot is being generated.	Aaron	2	Cindy	
2134	In the current version, if you rename a quantity in the manage data panel, it automatically changes the labels. This may not be appropriate now that we read label defaults when import, as it can sometimes replace a perfectly good label. We probably want to fix this code, so that it is more careful before replacing a plot label.	Pat	2	Cindy	
1302	After we had zoomed in a crazy amount, an error in the x-axis rendering showed up. It is probably not a likely case, but may be worth looking into. I've attached a document & png that should demonstrate the error.	Pat	BL	Open	tbd
2167	Helping Deron with SDT test on Probes.	Deron			Hithesh
2146	Eclipse times from spin model -- user should be able to get some kind of feedback as to whether the spin phase and spin period are derived from "fresh" sun pulses or interpolated between eclipse start/end times. (From Edita G.)	FGM Team	1		Jim L
2159	Complete L1 File Definitions Document	David	1		Jim L

1303	<p>While I was documenting the draw object I noticed a bug in the way variables are drawn. The routine that calculates the space variables occupy, ignores layout row/column, so if variables are in the left column and right column, it will overestimate the amount of space that variables take and draw the panels with too much space.</p> <p>I'm not sure that this is might priority because we aren't putting a lot of effort into deal with multi-column layouts. But bugs like this are probably replicated in a number of places. Specifically, code that:</p> <p>(1) assumes panels will be lined up in a single column.</p> <p>(2) assumes that panel index will correspond to display position.</p> <p>Will have problems.</p> <p>We may want to put a note to test this in the next phase of testing, so that we can identify all the problems in this set.</p>	Pat	1	Aaron Pat
2141	<p>Another example:</p> <p>When adding the wavpol crib to the distribution, Olivier mentioned a limitation in the TDAS pwrspc &amp; dpwrspc routines, that we may want to consider fixing. We may want to add a keyword so that "they allow to change the frequency resolution by merging near frequency channels."</p>	Pat/Olivier	1	Pat
2155	<p>The manage data window crashes when I try to load ASI data into the gui. Two pop-up messages are produced prior to the crash notifying the user that the data has the wrong dimensions to be loaded (this should happen), the first of the messages below was from one of those pop-ups. Traceback Report from THM_UI_LOADED_DATA::ADDDATA:</p> <pre>THM_UI_MANAGE_DATA &lt;C:\GUI\THEMIS_GUI\themis\thm_ui_new\panel s\thm_ui_manage_data.pro( 391) THM_UI_MANAGE_DATA_EVENT &lt;C:\GUI\THEMIS_GUI\themis\thm_ui_new\panel s\thm_ui_manage_data.pro( 213)&gt; Traceback Report from THM_UI_MANAGE_DATA_EVENT: &lt;C:\GUI\THEMIS_GUI\themis\thm_ui_new\panel s\thm_ui_manage_data.pro( 391)&gt; % Variable is undefined: SUCCESS.</pre>	Aaron	2	Pat

2010	Tplot enhanced crib - Davin should be involved and the cribs should not be too overwhelming. Possibly multiple cribs by functions		Pat	3	Pat
2117	minvar_matrix_make documentation is a little sparse, so it couldn't hurt to improve the function header.			3	Cindy
	Review EFI web pages on beta site		David		John B
	Create web pages for FFT, FBK		David		Chris Cully
2164	Just a quick summary of the task we were discussing to fix the issue Christine reported. If we decided to do the task, it would require modifying thm_gen_overplot.pro to use a fixed zrange for all spectral plots rather than autoscaling the plots. It should be trivial. We may also want to make the same changes to thm_ui_gen_overplot.pro, so we can be sure that the GUI overviews match the online overviews.	7/6/2009	Pat	2	Aaron
2168	Add a task for the page options window to add font/color/size/alignment control for a panel title. Currently there is no way to control the way a panel title is displayed.	7/13/2009	Cindy	2	Aaron
714	Add a set all button to the Z axis.	7/20/2009		2	Aaron
944	Step 7. Load THEMIS data --Step 7. FGM data: I did not get fge data for THC. Maybe there is none for that day (2008-1-1), but the running history also did not issue a "some data not loaded" error. unless only that datatvne is		Michael	2	Aaron
2074a	Test FGM with new V03 STATE cdf		Vassilis	1	Hannes
2074b	See email concerning parms ("thx_sci_mode", "thx_hsk_issr_mode") sci_mode - know fast survey, issr_mode - when IDPU thinks fast survey		Vassilis	2	Hannes
2015	Logic Analyzer setup		Vassilis	1	Hithesh
2145	Problem with ASI crib when using the command 'ctime,/cut' to generate the movies, it generates an error if you scroll out of bounds. The exact error message produced is: Error: -161 Attempt to subscript <PtrHeapVar289> with I is out of range. % Stop encountered: \$MAIN\$ 58 /home/pcruce/IDLWorkspace/themis/examples/t		Pat	2	Jim M
2009	Be able to plot ASI & GMAG observatory positions and GOES data on the same plots that are generated by THEMIS Station keyword executing thm_crib_trace.pro		Pat	2	Pat
2063a	Make A-E Index an L1 cdf.		Pat	2	Pat
2006	boundary normal coordinates. BugzID=59.		Pat	1	Pat
2171	Update THM_CRIB_EFI (adding _0 and _dot0 examples, if absent) giving examples for recent upgrades to THM_CAL_EFI.	7/13/2009	John Bonnell	1	Michael

2172	Change THM_CRIB_EFI time interval to one of the Mozer intervals.	7/13/2009	John Bonnell	1	Michael
2161	Handle Tony's Pub	7/1/2009	Tony		Amanda
2100n2	add an example to the EFI crib demonstrating the behavior.		John Bonnell	1	Michael
	SST, ESA and EFI Wiki pages - initial entries		Vassilis		Vladimir
	Format FFT and FBK info from C Cully into web pages		David		David
2100r	Add the DATATYPE kw to KYOTO_AE_LOAD , and load only AE data by default		John Bonnell	3	Michael
2100s	Get the downloader (KYOTO_AE_DOWNLOAD based on the new version of FILE_HTTP_COPY ) working		John Bonnell	3	Michael
1311	Add capability to go into landscape mode (page pull down menu)	7/21/2009	Pat/Jim L	1	Aaron
2191	Maybe a bug in thm_new_coords. Line 56 reads: Endif Else data_att = {coords_sys:coords} ;data_att doesn't exist, so build it Shouldn't the coords_sys:coords be coord_sys:coords?	7/31/2009	Bryan	1	Bryan
2182	thm_crib_maccs_gmag	7/27/2009	Andreas	2	Bryan
2013a	2D first migrate code into crib		Vassilis	2	Bryan
2013b	Move plotting-related code to crib.		Vassilis	2	Bryan
2013c	Modularize loading of distributions into an array of structs		Vassilis	2	Bryan
2185	I tried to use the TADS tool to process the THEMIS data but can not draw plot of the data after load the c gse FGM data. Thank you very much for you provide such a useful tools.	7/28/2009	Yonghua Liu	1	Pat
2162	talking with McFadden this week, as well as doing some of my own work, it seems that it would be very useful to have THM_LOAD_HSK be able to produce TPLOT variables with housekeeping data in physical (calibrated) units; ie. IEFI_IBIAS in nA instead of RAW TM units. The conversions are straightforward and well-documented, although we should check with the MOC folks to get the latest versions of the	7/2/2009	John B	1	Pat
1565	I noticed while trying to export an EPS of some FGH that the fan compression algorithm can be very slow. A little while back, I thought of a way to make the algorithm much faster at the expensive of slightly worse compression ratios. I think this could be well worth implementing after this release and I don't think it would take too long.		Pat	2	Pat
2139	I noticed that when calc performs an operation that reduces the number of dimensions on a tplot variable, it doesn't reduce the number of labels and/or colors, which can cause tplot to issue a warning when a result is plotted.		Pat	2	Pat

964	I noticed a bug with the x-grid thickness. For some reason if I use a style like dotted and increase the thickness, the thickness doesn't appear to increase properly for the portion of the grid near the axis itself. This is a pretty minor aesthetic thing, so I don't think it will be a big		Pat	3	Pat
1555	A conversation here brought up what should probably be considered a feature. If only minor grids are on, gaps appear in the grid lines, because the grids are not drawn on major ticks. After talking about it, we were thinking a better rule would be to only maintain those gaps if major grids are turned on.		Pat	3	Pat
2180	APID 458 compression - verify		Ops	1	Hithesh
2173	Add patch to VC->L0 and L0->L1 processing to fix TH-D clock anomaly			1	Jim L
2024	GUI Trainings at UCB		David	1	Jim L
2174	Reprocess VC files -> L0 packets, L0 packets -> L1 CDFs, and L1->L2 CDFs for all VC files from TH-D since the clock was reset. L1->L2 will probably take care of itself once the L1 files are made. VC->L0 and L0->L1 will need manual			1	Tim
2177	Compose Announcement to users for switchover	7/20/2009	David	1	Tim
1121	Overview plots - need to figure out how to handle memory issues with tplot variables.		Bryan	2	Pat
2181	APID Compression on Probe A did not work - monitor telemetry	7/24/2009	Ops	1	Jim L
2178	thm_load_goes_mag - put attributes where other TDAS software expects them	7/22/2009	Jonathan Rae, Jim L	1	Bryan
2189	I found a graphical bug in gui. If you are plotting a constant value and autoscaling is on, it can create a plot that looks non-constant due to internal numerical error. I've attached an example plots(issue in first panel). The first one is using autoscaling, the second is using a fixed range .002 units wide.	7/29/2009	Pat	2	Cindy
2196	Bob Strangeway GUI Review	8/3/2009	David	1	Cindy
2034c	writing some code to fill in the position and velocity variables for GSE and GSM coordinates.		Vassilis	1	Jim L
2034g	Edit the master state CDF to add variables for the spin axis RA and Dec corrections	8/4/2009	Vassilis Jim L	1	Jim L
2034h	Tweak the V02->V03 server-side processing code to store the original RA/DEC values, and the RA and Dec corrections, instead of applying the corrections and storing only the updated	8/4/2009	Vassilis Jim L	1	Jim L
2034i	Manually reprocess the V00, V01, V02, and V03 state CDFs for the whole mission into QA again, using the new master CDF.	8/4/2009	Vassilis Jim L	1	Jim L

2034e	I need to enhance the spinmodel routines to use Hannes' spin phase correction, if present. With these code changes in place, we can hopefully make some kind of comparison between FGM data calibrated/cotrans-ed with V02 vs. V03 state to verify that the V03 attitude and spin phase corrections are working properly.		Vassilis	1	Jim L
2198	I'm trying to use the TWAVPOL routine to do a polarization analysis. However, I don't believe I am getting the results I should. Specifically, I am analyzing a wave that has a spectral component around 6 mHz. However, my lower spectrum plots of the data show a component between 20 and 30 mHz.	8/3/2009	Nathaniel Frissell	1	Jim M
2192	was testing some data using future dates and found something odd. It appears that the routine thm_ui_timefix, fails for dates in the year 2011 and later. Clearly this won't be an issue for a couple of years, but we should probably put this on the list so we don't forget to fix it before it does become an issue. thm_ui_timefix is a routine used by the time widget, which is in turn used by a large number of panels in the gui.	7/31/2009	Pat	1	Jim M
2049	MOM Quality Flags and MOM Processing History		Vassilis	1	Jim M
2052	Add quality flag verbiage to ESA and MOM Data Description web page.		David	1	Jim M
2125	I received an error in the smoothing function with the no_time_interp keyword set (through the gui). I was using mag data from drby on 2009-6-9 at 500 sec resolution. Traceback Report from THM_UI_LOADED_DATA::DPROC: \$MAIN\$ THM_UI_DPROC_PANEL_EVENT<C:\GUI\THEMIS_GUI\themis\thm_ui_new\panels\thm_ui_dproc_panel.pro( 123)> THM_UI_NEW_DPROC<C:\GUI\THEMIS_GUI\themis\thm_ui_new\utilities\thm_ui_new_dproc.pro( 179)> CALL_DPROC <C:\GUI\THEMIS_GUI\themis\thm_ui_new\utilities\thm_ui_new_dproc.pro( 57)> THM_UI_LOADED_DATA::DPROC <C:\GUI\THEMIS_GUI\themis\thm_ui_new\objects\thm_ui_loaded_data__dproc.pro( 104)> ERROR_MESSAGE <C:\GUI\THEMIS_GUI\themis\thm_ui_new\utilities\error_message.pro( 256)> Last IDL Error: Unable to concatenate variables because the dimensions do not agree: ARRAY. % Execution halted at: SMOOTH_IN_TIME 153 C:\GUI\THEMIS_GUI\ssl_general\misc\smooth_i		Aaron	2	Jim M
2100n1	better define the behavior of THM_LOAD_EFI if multiple coord are specified.		John Bonnell	1	Michael

2113	Many of the data processing routines that are tested here do not inherit the plotting options from the tplot variable that they take as input. For data processing routines that I've written Vassilis has had me modify them so that they inherit these options. It shouldn't be very hard to do this, but whether we do it or not depends on whether we think these data processing routines are useful only for the end user or for the command		Pat	1	Pat
2119	There's a possible bug thm_gen_overplot when an illegal device is set with the DEVICE keyword. The code doesn't check to make sure if the graphics device is valid. It passes the test script because thm_gen_overplot has its own catch error statement embedded in the code. The catch statement does report, "Graphics device not available: a", but only after data have been loaded and tplot vars have been created. If a long time range is requested this could be a			1	Pat
2118	With a pre-mission and future dates, thm_gen_overplot does not exit gracefully. The user sees a lot of "Remote file not found messages", but is not offered any indication that the date requested is before the mission began. It would also be useful to have a check for when DATE plus DUR is greater than the current date, and then ignore the requested days beyond the current.			1	Pat
2189	I found a graphical bug in gui. If you are plotting a constant value and autoscaling is on, it can create a plot that looks non-constant due to internal numerical error. I've attached an example plots(issue in first panel). The first one is using autoscaling, the second is using a fixed range .002 units wide.	7/29/2009	Pat	1	Pat
2190	If I had a plot that I had made range settings to and I added another quantity to the plot, the range settings would be reverted to the defaults.  This is actually a sub-case of a larger problem that we've seen over and over again, specifically, we don't have any idea when a user has modified a setting(versus when the internal code modifies a setting). This is important to know for deciding when to automatically change defaults, and also for things like knowing which settings to copy when the "Set All" flag is checked.	7/30/2009	Pat	1	Pat
2193	Convention notes for Developers	7/31/2009	Pat	1	Pat
2210	AE production is broke	8/10/2009	Vassilis	1	Pat

2204	Rename: "thm_load_idx" into "thm_load_themisAE" and make sure the variables, when loaded are called: "thmAE" rather than just "AE".	8/12/2009	Vassilis	1	Pat
2188	The current GUI allows fixed ranges on the interval (0,inf) for logarithmic z-axes. Meaning 0- is considered an illegal entry. For spectral plots like ESA and SST that is a problem. They include 0-values even though they are technically illegal values for a logarithmically scaled axis.  A while back we added a special case so that those values can be displayed, but we don't have a special case to allow users to enter that value as a range.  It appears pretty clearly in the gui overview plots now that they have fixed z-ranges.(plot attached) On the ESA & SST plots at the bottom, most of those purple regions would be black if we allowed the scale to be on the interval [0,inf)	7/29/2009	Pat	1	Pat
2020	If requesting 1 hour of data using timespan, then load data using one of our load data routines.		Vassilis	1	Bryan
2020a	If requesting 1 hour of data using timespan, then load data using one of our load data routines. All except EEL and SCM		Vassilis	1	Bryan
2197	Rename thm_gui_new to thm_gui	8/3/2009	David	2	Cindy
2218	themis date question from Howard at SPDF	8/13/2009	SPDF	1	Jim L
2034j	Spot check a few of the reprocessed V00, V01, V02, V03 state CDFs to verify that they're consistent with what's currently in production	8/4/2009	Vassilis Jim L	1	Jim L
2034k	Complete task 2184 (Tim and I validate the automated processing)	8/4/2009	Vassilis Jim L	1	Jim L
2034l	Add the new spin axis correction support variables to thm_load_state	8/4/2009	Vassilis Jim L	1	Jim L
2034m	For the spin phase corrections, the default in the spinmodel routines should be to *not* apply them unless requested by keyword. Right now, the default is to use them, and specify a keyword to turn off the corrections. so this ought to be	8/4/2009	Vassilis Jim L	1	Jim L



2034n	Add appropriate keyword argument(s) to any low-level cotrans routines that use the spin axis RA/DEC (probably only affects the DSL<->GEI transform), and make sure thm_cotrans can accept the new arguments and pass them to the lower level routine. Implement the necessary corrections inside the low-level cotrans routine	8/4/2009	Vassilis Jim L	1	Jim L
2218	themis date question from Howard at SPDF	8/13/2009	SPDF	1	Jim M
2050	Incorrect adjustment on S/C potential. Effects L2 cdfs. Fix in thm_load_mom		Vassilis	1	Jim M
2101a	Check input coord and boom selection (offset is boom dependent) and reflect in TPLOT var name and metadata. Check offsets against C. Cully's example.	Revised 7/13/2009	John Bonnell	2	Michael
2100k	"Case-by-case" calibration parameters ("short-term" high accuracy corrections). LASP does this, but needs integration.		John Bonnell	2	Michael
2209	Revise fit.crib	8/19/2009	Pat	tbd	tbd
2205	Check out the load less than a day mod GUI and Cline even less than an hour	8/17/2009	Pat	1	Pat
2208	help request from Tony Lui: % CDF_LIB_INFO: Error loading sharable executable	8/19/2009	Tony Lui	0	Pat
2211	Prince George data flatline - data from UCLA now	8/10/2009	Tim	1	Tim
2184	Test V03 State Automation	7/27/2009	Jim L	1	Tim
2071	Processing full resolution ASI data disks (Apr-Nov 2008).		Vassilis	1	Tim
2063b	Make A-E Index an L1 cdf.		Pat	2	Tim
2207	% Expression must be a scalar or 1 element array in this context: <BYTE Array[4]>. % Execution halted at: THM_LOAD_FIT 237 C:\Documents and Settings\bkerr\MyDocuments\IDLWorkspace\the mis\spacecraft\fields\thm_load_fit.pro % \$MAIN\$ This occurred because line 237 is trying to compare an array of strings to a single null string:	8/18/2009	Bryan	1	Bryan
2951	New ESA Quality flag for Jim McFadden		Jim McFadden	1	Jim M
2054	Issue with ESA data and Overview Plots. Pgm Change and reprocessing from Feb 2009-current ?			1	Jim M
					ETC-sst-esa table load
					ETC-sst-esa table load

				ETC-sst-esa table load	
				ETC-sst-esa table load	
				ETC-sst-esa table load	
2217	Reprocess fgm from May 1, 2009 onward	8/20/2009	Hannes	0	Jim M
2205	section in the user's guide on optimizing workflow and retrieving default values. Additional comments in tplot_gui, calculate, and save document sections	8/6/2009	Cindy	2	Cindy
2206	add Pat's scripts into training scenario	8/6/2009	Cindy	2	Cindy
2073	New FGM offsets for tail season		Vassilis	1	Hannes
2074	V03 STATE		Vassilis	1	Hannes
2075	Spin Axis offsets – Improve the new spin axis offsets calibration routine – In progress. A new technique has been developed for inside magnetosphere with high accuracy. Once complete a paper to be published. Sent data to Karl Heinz, included in the distribution		Vassilis	1	Hannes
2206	Issues with independent tests of load less than a day	8/17/2009	Pat	1	Bryan
2216	ssl_set_complement issue	8/11/2009	Jim L	1	Bryan
2013d	Add new slice features (plane orientation, time window, etc.) to slice code		Vassilis	2	Bryan
2201	There will be an extra glitch in the data with one more mode change at 3Re now. Please give the code to correct that on-the-fly high priority. Reprocessing of L1 and L2 data will be needed.	8/13/2009	Vassilis	0	Jim L
2009	I found a bug in the state load code. If a multi-day duration is selected and the spin model data is not present for any one of those days, the process will terminate, even if there is data available for other days during that interval. Generally, load routines are supposed to skip over days where data is missing and just leave data gaps in the output tplot variables. For example: timespan,'2007-02-17',2,/day hm_load_state,probe='a',/get_support Fails with the error: % spinmodel_post_process: tplot variable not found: tha_state_spin_tend, This indicates that State Support Data is unavailable. unloaded. or incorrect. % Execution	8/10/2009	Pat	1	Jim L
2204	The test Jim and I discussed would be a test that goes into ssl2dsl.pro dsl2gse.pro code and verifies that the data being transformed and the support data largely overlap(even if they don't have the same cadence). So if they only overlap partially or they fail to overlap at all a warning will be printed that gets the user's attention.	8/17/2009	Pat	1	Pat
2102d	John wants to calibrate by signal source – thm_cal_fbk		John Bonnell	2	Michael
2212	There is a new bug in THM_SPINFIT. Apparently, the routine constructs a TPLOT variable somehow in a way that TPLOT doesn't like: THEMIS> tplot, 25 TPLOT(398): 25 tha_fgh_spinitf_npoints Subscript range values of the form low:high must be >= 0. < size. with	8/10/2009	Michael	1	Michael

2169	LASP code appears to label SPG coords w/ DSL. Investigate and fix.	7/13/2009	John Bonnell	2	Michael
2101d	SPINFIT that induces a crash at a particular time (unfortunately on a day of interest). At the moment, I suspect that the data is unusual somehow, but probably not bad	8/5/2009	Michael	2	Michael
2215	Be selective about which metadata gets passed through to the products	8/13/2009	Michael	1	Michael
2214	I get strange lines at the boundaries of data chunks (see attached) on certain products of THM_SPINFIT. I believe this is due to an array error b/c Y has one more element than X for the variable I checked. It should be about 30 minutes to fix.	8/20/2009	Michael	1	Michael
2037	J. Kissinger's cotrans routine (from GSE to SSE coordinates)		Vassilis	2	Pat
2208	Fix cribs from Shanshan	8/5/2009	Shanshan	1	Pat
2202	Reduce GUI Load time for data sets with large numbers components	8/6/2009	Programming Team	1	Pat
2204	Reduce the number of keystrokes needed to navigate the tree. (open Themis 1 level	8/6/2009	Programming Team	2	Pat

2229	The str2time and time_struct are used within the gui. The actual code changes Davin made should not affect the gui, but it's probably worth taking the system for a spin, just in case.	9/4/2009	Davin's chnages	1	Cindy
2231	We may want to run some quick tests on the GOES & WIND(3dp data type) load panel.	9/8/2009	Pat	1	Cindy
2210	I ran into a bug in the gui, I'm betting it is OS dependent. When I added a label that was longer than the displayable number of characters in the axis option label selection drop list, it shifted the droplist selection arrow off the widget so that the selection arrow no longer worked. This is an IDL bug, but I think there is a simple	8/19/2009	Pat	1	Cindy
2221	Reprocess FGM from May 1, 2009 onward	8/24/2009	Hannes	0	Tim
2219	Andrei Runov just pointed out a bug in the labels for the fitmom and fitgmom overview plots. The fix was tiny. The only snag is this means we'll need to reprocess the old plots so that the labels will be accurate. The was to switch the labels for maat3 from eV/cc to eV.	8/27/2009	Andrei Runov	0	Tim
2072	Reprocess of ESA L2 data from these dates and all days after until 5/31. This is needed to fill in a missing energy bin in 88x15 full electron mode.		Jim M	1	Tim
2219	On CDAWeb, I have ordered ThB L2 ESA field-aligned ion temperature for 2009-08-01/00:00 till 12:00 as well as the same from ThB MOM data. Both quality flags turned out to be 0 (good data). However, the temperature components from the MOM data have the order of magnitude of 10-30 eV while the ESA data show about 500 eV. The latter value corresponds to what one can see on the ESA peir spectrogram (solar wind). Time dependence is also different, especially around 11:00. This question adds to the previous one asked by Hui Zhang about 2009-08-19 (in ThB data, the ESA and MOM ion velocities from the moments differ).	8/13/2009	Vladimir	1	Jim M
2122	THM_LOAD_MOM doesn't recognize the datatype keyword for L1 data. (It does for L2).			1	Bryan
2203	Improve interface on Plot/Layout Window for	8/6/2009	Programmi	1	Pat

2195	When I print a plot with the landscape mode turned on, the plot is clipped in half. There may be cross-platform issues using the landscape flag in the IDLgrPrint object to generate landscape plots. We should probably test on various platforms to see. If this is just an isolated issue, it may not be worth worrying about, as printer support in IDL is intermittent anyway, but if this is more widespread, we may need to deal with this by performing the landscape transformation on the output scene by rotating/translating the scene prior to output. Also, if we decide that printer support is not a priority, we could turn on the canvas size options with basically no effort. The major impediment to both canvas size and landscape mode is printer support.	8/3/2009	Pat	1	Pat
2230	Find out cause of apparent periodicity about phi in Xiaojia's energy spectrum plots.	9/4/2009	Shasha	0	Bryan
	Fix cribs from Jiang	8/12/2009	Jiang	1	Bryan
2013e	Modularize plotting related code		Vassilis	2	Bryan
2013f	Rewrite crib		Vassilis	2	Bryan
2013h	2D with med imaging code		Vassilis	2	Bryan
2013i	3D slices		Vassilis	2	Bryan
1578	When calling: timespan,'2008-01-29/00:00:00',1,/day thm_load_state,probe='d',coord='dsl',/get_support_data It is printing the following error: % THM_COTRANS: input tplot variable is not a 3-vector. This may not be a big deal, or it may be indicative of the coord argument failing.		Pat	2	Bryan
2126	State Vector -> remove coord keyword turnover Artemis machine from Bryan	7/20/2009	Pat/Jim L	2	Bryan
2236	Turnover from Tim	9/8/2009		0	Jim M
2242	L2 reprocessing FGM, FIT	9/10/2009	Jim L	0	Tim and Jim M
2170	Port LASP axial calibration to eff datatype	7/13/2009	John Bonnell	1	Jim M
2101	THM_SPINFIT simulates the on-board spin fits		John Bonnell	2	Michael
2102	FBK frequencies		John Bonnell	2	Michael
2102c	Make sure that bin center assignment from L2 works with any changes that Jim M. makes		John Bonnell	2	Michael
2099	npot computation		Jim McFadden	3	Jim M

2099a	Formula		Jim McFadden	3	Jim M
2099c	McFadden requires more information on the bias changes from John as of 6/5		Jim McFadden	3	Jim M
2099d	Integrate Nishamura's Npot routine as an option into THM_SCOT2DENS		Vassilis	2+	Jim M
2099f	Writing a crib to demonstrate how to use the code to remove penetrating electrons from ESA e- and ion data	7/24/2009	Toshi	3	Jim M
2235	Turnover from Tim	9/8/2009		0	Pat
2213	I get a log of errors like this from THM_SPINFIT (after running the crib and plotting the data): TPLOT(398): 32 tha_efp_spinfite_npoints MPLOT: Incorrect number of labels. This is, of course, non-fatal, but should be cleaned up.	8/20/2009	John Bonnell	2	Pat
	FFK and FFT web pages - move to official site	7/15/2009	David	1	Amanda
2244	ESA Web page addition (#26)	9/10/2009	Jim McFadden	1	Amanda
2249	While I was working on task 2183, I noticed some small bugs in thm_load_fft. If I set the probe with a variable like: probe='a' thm_load_fft,probe=probe It will modify the variable probe so that it ends up with the value: probe=['a'] after the call. If I set the datatype with a variable like: datatype = 'ffw_16_scm1' thm_load_fft,datatype=datatype It will modify the variable so that it ends up with the value: datatype = 16,'ffp_32','ffp_64','ffw_16','ffw_16_scm1','ffw_32', 'ffw_64'] after the call. These inadvertent mutations of variables in the parent code can be	9/21/2009	Pat	1	Aaron
2255	I just noticed a bug in the new version of thm_load_state. Right now it will print out a warning message saying that it is incorrectly transforming the velocity regardless of what or whether a transformation is being applied. It should only print this message if it is actually transforming a data quantity. Currently it is telling users that their data is wrong, when it is not actually wrong.	9/28/2009	Pat	1	Aaron

2237	Turnover from Tim	9/8/2009		0	Jim L
2250	When missing epheris provided reprocess 3-4 days	9/21/2009	David	0	Jim L
2034d	I need to add support to thm_load_state (and any load/cal routines that call thm_load_state, e.g. thm_cal_fgm) for specifying which version V00, V01, V02, V03 should be used for cotrans and calibration		Vassilis	1	Jim L
2149a	Packet lookahead in L0->L1 processing (Bugz #67)		FGM Team	0	Jim L
2149b	Apply despise algorithm to current packet if next packet has different range (Bugz #44)		FGM Team	1	Jim L
2149c	When a and b are coded and tested, build new tmttools release and start using it for automated processing		FGM Team	1	Jim L
2149d	Reprocess all L1 FGM data (which should trigger L2 FGM reprocessing as well) will run for several days, should probably wait until "new justice" is operating reliably)		FGM Team	1	Jim L
2243	The routine PEN to GSM (or probably better PEN to GEO) requires bird position (r, geolon, geolat is best for these geosynchronous birds) and time as input; then it can be used generically for any GOES satellite. It can be tested against existing birds. The task can therefore be very simple: from geolat/long you determine PEN directions for the new coordinate system, then create a time dependent rotation matrix at some low resolution (perhaps 10 min) and rotate the supplied vector by interpolating. To make it faster, since the spacecraft position does not change in GEO cords very fast, you can put in a keyword of /fixed_geo_sat_pos which will result in a matrix fixed in time. This can then also be	9/10/2009	Vassilis	2	Pat
2183a	L0->L1 Processing determine start and stop times of particle burst modes and put into an L1 cdf.	7/27/2009	Vassilis	2	Pat
2086	Orbit Plot on Summary Plot web page - on the right side, 3 plots vertically, each overview plot there would be orbit panels (coordinate with Harald)		Vassilis	2	Pat

2076	SM coord transformation in thm_cotrans does not work: fixing that would be too drastic a change for a patch release, because it might break a lot of existing code. The issue is: if the in_coord parameter is not explicitly specified, and the dlimits structure also does not specify the coordinate system, do we want to try to figure it out from the "in_suffix" argument (current behavior, doesn't work for SM coords), or just fail with a message that a coordinate		Vassilis	2	Pat
2240	I have a couple of other minor changes to make to the GOES master CDF, in addition to the b_gsm coordinate system fix, and a few tweaks to the processing scripts	8/15/2009	Jonathan Rae	1	Jim L
2246	thm_cotrans now tries to access spinmodel data even when it's not necessary, and if no spinmodel data is loaded an unnecessary error message is produced.	9/10/2009	Jim L	1	Jim L
2256	It appears the multiprobe plots are not being produced since Sept 7th	9/29/2009	Vassilis	0	Jim M
2099e	Integrating Npot code.	7/24/2009	Toshi	2+	Jim M
2013g	Integrate into gui		Vassilis	1	Cindy
2104	L2 CDF, quality flags	7/1/2009	John Bonnell	2	John B
2262	Integrate into gui Loading EFI and SCM L2 cdf's - sort out	10/9/2009	David	1	Cindy
2257	Reprocess FYKN 20071123-20071206	10/6/2009	SPDF - Tami	0	Jim M
2252	a routine thm_l1gen_scmode, which will generate spacecraft mode CDFs with values detected from the data.(so the values are actual mode, not requested values from issr housekeeping quantity). This needs to be integrated into our daily processing and reprocessed back to the beginning of the mission. I figured this is probably in Jim's	9/23/2009	Pat	2+	Jim M
2089	Thm_fgm_overviews currently loads the data out of the fit file. It should probably load the data out of the fgm file. Only needs to load from one data source. Jim M thinks the thm_load_fit can be deleted		Vassilis	2	Pat
2148a	3a) Incorporate Dragos' code in thm_cal_fgm (hold off on implementing until Dragos delivers improved algorithm; estimate 2 days from receipt of revised code?)		FGM Team	2	Jim L and/or Hannes
2148b	Reprocess L2 FGM products with enhanced code (Jim McT, combine with 2147c?)		FGM Team	2	Jim M or Tim



2148	DAC non-linearity correction: This was proposed as a correction to (i.e. reprocessing) the L1 FGM CDFs, but I think it really belongs in thm_cal_fgm as the very first step. There are jumps in the X, Y, and Z components of the FGM data when the field increases or decreases past some thresholds. Dragos Constantinescu has sent some IDL code to implement the correction, but today I'm told that this code doesn't work that well, and Dragos will be rewriting it to reflect that the size of the jump depends strongly on the rate		FGM Team	2	Pat
2264	The DAC calibration has been added to the fgm calibration code and Ferdinand Plaschke just sent me an email with the code to perform the last step of the calibrations: spintone removal. I think that after the spintone removal and Jim's timing corrections, the FGM calibrations will be complete	10/15/2009	Pat	2	Pat
955	Add ability allow user to set personal preferences once, so they don't have to do it each time they bring the GUI up. Create user profile so that plots/fonts/colors/sizes/titles/etc... will always be set to user's choice.	8/1/2009	Bob Strangeway and other(s)	2	Pat
2218	Can you change the way the plot menu switches plots? If I start with TH-A and zoom in to a 2 hr plot, then switch to TH-B, the web page automatically zooms out to the whole day. Can we change it so it stays on a 2 hr scale? I thought it used to do this. It would also be useful if when one changed s/c, it automatically updated the plots without having to further click on the display button. This way you could set all the other buttons (mo,date,time), and then just change the s/c.	9/21/2009	Jim McFadden	2	Pat

2147	FGM spin harmonics correction (remove interference from solar array currents). David Fisher has produced several tables (each table valid for a few months; correction varies with sun angle) of FGM correction vs. spin phase		FGM Team	2	Pat
2147a	Decide on how to represent tables for use in thm_cal_fgm (keep as ASCII? convert to CDF?), get full set of corrections, convert to the desired format, install somewhere under /disks/themisdata (probably alongside FGM cal files?)		FGM Team	2	Pat
2147b	Add a step to thm_cal_fgm to load the appropriate correction tables for the probe & time interval being processed, use spin phase at each sample and interpolate within table to find correction at that point, apply correction. There should be a way to disable this correction (e.g. / NO_HARMONIC_CORRECTION keyword or similar, since David F. will need to periodically create new tables from the uncorrected data as data continues to accumulate).		FGM Team	2	Pat
2259	SVN setup document - contact info update	10/5/2009	Pat	1	Jim M
2260	New NPOT not working in Summary Plots	10/7/2009	Jim McFadden	0	Jim M

2261	Hannes just mentioned a crash that he got from a function called "root_data_dir", he sounded understandably frustrated. It seems that on windows, "root_data_dir" normally defaults to "c:" except if you have an 'e:', then it defaults to 'e:' regardless of what 'e:' happens to be. In Hannes's case, this was flashdrive that shouldn't have had data written to it. And it messed up his flashdrive.	10/9/2009	Pat	1	tbd
2241	Determine 2009 V03 STATE spin phase and spin axis corrections	9/4/2009	Jim L and Hannes	1	Hannes
2085	Summary Plot mods		Vassilis	2	Vladimir
2085a	Fix duplicate velocity units by removing 'km/s' from ytitle and maintaining 'km/s' in ysubtitle		Vassilis	2	Vladimir
2085b	Either make velocity labels into ('X','Y','Z') or make velocity labels into 'VX','VY','VZ'. So that the components are easier to distinguish.		Vassilis	2	Vladimir
2085c	Modify ytitles on esa eflux and sst eflux so that they do not collide. (Insert '!'C's or change setting to make tplot do this automatically).		Vassilis	2	Vladimir
2085d	Set the scales on the zoomed out(24 hr) plots so that they are not autoscaled. Information on appropriate yranges should come from Vassilis.		Vassilis	2	Vladimir
2085e	Change labels on temperature lines so that they are done in different colors (and possibly		Vassilis	2	Vladimir
2085f	If necessary, Update the plot key so that it reflects any of the changes above. It'd probably be best to give this task to me, since I've done the past modifications of the plot key		Vassilis	2	Vladimir
2238	FGE-FGH comparison	9/8/2009		1	Jim L
2034g	Make GSE and GSM position and velocity's slectable in the GUI		Vassilis	1	Jim L
Note	At this point, we should be able to install the new master CDF, and move the reprocessed state CDFs from QA into production (with a heads-up to Tami that a new batch is on the way). The reprocessed CDFs will still be compatible with TDAS 5_11 -- we're only adding new variables,				
Note	Once the reprocessed CDFs are in place, we'll want to make the following changes in TDAS:				
2149	They were also asking when we'll be getting rid of the spikes in the L1 FGM data (Bugzilla #44 and #67). I told them that this is already in the queue, and I should be getting to it very soon. Maybe now is the time?		FGM Team	1	Jim L
2149e	Detect and repair time tags in L0->L1 processing when sample rate changes mid-packet (depends on 2149f)		Jim L and Michael	1	Jim L
2149f	Reprocess L0->L1 for data types susceptible to time tagging problems due to sample rate changes		Jim L and Michael	1	Jim L
2254	Review all Summary Plot Changes from Vladimir	9/21/2009	Vassilis	2+	Jim M

2183b	L0->L1 Processing determine start and stop times of particle burst modes and put into an L1 cdf.	7/27/2009	Vassilis	2	Pat
2130	FGM offset study/debug for European Folks		Vassilis	1	Jim L
2034	V03-L2 cdf STATE		Vassilis	1	Jim L
2276	When looking at the summary plots and copying them into other files the plots jump to a different time slot. For example I was displaying a summary plot with a 2 hour duration then I changed it to a six hour duration it kept jumping back to the 2 hour version while it was copied. In some cases it was not possible to copy the frame the user	10/21/2009	Stephen Mende	0	Pat
2277	there used to be a tool on the themis server which gave us the cumulative web access stats for website summary plot access and data downloads via the THEMIS IDL software	10/22/2009	Dave Milling	0	Pat
2234	ESA velocity (thb - 8/11/09) less than 10 to the -10 change to nan's	9/8/2009	Vladimir	1	Jim M
2232	MOM - quality flags converted to binary, saturation flag, solar wind flag and maneuver flag, data desc and processing history web page updates. Change pointer to Processing History in master cdf.	9/8/2009	Vladimir	1	Jim M
2233	ESA - quality flags converted to binary, maneuver flag, data desc and processing history web page updates. Change pointer to Processing History in master cdf.	9/8/2009	Vladimir	1	Jim M
2272	review beta site quality flag web pages and add maneuver flag to desc	10/19/2009	David	1	Jim M
2275	FGM L2 reprocessing taking much longer than usual - review	10/22/2009	David	1	Jim M
2199	AE Index - quality control check plots for traces without gaps	8/3/2009	Vassilis	1	Jim M
2085h	change plot key		Vassilis	1	Pat
2263	I think the way log minor ticks are spaced when the ticks have more than order of magnitude spacing isn't quite right. By which I mean that I see it done differently on publication plots. Right now, the minor ticks are placed so that they logarithmically divide an entire tick interval. On publications I often see it with	10/12/2009	Pat	1	Pat
2147e	the minor ticks only spanning a single order of magnitude with new FGM processing - update load routine with warning	10/19/2009	David	2	Pat
2114	Load routines to all support keywords suffix			2	Vladimir
2120	NO_DOWNLOAD keyword missing from thm_load_fbk.			2	Vladimir

2085h	change plot key		Vassilis	1	Pat
2200	FIT web pages info		David	2	Vladimir
2213	Anyway, I have found a burble (not monotonic) in the eff data type time series in this cdf file: thc_I1_eff_20070720_v01.cdf	8/11/2009	Michael	0	Jim L
2281	missing U Alaska Gmag data	11/2/2009	Pat	0	Jim M
2114	Load routines to all support keywords suffix			2	JimM
2120	NO_DOWNLOAD keyword missing from thm_load_fbk.			2	JimM
1563	We were just griping about how long the Overview plots take to load, and I was thinking, what if the Overview Plot window, had a list of check boxes that would enable the user to turn off certain plots? That way if they don't care about the AE index plot, they could turn it off and speed up the load of the rest of overview plots. Here's some more food for thought: didn't we recently discuss the possibility of making an AE index CDF, and let the users download that instead of downloading all the data necessary to recalculate it client-side? Another candidate for that sort of treatment might be the time intervals for slow survey, fast survey, particle burst, and wave burst --		Bryan/JimL	2	Jim L
2042	FGM range changes in the mid packet. Post Proc maybe a solution to eliminate the spike. Run ID=44 Rfield mid-packet iumns		Vassilis	2	Jim L
2287	You have the ESA flag value 4 for the situation when a probe is in the solar wind but not in the solar wind mode. Recently, I have met an opposite situation: probe is not in the solar wind but in the solar wind mode. It seems to me that this situation should also be flagged out because all moments are wrong.	11/10/2009	Vladimir	1	Jim M
2245	ESA and MOM Reprocessing when 2232-2234 are done, update data description and processing history web pages	9/10/2009	Vladimir	1	Jim M
2258	When V03 State is reprocessed - reprocess Ascii Files	10/8/2009	Jim L	1	Hannes

2239a	<p>It looks like we may need to make some small modifications to the Load Themis Data panel to make it work correctly with the changes in thm_load_state. Bug #1 I just got the new version and noticed that if I load probe state/pos with gei coords selected, it correctly load tha_state_pos(in GEI), but now also loads tha_state_pos_gse and tha_state_pos_gsm. This is almost certainly because these new coordinate systems were just added to the state file. It should have only loaded the coordinate system requested. Also, if you request another coordinate system using the interface, it will transform all three into that coordinate system. So if I select coord='dsl', I will get tha_state_pos,tha_state_pos_gse,tha_state_pos_gsm, but despite their names, they will all actually be in DSL coordinates. Bug #2 We need to modify the panel so that it does not transform velocities incorrectly. Right now, if I load probe a/state/vel in spg coords, it will perform an incorrect transformation of the velocity into SPG. (incorrect as per our discussion on the limitations of the cotrans routine with respect to velocities) I don't think it should do this.</p>	9/10/2009	Pat	1	Cindy
2278	<p>It appears that the drift described below by Jim Lewis was responsible for the early drift in the attitude and the correct attitude is the average from the data after the flight software correction on May 4th. So we do need to put an ~1deg correction to the files affecting all instruments, and that should also be part of the absolute attitude in the state files. This offset is simply</p>	10/20/2009	Vassilis	1	Jim L
2247	<p>Another undesirable change between tdas_5_11 and the trunk has to do with the 'probe' keyword argument to thm_cotrans. In tdas_5_11, either the single letter 'a b c d e' or the longer 'tha thb thc thd the' names were accepted. In the trunk version, the longer 'thx' values are no longer</p>	9/10/2009	Jim L	1	Jim L

Part I - 2D/3D option to Analysis pull down menu  
 2. Create new window allowing user to select options including widgets for  
 a. data type  
 b. type of slice 2D or 3D,  
 c. calendar date,  
 d. left/right arrow keys to allow user to scroll through data  
 Part II 3. From the new window  
 a. If 2D selected launch the 2D window  
 b. If 3D selected launch both the 2D and 3D windows  
 c. TBD how the two windows will interact  
 4. Modifications will need to be made to Bryans code for this application  
 5. Will need to handle

2013g	Integrate into gui - load slices in idl medical imagery software		Vassilis	1	Aaron
2048	Process full resolution for March 1-15 2008, Jan 15 2009 and onward.		Vassilis	1	Jim M
2295	I am less familiar with the details of the new profile feature. Would you put together a rough draft test suite for me? I can fill in the details if you would just provide a list of the things to test for.	11/16/2009	Cindy	2+	Pat
2147f	Send out notification to users a month before fgm reprocessing. Using bleeding edge that can generate the new data.			2	
2290	To incorporate Vassilis's request regarding auroral zone stations, I will first need to identify THEMIS' auroral zone stations.	11/16/2009	Vassilis	1	Andreas
2298	reprocessed SCW spikes Re: THEMIS SCM Level 2 files	11/24/2009	Olivier	1	Jim L
2147d	Few tweaks to the FGM: 1. As Ferdinand updates his code, he's been making small changes and sending me new versions. 2. Edita would like me to add keywords so that the FGM Team can get copies of the data after each stage in the calibration process so that they can QA Prep - Revise GUI Test Suites and determine QA Reqd Tests	10/19/2009	FGM Team	2	Pat
2268	Update GEM Software Presentation	10/19/2009	David	1	Cindy
2284	Check all jobs on January 4th to make sure they have restarted	11/2/2009	David	2	Cindy
3004	look into the web page, and see why we don't	12/7/2009	David	0	all
3011	Check all jobs on January 4th to make sure they have restarted	12/9/2009	Vassilis	0	Jim M
3004	A-E Index processing failing every day	12/7/2009	David	0	all
3002		12/7/2009	Jim L	1	Jim M

3018	. When loading EFI data if the time range is set between two arbitrary times on consecutive days(e.g. "2007-03-23/12:30:00" to "2007-03-24/013:30:00") then the user will be prompted at the command line to specify date and number of days to load. At first glance it appears timerange.pro may be handling input insufficiently in some cases.	12/11/2009	Aaron	1	Jim M
3109	Time clip is failing on certain EFI quantities for 2009-02-09. When attempting to clip the data to between 4:10 and 4:45 I get an error that the span is out of the data range, however plotting the full day of data shows it to be continuous from around 00:40:00 to 12:30:00.	12/11/2009	Aaron	1	Jim M
3012	Data Variable Descriptions Document - Review	12/4/2009	David	2+	Jim M
2293	FIT Q&A web page - needs info	11/7/2009	David	2+	Jim M
2061	Data Description Paragraphs - EFI, SCM, FFT, ASI and GMAG	11/9/2009	David	2+	Jim M
3000b	Review and update if needed Variable Desc Document	12/3/2009	David	2+	Jim M
3020	FIT Web Pages	12/15/2009	David	2+	Jim M
2284	Update GEM Software Presentation	11/2/2009	David	1	Cindy/Pat
2289	modify the summary plot web page according to the request by Vassilis. Then take over the routine generation of these plots and just need to add the line to the orbit/footprint processing that you are already doing. (Artemis Orbit plots)	11/12/2009	Vassilis	1	Pat
3005	Stop Mosaic Processing before Power outage	12/7/2009	Jim M	0	Jim M
2999	legends in temperature plots - in progress	Andrei	11/30/2009	1	Jim M
2296	The labels for T_para, T_perp on the overview plots have been switched so that the correct color label refers to the correct value: green is Ti_para, blue is Ti_perp, black is Te_para and red is Te_perp. This change will show up today, and will cover the last 10 days of plots.	11/19/2009	Andrei	1	Jim M
2292	Use latest available STATE files when reprocessing overview plots	11/7/2009	Vassilis	2	Pat



3013	IDL-execution halt on line 592 of thm_gui_new, original_virtual_dimensions not a valid keyword for IDLgrWindow.	12/9/2009	Pat	1	Pat
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3008 **qa\_test directories discussion at S/W meeting**

3022	I'm getting a crash when trying to load state. I suspect this is as a result of a some interaction between the modifications made to clip loaded intervals to requested time intervals and a gap in the spin data. The commands to cause the crash: timespan,'2009-08-01',6,/hour	12/15/2009	Pat	?	Jim L
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**FGM Processing - discuss what needs to be reprocessed at S/W meeting**

		12/15/2009	David		
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3023

**Spinmodel error - clipping STATE data discuss at S/W meeting**

	12/15/2009	Pat		
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3024

3026	Orbit Plots issue	1/4/2010	Vassilis	0	Pat
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3028	Overview Plots in GUI not = online plots	1/4/2010	Vassilis	0	Pat
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3030	Themis website bug. Noticed help request page links to incorrect summary plot page(summary.html, rather than summary.shtml?autoload=1) Should correct.	01/05/10	Pat	1	Jim M
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3032	Updated GOES data will be available by release and will have different time interval. Need to update warning in the GUI to be aware of new data range.	01/08/10	Pat	?	Pat
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2199	AE Index - quality control check plots for traces	8/3/2009	Vassilis	1	Hannes
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2294	In addition to the AE index gmags could you also look, with the same tools the EPO gmags, just to make sure the data is coming through OK and there are no glitches? Chris suggested this would be a good (efficient) way of ensuring quality. You could report the EPOs back to both the scisoft group and Kathryn Rowe to check on them. EPOs are the low/subauroral gmags on THEMIS.	11/17/2009	Vassilis	1	Hannes
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2020b	If requesting 1 hour of data using timespan, then load data using one of our load data routines.: EFI and SCM		Vassilis	1	Aaron
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2020b	If requesting 1 hour of data using timespan, then load data using one of our load data routines.: EFI and SCM		Vassilis	1	Aaron
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3017	We have a help button, but when you click it, it just says: "No help file". Maybe we should add	12/11/2009	Pat	1	Cindy
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3009	depending on expected usage)	12/8/2009	Jim L	1	Jim L
2282	Problems with onboard moments during solar wind are probably only a ground software issue. (There was some mis-communication between Davin and I about changes that never took place which caused some confusion.) Ground software has never been modified to handle solar wind mode moments -- Davin is working on a modification that can at least allow him to check that the data is ok. There could potentially be other problems so we requested from Deron and John that they send us a copy of the EPROM data in a format easy to read so we can check that the onboard tables are what we think they are. For now we are pretty sure they are correct and the data should be fine. I think Davin will make a simple code change that will allow him to tell moments code to assume SW	11/2/2009	Jim Mcfadden	1	Jim M
2269	make FGM keywords standard for L2 Processing	10/19/2009	FGM Team	2+	Jim M
2286	Update Summary Plot script to get latest STATE for reprocessing. And reprocess in early December 2009 after FGM is reprocessed	11/9/2009	Vassilis	1	Pat
2147c	Reprocess L2 FGM products with enhanced code		FGM Team	2	Pat

## Notes

This is not really closed. Initially it went to Aaron but after further evaluation it was decided to place the rename option within the widget tree. Is now task 2106 on Pats list

#1and#2 Aaron fixed #3 Michael fixed

4

sent training script to Jim L.  
This is not really closed. Initially it went to Aaron  
but after further evaluation it was decided to  
place the rename option within the widget tree.  
See Pat's task number 2106

16

4

2

4

1

1

2

Cindy

4

Working with Robert and may need MODELSIM software.

in progress and almost complete

BAU sun angle data missing/incorrect: fixed in QA, looks good, patch to automated L0->L1 processing deployed, copy fixed CDFs from QA->Production in progress

need code for missing variables -in progress.  
After some discussion with Hannes, we decided that the attribute structure for the new spin phase correction variable is incorrect.  
Warning msg only

Closed -> Waveburst data is often shorter than estimation window.

Use LASP? JB may think it's close one more look

Closed - don't know where task came from

Closed - don't know where task came from

related to 1422



quick fix that pat has already taken care of.

could not figure out task

Finished and sent to Peter

Task cancelled

non-gui

etc 6/26

Documentation mod sent to Cindy and done  
by Cindy

related to 1139 - 2 hr

already done Ken wherever you are

already done Ken wherever you are

already done Ken wherever you are

already done Ken wherever you are

no longer recreate

unable to reproduce any longer



non-gui

Talked to ops. They found a workaround. Setting burst collection into "test" mode eliminated that effect.

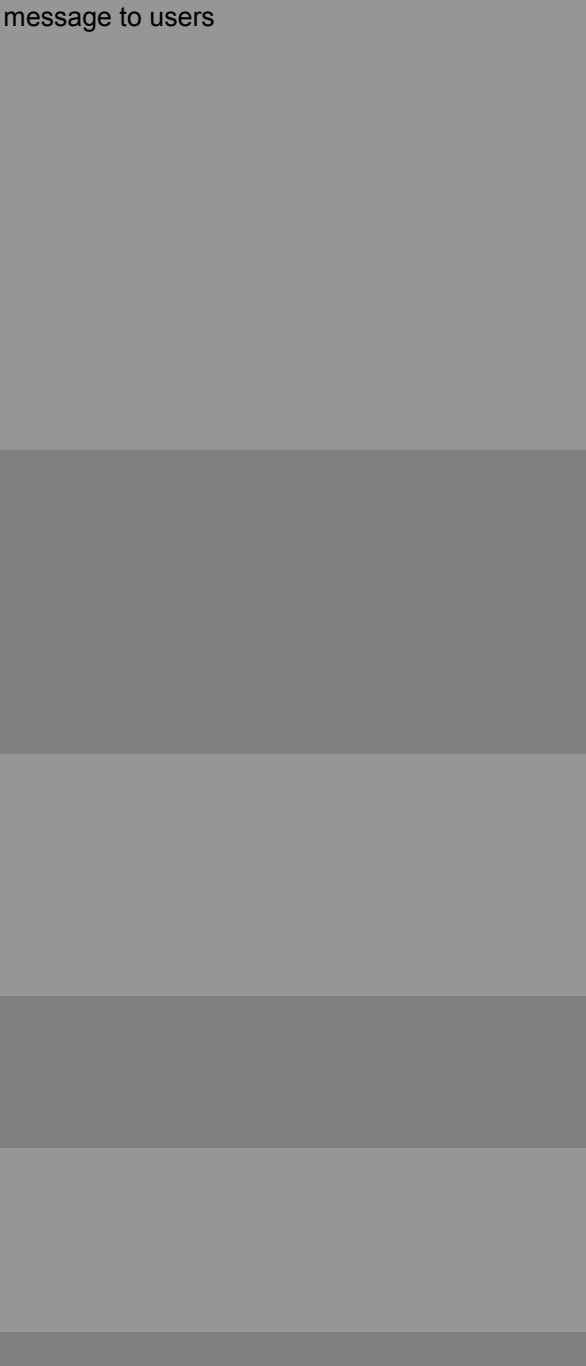
Vassillis reviewed on 7/20/09

16

2

2

message to users



Aaron completed Part 1 - Part 2 to Pat.

4





no longer needed

no longer needed

Print Landscape mode as well

S. Mende Completed, next training for Harald  
Frey and Niguel 7/27

When we switchover to new server



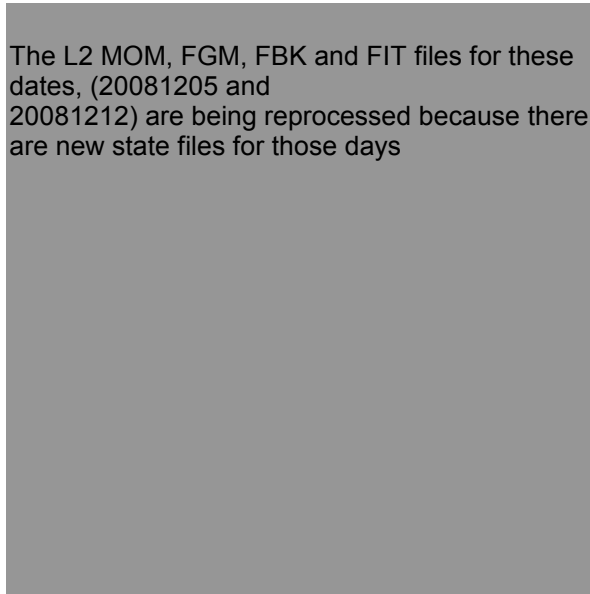
Aaron did not check themis/common so that is a task that still needs to be done.

same time as 2119

(Cindy will QA other plot functions)



The L2 MOM, FGM, FBK and FIT files for these dates, (20081205 and 20081212) are being reprocessed because there are new state files for those days



The L2 MOM, FGM, FBK and FIT files for these dates, (20081205 and 20081212) are being reprocessed because there are new state files for those days

Obsolete. See 2170.

Davin removed

responded to Tony with detail instructions

with Jim L

get Pat's new program

reprocessing in progress

d TH-A 2009-02-02 22:30:14.

d TH-D 2009-02-13 20:36

d TH-E 2009-02-13 22:27

d TH-B 2009-02-17 23:50:38

d TH-C 2009-02-18 00:52:20

maybe because spin model variables didn't get  
picked up for the first few days.

Jim M found already done

Fix. To reproduce this, just run THM\_SPINFIT  
on eff data in SPG coordinates (on 2007-7-20, if  
you like) and try to plot the products.



look at this week

look at this week

wavelet.crib and fit.crib are very ancient cribs, they have no comments or documentation, and a lot of the code they were based upon is gone or changed radically enough that the old code no longer applies. I'm thinking our best bet might be to just put a notification at the top of these cribs indicating that they are deprecated/obsolete.

Build widget tree so only widgets (components) that are displayed are added to the tree. Subcomponent widgets will be dynamically added when user requests their display (clicking on '+' sign). This will reduce the time needed for loading data sets with large numbers of components. A time hit will be paid later down the line, if and when the user chooses to display components. Note: This approach will definitely reduce the time required to load, however, the hit later down the line may not be acceptable. We just need to try it and see. In progress

Allow expansion of widget tree from keyboard using accelerator keys. Need to check into operating systems for pre-existing keys. An alternative to this would be to automatically open the tree to at least the probe and/or instrument level, possibly even open down to the data/component level for those data sets with only a few components. This is not critical, but very nice for user and would reduce the number of key strokes.



put out warning message

eta 9/18 in progress  
eta 9/18  
eta 9/18

McFadden has found bugs in the pipeline. I am on hold until he works those out (he is working with Bonnell and Mozer).

Check with Jim McFadden

I guess this has become 2099e. McFadden basically took the ball, so THM\_SCPOT2DENS is unused. If McFadden comes back with an algorithm, then we can resurrect THM\_SCPOT2DENS. If McFadden comes back with his own routine, then we go with that. See 2099e.

tbd

need to be put on email notifications

John has approved

make mods on beta and new thumbnails

in progress, check if there is email notifications,  
create email from Tim with additional turnover  
materials  
on hold for missing data

tmtools 6\_00 release built & tested with 2149a  
and 2149b, 2213 not yet included.

Waiting for Vassilis to approve use of tmtools  
6\_00 "as is" for automated processing, and  
reprocessing L1 STATE (V03 and additional  
variables), FIT and FGM (range changes).

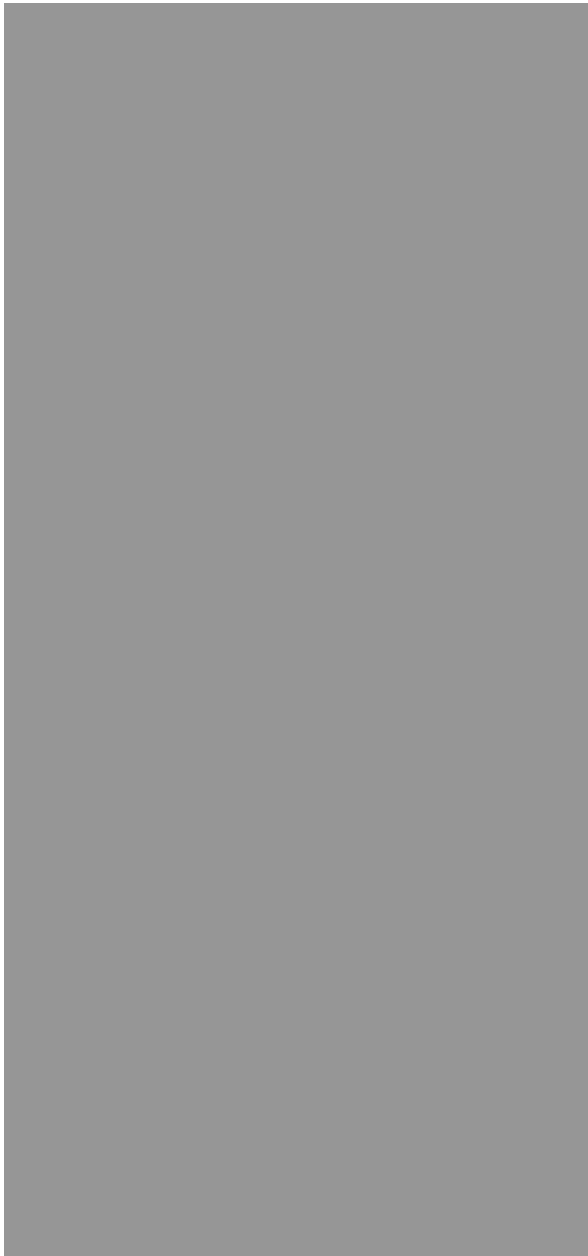
Jim M to add periodic processing

duplicate


J. B. to talk to Vassilis about expectations for users by 9/30/09.

Jim M already did

It might make sense to delay 2147c and 2148b L2 reprocessing until the 2149d L1 reprocessing is performed.



feedback looks good. Awaiting info from David Fisher concerning CAL file deliveries. CAL file through June 2009 in place.





closed by davin

after 5/2007 all okay

Jim M to add to L2 processing script, must process from start of mission

Offset Data - more analysis in progress (see J Bonnell)

test files have been sent SPDF. Awaiting Vladimir and SPDF feedback.

test files have been sent SPDF. Awaiting Vladimir and SPDF feedback.

test files have been sent SPDF. Awaiting Vladimir and SPDF feedback.

moved to JimM to check and committ  
Jim M to check and committ

when 2085a-f completed

Separate L1

It means that the cal routines for EFI and SCM need to pass a couple of keywords to thm\_cotrans and/or spinmodel routines, so that the spin phase and spin attitude corrections will be used.

March 1-15, 2008 complete. at Feb 13,2009  
and processing. Second processor March  
14,2009. Going to March 15, 2009

Jim L, Jim M and Pat

ESA is now fine and FBK was bad packet

Jim L, Jim M and Pat

check on 12/14 if fix worked

Aaron to retest

for L2 cdf variables

in progress; new plots show up. Cron job needed for future dates and that is in progress.

closed

Up now, so moments match temperature legends all the same. Vassilis to verify.

Mod complete and last 10 days reprocessed. A full reprocessing is in January. Closed

No need to change anything. Behavior is automatic.

Quick fix, but testing seems to suggest fix is working.

Jim L to send Jim M an email

Closed?

Hannes: attitude corrections using v02 state  
JimL writes to V03. Next FGM L2 and the rest.  
See tasks 2273(Hannes), 3035 (Jim L), 3036 (Jim M)

This week

Closed

Closed

Closed

Closed

Closed

on going

Closed

Closed

Closed

Closed

Reassigned as 3025 for Pat

Closed

**Closed**

Closed, see Task 3035, Jim M



Task #	Task Description	Reported By	Priority	Status	Assignment
<b>Test Scripts</b>					
	CLWindows QA - General (cotrans, DP, Plot, Over Plot)		QA	Open	
	CL Windows QA - FGM (load, cal, cotrans)		QA	Open	
	CL Windows QA - Getspec and Fac		QA	Open	
	CL Windows QA - Additional Plot Functions		QA	Open	
	CL Windows QA - SpecPlot		QA	Open	
	CL Windows QA - Mini Language (script or suite)				
	CL Windows QA - SCM (load, cal, cotrans)		QA	Open	
	CL Windows QA - FIT (load, cal, cotrans)		QA	Open	
	CL Windows QA - ASI (load)		QA	Open	
	CL Windows QA - GMAG (load)		QA	Open	
	CL Windows QA - STATE (load)		QA	Open	
	CL Windows QA - ESA (load, cal, cotrans)		QA	Open	
	CL Windows QA - EFI (load, cal, cotrans)		QA	Open	
	CL Windows QA - FGM (load)		QA	Open	
	CL MAC QA - FGM (load, cal, cotrans)		QA	Open	
	CL MAC QA - EFI (load, cal, cotrans)		QA	Open	
	CL MAC QA - FBK (load, cal)		QA	Open	
	CL MAC QA - SST (load, cal, cotrans)		QA	Open	
	CL MAC QA - Tsyganenko, Trace, Trg, Getspec & Fac		QA	Open	
	CL Unix QA - General (Plot, Over Plot)		QA	Open	
	CL Unix QA - FGM (load, cal, cotrans)		QA	Open	
	CL Linux QA - General (cotrans, DP, Plot, Over Plot)		QA	Open	
	CL Linux QA - SCM (load, cal, cotrans)		QA	Open	
	CL Linux QA - MOM (load)		QA	Open	
	CL Linux QA - SST (load, cal, cotrans)		QA	Open	
	CL Linux QA - ESA (load, cal, cotrans)		QA	Open	
	CL Linux QA - Tsyganenko, Trace, Trg, MVA and Vector Rotate		QA	Open	
<b>Test Suites</b>					
	gui_tplot		QA	Open	
	nudge		QA	Open	
	Data Processing		QA	Open	
	layout options		QA	Open	
	line options		QA	Open	
	Axis Options		QA	Open	

markers	QA	Open
panel Options	QA	Open
rubberband	QA	Open
variable options	QA	Open
Calculate	QA	Open
part getspec	QA	Open
save data as	QA	Open
Export to Image	QA	Open
Save Open	QA	Open
page options	QA	Open
z axis	QA	Open
load themis data	QA	Open
pulldown menus	QA	Open
toolbar	QA	Open
windows	QA	Open
ESA Full Suite	QA	Open
SST reduced Suite	QA	Open
FGM Full Suite	QA	Open
GMAG Full Suite	QA	Open
ESA Full Suite	QA	Open
ASK Reduced Suite	QA	Open
SST Reduced Suite	QA	Open
SCM Reduced Suite	QA	Open
FIT Reduced Suite	QA	Open
MOM Reduced Suite	QA	Open
EFI Reduced Suite	QA	Open
FFT Reduced Suite	QA	Open
STATE Reduced Suite	QA	Open