Task #	Task Description	Date Opened	Reported By	Pri	Assigned To	Notes	Estimate	A&E	Crib	QA Suite or Script	UG	Qref	Adm Guide	Dev Guide
	To be Assigned or Discussed													
4353														
4354														
4355														
	Hannes													
4153	maintenance of gmag stations "Exclude List"	10/11/10	David	0	Hannes	Exclude List updated 7/11/11								
4018a	New Calibration FGM parameters and spin axis offsets	5/10/10	Hannes	1	Hannes	**8/22/11 Hannes: start new Artemis offsets this week (currently covered through mid June). Themis covered through Mid August and will not be updated until the end of the year 2011.**								
4080	Attitude Determination next few months	6/21/10	Hannes	1	Hannes	After 4018a for Artemis is complete will work on spin phase and axis offsets								
4034b	Ferdinand sent was an attempt on his part to automate the shadow processing. He wanted feedback whether the products produced are adequate and if the code is amenable to automation. We can pick it up with him once you have gone through it.	4/14/10	Vassilis	1	Hannes	**Waiting for feedback from Ferdinand about state of inner probe eclipse models, long & short eclipse models**								
2082a	Spin modeling during shadows BugZid=43		Vassilis	2	Hannes	Jim L to write routine. Hannes send info.								
	Aaron													
QA038	Windows - Layout option	1/21/11	Christine	1		**start 8/15**								
QA038a	6.a) I forgot to click Add to make new panels for each spacecraft's data and thus ended up with all data on one panel. The only way to fix this, that I saw, was to delete all the data and then start over, making sure to add a panel before selecting each dataset. As a user, I feel there should be an option to move data from one panel to another without having to remove it and select it again. For instance, we should be able to click and drag a piece of data from one panel to another panel.	1/21/11	Christine	1	Aaron	**awaitin g and h**	4-6 hrs							
QA038c	6.f) When the 5 panels have been made of the data, the type of data in each panel is labeled but the spacecraft is not included in the label. You only know which spacecraft is represented if you hover your mouse over the panel. I think the panel should have the sc label, especially for printing purposes.	1/21/11	Christine	1	Aaron	**come up with how to fix options with level of effort - one or two load to edit**	2 hrs							
QA038d	REALLY don't like how when you select the dependent variable, the window slides over to center it. I want it to stay wehre it was unless I slide the window myself. Otherwise I'm constantly sliding it back to the left in order to see which variable I want to select.	1/21/11	Christine	1	Aaron	fix only for windows - if it can be fixed	4 hrs							
QA038g	10.c,d) If you change the panel row number, you have to also change the panel row number to which you are changing it to. Ex. 10.c) asks to select the 3rd panel and click the up arrow key twice, and click apply. You can't do this unless you ALSO select panel 1 and click the down arrow key twice. Same for 10.c and d...You can't apply panel 3 to row change to 5 unless you change 5 to some unused row number. Should this be automated? If not then at least the suite's directions should be altered.	1/21/11	Christine	1	Aaron	alter test suite and resolve for simple case - talk to Christine - **discuss with Pat eta 8/29 or 8/30**								

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QA038h	10.h) If you don't click cancel, but apply it and hit ok and go back to manually change it back to the original plot, the plot keeps the same width for each panel as when there were 3 columns, even now there is only 1, so each panel is very short instead of being its full, one-column size. This shouldn't be the case.	1/21/11	Christine	1	Aaron	analysis - for discussion with level of efforts eta 8/29 or 8/30	6 hrs							
	Ben													
4310a	Edit master CDFs to include the new variables	8/8/11	Vassilis	0	Ben									
4334	Python Migration - testing and Migration	8/22/11	David	0	Ben									
4309	Python migration - series of tools and scripts	8/5/11	Jim L	1	Ben	awaiting VM python2 to be ready								
4214	THEMIS Pipeline proof of concept regression tests				Ben									
4214a	VC->L0	3/23/11	Jim L	1	Ben	awaiting VM python2 to be ready								
4214b	L0->L1	3/23/11	Jim L	1	Ben	awaiting VM python2 to be ready								
4214c	L1>L2	3/23/11	Jim L	2	Ben									
4214d	empermeris->state v00	3/23/11	Jim L	1	Ben									
4001	Document: Administrators Guide	3/1/11	David	1	Ben									
4001a	Review Tim Quinn's scripts and update admin guide for input and output locations	8/26/11	Jim L	1	Ben	in progress								
	Jim L													
4334	Python Migration - testing and Migration	8/22/11	David	0	Jim L									
4310	state files: including P1, P2 SSE and SEL coordinates	8/8/11	Vassilis	0	Jim L									
4310g	take Jasper's code and incorporate into thm_cotrans	8/8/11	Vassilis	0	Jim L	in progress								
4310b	Change the V00 and V02 ascii ephemeris to state CDF processing to include the new SSE and SEL ephemeris variables	8/8/11	Vassilis	0	Jim L									
4310c	Change thm_load_state to allow loading the new variables	8/8/11	Vassilis	0	Jim L									
4310d	Test that revised CDFs have correct data	8/8/11	Vassilis	0	Jim L	See Sabine for verification of code								
4310e	Deploy code changes and new master CDFs for use in the automated processing	8/8/11	Vassilis	0	Jim L									
4310f	Reprocess state CDFs for entire mission	8/8/11	Vassilis	0	Jim L									
4326	The ARTEMIS science team is keen to have a look at the most recent lunar data, with the eclipse spin model corrections turned on. That processing isn't fully automated yet, so it'll take me a couple of hours to set up and run Ferdinand's eclipse processing code. I told Vassilis I'd try to have at least the THB and THC products up to date by next Wednesday's telecon.	8/18/11	Vassilis	0	Jim L	in progress - Ferdinands code not working on all eclipses; Spin model for Artemis probes expended fuel. Awaiting info from FGM Team								
4331	I noticed a couple of warnings overnight from the automated definitive ephemeris processing. It looks like a couple of files from 2008 got updated: THEMIS_B_EPHDEF60_08135_000100_08141_210000 THEMIS_B_EPHDEF60_08141_210100_08148_140000 THEMIS_B_EPHDEF60_11203_020100_11229_110000 was also picked up (as expected), and processed normally as far as I can tell. I haven't tracked down the exact problem with the 2008 files that were also processed last night. It's possible that my script just isn't working properly or the case when an ephemeris file is updated, but the preceding and following files are not. But it appears, from the processing logs, that the data in those two files may have differed from what was there previously. Otherwise, it should have detected that the updated products were identical to the published products, and skipped the update. Any idea why these files might have been updated, and what (if anything) was different about the updated version?	8/19/11	Jim L	1	Jim L	Dan Cosgrove will update ascii files and then you will do a manuel reprocessing as needed								
	Jim M													
4333	We are trying to download themis wave burst data. The codes we are using are thm_load_efi and thm_load_scm. Some cdf files have downloaded properly but often we will get error messages.	8/22/11	Christopher Colpitts - University of Minnosota	0	Jim M	8/22/11: Jim sent email to researcher								

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4344	thm_load_mom: Vassilis: Sorry I meant the speed has gone "up". Possible to either speed the onthefly processing up, or to remove the deadtime as being default? **Vassilis: Lets make sure, however, that the keyword is set as ON for L2 onboard moment computation.**	8/22/11	Vassilis	0	Jim M	from Jim 8/23/11: Speeding up the onthfly processing would be difficult, without speeding up thm_part_moments itself, the deadtime calculation calls thm_part_moments twice, once with 0 dead time, and once with nonzero dead time. It's not clear to me how that step can be avoided. Unless I start messing around inside Jim's ESA code, to add a flag that allows the particle distribution to be obtained with or without dead time. -- then I might be able to reduce the time to do the correction to only one call to thm_part_moments, but with extra flags so that inside thm_part_moments, each moment can be calculated with and without dead time. This would increase the time that thm_part_moments spends, but it would probably be shorter than calling thm_part_moments twice. So you might speed up by a factor of 1.5 or so. It's easy to remove the dead time calculation as the default, and just change the keyword to /dead_time_correction from /no_dead_time_correction.								
4295	Update Nightly build script, other directory changes	7/25/11	Jim M	1	Jim M	**in progress - davin's file yet to be completed**								
2283b	There is another aspect to this problem. Dead-time corrections are severe for ion ESA SW data and there are no dead-time corrections for onboard moments. Some algorithm will have to be developed that does this correction after the fact. Davin developed an algorithm like this for Wind 3DP. That algorithm may not work directly due to differences in energy sweeps, but something like it could be developed for THEMIS. Davin and I can provide some advice and direction. Similarly electron onboard moments in the SW may also need some corrections -- this should also be worked out at the same time. **Send old code to Pat **	11/2/09	Jim Mcfadden	1	Jim M	**Jim McFadden showed me what he had in mind for improving the corrections for ground-processed moments. This involves calculating the dead-time correction based on a higher resolution energy grid, with 4 different points per output energy channel. In progress: Jim M 8/26/11: Thanks for looking at this. It also seems the the pressure tensor has some interesting spikes due to the dead-time correction, while the scalar quantities ssme to be more stable. I'll check this out.**								
4316	I found a bug in thm_part_moments2. If you don't set the trange keyword and you try to load data that isn't available the routine will crash instead of failing gracefully. The error occurs on line 172 of thm_part_moments2 Here is an example, ERROR - tha peir data not loaded % Variable is undefined: TRANGE. % Execution halted at: THM_PART_MOMENTS2 172 /home/pcruce/IDLWorkspace/themis/spacecraft/particles/moments/thm_part_moments2.pro % THM_PART_GETSPEC 420 /home/pcruce/IDLWorkspace/themis/spacecraft/particles/thm_part_getspec.pro % THM_PART_MOMENTS2 58 /home/pcruce/IDLWorkspace/themis/spacecraft/particles/moments/thm_part_moments2.pro % THM_PART_GETSPEC 420 /home/pcruce/IDLWorkspace/themis/spacecraft/particles/thm_part_getspec.pro	8/12/11	Pat	1	Jim M									

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4317	An additional bug, this may be related to the feature request that I reported earlier. (That thm_part_getspec often loads data even when you've already loaded it.) In this case, it appears that the routine isn't loading data that should be loaded. I think that it may have gotten confused because I had previously loaded data for that day, but only for a short interval. In specific, I had loaded level 2 esa data on 2007-07-16/15:00-17:00, and generated pitch angle spectra for that time using thm_part_getspec autoloading the l0 data. Then when I tried to do the full day,I got the error. But if it was working correctly, it should have realized that I didn't have the whole day and reloaded the data.	8/12/11	Pat	1	Jim M									
	Lydia													
4302	"bad" themis thg l2 files - mag files	8/1/11	Tami	0	Lydia	**multiple versions of idl_make_cdf (priority 3) Jim M to look at**								
4322	there was one clear mistake and a few oddities in the list of GMAG locations on the THEMIS web site. I also changed the formatting on several Excel cells so it looks nicer to the eye. Would you please replace the file THEMIS_GMAG_Station_List_May_2011.xls with the attached one.	8/17/11	Harald	1	Lydia	**verify if done**								
4346	I got a question from a grad student(Shan shan) that made me think of a missing feature. The routine tinterpol_mxn should have a 'repeat/nearest neighbor' option when interpolating. That is, instead of picking a value between the two adjacent points when interpolating, it should repeat the value of the nearest point. This came up when Shan Shan was trying to interpolate a bit-packed variable(the ROI data), if you use normal interpolation on this type of variable, the result will be garbage. It looks like this routine gets a lot of usage so I think it would be a fairly visible improvement.	8/23/11	Pat	?	Lydia									
4347	Sort out what is needed to get all Yellowknife gmag data available.	8/23/11	Vassilis	1	Lydia									
4349	I was loading some FFT data in the GUI and just wanted to check that the behaviour was correct. If I attempt to load fff_32_adc it brings up a message: THM_UI_LOADED_DATA::ADDDATA--> Problem loading: tha_fff_32. GUI data model does not currently support data with dimensions greater than 2. (and also messages for tha_ffp_32 and tha_ffw_32) But it does show fff/p/w_adc, src, hed as having loaded. I don't actually know what any of these quantities are so I'm not sure if this is what it should be doing. (This doesn't seem to happen in v.6)	8/26/11	Lydia	1	Lydia	**discuss at S/W meeting**								
4350	As an addendum to this: vaf vap vaw vbf vbp vbw are also listed in the load panel as EFI L2 quantities, but do not load.	8/26/11	Lydia	1	Lydia									
4351	I found that EFI L2 quantities eff_e12_efs and eff_e34_efs are listed in the Load Data panel in the GUI, but if you attempt to load them it says that "Input: eff_e12_efs eff_e34_efs is not valid". It seems these variables are not on the list of valid names.	8/26/11	Lydia	1	Lydia									
4343	Bay Mills was installed backwards, where sensor north is facing south. Apart from sending someone to rotate the sensor 180 degrees, there is nothing that we can fix. What we can do is add a matrix transformation and reprocess the data. ***** Awaiting Katheryn *****	8/22/11	Shanshan	1	Lydia	I just talked to Kathryn and she indicated that she would prefer that the rotation be done in their flat files. When they're done reprocessing they'll let us know and we'll have to redownload & reprocess the BMLS data. The one caveat is that they've never really exercised this rotation matrix in their calibration procedures, so there is the possibility that it will have bugs. We might want to start by downloading a small amount of the data and then having Shanshan verify that their modification fixed the problem before we do the reprocess.								

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4313	While on the telecon with Alberta, I was looking at the IDL documentation for their built in http download object. It actually makes it look like the http authentication, with username and password would not be too difficult. Since this keeps coming up, we might want to consider dedicating a few hours of programming time to see how hard it actually is to do authenticated downloads. If it turns out not to be too hard, it would probably give us the capability to extend our system to a lot more types of data.	8/11/11	Pat	2	Lydia	**discuss at software meeting**								
4274	Bob Clauer mentioned that he was interested in importing his Antarctic gmags into TDAS.	6/30/11	Bob Clauer	2	Lydia	Bob email us and said he would provide necessary data.								
3086	add MACCS gmag data from 2007 to our data archive. We already have MACCS data for some years and a process that automatically downloads it/converts to CDF. So the task would involve finding missing files from 2007 and feeding them into our pre-existing processing framework. It should be pretty straightforward, but probably non-trivial because of learning curve/unexpected details.	2/19/10	James Weygand	2	Lydia	**Email requesting other 2007 sites to be put on ftp site. From Erik at Augsburg: We are indeed moving information from an older computer to a newer one, with both currently in service and with the general designator space.augsburg.edu now pointing at the newer computer leaving the old 'space' computer as yspace, as you noticed. We are indeed moving information from an older computer to a newer one, with both currently in service and with the general designator space.augsburg.edu now pointing at the newer computer leaving the old 'space' computer as yspace, as you noticed.**								
2175	L2 File Definitions Document	3/1/11	David	2	Lydia	**25% time - in progress**								
	Pat													
4345	From looking at the code, it appears that the ground track plots are using t89. I think that they originally intended to use t96, but later changed the model, but not the plot labels. We should double check with Harald Frey before we take any action. David, we should probably track this as a separate bug, as I suspect that we'll have to fix the plots and reprocess the plots. ** reprocessing in progress ** Emmanuel to make change as well	8/23/11	Pat	?	Pat	If these programs are called with the keyword /single_time then the T96 will be run through the get_mline routine which Sabine wrote a couple of years ago. If this keyword is not used, then the T89 model will be used through the code by Haje Korth. But I think as the program name in both map_themis_state_t96 and map_themis_state_south_t96 specifically included the t96, it should be consistent and just use the T96. I would also rather consistently use the T96 instead of the T89 as it provides better results in the tail. the very recent plots look funny as the right hand side "GSE orbits" is not right, most likely because of the ARTEMIS probes. I will look into it and try to fix it together with the T89-T96 fix. Harald								

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4345	continued					Pat: Harald is going to update the code so that it consistently uses the t96 model. So you can move forward with the t96 label in the keys. The plot description document will also need to be updated to indicate t96. Let me clean up both programs, and submit them to svn. I will send you a short note once that is finished. I would caution everybody to use the ground tracks on the web site for major scientific conclusions, but it would certainly be better to have that corrected. I hope it will not be too much of an effort to reprocess these plots.								
4345	I fixed everything in the spacecraft mapping for the northern hemisphere and made a number of checks to make sure that there are no more hidden problems. The file has substantially changed. Next I will do the same for the mapping to the southern hemisphere and will submit the updated programs through svn. I send you the northern file already so you might be able to set up a script to run over the weekend. I recommend to redo the whole mission because Haje Korth pointed out that even the mapping for 2007-2010 has slightly changed with the new geopack version. In order to speed things up I added a keyword quick which will do the mapping only for every 10 minutes instead of every minute. This is a substantial time saving, without much obvious decrease in quality. So the new call would be for instance map_themis_state_t96,'2010-10-06/00:00:00',/quick,/gif	8/26/11	Harald	0	Pat									
4352	Sorry to be a stickler but lunar plots (see attached) as well as 5 spacecraft plots with the moon included(not shown here) were constructed with symbol at the end of the interval, whereas THEMIS, near Earth plots have the symbol at the beginning of the interval. Can reprocessing take place to make them consistent (?) i.e., symbol at the beginning of the interval, like THEMIS used to be in the early days?	8/26/11	Vassilis	0	Pat	**reprocessing in progress**								
4138f	Run simulation for range of initial positions around the full sphere.	9/17/10	Davin	1	Pat	**Software to be purchased and build the geometry by hand. (working with Rob Lewis) in progress**								
4152	verify the location of the sun-contaminated bins for each spacecraft and any change in location over time(they should change very slowly if at all). They would then re-activate the sun contamination masking. It was previously disabled because the masking was originally in the from place. Davin said that he wants to create the new configuration files that would be uploaded to the spacecraft.	10/8/10	**Vassilis and Davin**	1	Pat	**Pat has enough info to generate tables to send to the S/C, Davin to ask Peter Harvey for more info. Davin will talk to Peter next week. 7/26/11 David reminded Davin;8/22/11 Vassilis says another week**								
4267c	Write code to remove proton and electron contamination from the electron and proton distributions using data and efficiencies from the F & O channels.	6/27/11	Pat	1	Pat	**in progress - updating code to new method**								
4321	While checking this out, I noticed that the overview plots are still using the old version of the IDL geopack library. This is going to give inaccurate results since the old version of the GEOPACK only had IGRF coefficients that could extrapolate up to 2010. We should really update to the new version of the library. It has gotten enough testing that I think that we can consider it stable.	8/15/11	Pat	1	Pat									
4306	Overview web page navigation	8/1/11	Vassilis	1	Pat	**Emmanuel not able to do**								