Task #	Task Description	Date Opened	Reported By	Pri	Assigned To	Notes	Estimate	A&E	Crib	QA Suite or Script	UG	Qref	Adm Guide	Dev Guide
	To be Assigned or Discussed													
4268	Kickoff Meeting -VM Hardware - migration and QA testing (week of 8/22-8/26)	7/5/2011	David	1	Team	Greg and Jon to attend								
4313	While on the telecon with Alberta, I was looking at the IDL documentation for their built in http download object. It actually makes it look like the http authentication, with username and password would not be too difficult. Since this keeps coming up, we might want to consider dedicating a few hours of programming time to see how hard it actually is to do authenticated downloads. If it turns out not to be too hard, it would probably give us the capability to extend our system to a lot more types of data.	8/11/2011	Pat	?	?									
4314a	The SST data cannot be displayed in Geometric mode if rotation is selected as 'xyz'.	8/11/2011	Xuzhi	?	Aaron	From Aaron 8/10/11: 99% sure that number 1 isn't a bug (the SST data doesn't cross the xy-plane in DSL). **Aaron: Xuzhi is going to try to reproduce the first two bugs he reported so I can double check that they are actually usual behavior.**								
4314b	In the 2D interp mode, the SST data can be displayed only in some of the cases (rotation keyword-dependent, and seemingly time-dependent...)	8/11/2011	Xuzhi	?	Aaron	From Aaron 8/10/11: likely a combination of too few data points in the SST data and the specific way in which points are selected for the 2D interpolation method (it's the same as the old slices code). **Xuzhi is going to try to reproduce the first two bugs he reported so I can double check that they are actually usual behavior.**								
4315	Possible swithch over the three web DP Processing functions that are not working to Bryce's comparable reports.	8/12/2011	Jim L	1	Bryce									
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	8/12/2011	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.	8/12/2011	Pat	?	Jim M									
4327	Andre came by again after re-working his plots and said that they looked good and reflected what was expected. There does seem to be a plotting option (from the old software) to plot the exact energy limits that was temporarily disabled and part of it never re-instated. It would be a 2-3 hour task to implement it. He also mentioned that he will continue tinkering with the software and will let me know what he finds.	8/18/2021	Andrea	?	?		2-3 hrs							
4330	Andre stopped by again yesterday to mention that everything looked good. He did make a suggestion, which I agree with, to change the keyword that controls slice type ("TYPE") since the same keyword is already used in the load routine and it could get confusing.	8/19/2011	Andrea	?	Aaron		1/2 hr							
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?	8/19/2011	Jim L	0	Jim L	Priority 0 until issue cause is determined								
	General													
4307	Data Processing Status Reports not up to date	8/1/2011	Jim L	1	Bryce									
4307a	Science Data (VC3) Dump Verification	8/1/2011	Jim L	1	Bryce									
4307b	Engineering Data (VC1) Dump Verification	8/1/2011	Jim L	1	Bryce									
4307c	Virtual Channel (VC) File Stats	8/1/2011	Jim L	1	Bryce									
4013	Plot Description Doc Button	3/22/2010	David	3	Emmaunel	**see Pat**								
4306	Overview web page navigation	8/1/2011	Vassilis	1	Emmaunel	see Pat								
	Harald													
	L1's and mosaics are up-to-date and available through June 2011				Harald									
	Thumbnail Data:				Harald	Updates ready 7-10th of the next month								
	- cdf files done until June 2011													
	- overview plots done until June 2011													
	- movies done until June 2010													

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	Full-resolution raw data:				Harald									
	- complete for 2007, 2008, 2009													
	- Up to date and complete until September 2010													
	Full resolution data:				Harald									
	- data cdf done for all 2007 and 2008 and up todate and complete through September 2010													
	- keogram cdf done for 2007-2008, 2008-2009 and up to date and complete through September 2010													
	Web site mosaics and movies:													
	- Mosaics and movies reprocessed for 2007, 2008, 2009 and 2010 seasons													
	- Mosaics and movies up to date until June 2010													
	Web site overview plots with full resolution data:													
	- overview plots done for 2007-2009 and until September 2010													
Hannes														
4153	maintenance of gmag stations "Exclude List"	10/11/2010	David	0	Hannes	Exclude List updated 7/11/11								
4018a	New Calibration FGM parameters and spin axis offsets	5/10/2010	Hannes	1	Hannes	**working on the Tha Thd and The zero levels. I submitted the first set to Braunschweig. I will submit the final set that makes the offsets up to date for Tha Thd and The by tomorrow. ; email from Braunschweig: Karl-Heinz will produce new Artemis calibration files in 2-3 weeks (first week in June).**								
4080	Attitude Determination next few months	6/21/2010	Hannes	1	Hannes	Attitude determinations to resume, results should be available ~2 weeks dependent on 4018a								
4034b	Ferdinand sent was an attempt on his part to automate the shadow processing. He wanted feedback whether the products produced are adequate and if the code is amenable to automation. We can pick it up with him once you have gone through it.	4/14/2010	Vassilis	1	Hannes	**Waiting for feedback from Ferdinand about state of inner probe eclipse models, long & short eclipse models**								
Aaron														
4305	General Slices feedback from UCLA (Stefan, Andrei, Shanshan and Xuzhi) and UCB (Jim McFadden)	8/1/2011	Vassilis	1	Aaron	**update the crib as well**								
4308	This issue is on the border between bug and feature. At the moment, thm_part_getspec reloads SST or ESA data, even if the correct data is already loaded into memory. This makes the routine run longer than it needs to and can cause errors if the data that is currently in memory gets overwritten unexpectedly by the routine. I think we should change it so that it checks if it needs to load the data before it loads the data.	8/5/2011	Pat	1	Aaron	**check time routine not over writing at other times**								
4314c	A minor one is that the keywords of plot contour lines (as well as the number of these contour lines) are not working for 2D interp mode.	8/11/2011	Xuzhi	1	Aaron									
QA038	Windows - Layout option	1/21/2011	Christine	2										

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QA038a	6.a) I forgot to click Add to make new panels for each spacecraft's data and thus ended up with all data on one panel. The only way to fix this, that I saw, was to delete all the data and then start over, making sure to add a panel before selecting each dataset. As a user, I feel there should be an option to move data from one panel to another without having to remove it and select it again. For instance, we should be able to click and drag a piece of data from one panel to another panel.	1/21/2011	Christine	2	Aaron	checkbox - toggle	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.	1/21/2011	Christine	2	Aaron	come up with how to fix options with level of effort	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.	1/21/2011	Christine	2	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.	1/21/2011	Christine	2	Aaron	alter test suite and resolve for simple case - talk to Christine - **discuss with Pat**								
QA038h	10.h) If you don't click cancel, but apply it and hit ok and go back to manually change it back to the original plot, the plot keeps the same width for each panel as when there were 3 columns, even now there is only 1, so each panel is very short instead of being its full, one-column size. This shouldn't be the case.	1/21/2011	Christine	2	Aaron	analysis - for discussion with level of efforts	6 hrs							
	Ben													
4310a	Edit master CDFs to include the new variables	8/8/2011	Vassilis	0	Ben									
4309	Python migration - series of tools and scripts	8/5/2011	Jim L	1	Ben	**in progress**								
4214	THEMIS Pipeline proof of concept regression tests				Ben									
4214a	VC->L0	3/23/2011	Jim L	1	Ben	**in progress - one probe for a specific date**								
4214b	L0->L1	3/23/2011	Jim L	1	Ben	**in progress - all probes for a specific date**								
4214d	empermeris->state v00	3/23/2011	Jim L	1	Ben									
4001	Document: Administrators Guide	3/1/2011	David	1	Ben	**checked in a version - will revise as needed**								
	Jim L													
4310	state files: including P1, P2 SSE and SEL coordinates	8/8/2011	Vassilis	0	Jim L									
4310g	take Jasper's code and incorporate into thm_cotrans	8/8/2011	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	8/8/2011	Vassilis	0	Jim L	**in progress**								
4310c	Change thm_load_state to allow loading the new variables	8/8/2011	Vassilis	0	Jim L									
4310d	Test that revised CDFs have correct data	8/8/2011	Vassilis	0	Jim L									
4310e	Deploy code changes and new master CDFs for use in the automated processing	8/8/2011	Vassilis	0	Jim L									
4310f	Reprocess state CDFs for entire mission	8/8/2011	Vassilis	0	Jim L									

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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.	8/18/2011	Vassilis	0	Jim L	**in progress - Ferdinands code not workin g on all eclipses**								
4034a2	thm_parts_moments update	11/22/2010	Vassilis	1	Jim L	initial simple way, final fix is to fix esa and sst 3D data structures								
4034a3	awaiting feedback and performing analysis	11/22/2010	Vassilis	1	Jim L	Tips of the Month at some point?								
4268e	astrea - come up with a test , verification and migration plan	7/18/2011	David	1	Jim L	Lydia will do gmag								
4236	Ferdinand P. suggests that we make available a diagnostic quantity produced by the eclipse spin modeling procedure. Add "phase" diagnostic quantity (from eclipse spin modeling process) to L1 STATE CDF, to give end users a sense of the expected angular error in the eclipse spin model.	5/23/2011	Ferdinand	1	Jim L									
4279	I noticed that NASA has a link to a newer version of their CDF patch. We might want to update our documentation. Their newest: http://cdf.gsfc.nasa.gov/html/cdf_patch_for_idl6x_new3.html Ours: http://cdf.gsfc.nasa.gov/html/cdf_patch_for_idl6x_new.html We should probably test with this version too, just to be sure. We link to a patch for version 3.2.4, their newest is 3.3.1	7/7/2011	Pat	1	PC-Aaron, Linux-Pat, Mac-Jim L	check if there is an issue writing cdf's.								
	Jim M													
4323	Here are new Themis/Artemis calibration files (except for tha). please reprocess: thb from 2011-05-20 on, thc from 2011-05-28 on, thd from 2011-07-20 on, the from 2011-07-23 on	8/17/2011	Hannes	0	Jim M									
4324	I created a new routine to return the names, locations and other properties of the THEMIS GMAG. That routine reads a file /disks/themisdata/thg/l2/mag/Station-Code-19700101.txt. I already copied the file there and committed the IDL routine through svn, but I don't know how to add and commit the Station-Code-19700101.txt through svn because it is not in the software tree but rather in the data tree. Would you please add that file to svn and let me know how you did it so I can do it myself next time.	8/17/2011	Harald	1	Jim M									
4295	Update Nightly build script, other directory changes	7/25/2011	Jim M	1	Jim M	**in progress - davin's file yet to be completed 8/24**								
2283b	There is another aspect to this problem. Dead-time corrections are severe for ion ESA SW data and there are no dead-time corrections for onboard moments. Some algorithm will have to be developed that does this correction after the fact. Davin developed an algorithm like this for Wind 3DP. That algorithm may not work directly due to differences in energy sweeps, but something like it could be developed for THEMIS. Davin and I can provide some advice and direction. Similarly electron onboard moments in the SW may also need some corrections -- this should also be worked out at the same time.	11/2/2009	Jim Mcfadden	1	Jim M	**Jim McFadden showed me what he had in mind for improving the corrections for ground-processed moments. This involves calculating the dead-time correction based on a higher resolution energy grid, with 4 different points per output energy channel. In progress**								
4311	MOM dead=time correction the default for L1 MOM inputs, with a keyword to turn it off.	8/8/2011	Vassilis	1	Jim M									
4312	Quality flags for efi are wrong including electric field offsets in computation. On hold until Michael Hartinger sorts out.	8/8/2011	Vassilis	1	Jim M	**On Hold**								
4233	Angular Correction for particle data - use Jim McFadden's code if available	1/9/2011	Vassilis	2	Jim M									
4218	thm_part_moments angular restriction	4/4/2011	Vassilis	3	Jim M									

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	Pat													
4138f	Run simulation for range of initial positions around the full sphere.	9/17/2010	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.	10/8/2010	**Vassilis and Davin**	1	Pat	**Pat has enough info to generate tables to send to the S/C, Davin to ask Peter Harvey for more info. Davin will talk to Peter next week. 7/26/11 David reminded Davin**								
4267c	Write code to remove proton and electron contamination from the electron and proton distributions using data and efficiencies from the F & O channels.	6/27/2011	Pat	1	Pat	**in progress - code in written, need data from Drew to test code**								
4156	Calibration of different anodes - energy efficiency	10/18/2010	Vassilis	1	Pat	**data received for themis A, extended crib sheet in progress; need data for other probes; A&E ; sent to Vassilis, Drew and Davin**								
4320	Vassilis mentioned to me that the particles in the overview plots weren't showing up over the weekend. It turns out that this was because of a bug in some code that I had checked in. I'm not sure how it got into the production so quickly but it did. I fixed it and the overviews are about to start reprocessing.	8/15/2011	Pat	1	Pat									
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.	8/15/2011	Pat	1	Pat									
4068	Lynn Wilson possible enhancements	6/1/2010	Lynn Wilson	1	Pat	Review Lynn's software and generate list of features								
4287	Switching SST Load routines to thm_sst_load2 for SST calibrated data	7/15/2011	Pat	1	Pat									
4303	I've got a feature request. edit3dbins, a useful utility for viewing time slices of particle data, only shows data on a normalized linear z-axis. We should add an option for a log z-axis. It is almost always useful to view particle data on a log axis, and I've found that this limitation to edit3dbins has slowed me down when working with SST data. For example, when I want to remove sun contaminated bins from SST data, I have to run edit3dbins multiple times because I can't see all the contaminated bins on a linear scale.	8/2/2011	Pat	1	Pat									
447	Save THEMIS document: Attempting to save to a read only file in Windows outputs the correct error message, but IDL crashes immediately afterwards.	2/24/2011	Team	2	David - Pat	IDL Error report to ITT - Bjorn at ITT 6/22: what I see it has been fixed in IDL 8.1 which is available for download from our website. Let us know how things work out after you install IDL 8.1 and test this out.								