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													
	THEMIS Leap Second Discussion	9/15/11	Vassilis - Jim L											
	I have been using TIPSOD to look at the ARTEMIS orbit predictions and am finding that I am off by tens to hundreds of km. I have tentatively traced this discrepancy to the nature of the TIPSOD output - not an error in the calculation, but inadequate output. I am using SSE coords on the satellite chooser and i see SSE in the Position popup. But executing "capture position" the output is always in GSE. In converting to SSE the moon's position is given only every hour or half hour, (seems to be correlated with spacecraft time spacing, but much less frequent), so there is a loss in interpolation accuracy. Also, the GSE coords in earth radii are rounded at 2 significant figures, so this is a up to 63 km error in the conversion. If you could just fix the program to provide tabular output in the requested coordinates, and maybe go to 3 significant figures in the lunar radius, that would give me SSE to 1.7 km accuracy, which would be great.	9/15/11	Bob Grimm - SWRI			Any effort for TDAS?								
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 or Jim L or ?	**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**								
4353	ARTEMIS Full Data: Looking at THB data for Aug 26 and 27, I'm not seeing any 32x88 PEEF data (apid 457). All I'm seeing is 15x88, for the following time intervals: Aug 26: 05:44:27 to 09:03:06 Aug 27: 11:54:13 to 15:13:08 It's not a processing issue; this is the only configuration I'm seeing in the apid 457 packets for these dates. If you were expecting something else, that would be an issue for the ops team.	8/29/11	Vassilis	?	Jim L - > Ops Team	Vassilis to report to Ops Team								
4362	First Themis subscriber from CZ - Charles Univ Prague		Jaroslav Urbar			just announce								
4366	Not a high priority issue but I noticed a problem trying to log in and use x-windows tunneling. I was trying to run the SSL version of idlde. First I log into apollo from my desktop at ucla: ssh -X apollo.ssl.berkeley.edu, then I log into astraea from apollo(because IDL is disabled on apollo, for some reason): ssh astraea -X. The error I get is: /usr/openwin/bin/xset: Command not found. And when I try to call idlde, it fails.I type: "which xset", to find the location of xset and it tells me that xset is not stored at the location that ssh is looking: /usr/X11R6/bin/xset	9/8/11	Pat		IT	effect the migration?								
	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. 8/29/1: Sent to Brandswaug**								
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								

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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														
4335a	Perp_xz, perp_yz, xz,yz cannot be selected. I guess that changing the orientation vector below helps solving these problems? A friendly instruction might be helpful for new users like me.	8/22/11	Shanshan	1	Aaron	**Discuss at next S/W Meeting**								
4335b	I do not understand why there is a 'Generate' button and no 'Save' button. I can only check plots after I exported all of them, but I cannot press 'export all' directly because I have to generate the plots first and then export them. Every time I change some parameters and press 'export all' directly, I find those plots exported are the same with the old parameters. I find it a little inconvenient because I naturally would assume the new plots be according to new parameters.	8/22/11	Shanshan	1	Aaron	**Discuss at next S/W Meeting**								
4305	General Slices feedback from UCLA (Stefan, Andrei, Shanshan and Xuzhi) and UCB (Jim McFadden)	8/1/11	Vassilis	1	Aaron	**update the crib and users guide as needed**								
4340	Anything you can do to accelerate the geometric method?	8/22/11	Vassilis	1	Aaron	**discuss at S/W meeting**								
4012	When Cindy & I tried to load tha_eff on 2007-03-23, it didn't load and said some calibration quantity couldn't be found. When I tried to load the same thing, I didn't have a problem. So the trick would be to find out what changed from my computer to Cindy's computer and to figure out how often our user's computers are going to have the same problem that Cindy's computer had.	3/22/10	Pat	2	Aaron	**Jim M: I have no trouble with EFF data either for linux or windows.**								
3014	We don't have support for filled symbols. This means symbols are only outlines.	12/11/09	Pat	2	Aaron	**in progress**								
Ben														
4334	Python Migration - testing and Migration	8/22/11	David	0	Ben	**in progress**								
4214	THEMIS Pipeline proof of concept regression tests				Ben									
4214a	VC->L0	3/23/11	Jim L	1	Ben									
4214b	L0->L1	3/23/11	Jim L	1	Ben									
4214d	empermeris->state v00	3/23/11	Jim L	1	Ben	**exercised state v2;**								
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. (VC->L0->L1)	8/26/11	Jim L	1	Ben	**in progress - next step?**								
4001b	update admin guide for input and output locations L1->L2					**discuss at S/W**								
4368	Master Probe Timing Diagram	9/15/11	Jim L	1	Ben									
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		Jim L	1	Ben	**In progress. Several templates created, selecting the appropriate command line routines to test.**								
Jim L														
4334a	Python Migration - testing and Migration	8/22/11	David	0	Jim L	**in progress**								
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									
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 - email sent to ARTEMIS team on 9/1/11; earliest 9/19-9/23**								

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4310e	Deploy code changes and new master CDFs for use in the automated processing	8/8/11	Vassilis	0	Jim L	on hold until confirmation 4310d								
4310f	Reprocess state CDFs for entire mission	8/8/11	Vassilis	0	Jim L									
4326a	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	**Processed latest set of eclipses and sent an email**								
4326b	Then for Particles	8/18/11	Vassilis	0	Jim L	**in progress**								
4365	reverse-engineer the process of updating the onboard tables that define the ESA and SST angle/energy modes.	9/8/11	Vassilis	0	Jim L									
4365a	Sanity check of current configuration: Jim and Davin will provide a range of ETC memory addresses to be validated. Ops team will request a memory dump of those locations, probably on one of the inner probes, via apid 407 memory dump packets. JWL (or maybe Ben S) will write a tool to stitch the memory dump packets back together into a memory image, which Jim and Davin can inspect to make sure we are working with the correct memory range. Hopefully this will be a targetted test -- a small range of addresses, rather than a complete memory dump (which would take extra care and error checking to interpret). If it's a small enough dump, we can possibly avoid having to write a tool and just look at the raw hex from a few 407 packets.	9/8/11	Vassilis	0	Jim L	On hold								
4365b	ETC table upload utility: Davin may have something in his backups. If not, JWL will resurrect a "cmd2raw" utility we used during I&T to convert ASCII files of IDPU commands to a properly checksummed RAW command file, which the ops team can then upload to the probes. Jim McFadden and/or Davin will have to provide the list of IDPU commands.	9/8/11	Vassilis	0	Jim L	On hold								
4365c	(Maybe) ETC table image->IDPU command converter: If Jim McF or Davin can't come up with a list of IDPU commands, we may need an additional utility to take the desired ETC memory image, and convert that to a file of IDPU commands that will produce the desired memory image when executed on board.	9/8/11	Vassilis	0	Jim L	On hold								
4367	python2 kernel traps	9/7/11	Jim L	1	Jim L									
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													
4334b	Python Migration - testing and Migration L1-L2	8/22/11	David	0	Jim M	**in progress**								

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2283b	There is another aspect to this problem. Dead-time corrections are severe for ion ESA SW data and there are no dead-time corrections for onboard moments. Some algorithm will have to be developed that does this correction after the fact. Davin developed an algorithm like this for Wind 3DP. That algorithm may not work directly due to differences in energy sweeps, but something like it could be developed for THEMIS. Davin and I can provide some advice and direction. Similarly electron onboard moments in the SW may also need some corrections -- this should also be worked out at the same time. **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. eta 9/6 then Jim Mc Fadden approval								
4312	Quality flags for efi are wrong including electric field offsets in computation. On hold until Michael Hartinger sorts out.	8/8/11	Vassilis	1	Jim M	discuss with Vassilis								
4233	Angular Correction for particle data - use Jim McFadden's code if available	1/9/11	Vassilis	2	Jim M									
4302	"bad" themis thg l2 files - mag files	8/1/11	Tami	2	Jim M	multiple versions of idl_make_cdf Jim M to look at								
	Lydia													
4358	Every 6 months check that the UCLA Mag Cal have not changed.	9/6/11	David	0	Lydia	Next March 2012								
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	1	Lydia	send email to shanshan								
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	tplot and gui - discuss at S/W meeting								
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. **Augsburg investigating**	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.								

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2062	Alberta - At the moment the data files are from Dawson (daws), Churchill (fchu), Island Lake (isll) and Fort McMurray (mcmu). I will add Rabbit Lake and Taloyoak at some time but we have some issues with mag pointing at those 2 sites. If you recall, the agreement between Ian and Vassilis was that this data wouldn't be copied to become part of a mirrored archive like the existing data we provide. Instead, each file would be obtained from this site each time it is requested (using curl or some such). This means we can use our own logs to monitor data usage. Themis Software to be able to retrieve from Alberta		Vassilis	2	Lydia	email sent to alberta;								
4360	GMAG updates to Administrators Guide	9/6/11	David	2	Lydia	in progress								
	Pat													
4138f	Run simulation for range of initial positions around the full sphere.	9/17/10	Davin	1	Pat	Software to be purchased and build the geometry by hand. (working with Rob Lewis) in progress;								
4152	verify the location of the sun-contaminated bins for each spacecraft and any change in location over time(they should change very slowly if at all). They would then re-activate the sun contamination masking. It was previously disabled because the masking was originally in the from place. Davin said that he wants to create the new configuration files that would be uploaded to the spacecraft.	10/8/10	Vassilis and Davin	1	Pat	Pat has enough info to generate tables to send to the S/C, Davin to ask Peter Harvey for more info. Davin will talk to Peter next week. 7/26/11 David reminded Davin;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								
4355	IDL-VM checkout	8/30/11	Yoshimasa - lugonet	1	Pat									
4306	Overview web page navigation	8/1/11	Vassilis	1	Pat	Emmanuel not able to do								