| Task # | Task Description | Date Opened | Reported By | Pri | Assigned To | Notes | | | 1 | QA | 1 | | |
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| | | | , | | | | Estimate | A&E | Crib | Suite or | UG | Qref | Adm Guide |
| | To be Assigned or Discussed | | | | | | | | | Script | | | |
| | It appears that some of the data in the GUI overview plot for probe D (on the default day) has been shifted up one panel. Each panel starting below the keogram appears to contain the data intended for the panel below it, judging by the labels and panel sizes. | 9/29/2011 | Aaron | 1 | Aaron | Is this using the bleeding edge or v6.0? If the bleeding edge please check v6.0. | | | | | | | |
| | Radius values in TIPSOD vs TDAS | 9/30/2011 | David | | | For discussion | | | | | | | |
| | I was having some trouble getting the mouse click feature to work with the various tplot functions in TDAS after upgrading to a new system running the Lion OS. After poking around a bit it looks like there are a couple X11 settings that need to be changed to allow clicking of tplot windows (such as when using the tlimit command). In X11 preferences I enabled the following: Input: Emulate three button mouse Windows: Click-through Inactive Windows After enabling those I was able to click on tplot windows again. Just passing along the info in case there are others who may experience this issue. | 9/30/2011 | Justin Lee - UCLA | ? | ? | Pat: This looks different than the instructions that we have in the quick reference guide. I think that we may need a new set of instructions for newer macs. Jim L: Maybe we should upgrade my Macbook from OS X release "Leopard" to "Lion". (There's an intermediate "Snow Leopard" release between those twomaybe also worth testing?) It might even be possible to install all three OS versions, so we can boot into whichever one we need for testing or troubleshooting. | | | | | | | |
| | One is that makepng doesn't appear to work for OSX Lion. Two is that tlimit doesn't work right in OSX Lion. He said that he wasn't having any of these problems in Snow Leopard, and he's going to roll back to the previous OS. But we should probably still try to resolve these issues for future users. | 9/30/2011 | Justin Lee - UCLA | ? | ? | | | | | | | | |
| | etting a too many points error from the wavelet routine that he doesn't get when he uses the bleeding edge from 2011-01-07. I looked at the wavelet svn log it does appear that there was a burst of commits to the wavelet.pro routine in February. It may be that this fix doesn't work in this case. This last one is unrelated to the OS version. | 9/30/2011 | Justin Lee - UCLA | ? | ? | | | | | | | | |
| 4057 | General | 0/4/004.0 | Devid | | Laura | EV/L this list shout using EEONO | | | | | | | |
| | Laura is looking into the processing of EPO Spectra jpgs. As this has been a problem for more than a year it is probably not a high priority. | 9/1/2010 | David | n/a | Laura Petacolas | FYI - thinking about using EEONS instead of EPO Spectra | | | | | | | |
| 4450 | Hannes | 10/11/0010 | Devid | 0 | Horres | Evoludo Liot undoted 7/44/44 | | | | | | | |
| | maintenance of gmag stations "Exclude List" | 10/11/2010 | David | 0 | Hannes | Exclude List updated 7/11/11 | | | ļ | | ļ | | |
| 4018a | New Calibration FGM parameters and spin axis offsets | 5/10/2010 | 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 | 6/21/2010 | Hannes | 1 | Hannes | After 4018a for Artemis is complete will work on spin phase and axis offsets | | | | | | | |
| 2074c | quality flag for FGM data | | Vassilis | 3 | Hannes | on hold | | | 1 | | | | |
| | Aaron | | | | | | | | | | | | |
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| 4012 | When Cindy & I tried to load tha_eff on 2007-03-23, it didn't load and said some calibration quantity couldn't be found. When I tried to load the same thing, I didn't have a problem. So the trick would be to find out what changed from my computer to Cindy's computer and to figure out how often our user's computers are going to have the same problem that Cindy's computer had. | 3/22/2010 | Pat | 2 | Aaron | Aaron: These are the two copies of the spin model code that were causing the EFI calibrations to crash: \themis\spacecraft\particles\spin\s pinmodel_get_ptr.pro \themis\spin\spinmodel_get_ptr.p ro Jim L: I'm having trouble pinning down when the duplicate files were removed, or if they were ever in the repository under that location. Since it was under themis/particles, I'm assuming it had something to do with Jim McT's work to replace Jim McF's deprecated spinmodel routines. | | | | Script | | | |
| 3031 | GUI Overview plots sometimes have diamond shaped artifacts in the sample rate bar. Should fix. | 1/5/2010 | Vassilis | 2 | Aaron | able to reproduce | | | | | | | |
| 4275 | There was a suggestion that we use dprint more consistently in our debugging output so that it is possible to disable all of the text that the GUI and other TDAS software prints to the | 6/30/2011 | Pat | 2 | Aaron | to take a look at a possible standard and then review with all; User's Guide Update? | | | | | | | |
| | 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. | | | 2 | Aaron | talk to Jim M | | | | | | | |
| 2029 | From Hannes | | Hannes | 3 | Aaron | discuss at s/w meeting | | | | | | | |
| | 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 | | | | | | | | |
| | The level 2 CDF files at http://themis.ssl.berkeley.edu/data_download.shtml should contain position in various coordinate systems as well. Preferably in the same resolution as the data. Otherwise Scientists need to get the position from another source. Notes from Vassilis: option to introduce the data in RE with keyword (one RE =6,478 kilometers ???). Like thm_load_fgm /pos_units= 'RE'. Also thm_load_state_keyword out_coord = 'GSM', 'GSE',etc. | | Hannes | 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 | | | | | | | | |

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| | B | | | | | | | | ļ | Script | | | Suide |
| 4001 | Ben Document: Administrators Guide | 3/1/2011 | Dovid | 4 | Den | | | | | | | | |
| | | 3/1/2011 | David | 1 | Ben | naviau das fram ün M | | | | | | | |
| | update admin guide for input and output locations L1->L2 | 9/15/2011 | Jim L | 1 | Ben | review doc from jim M | | | | | | | |
| 4368 | Master Probe Timing Diagram | 9/15/2011 | JIML | 1 | Ben | in progress - final version of tool to be completed shortly; then | | | | | | | |
| | | | | | | analysis; document a deliverable | | | | | | | |
| | | | | | | as well | | | | | | | |
| | | | | | | | | | | | | | |
| 2046 | Create a more efficient & productive prototype QA Instrument | | Jim L | 1 | Ben | In progress. TDAS v6 has been | | | | | | | |
| l. | Command Line Script - first template (s) functional blocks then | | | | | tested. Several templates created, | | | | | | | |
| | scripts for FGM, ASK, SCM, FIT, MOM, ASI, EFI, FFT, FBK, Gmag, State, SST, ESA | | | | | selecting the appropriate command line routines to test. | | | | | | | |
| | | | | | | | | | | | | | |
| | Jim L | | | | | | | | | | | | |
| 4385 | strange patterns in SST data | 9/26/2011 | Xuzhi | 0 | Jim L | Pat: You mentioned a modification | | | | | | | |
| | | | | | | to sanitize the data. Do we want to put it in? If yes, do we want it to be | | | | | | | |
| | | | | | | L0->L1 or L1->L2? Jim L: It's | | | | | | | |
| | | | | | | probably a bit easier to handle at the | | | | | | | |
| | | | | | | L0->L1 level, since I'm already tracking the ETC config | | | | | | | |
| | | | | | | changes. Probably a discussion | | | | | | | |
| | | | | | | item for Monday | | | | | | | |
| | | | | | | | | | | | | | |
| 4369 | THEMIS Leap Second Discussion | 9/15/2011 | Vassilis - Jim L | 0 | Jim L | Jim L to write up doc and get | | | | | | | |
| | | | | | | SL:P write-up from Pat. Issues Probe Files, Spin Model, ESA Pkt, | | | | | | | |
| | | | | | | SPDF, VMO | | | | | | | |
| | | | | | | | | | | | | | |
| 4310 | state files: including P1, P2 SSE and SEL coordinates | 8/8/2011 | Vassilis | 0 | Jim L | | | | | | | | |
| | take Jasper's code and incorporate into thm_cotrans | 8/8/2011 | Vassilis | 0 | Jim L | | | | | | | | |
| 4310b | Change the V00 and V02 ascii ephemeris to state CDF processing to include the new SSE and SEL ephemeris | 8/8/2011 | Vassilis | 0 | Jim L | | | | | | | | |
| | variables | | | | | | | | | | | | |
| 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 | See Sabine for verification of | | | | | | | |
| | | | | | | code - email sent to ARTEMIS team ; Sabine will take a look; | | | | | | | |
| | | | | | | Jaspar gave his okay | | | | | | | |
| | | | | | | | | | | | | | |
| 4310e | Deploy code changes and new master CDFs for use in the | 8/8/2011 | Vassilis | 0 | Jim L | on hold until confirmation 4310d | | | | | | | |
| | automated processing | | | | | | | | | | | | |
| | Reprocess state CDFs for entire mission | 8/8/2011 | Vassilis | 0 | Jim L | Proposed latest act of collinger | | | | | | | |
| 4326a | The ARTEMIS science team is keen to have a look at the most recent lunar data, with the eclipse spin model corrections turned | 8/18/2011 | Vassilis | 0 | Jim L | Processed latest set of eclipses and sent an email | | | | | | | |
| | 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. | | | | | | | | | | | | |
| | Then for Particles and Spin Fits | 8/18/2011 | Vassilis | 0 | Jim L | in progress | | | | | | | |
| | Jim M | | | | | | | | | | | | |
| | Also there's no FGM L2 data for those days, (otherwise the | 9/23/2011 | Jim M | 0 | Jim M | missing FGH data - September 2011 - | | | | | | | |
| | overplots shouldn't be trying to load L1 data). | | | | | reprocess overplots, email history line for emmanuel; notify Tami | | | | | | | |
| | | | | | | | | | | | | | |
| 4334c | Ambrosia Migration - testing and Migration | 8/22/2011 | David | 0 | Jim M | | | | | | | | |
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| | | | | | rice.g.e | | Estimate | A&E | Crib | Suite or Script | UG | Qref | Adm Guide |
| | Danaid Migration - testing and Migration 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 ** | 8/22/2011 11/2/2009 | David Jim Mcfadden | 0 | Jim M 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. 9/23/11: Will ping Jim Mcfadden | | | | | | | |
| 4365 | reverse-engineer the process of updating the onboard tables that define the ESA and SST angle/energy modes. | 9/8/2011 | Vassilis | 0 | Jim M | steps: Create the Table Image, Create the CDI Commands, Create the IDPU Commands, Create the raw packets that go to the MOC for uplink ** in progress ** | | | | | | | |
| 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. | 9/8/2011 | Vassilis | 0 | Jim M | 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. | 9/8/2011 | Vassilis | 0 | Jim M | On hold | | | | | | | |
| 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 | 0 | Jim M | Persons that can provide information are: Davin, Deron Pease/McDonald, Michael Luidam and Robert Abiad. | | | | | | | |
| 4152a | change the SST tables to mask view directions that are affected by the sun. We need to do this for the reduced distributions only. If it can be done for the moments too it would be great. WE need to find the masking tables that were input before in 2007 and rescinded sometime in 2008 - but the actual bins that require masking are different than before. | 10/20/2011 | Vassilis | 0 | Jim M | | | | | | | | |
| 4152b | change the ESA tables such that the minimum magnetospheric electron energy becomes lower (about 3eV, or lower). McFAdden can specify the lower energy | 10/20/2011 | Vassilis | 0 | Jim M | | | | | | | | |

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| | change the ESA tables such that electrons and ions can be changed separately into magnetospheric and solar wind modes. | 10/20/2011 | Vassilis | 0 | Jim M | | | | | | | | |
| | Lydia | | | | | | | | | | | | |
| 4334d | gaia Migration - testing and Migration | 8/22/2011 | David | 0 | Pat - Lydia | in progress | | | | | | | |
| 4375 | Calgary GMAG Issue | 9/20/2011 | Lydia | | | It sounds like Harald asked Calgary about the problem last week but hasn't heard back & will ask them again. The problem is likely at their end as there have been no changes at our end and when I attempt to connect to their server it times out. | | | | | | | |
| | Athabasca (AUTUMN) (Sites are LARG, LETH, ROTH, REDR) Database: No database exists for these sites yet. Processing scripts currently attempt to write to non-existent tables. Tables need to be created. Website: No status table exists. A new status table needs to be created (this can probably copy most of the code from one of the existing php scripts) and a link added to the status webpage. | 9/20/2011 | Lydia | 1 | Lydia | awaiting Emmanuel to put on the official site | | | | | | | |
| | GMAG ASCII status: http://themis.ssl.berkeley.edu/data_processing_check/ground_d ata_processing/gmag_ascii_table.php (I'm not sure if this has a link from the main webpage) Database: a. Add Athabasca sites to the database gmag_ascii_files. b. Add a table epo_PGEO_asciifiles to gmag_ascii_files database. Website: a. Add Athabasca sites (LARG, LETH, ROTH, REDR) b. This may be more tricky, depending on what exactly the script to generate the table says. PGEO is already on the list, but needs to change from looking at the table gbo_PGEO_asciifiles to looking at the table epo_PGEO_asciifiles. c. Add GBO sites SNAP and KUUJ d. Add MACCS sites CDRT, CRVR, GJOA, IGLO, PANG, RBAY e. Add Alberta sites SNKQ, ATHA f. Add Alaska sites ARCT, BETT, CIGO, EAGL, HLMS, HOMR, KAKO, POKR, TRAP | 9/20/2011 | Lydia | 1 | Lydia | awaiting Emmanuel to put on the official site | | | | | | | |
| | GMAG CDF status: http://themis.ssl.berkeley.edu/data_processing_check/ground_d ata_processing/gmag_cdf_table.php Repeat 4372a - f. | 9/20/2011 | Lydia | 1 | Lydia | awaiting Emmanuel to put on the official site | | | | | | | |

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| | 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 - ping sent on 9/23 | 2/19/2010 | 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 | 3/1/2011 | David | 2 | Lydia | Lydia completed Draft - out for review: Jim M, Jim L, Pat, Ben, Aaron | | | | | | | |
| | 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 | awaiting reply to sent email | | | | | | | |
| | add the following ancillary ground-based observations: MAGDAS Network, Auroral Electrojets (AE) and Ground Radars (SuperDarn, AMISR and Sondrestorm) | 3/8/2010 | David | 2 | Lydia | | | | | | | | |
| 4006a | Verify we have Kyoto DST - latest files | 3/8/2010 | David | 2 | Lydia | they are only up to 2003 in final; Andreas Keiling reviewing | | | | | | | |
| 4006b | SuperDarn - when available make sure it works with TDAS | 3/8/2010 | David | 2 | Lydia | sent analysis to ERG folks | | | | | | | |
| | AE (Auroral Electrojets) - make sure we have the latest if we have | 3/8/2010 | David | 2 | Lydia | Andreas Keiling reviewing | | | | | | | |
| 2088 | Themis Developers Guidelines | | David | 3 | Lydia | in progress | | | | | | | |
| 4334d | Pat gaia Migration - testing and Migration | 8/22/2011 | David | 0 | Pat - Lydia | in progress - crons to run over weekend; review some new found scripts | | | | | | | |
| | Run simulation for range of initial positions around the full sphere. | 9/17/2010 | Davin | 1 | Pat | Rob Lillis sanitizing files.; ping Rob | | | | | | | |
| | 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 - testing with real data | | | | | | | |
| 4355 | IDL-VM checkout | 8/30/2011 | Yoshimasa - lugonet | 1 | Pat | responsed to lugonet for more detail info. | | | | | | | |