

| Sv | Product Backlog | | Vn. | 30-Jan-13 | | | | | |
|----|--|----------------------------------|---------------|--------------------------|-------------|---|--|--|---------------|
| | Task | Redmine Issue(s) related to this | Item Lead | Team members involved | Non-team PI | User Story | Acceptance Criteria | Specifications | Documentation |
| 1 | Ingest Raw BF data - Discuss the implementation and implement required functionality | #4020, 4047-4051 | Adriaan | Jan David, Ruud, Nico | Fallows | As a support scientist/observer I need to: Ingest BF data to the LTA Need to tie-up the loose ends that came up with latest changes of the BF observation definition. | Ingest of Raw Beam Formed data | | |
| 2 | Investigate and implement addition of new AWImager in MSSS/Imaging pipeline | 3963, 3863 | Alwin | GervD,Wouter, Nico,Alwin | Orru' | As an user I need to use the new version of the AWImager since it is faster and memory efficient | | | |
| 3 | Implement to MoM the prototype XML generator | 3983, 3984 | Nico | Nico, Alwin | Frieswijk | As support scientist I need a script in MoM to define a series of observing scans and their associated pipelines. a) 3983 The prototype XML script should be defined as a functional specification for MoM b) 3984 The specification should be implemented in MoM | Description of Observing and processing sequence in MoM by the Support Scientists | | |
| 4 | Improve Test System | | Arno | Everybody... | | The Test system needs to be operational to take as much as possible of the development tests away fro the production system. This is a catch-all item for the many tasks needed. We will include the tasks in the backlog as we discuss them. | A working test system for all tests up to full cluster scale | | |
| 5 | Existing MSSS pipelines: Fix DEMIX input parameters | | Nico | Nico, Alwin | Orru, Pizzo | Pipelines defined earlier to analyse existing MSSS observations, need a change in parameters to become functional again. Examine whether this can be done by the PWT. Possible solution provided by Nico (SQL statements on the MoM database) | Changed DEMIX parameters to make the MSSS pipelines functioning again. | Since the upgrade of Jan 9, the defined pipelines for existing MSSS observations do not work correctly. The standard DEMIX parameters need to be changed for all previously defined MSSS pipelines. Can it be done with an XML script ? | |
| 6 | CEP2 Data Managing System: Investigate what is needed and what is already available | | Adriaan Alwin | | Roberto | As a support scientist and observer I need the tools to a) display all used disk space in CEP 2 disks b) manage this disk space (in SCHEDULER at the moment) | | | |
| 7 | Redesign RTCP monitoring in Navigator (Design Wilfred, implement after that) | #3384, #2857 | Arthur | Jan David | Wilfred | As an observer I want to be able to monitor CEP-online and offline processing to be able to detect problems with CEP in as early a state as possible | Able to view errors arising before and during an observation. Able to view all parts of running system in the Navigator | Overview screen for CEP monitoring with the through-click possibility to go to details | |

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| 8 | Improve Topview Screen for Navigator (followup from #3705) | #3705 | Arthur | Unclear yet (Pieter, Ruud, Jan David?) | Wilfred, Jurjen Sluman | Discuss and implement further additions to the Topview screen | | Further refinement of Hardware monitoring screen (additional monitoring of station specifics) - Flow-chart of (active) observations/pipelines containing all parts, from station to CEP, and have a mechanism to monitor the (quality of) progress per stage of a process - Refine the existing Alert mechanism (alert mails) | |
| 9 | Investigate improvements to framework to enable Batch Scheduling and feedback of pipelines | | Alwin | Wouter, Marcel | | | | | Replaces previous items on DPU and Batch scheduling |
| 10 | HBA-Demixing Strategy (Extension for various Demixing support in pipeline) | 3960 b=#3671 | Ger vD | Nico, Wouter, Marcel (?), Alwin (?) | Orru | As a user/support scientist I need to have more control on a) selecting the sources to demix b) Which baselines to demix (needs test in Busy Thursday) | | | |
| 11 | Add data quality plots to the (MSSS/imaging) pipeline (1.12) | 3962, 3557 | Wouter | Wouter, Adriaan | Michiel, Orru, Pizzo | Discuss what are useful plots with Science Support. Consider using autoplot as an example. | | | |
| 12 | Fix RA coordinates in BF rings | 3919 | Jan David | Jan David, Nico | Hessels, Kondratiev | The RA coordinate of the ring beams need to be corrected by $1/\cos(\text{DEC})$. Currently the changes need to happen in OLAP (where the beams are formed) and in MoM for book-keeping for the LTA. In the future the feedback from OLAP may provide the proper coordinated to MoM | Correct RA coordinate (will be more noticeable in higher DEC observations) | | |
| 13 | Implement "Black box" Pulsar pipeline | | Alwin | Alwin, Nico, Adriaan | | Meeting held Sprint 1.11; define tasks for later implementation | | | |
| 14 | MSSS raw data "auto" archive: requirement workshop | | Hanno | | | For HBA MSSS observations we also need to archive the raw data. Investigate whether this can be done in a pipeline fashion. | | | |
| 15 | NDPPP station addition - Scale stations | | Ger vD | | | Setup the correct scale of the stations when added together to form a virtual "superstation" | | | |
| 16 | LTA Ingest of processed beamformed data products | | Adriaan | | Fallows, Hessels | a) Pulsar pipeline products b) Dynamic Spectra | | | |
| 17 | Improve Storage Calculations (web applications) | | Holties | Boelen (EXTERNAL will work flexibly) | Frieswijk, Pizzo | As a user/support scientist I need to: be able to calculate the expected data size of observations as they are: a) proposed (NorthStar) b) set-up (MoM-Scheduler) | a) Extension of existing calculators in Web/MoM with more user defined entries. b) Web page "Online Calculator" redesigned | | |

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| 18 | Discuss Revision MoM-Northstar interface. Postponed for 1.12 | | Hanno | Hanno, Nico | Frieswijk, Polatidis | As a support scientist I want to import all the characteristics of the observations as they have been proposed in Northstar to MoM. | 1) The fields in NorthStar should have a correspondence in MoM. 2) Successful transfer of all possible observing modes to a MoM Template (using example proposals) | Will define the specification during Sprint 1.7. It could be delayed given the evolution of XML script | |
| 19 | Discuss another implementation for Web Interface for Navigator. Sprint 1.12 | | Arthur | Arno | Frieswijk, Jurgen | As an observer/support scientist I need to be able to use the Navigator through the WEB so that I can monitor aspects f the system from different locations seamlessly | Needed for continuous improvement of Navigator screens | | |
| 20 | New Export-GUI for the LTA (EPIC) | | | Nico, Adriaan | | As an support scientist I want to be able to use a GUI to ingest to the LTA, through MoM | | | |
| 21 | Discuss LTA ingest of other interferometry final data (e.g., catalogues, plots, except for images) | | Adriaan | Form a group to define what are the final data! | Polatidis, Jozsa, Heald,Pizzo | As an support scientist I want to be able to ingest final products of interferometry data to the LTA (images catalogues, plots) , through MoM | a) Succesfully ingest final products of interferometry data to the LTA. b) Query (simple) of these datasets c) Download (e.g.FTP) the data from a user. | | |
| 22 | "Sub-arraying 1": Majority of Stations in Interferometry mode (or coherent BF mode), other stations in single station (eg BF) mode | | | | | As a support scientist I need to use the time effectively. I need to schedule a part of the array in interferometry mode and the unused stations to observe in another mode, eg. Beam Formed observations. This mode can be used for other applications eg. monitoring for transient events while ding interferometry. | a) Ability to schedule different observations to ran at the same time b) Ability to schedule the required pipelines | | |
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| | LOWER PRIORITY - SO THAT WE DO NOT FORGET THEM | | | | | | | | |
| | 160MHz clock changes | | | | | We need to make the 160 MHz - 200 MHz clock changes reliable in view of Cycle 1. | | | |
| | LST-based Scheduling: Optimize schedule for LST transit time (given RA+Dec, optimize schedule for transit of objects). Sprint 1.8 | #3640 | Alwin | | Wilfred | | | | |

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| | Add support for "Superstation" in rest of system (MoM, Scheduler) | 3223, 3496 | Alwin | Alwin, Nico, Adriaan | Long Baseline group, G deBruyn | Need to enable the ability to form a SuperStation from a (selected) list of stations. The step in NDPPP is ready. The ability should propagate in the whole pipeline. | Define an "addition" in MoM 2) Make sure the SCHEDULER flag works 3) Use the ability to use or not the solutions in BBS | | |
| | LTA Preview Images and Cutout Server | 3509 | Adriaan | | | Design the Cutout server implementation | | | |
| | <u>Manually Pipeline process and ingest BF+correlated data products</u> | | | | | | | | |
| | <u>Automatically Pipeline process and ingest BF+correlated data products</u> | | | | | | | | |
| | WILL/CAN NOT BE DONE IN 2013 | | | | | | | | |
| | Investigate use of CALC to calculate delays | Finished? | Mol | | Deller | | | | |
| | Add functionality to select NDPP editing strategy depending on LBA/HBA | #3607 (Done) | Marcel | Wouter, Alwin-Nico (later) | Pizzo, Toribio, Orru | As a suport scientist/interferometry user I need to be able to select the NDPPP flagging strategy depending on LBA/HBA observing. NDPPP is able to do this. Wouter is working on it. | LBA data flagged better than now. | Choosing an RFI flagging strategy can be done (for the time being) using different default templates in OTDB. No development effort is required at this moment. | |
| | CYCLE 1: Improve detection for broken HBA/LBA antennas | | Donker | Arno, GvD | | As a user of Interferometry Data I want to have full information of the status of all HBA tiles to be able to correctly process interferometric observations. Further steps that item above: 1. Detect/diagnose broken tiles (automatically) before each observation and record them to MS. 2. Diagnose broken tiles during the observation. | | | |
| | Enable Direction dependent polarization calibration in BBS | | | | | | | | |
| | LTA Ingest of TBB data | | Adriaan | Alexander, Jan David, Nico | van den Aker, Schellart | We need to ingest TBB dumps to the LTA | a)Archive data b)Connect it to "paternal" observation if piggybacking c) Retrieval of data by User | | |

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| | MoM: multi-edit. Editing multiple observation by editing their parent folder (Can have lower priority) | | Nico | Nico | Frieswijk, Polatidis | As a support scientist/observer I want to be able to manipulate blocks of observations in MoM by changing the properties of folders because with the current implementation an observing run will consist of a number of scans which will be organised in folders. Examples: add comments to all observations | | | |
| | Synchronize time-varying (calibration) data through the system | 3568 | | | | Ensure that time-varying metadata such as calibration tables are available wherever they are needed and that they are always the proper version for an observation. E.g., that the datawriters use the same numbers as the stations and OLAP for recording and writing data. | When a change is made to these tables, that the change is available to all systems that need it | | |
| | AWIMAGEr and BBS for SuperStation need to be verified | 3223, 3496 | who | | Long Baseline group, G deBruyn | | | | |
| | Continue discussion to fix other coordinate systems in MoM & Scheduler | 2764 | Adriaan | Nico, Alwin | Toribio | We need to complete the other coordinate systems in MoM/Scheduler. Issue #2764 | Define observation in other coordinate systems (AZEL, Gal long lat) | | |
| | USER INGEST mechanism | | | | | As a user I need to be able to ingest my final products to the LTA | a) Succesfully Import processed Interferometry data b) Succesfully ingest final images c) Succesfully import processed PULSAR data | | |
| | Station-based standalone interface for Navigator | | 80% done | below Arthurs 8-bit mode | | As owner/ operator of an international station I would like to use the Navigator to check my station when it is in STAND ALONE mode (not connected to the ILT) | | | |
| | Parallel Observations (E2): Seperate subset of Interferometry and BF stations, in an observation that combines both BF and IF | | | | | As a user I need to be able to define a different number of statios to do the interferometry and limit the number of stations for the Beam-Formed observations to fewer (ie Superterp, core) to conserve disk space | a) Select different number of stations in MoM b) Output data to carry the correct information on stations involved and on observstion ID | Needed for proposals ie LCO_007 and other BF+IF modes | 1st Part of Epic E2 below |
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| | EPICS | | | | | These are placeholders for larger issues that will be developed to User Stories which will subsequently find their way to the backlog above. | Numbers in First column denote that the item is placed in the Backlog (above) | | |