

Mark6 Software Suite Release Notes

*Roger Cappallo & Chester Ruzczyk
MIT Haystack Observatory
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The Mark6 software suite consists of five Debian packages built for Debian Squeeze distribution.

1. python-cplane_v1.0.0-1_amd64,
2. python-pynetinfo_v0.2.5-1_amd64,
3. dplane_v1.0-1_amd64,
4. m6_utils_v1.0-1_amd64,
5. pf-fing_5.5.2_amd64.

The executable and source packages will be available for all applications released. Each of the five releases will be discussed.

1.python-cplane_v1.0.0-1_amd64

This is the second release of the control plane and replaces cplane_v0.5-1_i386. Version 1.0 has the following features:

- A. Supports the Mark6 command set version 1.0.0.
- B. Provides support for management and configuration of both RAID0 and the distributed file system known as scatter-gather (SG).
- C. Disk module management for both DIM and DOM operations
- D. Configuration and monitoring of the Mark6 system
- E. Recording capabilities

Note, that in the release of version 1.0, some commands do not return immediately but only after the request has completed. This is to guarantee the actual results of the command. In subsequent versions of cplane, all commands will return immediately and the command can be queried for the final results.

2. python-pynetinfo_v0.2.5_amd64

Pynetinfo is a python library module that cplane utilizes to gather information concerning the network interfaces on the system and their state. This software uses modified GPL code.

3. dplane_v1.0.1_amd64

The second official release of vlbi data plane used for DIM operations and replaces version 0.5. Version 1.0 supports:

- A. Scatter-gather (SG) mode and RAID modules.
- B. Accepts both Mark5B and VDIF formatted VLBI data.
 - a. Mark5B data at up to 8 Gbps.
 - b. VDIF data up to 16Gbps.

- C. Converts Mark5B data on the fly into the equivalent VDIF formatted data.
- D. Supports Burst Mode operations.
- E. Can write to a single disk (RAID0) or to many disks configured to support the SG file system.
- F. Can minimize the performance impact of both failed and slow disks within a module.
- G. Periodically broadcasts recording status messages.
- H. Accepts 1 to 4 ports of 10G Ethernet data
- I. Can support 8Gbps of data from a single port.

4. M6_utils_v1.0.1_amd64

The Mark6 utilities release provides clients and utilities to communicate with cplane and dplane, testing utilities for the Mark6 system and software to aid in processing and validating data recorded to the modules. The M6_utils package will feature the initial release the following utilities:

- A. *da-client* : A VSI-S command line client to communicate with the cplane application
- B. *ecplane* : A routine to terminate the cplane application
- C. *dboss* : dplane client. It provides elementary control of dplane for configuration or recording data. Executing dboss without any arguments will produce a help menu.
- D. *dpstat* : monitors dplane UDP messages and displays status information, which include the computer time, data time, and fifo-buffer state.
- E. *dqa* : data quality analyzer program. Can be run on any mk6 output data file, and it will give information about the file format, contents, and data integrity.
- F. *dspeed* : rudimentary program to test disk performance
- G. *gather* : a high-speed C program to reassemble a single file from a scatter-gather file system group of files originally written by the Mark6
- H. *gator* : accesses (potentially multiple) Mark6 scatter-gather file sets, runs gather on them if necessary, and creates output file(s) on a destination fileserver (often RAID)
- I. *modspeed* : will set up a module and run scatspeed to measure disk performance
- J. *scatspeed* : program to test multiple-disk scattered write performance on a already-mounted module

5. pf-ring_5.5.2_amd64.deb

The pf_ring version 5.5.2 software was compiled and packaged for the Mark6 system. To find out the features and bug fixes for this release we recommend visiting the NTOP.org website at

http://www.ntop.org/products/pf_ring/.