

MIDAS Memo

ESO Image Processing Group

1. Application Developments

The plotting facilities have been upgraded with many new features such as negative increments on axes and overplot of error bars. The INTAPE/FITS command was updated so that it now reads blocked FITS tapes according to the agreement of the FITS committees i.e. a physical blocking factor of up to 10 is allowed. The Dicomed commands have been upgraded to allow for spooling of the output files. That means the B/W and colour mode can be used simultaneously at ESO/Garching.

The FILTER/SMOOTH command now employs an algorithm which is nearly independent of the window size. A boxcar filtering of 1024 * 1024 image with a 15 * 15 window takes now 13 sec CPU-time versus 211 sec CPU-time before (these are VAX 8600 times, approximately 2.3 times faster than a VAX 11/785). The FFT routines were modified to get rid of the excessive paging observed with large images. For a 1024 * 1024 image the FFT needs now 54,000 page faults (with a working set size of 1024 pages) and 6 : 30 min CPU-time (VAX 8600).

It is now possible to run several parallel MIDAS sessions from the same disk directory by using the MIDAS login command INMIDAS PARALLEL. The DEFINE/Parameter was added for definition of parameters in MIDAS procedure files. This command replaces the commands DEFAULTS, TYPES and LIMIT which have been removed. NOTE: if you have used any of these commands they must be substituted by the DEFINE/PARAMETER.

2. Support of MIDAS at External Sites

The MIDAS system has now been exported to a large number of external sites (i.e. more than 40 sites on 3 continents). In order to give these sites a first class support, a new MIDAS Hot-line service will be started from April 1, 1987.

This service will provide an answer to MIDAS related questions received through either Telex no. 528 282 22 eo d (attn.: MIDAS HOT-LINE) or electronic mail (SPAN: 'ESOMC1::MIDAS' or EARN/BITNET: 'MIDAS@DGAESO51'). Requests and questions received before noon will be answered not later than the next normal working day.

In addition, a special telephone no. +49-89-320-60-456 will be created for general MIDAS questions and prob-

lems. This extension will be connected to the MIDAS support person on duty.

3. MIDAS Workshop

The next Data Analysis Workshop, arranged by the ST-ECF, will take place in Garching in the week of May 4-8, 1987. The very positive response to the introduction of a MIDAS Workshop has meant that it will be continued. It will again be arranged just after the Data Analysis Workshop on May 7, 1987. The programme will include sessions on general developments, new applications and the status of the portable MIDAS version in addition to a MIDAS Users meeting. A tentative agenda will be sent out together with other material for the Data Analysis Workshop. People interested in participating in the Workshop should contact either the Image Processing Group or ST-ECF.

4. Measuring Machines

The mechanical and optical modification of the OPTRONICS measuring

machine took place as planned during May 1986. The machine has since been used for manual measurements of stellar positions with the old HP 1000 system. Due to problems in the electronics for reading the diode array and delay in the software developments, it has unfortunately not been possible to offer the scanning mode yet. Most of the problems have now been solved and it is hoped that the implementation of the diode array can continue without further delays. With the present time table, it should be possible to scan limited areas of plates on the OPTRONICS this fall.

The usage of the Grant measuring machine has been less than 50 hours over the past year. We regard this to be a result of the very few coude plates taken during the last years and thus a continuing trend. It is therefore under consideration to discontinue the operation of the GRANT machine if the usage does not increase significantly. People who would like to use it for measurements of coude and image tube spectra are kindly asked to do so.

New CCD Control Camera and First Test of a TEK 512 CCD at La Silla

At the beginning of February 1987 a new CCD control camera has been successfully installed at the 3.6-m telescope by R. Reiß and P. Sinclair. It will be used with all of the CCD-based instruments like CASPEC, EFOSC and the

B & C spectrograph. The camera is a so-called generation V system from Princeton Scientific Instrument. It has been interfaced to the standard ESO computer in Garching in such a way that the observers will not detect any differ-

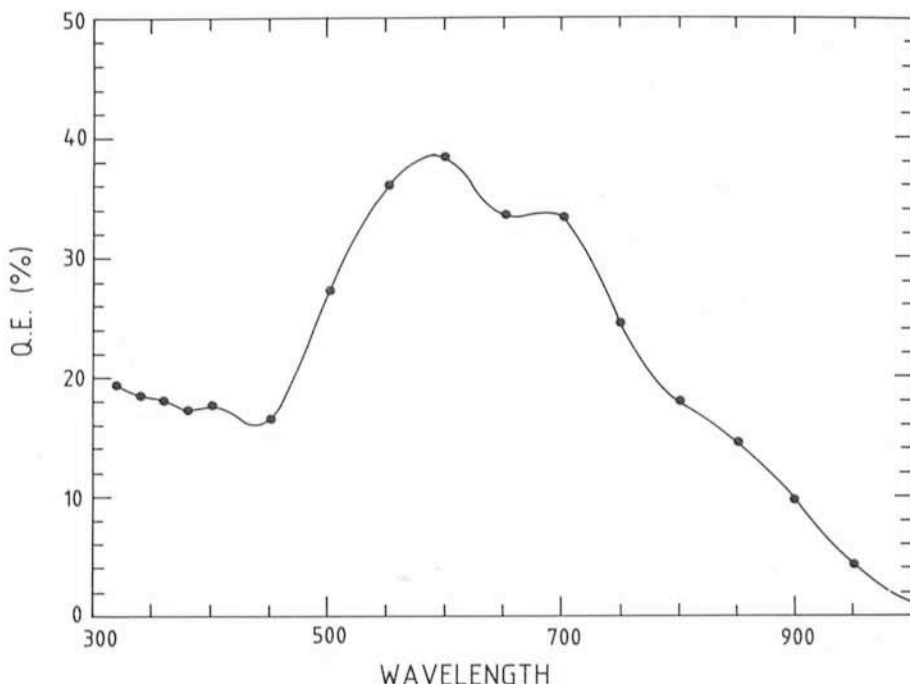


Figure 1: The quantum efficiency curve of the thick TEK 512M-11 device measured in the ESO detector lab after coating.