

This algorithm has been incorporated into the IHAP-system running at an HP 1000 F computer at our institute as two new IHAP commands. XYRP transforms cartesian to polar coordinates and RPXY transforms backwards from polar to cartesian coordinates. The transformation equations are defined in the usual way,

$$X = r * \cos \varphi \text{ and} \\ Y = r * \sin \varphi$$

where X, Y as well as r, φ represent the "world coordinates" of the images. In this way all other IHAP features then are

applicable to the polar images as well.

Figures 1 a and b show the application of the XYRP command on an electronographic B-image of the SB0 galaxy NGC 2217. The cartesian image (Fig. 1a) shows a barred nucleus and weak spiral arms whereas in the polar image (Fig. 1b) these "spiral arms" appear as an almost perfect circular ring, that has no connection to the "bar" and exhibits spike like structures. This impression is even enhanced in the (B-V)-polar image in Figure 2. Here the "spikes" show up as blue features, what indicates that they are places of recent

or ongoing star formation, whereas the bar is almost invisible in this picture. These images show an example of one possible application of the newly developed IHAP commands facilitating morphological studies. Several more of such investigations are in progress at the Astronomisches Institut der Ruhr-Universität Bochum, undertaken by my colleagues, who already applied this feature with great success. The two new commands will be implemented at the ESO IHAP sites.

MIDAS Memo

ESO Image Processing Group

1. Application Developments

A set of applications for reduction and calibration of photographic plates has been implemented by A. Lauberts. These procedures are based on his experience with the analysis of the ESO/Uppsala survey. Although they are optimized for the treatment of Schmidt plates, they will also be useful for other types of photographic material.

The table file system has been significantly upgraded both in performance and functionality. It now provides full support of integer types (I*1, I*2, and

I*4). This is of special interest for X-ray astronomy which often deals with small numbers of events.

2. Support of DEC Windows Under VAX/VMS

MIDAS has been successfully implemented on a VAX station 3100 under VAX/VMS 5.1 with DEC windows. Working with our standard X11-based IDI routines and a VMS specific interface for the client-server communication, it required only a minor upgrade of the display software to use the VAX station as an image display station for MIDAS. The initial version of the communication

interfaces was kindly provided by M. Pucillo and P. Santin from Trieste Observatory whom we thank for their significant help.

The full graphics facilities in MIDAS are being tested. Thus, full MIDAS support of VAX/VMS work stations will be available in the 89NOV release of MIDAS.

The VAX- and DEC stations based on Ultrix with DEC windows are already fully supported, so that MIDAS now covers the whole range of work stations from DEC.

3. MIDAS on New Systems

After requests from several institutes, we have successfully implemented MIDAS on an IBM PS/2 system under AIX. These systems are also offered with X11 window systems which make them interesting as low end work stations. *Please note that the mention or testing of specific computer systems is not in any way an endorsement.*

4. MIDAS Hot-Line Service

The following MIDAS support services can be used to obtain help quickly when problems arise:

- EARN: MIDAS @ DGAESO51
- SPAN: ESOMC1::MIDAS
- Tlx.: 528 282 22 eo d, attn.: MIDAS HOT-LINE
- Tel.: +49-89-32006-456

Users are also invited to send us any suggestions or comments. Although we do provide a telephone service we ask users to use it only in urgent cases. To make it easier for us to process the requests properly we ask you, when possible, to submit requests in written form through either electronic networks or telex.

KURT WALTERS (1912-1989)

Dr. Kurt Walters died.

Dr. Walters has been ESO's legal advisor in Europe and also for Chile.

Living in Hamburg and closely associated with Prof. Heckmann, ESO's first Director General, he had in the early days of our Organization a major role in the development of ESO's relations to its member states and to Chile, where he contributed, in particular, to the successful negotiation of the ESO Convention with the Chilean government.

His calm, reflective personality, combined with an excellent judgement, was widely appreciated.

Dr. Walters terminated his work for ESO in 1976 with the beginning of ESO's relocation to Garching.

He died at the age of 77 years.

G. Bachmann (ESO)

