The 94MAY Release of ESO-MIDAS

Science Data Analysis Group

Although in principle ESO-MIDAS is released only once a year, on an exceptional basis we decided to prepare a minor release in May 1994 (94MAY version). This decision was made to provide, as soon as possible, a POSIX and ANSI-C compatible version for developers of reduction packages for VLT instruments. This release will also fully support the DEC OSF/1 systems. The 94MAY minor release will only be available through networks (i.e. ftp). No special documentation will be generated except for a new version of the ESO-MIDAS Environment document applicable to this and future MIDAS releases.

Although it contains a number of new features and upgrades of the 93NOV release, it is only recommended for sites which either require full POSIX and ANSI-C compatibility or have DEC OSF/1 systems on which 93NOV cannot be installed. The 93NOV release will still be the official and fully supported release of ESO-MIDAS for all other systems, until 94NOV becomes available. Some of the new features are described in the following section, a more detailed account can be found in the March issue of the ESO-MIDAS Courier.

1. Redirection of Input/Output

For some time the MIDAS user community has expressed the wish for an easy and robust method of communication between MIDAS and the host system. Thus, one could employ host system utilities for MIDAS reduction tasks and on the other hand, system utilities could profit from MIDAS functionality. Because we didn't want to introduce a completely new twist to the MIDAS command syntax, the input/output redirection for MIDAS commands was implemented very similar to the Unix concept using the '<' and '>' characters. Note, that this redirection is also valid for VMS/Open VMS.

2. Refurbishment of PLOT Package

The MIDAS PLOT package of the 94MAY release was rewritten in C which (hopefully) will be noticed by its improvement in performance. Also, a number of limitations are lifted. For example, the PLOT/CONTOUR command no longer has restrictions on the frame size, in particular PLOT/PERSPECTIVE is much faster, and PLOT/TABLE is now ready for 3D tables. We have given it some nice options which are also useful for 2D tables.

3. Changes in the Standard Interfaces

This 94MAY release will be the first release in which the modified type definitions of arguments in the C-routines of the Standard Interfaces are implemented. The modifications are: a change of the arguments of type 'long int' to 'int' in all SC and TC routines and a type change of the parameter 'unit' (e.g. in SCKRDC) from type 'char **' to 'int *'. At the same time ANSI-C prototype definitions of the interfaces were provided.

These modifications were necessary in order to provide a clean port of MIDAS to a CPU with a 64-bit architecture, e.g. the Alpha chip from DEC running under the OSF/1 operating system (HP, IBM and SUN are also currently working on 64-bit chips).

A notification of these changes and a more detailed technical explanation were sent to all MIDAS sites in the summer of last year to obtain feedback from the user community and objections, if any. No negative response was received, so the modifications were implemented as proposed.

Nothing has changed with respect to the Fortran implementation of the Standard Interfaces, therefore users who wrote MIDAS applications in Fortran are not affected. Also the applications written in C will not feel the impact of these modifications as long as they are running on a 32-bit machine. However, we strongly recommend to update the relevant code as soon as possible.

New in the MIDAS Environment is a standard MIDAS Graphics library. The library is meant for those who want to incorporate graphics into their Fortran or C applications that are fully compatible with graphics created by MIDAS commands. The library becomes available in the 94MAY release.

ESO's New On-Line Information System

THE ESO WEB CONSORTIUM[1]

A new information system is being set up, based on the system called the World-Wide Web. This article describes why it was set up, what is now available, and how it can be accessed.

[1] Includes: H.-M. Adorf, M. Albrecht, P. Ballester, T. Bedding, P. Benvenuti, P. Bristow, P. Dierckx, M. Fendt, C. Madsen, J. Mendez, F. Murtagh, J. Schwarz, R. West, and W. Zeilinger. Membership open!

ESO as an Information Provider

One of the specific tasks of ESO is the rationalization and distribution of information about ESO facilities. This central task of ESO relates both to external and internal users. Information may exist, but accessibility, consistency and comprehensiveness are all very important considerations which need constant attention.

ESO's information production and distribution activities include the following:
- Science Information: bibliographical – abstracts, papers, books; preprints; news; data; conferences, meetings, talks.
- Facilities: telescopes, instruments, detectors, computers, measuring machines.
- Tools: data analysis software, appli-