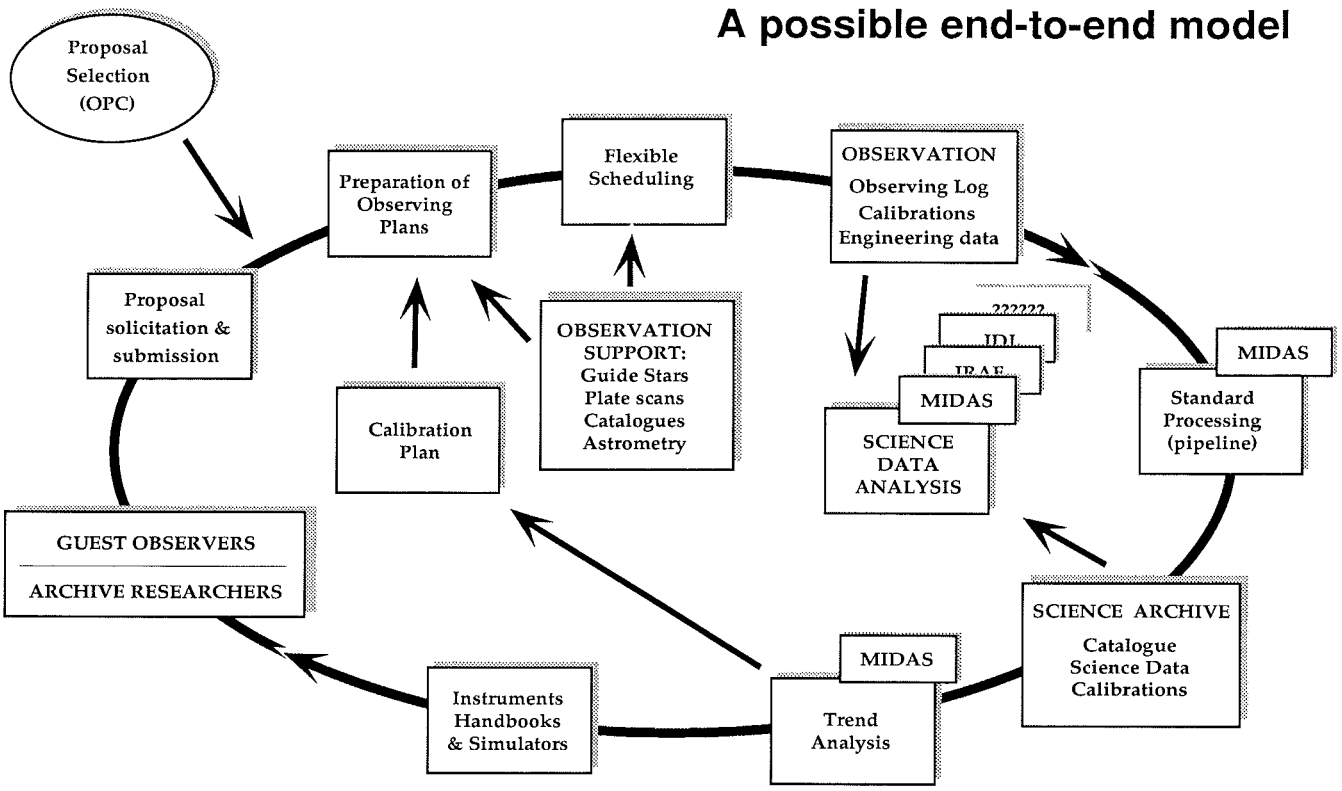

important activity of the group is the redefinition of the tools for the submission and handling of observing proposals, following the requirements of the NTT refurbishment plan and of the new Observing Programmes Committee.

The Science Data Analysis Group is led by Preben Grosbøl, who is also the Deputy Head of the Division, and it is essentially the previous Image Processing Group which has a long and successful tradition in the development of Data Analysis Systems. One of its tasks will continue to be the maintenance of the MIDAS system. However, its activity is now focussed on the definition and implementation of reduction and calibration procedures for all ESO instruments, both for those in operation and those under development for the VLT. Similarly, in collaboration with the VLT Software Group and the Operation Group at La Silla, the tools and procedures for a quick-look analysis of the observations will have to be defined and implemented for each instrument.

The tasks of the Computer Management and Operations Group, led by Peter Dierckx, are rather obvious and certainly not new. The change is rather in scope, since the group will take under its responsibility the management of all the different local area networks in ESO with the exclusion of that used by the Administration. A number of rationalizations and standardizations are planned which should result in an overall improvement of the service.

The last group, Advanced Systems and Planning, is led by Joseph Schwarz and has the broad (and ambitious!) task of keeping ESO on the forefront of computers and software evolution. It should monitor the development of systems in different areas and propose their application to specific ESO activities. The first output of this group, the manpower of which is drawn from all groups in the division and also elsewhere in ESO, will be a medium long term plan for the evolution of hardware and software at ESO.

The main problem which is affecting all groups is the severe shortage of manpower when compared with the tasks which should be fulfilled: as mentioned before, we will try to cope with this difficulty by proper prioritization and rationalization of our activities. In particular we could foresee a more effective integration of similar ESO and ST-ECF tasks, following the successful example of the development and operation of the archive. Also, several astronomical projects are currently tackling problems which are similar, if not equal, to those faced by ESO for the operation of NTT and VLT: whenever possible we will try to establish effective collaborations which, as it was shown in the case of the archive joint development with the ST Science Institute and with the Canadian Astronomical Data Centre, can save resources and avoid unnecessary duplication of effort.

The ESO Library Information System

U. MICHOLD, ESO Library Garching

Since November 1993, the automated ESO Library Information System is available to the public. At present, it provides access to three components: The *Library Catalogue* can be searched, the so-called *Information Desk* offers lists of new acquisitions, and users can enquire about their *User Status*, i.e. view the items they have on loan.

Two user guides are available: The brief *ESO Libraries Online Catalogue in a Nutshell* and the more detailed *ESO User Guide to the Online Catalogue.*

Following is a short introduction to the system. If you are interested in further

information or would like to obtain the user guides, please contact the librarians at the Main Library in Garching (esolib@eso.org on the Internet).

1. How to Access the ESO Library Information System

The Library Information System is installed on ESO's libhost computer. From within ESO, you can reach the machine by using one of two different logins:

- rlogin -l library libhost (defaults refer to Main Library, therefore it is the recommended login for users in Garching) or
- rlogin -l lslib libhost (defaults refer to La Silla Library, recommended for users in Chile).

X-terminal users from within ESO will find it convenient to bring up a window with the library system by simply pressing the left mouse button and choosing the LIBRARY option from the root menu (defaults will refer to Main Library).

From outside ESO, you can telnet into the system:

- telnet libhost.hq.eso.org
  login: library or login: lslib

Once you are connected, please specify the terminal type you are using by selecting from the list presented. Users of PCs probably will have to choose the vt100 terminal type.

2. The Library Catalogue

2.1 Which Library items can be found in the Catalogue?

The ESO Libraries Online Catalogue contains all Books, Journals, Standards, CD-ROMs, Diskettes, Microfiches, Video-Tapes, Slides, and Observatory Publications available in the ESO Libraries in Garching (Main), La Silla, and La Serena.

The database includes journal titles and the holdings of these journals that you will find in each of the three libraries, but does not refer to individual articles.

In addition, the inventory of the ESO Historical Archive (EHA), compiled by Prof. A. Blaauw can be searched. In future, also Preprints received in the ESO Libraries will be retrievable.

2.2. How to query the Catalogue

The software is easy to use and mainly self-explanatory. Every screen is divided into two parts: Above a dotted line, you find commands and options. You can move around in this area by using the TAB key and pressing RETURN or by typing the first letter of the option.

Below the line the information you retrieved is displayed. This might be a list of brief records or a record in full. To move around here, you usually need the arrow keys.

Once you have entered the Library Catalogue, you can specify if you want to query the catalogue by AUTHOR, TITLE, OTHER COMBINATIONS, etc. or just by any WORD OR PHRASE, which is usually the most convenient choice, because it searches the whole database for the search term. This option is also recommended if you want to look up keywords. Use the Boolean Operators AND, OR, NOT, if required (Fig. 1).

```
To pick a new button, first return to buttons by pressing TAB(s).
Type in the words you want to lookup below, then press ENTER, $ truncates
HELP          GOBACK        STARTOVER     PRINT
CLEAR         TYPE          OPTIONS

--------------------------------------------------------------------------------
                          CATALOG LOOKUP BY WORDS OR PHRASE


words or phrase  ====>VLT OR VERY LARGE TELESCOPE


        library  ====>MAIN




PAGE 1                                                  (c) Sirsi Corporation 60e
```

Figure 1: *Catalogue Lookup by any Word or Phrase.*

```
To pick a new button, press TAB or button's first letter.
To see more about an item, enter its number, then press RETURN or ENTER.
HELP          GOBACK        STARTOVER     PRINT
VIEW:8        JUMP TO:
FORWARD       BACKWARD      MARK:
--------------------------------------------------------------------------------
                        YOU FOUND 16 ITEMS IN THE CATALOG
   8) Telescope and observatory interfaces for    copies: 1 (MANUALS)
      Cullum, M.J.                                    at: MAIN & others
      A 4-2 / 149                                pubyear: 1990

   9) ESO's Very Large Telescope : 2 : 1986       copies: 1 (T.BEDDING)
      D'Odorico, S.                                   at: MAIN & others
      A 4-2 / 112                                pubyear: 1986

  10) Very Large Telescopes, their                copies: 1 (MANUALS)
      Ulrich, M.H.                                    at: MAIN & others
      A 4-2 / 90                                 pubyear: 1984

  11) ESO VLT instrumentation plan                copies: 1 (SHELVES)
      European Southern Observatory (ESO)             at: MAIN & others
      A 4-2 / 131                                pubyear: 1989
PAGE 1                                                  (c) Sirsi Corporation 60e
```

Figure 2: *List of Search Results.*

```
To pick a new button, press TAB or button's first letter.
To view the next item(s) you found, press RETURN or ENTER now.
HELP          GOBACK        STARTOVER     PRINT
REQUEST:      LIKE          OPTIONS
FORWARD       BACKWARD      MARK
--------------------------------------------------------------------------------
        THIS IS RECORD NUMBER 8  OF THE 16 YOU FOUND IN THE CATALOG
A 4-2 / 149

      ESO class mark: A 4-2 / 149
               Title: Telescope and observatory interfaces for VLT
                      instrumentation
           Publisher: Garching: European Southern Observatory, 1990
Physical description: 64 p.
              Series: ESO Very Large Telescope Project
       Series vol no: Doc.no: TS-T1E3-1 (1)
              Editor: Cullum, M.J.

                        (Displaying 1 of 2 volumes)

    MAIN CALL NUMBER                                  COPY MATERIAL   LOCATION
  1) A 4-2 / 149                                        1 BOOK        MANUALS
PAGE 1                                                  (c) Sirsi Corporation 60e
```

Figure 3: *Record 8 of 16 retrieved is displayed in full.*

Please note that the dollar-sign ($) must be used to truncate search terms!

On all Catalogue Look up screens, an additional line allows you to specify whether you want to limit your search to items in one particular library (MAIN, LA-SILLA, etc.) or whether you want to query the whole catalogue (Library: ALL).

As a result of your search, usually a list of brief records will be displayed. You will be informed about the exact number of items you retrieved. For each item, the author, title and class mark as well as the publication year and the current location are shown (Fig. 2).

If you want to see more details of one particular record, place the cursor on this record and type VIEW. The full record will be displayed. If it doesn't fit on one screen, press the FORWARD button that takes you to the second page where you will also be informed about the Class Mark (Call Number), the format (Material), how many copies are available and where they can be found (Location). In case an item is on loan, the name of the borrower is displayed (Fig. 3).

If you are not satisfied with your search results, use the GOBACK or the START OVER button and refine your query.

2.3 Marking items

The MARK function is a preparation for printing or mailing search results by e-mail. In order to MARK items, TAB to the MARK button and enter the list number of the item you want to mark. Confirm by pressing RETURN. An asterisk between the list number and the title tells you that the item has been marked. If you want to remove the print mark, just go through exactly the same procedure again or, in case the cursor is still placed on the item you want to unmark, simply press RETURN again.

On every new screen, TAB again to the MARK button and proceed as described. Unicorn will refer to your list of MARKed items if you enter the PRINT command.

2.4 Mailing search results by e-mail

For further usage of your search results, you may want to send the results by e-mail to your own account. You can do so by using the PRINT command button. On the PRINT screen, choose the PRINT SEARCH RESULTS option. If you MARKed particular items on the Lookup screen before, the system will default to the selected records and offer to print them. You can add or delete record numbers or just mail the whole list by typing ALL in this field. TAB to the EMAIL ADDRESS line and insert the address. Confirm by pressing RETURN (Fig. 4).

2.5 Exiting from the Library Catalogue

If you wish to exit from the Library Catalogue, press the STARTOVER button several times, until you reach the PUBLIC ACCESS CHOICES screen. From here, you may move into other areas than the Library Catalogue. e.g. the Information Desk.

If you want to leave the system completely, press STARTOVER again. You

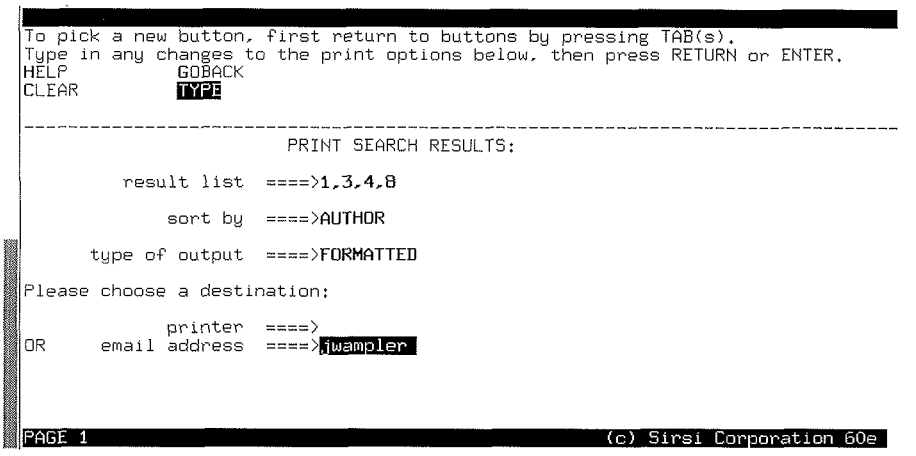

Figure 4: *Mailing Search Results by E-Mail.*

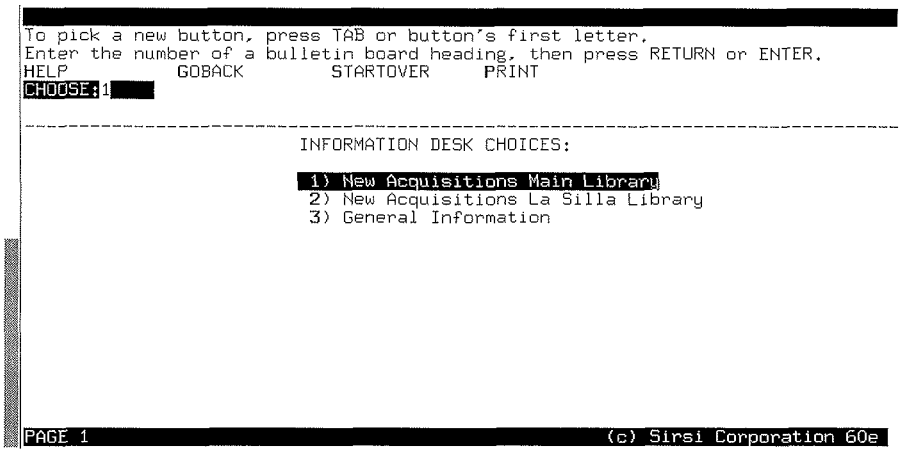

Figure 5: *Options on the Information Desk.*

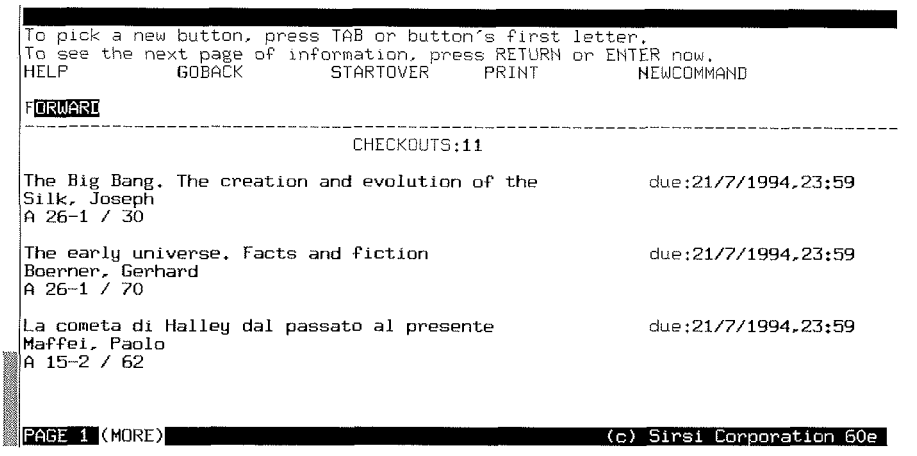

Figure 6: *User viewing his Checkouts.*

will be returned to the Welcoming screen. Choose END, and you exit from the system.

3. Borrowing Items

In order to charge items out, you must have an account with the library. Please contact the librarians if you wish to get one.

Borrowing items is only possible at the public terminals in the libraries. Press the function key which is reserved for CHARGING items, insert your user ID and Personal Identification Number (PIN), and confirm by pressing RETURN.

You will be asked for the number of the item you want to charge out. On the inside cover page of books you will find a barcode label, showing the item number. Use the barcode reader which is attached to the terminal to read the barcode number in.

4. Information Desk

The Information Desk provides access to various lists of catalogue items and library memos. For example, new acquisitions in the ESO Libraries will be announced here for one month. The buttons known already from the Library Catalogue are available here, too. You may browse through the list or view items in full, as you wish (Fig. 5).

5. User Status

Via the option USER STATUS on the Public Access Choices screen, users may view their own circulation status, i.e. how many and which items they have charged out. This option is available from every terminal.

On the User Status screen, the system prompts you to type in your user ID. Use the tabulator key to TAB to the PIN field and insert your Personal Identification Number. Press RETURN to confirm both numbers. For questions regarding User ID and PIN please contact the librarians.

You may select from various options regarding the User Status, of which at present only the CHECKOUTS are of interest to users of the ESO Libraries. The top of the information area shows the total number of items checked out. Below, a list of your currently charged out library items is displayed. If the checkouts don't fit on one screen, the FORWARD button appears and is preselected. You also see the note MORE on the bottom line of the screen.

Press the GOBACK button to return to the previous screen. Type STARTOVER or GOBACK again to return to the Welcoming screen (Fig. 6).

6. Exiting from the System

You leave the Library Information System by pressing the STARTOVER button several times until you reach the Welcoming Screen. Press END to leave the system.

7. One Look Ahead

The availability of an online library catalogue is the necessary basis for all further improvements and projects related to bibliographic data management at the ESO Libraries. The library information system can thus easily be integrated into the activities of the recently established Data Management Division.

For the near future, the following enhancements, which will be carried out by the Observation Support and Data Handling Group of the Data Management Division, are planned or considered:

- *Preprint Database*
  At present, preprints received in the ESO Libraries can be found via STARCAT. In order to provide users with an integrated catalogue, a data transfer utility will be set up, and all library items including preprints will be retrievable through the Library Information System.

- *IAU Astronomy Thesaurus*
  The first version of the IAU Astronomy Thesaurus, compiled by R.M. Shobbrook & R.R. Shobbrook, has just been released. The thesaurus is available in machine-readable form. Inclusion of the thesaurus into the Library System will allow users to search for terms within a controlled thesaurus structure, both hierarchical and cross-linked via related terms.

- *Mosaic User Interface*
  The ESO Libraries Online Catalogue could be accessible via the Mosaic user interface in order to facilitate access to the holdings of all ESO Libraries. Such a function would be implemented via a simple search and retrieve interface.

- *Optical Character Recognition (OCR) Interface*
  An OCR station located in the library could provide both general users and librarians with a tool to scan data and text. For example, the Library System could be routinely fed in this way with additional information such as references to single publications within proceedings (contents tables).

8. Acknowledgements

We would like to take this opportunity to thank all staff at ESO who supported the computerization of the Libraries, especially Miguel Albrecht, our "Maestro", who solved so many of our problems, as well as Pam Bristow for proofreading several texts and Ed Janssen for designing the User Guides. We are also very thankful to our contractors in Garching and on La Silla, Uwe Glas, Carolina Noreña, and Lucia Montes; we wouldn't have been so quick without their enthusiasm and energy.

Special thanks go to astronomy librarians all over the world for answering patiently our many questions, especially Ellen Bouton (NRAO, Charlottesville), Brenda Corbin (U.S. Naval Observatory, Washington), Robyn Shobbrook (AAO, Epping), and Sarah Stevens-Rayburn (STScI, Baltimore), who always shared their knowledge and expertise with us, explained their points of view and helped whenever necessary.

We are also very grateful to Barbara Pacut and Nick Dimant from Sirsi Ltd., London, who provided excellent customer support and never lost patience in spite of all our questions concerning the Unicorn Library Management System.

Last, but not least, we would like to thank all users of the ESO Libraries, who accepted many inconveniences during all phases of the computerization without complaint and thus enabled us to spend all our energy on this project.