The idea of a "documentation scheme" is based on the precept that in order to control a study group or software project effectively, the documentation must be planned in advance, structured logically, and easily accessible by all parties involved.

There are currently many approaches taken for documentation, but none is correctly adapted to a modern information technology environment. The closest approach to such a general scheme is "DOCx", a set of Wylbur EXEC files, originally produced to help organise a working group in 1982.

A set of specifications for a new scheme, called CERNDOC, initially based on VM, has been produced and a pilot scheme is under development.

In conclusion, people who write documentation for themselves maintain in isolation their own local procedures, whereas people who have used to the DOCx facilities tend to continue using them to structure their documentation and provide easy access and retrieval of both internally and externally produced documents.
1. GENUINE DOCUMENTATION SCHEMES

1.1 DOCx

The complete description is attached (attachment 1).

Briefly, the characteristics are:

- category definition,
- registration for both computer-readable and external (e.g. printed) documents,
- modification of both document (where relevant) and registration information,
- status, version number and modification record maintenance,
- retrieval,
- printing,
- scanning of text,
- cross-referencing,
- deletion,
- informing third parties,
- index generation.

Statistics obtained in three weeks at the end of September 1986 indicate that, during that period,

- 22 different documentation projects used the system,
- 720 different accesses were made, including:
  - addition of 46 new documents,
  - 138 modifications,
  - 232 prints,
  - 79 indexes created,
  - 109 retrievals.
2. CERNDOC

This is the scheme designed to replace DOCx on VM. It will have all of the facilities of DOCx, in a more flexible and general form. The specifications of this scheme are given in attachment 2.

The initial version will be released early in 1987 and will be written in REXX. Following user feedback, the specifications will be modified and a more general product produced in a more portable implementation, possibly based on an actual database.

3. INFORMAL APPROACHES

3.1 Program Library

A special set of Wylib EXEC-files has been produced to support the production of short- and long-writeups, as well as maintenance of the Program Library Manual (attachment 3). An additional set of tools is available under VM to allow access via the VM/CMS HELP facility.

It is interesting to note that this total set of tools is composed of two dozen EXEC-files and a number of auxiliary files, and is only applicable to the specific problem of the Program Library. In addition, the relevant manual (attachment 3) is not part of any documentation scheme, and is not even in computer-readable form!

It is to be hoped that a more generally usable scheme, such as CERNDOC, will be able to take over from this scheme.

3.2 Directory-plus

With this approach, the document is stored in the local filebase, with a name that is intended to remind the author of the document contents. The document can be stored with or without the control information (JCL!) needed to print it. More sophisticated or disciplined users also maintain a parallel indexing file giving additional information.

These schemes do not allow general access to the document base and are of very limited use for maintaining information about external documents.

3.3 "Enquire"

"Enquire" is an actual program written in Pascal, and is an example of the use of a data-base as a support for document storage (attachment 4). It does not provide all of the tools required for the maintenance of a full documentation scheme but does offer very powerful retrieval capabilities which are missing in all of the other approaches — including DOCx and CERNDOC.
4. BULLETIN BOARDS

These are "information" rather than actual "documentation" schemes, although they would generally profit from all of the tools available in a documentation scheme.

The bulletin board system allows a user to subscribe to various topics and to access any new information on these topics that he has not yet seen. The most popular of such schemes in use on Wylbur is OCNEWS, described in attachment 5.

A much more broadly-based scheme is the Unix users' UUCP network news on a range of topics including communications, computer languages, philosophy, religion, books, films, etc...

5. WISH LIST

The requests fall in to two main groups: text processing constraints, and document access.

5.1 Text Processing

Any documentation scheme must be accept documents produced with the help of sophisticated text processing tools, including the mixing of text and graphics.

At the other extreme, the scheme should be usable by people who have no desire to learn any sophisticated layout techniques.

5.2 Document Access

There should be a clean separation between document manipulation and document storage. This allows users to operate on their favourite machine even when the data is stored elsewhere. Even so, there is a need for a portable version of of a general documentation system, since many home institutes are unable to base their support on VM.

Powerful relational tools should be available to aid in retrieval.