PN-AAZ-544

Library Software Packages for Free

by Alan Hopkinson

Software is getting cheaper all the time! We all know how software packages have been going down in price over the last few years. Packages are of course priced according to what the market can afford to pay, which means that their pricing is not totally unrelated to the cost of the hardware on which they are intended to run. Additionally, after the initial cost of the package has been recouped, the manufacturer can even more readily afford to reduce the price of the products, so we are seeing enormous falls in the price of products like word processing packages

In the USA there is a new idea known as Shareware. A supplier puts software in the "public domain" so that the package can be freely copied. Users who like the package are supposed to send a "donation" (my term, not the suppliers') of usually around $75 (£50).The user then gets a better manual than the one provided for printing from disc and access to updates to the software and manual.

An interesting package available this way which could probably adapt to the purposes of a small library is PC-FILE. This is available in the public domain. The easiest way, though not the cheapest is to join Compulink Software Library which costs about £35. Programs on diskette are available for about £3 to cover the cost of the diskette and postage.

The fact that software is available very cheaply prompts one to think that software designed by an organisation for its own use could be made available at a very low price to other organisations. A few years ago, in the days before public bodies had to make money, they would have been an obvious source of software, and in the early days of mainframe local authorities used to give each other software packages that they had produced, often at great expense. Unfortunately the rise in the use of computers that can be afforded by small organisations or organisations in general in less well-off parts of the world has coincided with the political view that non-profit organisations (government departments, fringe bodies, etc.) should earn as much revenue as they can to support themselves to lessen the burden they impose on government spending. This has happened not only in the UK but world-wide. It has not yet happened in the UN to the same extent, and it is to Unesco that we turn for the first of two software packages that have been identified.

The two packages covered in this article are from Unesco and US AID respectively. The Unesco package known as CDS/ISIS is the more generally available, being available free of charge to non-profit organisations in Member States. It is not available to individuals. The US AID package MicroDIS can be made available only to agencies involved in the field of assistance to developing countries.

I.T.S. News May 1987 No. 12

CDS/ISIS Package

The CDS/ISIS package for microcomputers has concentrated mostly on the requirements of information retrieval, though it could be used for other library functions such as ordering, acquisitions and loans, such is the flexibility of the system.
Running on an IBM AT with 256K CPU minimum and 20 Mb hard disk, it can support a maximum of 32,000 records in a database. The only limit to the number of databases is the storage capacity of the hard disks on the computer.

The database can accommodate up to 255 data elements which can be labelled from 1 to 999 and could therefore host a format such as UK MARC or UNIMARC. Each field can be divided into subfields. There is no special provision for the indicators found in MARC, but they could in fact be entered as the first two characters of each field as in the ISO 2709 exchange tape specifications (ISO 2709 is the international standard on which the structure of the MARC record as it is found on the exchange tape is based) The data elements can be further divided into subfields like MARC.

The forms of output that the system can generate are also very flexible, even though the output module is not yet completed. Any kind of print constants can be included, subfields can be printed or ignored as required, and the printing of one field can be made conditional on the presence of another field in the record. No description can do justice to the complete range of facilities. Suffice it to say that outputs ranging from ISBD to Dialog printout can be produced so long as the data is entered in a well-defined format. Since it can be very tedious setting up the facility to print records using a complex variety of types of punctuation, defaults are provided which insert a comma before each subfield coded a to j and a full stop at the end of each field, which for most purposes would probably prove quite adequate

Indexing in the system is based on the inverted-file principle. Again, the user of the system can set up what he wants to have indexed in terms of fields and subfields. You can index a complete field, each subfield, or each word. You can also mark off certain words to be indexed on entry: these have to be enclosed by <> or // (eg /food aid/ or <food aid>), and there is a device that enables you to replace each pair of brackets by , on printout if you wish. Searching is very powerful and includes the usual boolean operator, context-related searches and searching on particular data elements or across the whole of the indexed fields

Data entry is performed by means of screens which are set up by the user, and are very easy to design and subsequently to change if required

The database design has to be done first before input screens and output formats are designed. However, it is relatively easy to make changes to it later, though that does not help consistency with any records already in the system. The system comes with a demonstration database consisting of records of documents from the Unesco library. A database could be designed using that as a model. The system supports the import of data from other systems, again this will only work if the other system uses the same fields and subfields, though not necessarily with the same numbered tags as a translation facility is provided. Since the system is compatible with MARC, using three-digit tags, it would be advatageous to use the codes of one of the existing MARC formats, as this saves time in setting up the database as we

as allows for the possibility to exchange records with other members of the MARC community in the future.

The package is based on the CDS/ISIS mainframe package which Unesco has been maintaining for a number of years for its own use. This mainframe system has also been given away to organisations in member states with the hardware to use it. Under the name of ISIS, it had originally been developed for ILO, who no longer needed it after they took MINISIS in their library. MINISIS itself was developed from the ISIS mainframe version. The manual that comes with the CDS/ISIS software package for microcomputers is based on the mainframe manual and includes those features of the mainframe system which are yet to be implemented, highlighting them by italicisation. The manual is in English, though the system as it is provided at the moment comes in English, French and Italian. The system was developed at the request of member states who wanted a system like the mainframe system but running on a microcomputer.

As can be imagined, there has been a heavy demand for the package, which is available only to non-profit organisations in Unesco Member States; since the UK left Unesco on 31 December 1985, UK organisations are excluded. Readers in other countries may get further details on how to obtain the software from Mr G del Bigio, Deputy Director, LADS, Unesco.

MicroDIS

This system has been developed by the US Agency for International Development primarily for its own missions and offices. It is provided free of charge at the moment but it may be necessary in future to levy a maintenance charge by means of a support contract. MicroDIS has been developed using dBase III as a basis. Its aims are to provide a complete library system for its missions and other institutions and to facilitate the exchange of development information. USAID make extensive use of MINISIS across the organisation, and they have used it as a general guideline in the development of MicroDIS. As well as allowing for the cataloguing and retrieval of references to documents and articles, the system includes an acquisitions module and a circulation module.

Unlike CDS/ISIS the system is ready to run, the database requires no setting up. On accessing the system, one is given the option of English, French or Spanish screens. The next screen gives the option of entering the modules for acquisitions, catalog and circulation. Additionally there is a daily log for recording the time spent on activities in a library, and a module called reference desk in which it is possible to store full text of information such as news or any other kind of information that needs to be made accessible on-line.

All the modules are easy to use. As mentioned above, no setting up is required, but set against that is the lack of flexibility; for example, no distinctions are made between personal and corporate authors andd there is no facility to add one's own data elements. Thus, it would not be possible to use MicroDIS to prepare records for input into a MARC system.

Indexing is done by means of descriptors. Title words and author names are also indexed and can be retrieved. Searches are made via a fixed format screen using the boolean "and" and "or" operators.

The manual which comes with it is very clear and covers all the diffe functions. The fact that it is intended primarily as an internal software package is of no handicap to the system or the manual.

Further information on the package is available from Mr Lee White at the Agency For International Development, Washington DC.

Footnote

These two packages were demonstrated at the European Association of Development Research and Training Institute's Working Group on Information and Documentation Workshop entitled Databases and Networking in Development held in Brighton in September 1986. A number of other software packages were presented and were the subject of papers. The Proceedings include an account of the use of the Revelation database management package at an institute in Norway and an implementation of dBase III at the Deaprtment of Administrative Studies at the University of Manchester and a fuller account of MicroDIS. They are available from Mrs K Hagen-Andersen at the Chr. Michelson Institute, Fantoftvegen 38, Fantoft, Norway.

Alan Hopkinson is Information Systems Manager, Institute of Development Studies, University of Sussex.