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COMPARISON OF THE MALAYSIAN AND POLISH VERSIONS OF CORIS SOFTWARE

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INTRODUCTION

This paper assumes that the reader is familiar with the CORIS program for technology transfer agencies administered by UNIDO.

For various reasons, detailed in other documents, two versions of the CORIS software for personal computers have been developed. Both were written to conform to system specifications approved by UNIDO. To the best of my knowledge two sets of specifications were prepared. While there may have been minor differences between them, the specifications are the same in key areas.

A version of the dBASE-CORIS tailored for Nigeria was written by the Polish developers at approximately the same time as a custom version for Malaysia was prepared by the Malaysian consultant. Both the Polish and Malaysian consultants subsequently produced standard versions of the dBASE CORIS. Those versions have been the subject of extensive alpha-level software testing in early 1988.

Each group of developers benefited from some unique advantages during the development process. The Malaysian developers had a copy of the GW-BASIC version of the CORIS software and documentation upon which to base their work and enjoyed frequent (probably at least weekly) consultations with the Malaysian user group. The Polish developers, while not able to work with the potential users of the system on a frequent basis, benefited from the experience of the installation of the GW-BASIC version of CORIS in India as well as extensive consultations with UNIDO on the software design and use. I mention these circumstances because I believe that they are directly related to the various strengths and weaknesses of the two versions.

This paper is an assessment of the two standard versions. Comparisons of specific features of the two products and the advantages & disadvantages of supporting two versions of CORIS are included.

REPORT SUMMARY

Both the Malaysian and Polish versions of CORIS meet the intent of the system specifications Alpha testing on both products uncovered roughly similar numbers of significant errors that must be corrected before the software is installed in user's offices. When those changes are made both products will be suitable for use in technology transfer agencies.

While the products each have their strengths and weaknesses neither is clearly superior (or inferior) to the other. Given the vast geographic area over which TIES member countries are spread, language differences and the logistics of installing and training users in multiple locations, having two versions could actually improve implementation success. Regional support centers can be established, capitalizing on the language strengths of each development group. Such centers will go a long way toward insuring that the inevitable customization of the standard versions goes smoothly and that a basic level of compatibility is maintained.

UNIDO may wish to demonstrate both versions of the CORIS software at the next TIES meeting and present the idea of regional support centers for CORIS implementation in member countries for discussion at the meeting.

COMPARISON OF THE TWO VERSIONS

Both standard versions of the dBASE CORIS software were extensively reviewed in the alpha tests. Problems with each product were noted and suggestions for improvements were made in the alpha test reports. Hopefully those problem fixes and improvements will be undertaken and will make both products even more useful.

This report is a review of the strengths and weaknesses of each version as each stands in June 1988. I have chosen not to second-guess the designers on every report layout and screen design but rather to highlight some key features of each version.

MALAYSIAN VERSION

POLISH VERSION

Software provides a menu choice to restore the backed up database. This implies that the database could be restored by someone not familiar with DOS (the computer's disk operating system).

In order to restore a backed-up version of the database the user must exit CORIS to the disk operating system (DOS). this implies that a more sophisticated user or system's administrator must be present to restore a database.

System contains two national-level identifier numbers for an agreement. One is generated by the system (the register number) and the other is entered by the user (the file number) and would presumably be a duplicate of the file number used in the office. A record must be kept of the register number which corresponds to each file number as the register number is used to access the contract in the future.

File number accepts alphabetic and numeric entries. This data item can be used to accommodate existing file numbers in use in the technology transfer agencies. There is no need to record an identifying number generated by the system.

MALAYSIAN VERSION

The user is rarely left in doubt as to what his options are while using the software. This is clearly due to the frequent interaction with inexperienced users during the development process.

Because of the constant screen feedback the system will probably be easier for naiver users to learn and use.

While the software is feature-rich one gets the impression that it is fragile. It would be too easy for the user to run into a serious problem that might damage his database or produce erroneous reports. Hopefully problem areas will be fixed and the software will be both feature-rich and sturdy.

The ability to have screens in one language and printed reports in another will be a plus in certain technology transfer agencies. Clearly this feature is a result of the Malaysian environment.

Dual level password protection that can be tailored to an individual. Passwords can be changed via a menu choice.

Systems maintenance functions fairly well documented.

POLISH VERSION

This version of the software assumes that the user remembers what he read in the documentation (and therefore that he had read the documentation) about what his options on a given screen were (wait for processing, break, escape, exit, control break, etc.).

Given the abruptness of the system it may be more difficult for a naive user to learn to use.

The system is very robust. Few system hangs or exits from the application. Clearly the result of good design and extended experience with the software. User would be unlikely to get into serious problems or damage his database.

I am not aware of anything in this version that would prevent a dual language feature. The feature is not, however, currently implemented as a systems maintenance or system configuration choice.

Single level password protection. Password change not possible via a menu choice.

Systems maintenance type documentation is sketchy (on passwords, and backup and restore procedures, for example).

MALAYSIAN VERSION

The documentation is weak on criteria for inclusion in reports and definition of data. The User's Manual is little more than a collection of screen printouts.

It appears that TIES II reports can only be generated for yearly periods.

In some cases it takes quite a long time to generate the reports. This may be due to software bugs that will be fixed rather than to design problems.

POLISH VERSION

The documentation is fair on what should be included in reports (criteria for inclusion). The User's Manual does not say much but the Programmer's Guide provides more clues. The User's Manual is quite good in defining the data items.

Can generate TIES II reports for periods of less than one year but cannot generate a different TIES report (IIM, IIA, etc.) for the same period.

Generation of reports is quite fast.

AREAS OF CONCERN IN BOTH VERSIONS

• In the project data section, zero data is interpreted in the same way as blank data. This means that blank data (records where no data was entered) is included in reports on project data. See the individual software reviews for details. This problem is likely a limitation of dBASE but some solution must be found to avoid misleading reports.

• There is no system administrator's guide with details on long term operation of the system. Such a document should probably be generated during the beta test.

• Neither product can be used to produce quarterly reports at the national level. A decision must be made to include such a feature or to leave it to developers in the member countries.

• Neither of the products can be used in a networked environment. This is a limitation of dBASE III Plus. The networking issue must be addressed when dBASE IV is available (supposedly this calendar year).

• We don't know much about the translatability of either version. Just translating reports would probably not be a major effort. Translation of all the screens and error messages would likely mean a very significant re-write (particularly for non-Roman alphabet languages).

ADVANTAGES OF TWO VERSIONS

• Better support coverage. Regional support centers could be set up for the various areas (Asia/Latin America/Africa/Caribbean). those support centers would in turn be supported by either the Polish or Malaysian consultants in making custom version of CORIS and supporting users at the country level.

• Faster implementation worldwide. There are twice as many consultants to install systems, train new users and support regional support centers.

• Each group of consultants has significant language strengths that the other does not have (Chinese and the Romance languages come to mind) which are invaluable in their respective areas.

• UNIDO is not dependent on a single development group.

• Competition between the two development groups is likely to result in a better product for users.

DISADVANTAGES OF TWO VERSIONS

• Currently TIES II data cannot be exchanged via diskette between the two systems (the record layouts of the two systems are different). Only those using the same version could exchange such data.

On the other hand, it should not be a significant amount of work to have each development group make an interface to the other system type for the purposes of TIES II exchange. Since TIES II data exchange is not foreseen for the immediate future this issue is more of a potential than a real problem at this time.

• UNIDO must decide which countries will receive which version of the software and who will support it.

• Two versions may have been and be, more expensive for UNIDO to develop and support.

RECOMMENDATIONS

I recommend that UNIDO:

•   Demonstrate both versions of the software at the next TIES meeting.

•   Present a plan to TIES members at that meeting which has the following attributes:

      1.   Proposes regional support centers which will be set up and supported by UNIDO with the aim of customizing, as necessary, and supporting individual country users of CORIS.

      2.   The 'support of the support centers' to be divided between the Malaysian and Polish development teams (and using their respective software packages) bearing in mind their previous experience and language strengths.

      3.   In principle, support by the Malaysian and Polish development teams should no longer be required once the regional support centers are in place and functioning for a couple of years.

      4.   Development of an interface between the two CORIS versions so that TIES II data can be exchanged via diskette.

•   UNIDO should seek the guidance of the TIES members on the above points.