Welcome to the fifth issue of the DMFAS Newsletter.

DMFAS 5.0 on schedule
Software development activities for DMFAS 5.0, which will be released in September 1994, have progressed as planned. A quality assurance review was held in September 1993 to review the results of the system design stage. The meeting reviewed the system architecture, the database design, the user documentation outline, the training methodology and the test plan for the build stage. The review was attended by a representative of the World Bank, a DMFAS user and an expert on the Human Machine Interface from the Computer Science Department of the University of Strathclyde.

An internal quality assurance review within the DMFAS Programme was also held. The reaction of the participants at the quality assurance review was generally favourable. Topics of particular interest to the reviewers were the description and the practical demonstration (prototype) of the system architecture, and the user documentation outline. The suggestions and modifications proposed at the quality assurance review have been incorporated, with the exception of the work on the refinement of the standard reports, which will be completed shortly.

This marked the end of the system design stage and work has begun on the system build stage. The principal activities under this stage include the programming and testing of the new system, coupled with the development of all user manuals.

Joint Programme Steering Committee
The fourth meeting of the Steering Committee of the UNDP/UNCTAD/World Bank Joint Programme on Debt Management was held in Geneva on 17 November. Participants discussed the system development effort, regional and country field activities since the last Steering Committee meeting, and resource requirements for the future. An evaluation of the Joint Programme will be carried out in the second quarter of 1994.

EFAIDARM
As already mentioned in previous issues of the DMFAS Newsletter, the governments of twelve countries in Eastern and Southern Africa have created the Eastern and Southern African Initiative in Debt and Reserves Management. At a Steering Group meeting held in the Bahamas on 20 September 1993 the Initiative was formally established and its Board of Governors, Executive Committee and Executive Director were elected. With the technical and financial support of bilateral donors, the African Capacity Building Foundation, the World Bank, UNCTAD, the Commonwealth Secretariat and other international organisations, training and advisory services will be provided through a regional secretariat attached to the Reserve Bank of Zimbabwe. Financial arrangements to support this regional operation are being finalized and the estimated cost for the first three years is $10.2 million. At the request of the Initiative, UNCTAD will post a chief technical officer within the Secretariat in order to provide training and support in the use and operation of DMFAS (see page 9).

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4.1Plus Update

The first update of version 4.1Plus was issued in March 1993; the second will be issued in January 1994. The documentation has been changed to correspond to these two updates and DMFAS users will shortly be receiving the pages that they need to replace in their folders. Below are the main features of the DMFAS that have been modified in update no. 2. A detailed list of changes and the installation procedure will be sent with the update itself.

Reports
1. It is now possible to exclude reversals from the Loan Statement;
2. In projection reports, if the repayment currency is different from the loan currency, the repayment currency is used when converting amounts to other currencies;
3. When printing Arrears of Principal and Arrears of Interest the "write off" created in the DRES is included in calculations;
4. In the ledger balance report, columns 10, 11 and 12 have been changed to include ledger transactions 15, 25 and 35 (arrears paid); 16, 26 and 36 (arrears created); 17 and 37 (arrears rescheduled) and 19, 29 and 39 (arrears write off);
5. The calculation for the grace period and the maturity period in the loan summary has been corrected;
6. When printing amortization tables (full schedule), if the repayment schedule is irregular and the repayment amount is entered as percentages, the system calculates the installments based on the amount of the loan. For a loan with only one schedule, this is OK, but for multi-schedule loans the calculation is now based on schedule face value;
7. Write-off transactions (created in the DRES) are now included in ledger reports LDB065, 67-74, 76, 86 and 99;
8. When printing out the effect of USD variations on total debt and net flows, if the outstanding is negative, the sign that was missing from column 7 now appears.

Data entry
9. The interest rate percent can now be entered up to 5 decimal places.
10. When recording the terms of bilateral agreements in the DRES, the formula used for the calculation of reorganized and write off amounts has been corrected

System administration
11. It is now possible to select a subset of loans to be updated when rolling forward estimated disbursements.

4.1Plus to 5.0 - what you need to know

As you will remember, we are developing the next version of DMFAS, due to be released by the end of 1994. The most visible change in the new system will be its Windows graphical interface which will considerably ease data entry and navigation through the system's screens (see the Technical Focus for more details on Windows). Other enhancements include: flexible identification and recording of loans, facilities for treating composite agreements, possibility of personalising codes, comprehensive on-line help system, better reporting features, enhanced security measures and a comprehensive documentation kit.

However, transferring to a completely new computerised debt management system is not as easy as simply installing an update. For debt unit managers, adopting DMFAS 5.0 will imply making certain changes to existing hardware and software configurations, upgrading staff knowledge through training, and, in some circumstances, will require modifying current staffing arrangements.

To help our users prepare themselves for the implications of transferring to DMFAS 5.0, we are producing a document entitled 'An Introduction to DMFAS 5.0 for Current DMFAS 4.1Plus Users'. This will give current users and managers of DMFAS 4.1Plus an introduction to the new DMFAS, the issues involved in converting data from 4.1Plus to version 5.0, training, software and hardware requirements, and how the choice of hardware may influence the daily operations in your debt unit. As the new system can also run on a network - another advantage of DMFAS 5.0 - a special section deals with important considerations for those debt units that will choose to operate the new system in such an environment. Converting to the new system will imply certain costs. In order to assist debt managers in budgeting for this conversion, this document also contains cost estimates for different software and hardware components necessary to run version 5.0.

The information contained in this document should therefore help you to develop a complete transition plan which takes into account all aspects necessary to convert smoothly from 4.1Plus to the much improved new system, including choosing the optimal hardware and software configuration for your debt unit. The document will be ready by the beginning of 1994, and will automatically be sent to all current DMFAS debt units. However, if you fail to receive your copy, or would like to receive additional ones, please do not hesitate to contact us.

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TECHNICAL FOCUS

D MFAS 5.0 will use the standard graphical Windows interface, rather than DOS as is the case with version 4.1Plus.

What is Windows?
Windows 3.1 is a graphical interface that can be run on a PC with DOS. Instead of typing commands as in DOS, the user can use a mouse to double click on icons to start programs and to choose commands from menus. Included with Windows are several useful tools like a simple word processor, drawing program, calculator, calendar and a file manager where you can easily copy, rename and delete files and directories.

Shared resources:
Most DOS programs need their own printer driver to communicate with a printer. If you have installed four DOS programs and bought a new printer, you have to install four printer drivers (one for each program). Windows programs, on the other hand, can share many resources. You will only need one printer driver, one screen driver etc. for all your Windows programs. One of the most useful of the shared resources is probably the Clipboard which enables you to copy information from one program to another. If you want to copy a graph from a spreadsheet to a word processor, you mark your graph in the spreadsheet, choose Copy, switch to the word processor and choose Paste.

What are the advantages of using Windows and Windows Programs?
Most software companies today are developing software for Windows, that is programs that follow the Microsoft Windows standard, which have a lot of advantages over DOS programs. As you probably know, the next version of DMFAS (version 5) will be a Windows version, which will give you several advantages compared to DMFAS 4.1Plus.

Standards:
All Windows programs follow certain standards. Functions such as Print, Close, Save etc. will be found in the same menus in all programs, and have the same short-cut keys (key combinations that can be used instead of choosing from menus). Windows programs therefore have much more in common than DOS programs, so the user will need less time to learn a new program.

Multitasking:
You can run several programs in different windows at the same time. For example, while the DMFAS is creating an amortization table, you can be working on a spreadsheet or typing a document in your word processor. You can even do this now with DMFAS 4.1Plus and Windows as described in the last newsletter.

WYSIWYG:
This abbreviation is short for What You See Is What You Get and means that what you see on the screen is what the output will look like when printed. In most DOS programs (like WordPerfect 5.1 for DOS or DMFAS 4.1Plus), the fonts and font-sizes are fixed on the screen whatever font you choose. In Windows, you will see the changes in fonts and sizes (and of course graphics) on the screen.

Commands/interface:
DOS users have to remember the commands and switches for Format, Copy, Delete etc. In Windows these commands can be found in menus. Instead of typing FORMAT A: /F:720 to format a Double Density diskette using DOS 5.0, you can choose Format from a Windows menu, and then choose which format you want from a pull down menu. Instead of having to remember the currency code for United States (as with DMFAS 4.1Plus), you will be able to select United States from a list.
Use of memory:
While most DOS programs can only access the conventional memory (the first 640 Kb), Windows can use all the memory in the PC. It can even use more than you have by using something called virtual memory which is actually free space on the hard disk. If you have 4 Mb of memory on your PC and need 6 Mb to run a program, you can use part of your hard disk as virtual memory so that the total memory will be 6 Mb.

Additional programs:
As mentioned earlier, Windows includes several useful programs, for example a drawing program and a word processor.

Automated setup:
Changing the system setup in Windows is in most cases done without using a keyboard at all. If you want to change the date format, you use the Control panel (one of the programs which is included in Windows) and click on the desired option with the mouse instead of typing commands in your CONFIG.SYS file or AUTOEXEC.BAT file as is the case with DOS.

Disadvantages:
You do not get all these advantages without some sacrifice. Windows needs a more powerful PC than a PC running DOS programs. A bigger hard disk, more memory, a better and faster screen/screen adapter and a faster CPU (processor) are needed in order to run Windows and Windows programs. Most Windows programs will run more slowly than DOS programs because of the graphical interface. But as PCs are getting faster and faster and more and more Windows programs are available, Windows is becoming increasingly popular. Today most PCs are sold with Windows installed.

CORRUPTED BACKUP FILES

Recently some of our user countries have reported corrupted DMFAS backup files. Corrupted backup files can be caused by a number of different reasons like electricity cuts or power surges while data was being processed etc. When you are taking a back up, the error will not be detected. Usually this appears as a sequence error when restoring backup files and the following message is displayed on the screen:

```
SEQUENCE = 000000
------------- REFORMATTING ENDING ------------ DB/254

SEQUENCE ERROR IN BACKUP FILE: ...
NOTE... NO INDEXED SEQUENTIAL FILE GDBXXX WAS CREATED
CORRECT BACKUP FILE GDBXXX AND TRY AGAIN
```

The restore overwrites the existing GDB-file on your hard disk and in the case of an unsuccessful restore, destroys the corresponding GDB-file. Caution, note that your GDB-file is now empty, do not try to back it up.

If this problem occurs, send us on a diskette the backup file you have had problems with. We will correct it and send it back to you, and you will then be able to continue data entry. We also advise you to keep more than one backup of your DMFAS loan data to prevent the complete loss of the data in case one of the backups is accidentally destroyed (see Technical Focus in Newsletter no. 1).
The Argentine debt situation is showing some signs of improvement, particularly following the recently concluded Brady deal. Furthermore, a spate of privatisations has contributed to a considerable volume of debt buybacks. The economy has also been improving, which is a positive signal for international creditors, and Argentina has been seeking to increase its creditworthiness mainly because of its need for continued access to international capital markets and for further debt relief. Currently, with more countries facing the need for financing from both international financial institutions and commercial banks, Argentina is facing greater competition in the race to obtain new funds. For this reason improvement in the country's macroeconomic management, including public administration and specifically debt management practices, will have a considerable impact on lenders' perceptions and consequently facilitate new borrowing.

The Argentine authorities have taken an important step towards the objective of strengthening the country's debt management capacity by passing the Financial Law No. 24.156 which has transferred the mandate of centralizing, recording and monitoring of all external debt-related transactions from the Central Bank to the Ministry of Economy and Public Works and Services. To this end a new recording unit has been set up in the Financial Secretariat of the above-mentioned Ministry. The authorities have established and made official the procedural guidelines with which this recording unit will operate, taking into consideration such issues as the smooth exchange of information between all entities involved in public debt-related transactions.

The Argentine authorities decided to install the DMFAS to strengthen this newly created unit and to improve the country's overall debt management practices. The Government of the Republic of Argentina has provided the funding, $535,500, for this project. In addition to the usual DMFAS training activities which accompany all DMFAS projects, a Chief Technical Adviser will be based in Buenos Aires for one year to ensure the optimal implementation of the activities of the project and the full utilization of the DMFAS.

Implementation of the project began in October 1993. The DMFAS was installed in the recording unit and training of the staff of the debt unit and loading of debt data started immediately. The computerization of debt data means that the recording unit will be able to supply accurate and up-to-date reports on the external debt situation of the country to other government departments and will greatly facilitate the task of projecting future debt servicing requirements. This project is made up of two phases: The first stage will provide thorough training of DMFAS users and debt managers in all aspects of the system and the loading of the debt database. Furthermore, information from the DMFAS will be used as an input to other public administration systems used for accounting, budgeting and balance of payments. This phase also involves the transition from DMFAS version 4.1 Plus to the new system designed in Oracle. The following stage will comprise such downstream activities as the expansion of the data base to include private and non-guaranteed debt and the sharing of the database among relevant institutions such as the Central Bank. It will also involve establishing an automatic linkage between the DMFAS and the other public administration systems.

### THREE NEW COUNTRY PROJECTS

At the moment, the DMFAS Programme has around ten country projects in the pipeline. This indicates the strong demand for DMFAS services. However, the lead time between initial contacts with the government and start-up of project activities can sometimes be extremely long. The major reason for this difficulties with obtaining funding.

Over the last six months, the DMFAS Programme has signed three new country projects. As you know, in order to start activities in a particular country, funding must be made available for equipment, training and advice in the use of the system, as well as for other activities for improving effective management of the country's debt. In the past, UNDP has been the major provider of such funding. Due to the resource constraints of this organization, increasingly other resources of finance must be sought. In some cases governments themselves are paying for the services provided. Of the three new country projects two are financed by their governments (Iran and Argentina), and one by UNDP (Lebanon). A further project is about to be signed for Romania, financed by the Japanese Grant administered by the World Bank.
THE DMFAS AT THE CENTRAL BANK OF COSTA RICA

Gerardo Ulloa, deputy director of the International Finance Department at the Central Bank of Costa Rica, here describes his country’s steps to improve debt management over the last decade.

It is well known that developing countries use foreign indebtedness essentially as a means of expanding their economies and thus achieving development. Few countries have managed to profit from funds received in terms of foreign indebtedness, enabling them to switch from the status of developing to developed country. Those that have successfully crossed over have done so by combining foreign debt with other economic factors such as direct internal and external investment, appropriate use of technology, and expanding foreign trade in search of new markets while manufacturing non-traditional goods. These steps have naturally required each country to change a number of its deep-rooted social standards, calling for iron-fisted Governments and therefore exacting a certain social cost.

With the onset of the foreign-debt crisis in Costa Rica, another problem emerged: the lack of accurate, timely information relating to public-sector foreign indebtedness. Until 1982, when negotiations for refinancing the Costa Rican public-sector foreign debt were initiated with the international commercial banks, public institutions had been responsible for recording their foreign indebtedness. There was, however, a clear need for suitable records and centralized information, for otherwise negotiators would be at a disadvantage vis-à-vis creditors, allowing them to include sums in their bills that the inadequate books at our institutions could not keep track of.

Foreign-debt statistics were compiled by the Central Bank’s Balance of Payments Division. The Ministries of Planning and of Finance also kept certain statistics at the national level, which they were unable to maintain as the debt stemming from refinancing grew increasingly complicated. Aware of the pressing need for accurate figures, the Central Bank centralized the compiling of foreign-debt data for the entire Costa Rican public sector, creating a registry and control unit. It also began an immediate search for a computer system in order to create a suitable database.

First, the Central Bank reconciled figures between creditors and debtors, assisted by a group of international consultants, and a program was written for a Hewlett Packard minicomputer. Owing to its limited capacity, another system was created tailored to the Bank’s main computer (a Burroughs). When results proved unsatisfactory, efforts were then directed to adopting a system being prepared by UNCTAD for use with microcomputers, but this was not feasible since the system was at a rudimentary stage and contained a number of fundamental flaws. The Bank then tried to adopt the World Bank system, but this met with the same fate for similar reasons. It was consequently decided to proceed with efforts to create a tailor-made system, using the Bank staff and hardware.

Meanwhile, public foreign debt restructuring agreements were signed with Governments and official agencies under the Paris Club in 1983 and 1985. Refinancing agreements were signed at the same time with the international commercial banks, along with the refinancing of floating-rate bonds and notes in 1985. These obligations, together with those towards multilateral organizations such as the World Bank, the International Monetary Fund, the Inter-American Development Bank and the Central American Bank for Economic Integration, give an inkling of the complexity of foreign debt at that time.

As the structure and administration of external debt grew increasingly complicated, the ranks of both national and international data users swelled. Data seekers ranged from high-school students to government officials, with a growing number of international agencies requesting statistics on foreign debt, each one with its own format based on its own information needs. Accordingly, and aware that one of the main problems affecting the registration of obligations was the lack of a continuous data flow for an up-to-date database, the Central Bank authorities believed that the regulation of management operations would be a step in achieving the necessary control over this proliferating data. Thus, in April 1986, the Bank’s Board of Directors approved regulations for registering and controlling the foreign debt of Costa Rican public-sector institutions. These regulations have since been applied to transactions relating to the country’s public foreign debt. Although these regulations improved the flow of data from institutions, they did not solve data problems, one reason why in previous years foreign debt had been mismanaged.

The Central Bank realized that to achieve the goals embodied in the regulations, three elements were needed: adequate legislation on foreign indebtedness, an adequate administrative structure and a computer system. Computer systems are generally designed to support accounting and statistical
operations, which should not be confused. Accounting involves keeping a separate register of transactions relating to the external liabilities of each institution, making it possible to obtain regular reports on the financial status of an entity on a given date. Statistical operations involve keeping a register of transactions relating to the foreign indebtedness of every public-sector institution so as to provide aggregate figures at a given moment, grouped as deemed necessary. Foreign debt statistics are yet another variable for analysing a country's economy. They are used for forecasting, budget-making, balance-of-payments planning, sensitivity analyses, designing foreign-debt strategy, meeting domestic and foreign obligations to provide data, and in general, properly managing the foreign debt.

As pointed out earlier in relation to the foreign debt registration system, the Central Bank had been searching for a solution since the onset of the information-shortage problems. Its most recent attempt involved developing a tailor-made system using its own resources. As 1987 came to a close, however, efforts had fallen short of the mark: the system had not satisfied needs and had become obsolete. There were a number of reasons for the failure, but two were particularly significant. First, the loss of skilled personnel in the field of computing as well as experts on the foreign debt, who left in search of better prospects, especially in the private sector. The situation was aggravated by the fact that the Central Bank lacked this type of personnel for short-term training and re-placement. Because these people are unavailable in the job market, staff training must start from scratch, and it takes time. Secondly, the goal of having a virtually perfect system was overly ambitious, mainly resulting from the lack of maturity and experience in this field.

The Central Bank abandoned its attempts to develop its own computer system for registering public foreign debt, choosing to issue two calls for bids on developing a new system. Tenders were submitted by various private enterprises specializing in information processing, as well as in accounting and finance in some cases. Both times, however, it was found that these firms did not clearly understand what was requested, possibly due to unfamiliarity with the area of foreign debt. In 1989, the Central Bank once again turned its attention to the UNCTAD package, the Debt Management and Financial Analysis System (DMFAS), which by then had been considerably improved. The DMFAS project started up in September of that year, with the aim of installing the system as quickly as possible. The end of 1990 was set as the target date to begin generating reliable data for all users. Six persons were assigned full-time to the project and an AT-386/33 computer was purchased, equipped with a 133Mb hard disk and an Epson DFX-5000 printer. With assistance from the United Nations Development Programme (UNDP), funds were obtained for providing project personnel with appropriate training in operating the system.

The project was completed on schedule. The system allowed us to register the most recent agreement on debt restructuring, signed with the international commercial banks on 21 May 1990. This financial package led to major changes in refinancing terms, including debt repurchasing at a price close to the international market price at the time, with variations in the make-up of the country's foreign liabilities. Principal and interest on outstanding loans, plus medium- and long-term debt obligations due and not included in the repurchase, were paid off in order to register the issue of four bond series with differing terms and interest rates. New credits obtained from other types of creditors for the purpose of the repurchasing operation were registered. The overall result of this transaction was to reduce the country's public foreign debt balance.

Lastly, merely having the best computer system for properly managing the country's foreign debt is not enough. There must also be a suitable institutional structure and a very solid legislative and regulatory foundation. The alternative is continuous improvisation, institutional and professional jealousy, varying sources of information, and so forth. The end result is confusion, which in turn leads to mistrust, an unwanted partner at times of negotiation and final decision-taking.
September 1993 saw the release of UNCTAD's annual Trade and Development Report, which highlights the fact that the debt crisis persists in over 60 countries. The characteristics of the crisis have changed since the early 1980s. Currently the main problems are the debts owed to governments and to international financial institutions. The countries most affected are in Sub-Saharan Africa and some middle income countries in the former eastern bloc. However, the creditworthiness of a few major Latin American debtor countries has improved considerably.

The Paris Club was set up in the late 1950s to deal with the liquidity problems of mainly Latin American countries. Its main mandate has been to reschedule official bilateral debt thereby according debt and debt service reduction to low income countries. Although the terms have improved over the years, the TDR advocates that they need to improve further and that the eligibility criteria need to be widened in order to embrace all heavily indebted countries that are IDA (International Development Association) recipients, even if they borrow from the World Bank on non-concessional terms. The Paris Club should also address the needs of the middle income countries. Moreover, the TDR stresses the need for debt reduction to "be granted all-at-once, as in the Brady deals and not in stages as is the current practice". Further improvements in attempts to relieve the debt burden of developing countries include the suggestion that "the proposed 'Trinidad Terms' should be adopted by all creditors as a benchmark, with further reductions when needed. Non-Paris Club creditors should consider implementing comparable measures".

As far as multilateral debt rescheduling is concerned, the TDR points out the importance of dealing with this issue since in the next few years most of the debt will be to international financial institutions. Already about 20 countries are in arrears with these institutions and this will deteriorate even further unless export prospects and overall net transfer improve considerably. To this end the TDR advocates an adequate replenishment of the soft windows of these institutions tapping new sources of funds such as SDRs and IMF allocations in order to avoid reducing bilateral aid.

Up to the present 7 countries have completed Brady deals which comprise debt and debt service reduction of commercial bank debt. The TDR points out that "the Brady plan, by providing a framework for settling claims in an orderly way, has contributed to the improved creditworthiness brought about by domestic economic reforms". But it is also critical of the Brady deals to the extent that they alone are not generous enough to increase the confidence of investors. Other factors such as interest rate arbitrage have played an important role in enhancing this confidence. Furthermore, the report states that in many instances "the up-front costs of these deals have outweighed cash flow savings in the short and medium term". The report advocates the acceleration of the reduction of commercial debts by means of governments "exerting greater moral suasion on banks to agree on debt reduction; improving their regulatory and tax provisions would also be helpful".

The TDR has also analyzed the debt situation in Russia and advocates a comprehensive medium term debt relief programme for the country which goes beyond the traditional short-lease approach of the Paris Club. Over half the country's $78 billion debt is owed to official bilateral creditors and huge arrears have accumulated with both official and private creditors.

Further rescheduling of the debt should be carried out in such a way that it eases the transition period that the country is experiencing rather than making it harder and longer. To this end debt rescheduling should be accompanied by further external financing to implement the structural reforms which will restore the country's creditworthiness. The TDR recommends that Paris Club agreements deal with the stock of debt as well as debt service falling due each year, and coordination by the various groups of creditors in order to avoid delays in providing relief and to ensure that the burden is fairly shared by official and private creditors.

The TDR is available from book shops and distributors throughout the world. Consult your local bookstore or write to United Nations, Sales Section, New York or Geneva.
VACANCY ANNOUNCEMENT
Chief Technical Officer (CTO) in Debt Management

The Governments of ten countries in Africa are strengthening their capacity to manage their external debt and have recently created the Eastern and Southern African Initiative on Debt and Reserves Management (ESAFADARM). With the support of various donors, training and advisory services will be provided through a Secretariat attached to the Reserve Bank of Zimbabwe.

UNCTAD has been providing technical cooperation services in debt management to developing countries over the last ten years, mainly through support to the installation and operation of its Debt Management and Financial Analysis System (DMFAS), a specialized computer-based debt management software package. It has been requested by ESAFADARM to provide assistance in this regard through a Chief Technical Officer to be based in Harare, Zimbabwe, for two years starting around 1 April 1994.

The principal functions of the CTO will include the following:
- provide training and advice in the use of the DMFAS to relevant countries in the region;
- assist governments in establishing appropriate information flows for data collection and in the maintenance of an accurate data base on external debt;
- collaborate with the governments in improving their debt management capacity, including assistance on institutional and organisational issues.

The CTO will receive the necessary support and training from the DMFAS central team in Geneva and is expected to acquire and provide a thorough knowledge of the DMFAS. The CTO should have a good degree in economics or business management and have acquired at least five years of experience in the area of external debt management. Experience in the use of microcomputers and databases, and training are required. Previous experience with the DMFAS will be considered as a definite advantage.

Remuneration package will be comparable with other internationally recruited CTO positions, with a full range of benefits. The precise package will be based on qualifications and experience. Faxed or mailed applications, accompanied by a CV, relevant certificates and the names of three referees should be addressed by 1 March 1994 to:

Chief of Personnel
UNCTAD
Palais des Nations
8-14, Avenue de la Paix
1211 Geneva 10
Switzerland
Fax no. (41 22) 907 00 45
Tel no. (41 22) 907 58 52

CALENDAR OF DMFAS TRAINING ACTIVITIES (January - July 1994)

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<th>Location</th>
<th>Date</th>
<th>Type of activity</th>
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<td>Argentina</td>
<td>17 January - 25 February 1994</td>
<td>Use of DRES and production of advanced reports</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>January 1994</td>
<td>Completion of forms for exceptionally difficult loans</td>
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<tr>
<td></td>
<td>February - March 1994</td>
<td>Advanced DMFAS training</td>
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