UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

DMFAS NEWSLETTER

DEBT MANAGEMENT AND
FINANCIAL ANALYSIS SYSTEM

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Welcome to the July 1994 issue of the DMFAS Newsletter!

In this issue there will be articles on seminars, missions and the DMFAS in Zimbabwe as well as the regular features, namely the technical focus and a book review. We look forward, as always, to your comments and suggestions and we hope that this issue will be an enjoyable read.

DMFAS 5.0 Presentation

As you are aware, DMFAS 5.0 will be ready by the end of 1994. The original intention of the DMFAS Programme was to organize an international seminar in order to present the new system and to discuss with participants the migration from 4.1Plus to 5.0. However, a feasibility study, carried out by a consultant, indicated that for most countries this would be either unaffordable or inappropriate. For this reason it was decided that the best way to approach the issue of presenting the new system to client countries would be to undertake the following measures:

Firstly, over the next few months, UNCTAD will prepare a state-of-the-art demonstration diskette which can be sent to all the countries concerned. The Demo-diskette will have an introductory part and a full fledged demo of what the system will look like and how it will perform. This diskette will be accompanied by marketing and information material on the new system.

Secondly, UNCTAD will welcome any DMFAS country to come to Geneva at their convenience between October and December 1994. This will allow them to receive a detailed presentation of the new system and to obtain information on the software and hardware needs for the conversion to DMFAS 5.0. Furthermore, discussions will be held between UNCTAD and country delegations in order to review transition plans and to make a tentative schedule for the installation mission.

Contents:...

SEMINAR NEWS

UNCTAD's Seminar on Strategies for Africa's Official Bilateral Debt Negotiations

A policy seminar was organized by UNCTAD's Development Finance Programme on strategies for dealing with Africa's official bilateral debt negotiations. Senior officials from central banks and ministries of finance from 15 African countries took part. The purpose of this seminar was to share existing knowledge and experiences of official debt negotiations and conversions in order to determine the capacity building needs of African countries and how they should be met as well as to try to facilitate the exchange of information among governments. The topics that were covered included designing a comprehensive debt strategy and building a framework for effective debt management. Particularly, presentations and discussions were had on preparing for the Paris Club and bilateral negotiations with Paris Club creditors and non-OECD governments as well as on debt conversions.

Participants stressed the need for a global comprehensive debt strategy formulation. The Paris Club negotiations, which are one important aspect of this overall strategy, require up to date and accurate information. Participants also highlighted the importance of technical assistance in their capacity building efforts. Specifically in order to elaborate appropriate debt management strategies and to collect, register, control and monitor debt information using computerized systems such as the DMFAS. Training in negotiation skills was emphasized as was the exchange of information on creditor's procedures, financial parameters and conversion schemes. Much of the information exchange, for English speaking countries, can now take place within the context of newly established Eastern and Southern African Initiative on Debt and Reserve Management (ESAIDARM) with which the DMFAS has a collaborative arrangement.

UNITAR's High Level Awareness Seminar on the Legal Aspects of Financial Management

From 7 to 9 February 1994, at Gerzensee in Switzerland, the United Nations Institute for Training and Research (UNITAR) conducted a High Level Awareness Seminar on the Legal Aspects of Financial Management for twenty-three participants from Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikstan, Turkmenistan and Uzbekistan. The Swiss Federal Office for Foreign Economic Affairs provided substantive and financial assistance. The objective of the seminar was to inform participants on various aspects of international financial management: external economic activities, foreign capital markets, and debt management, as well as to provide them with a frame of reference for understanding and applying the lessons of international financial institutions. More specifically, the participants received from experts first-hand knowledge on the role of lawyers in financial management and budgetary law; on improving economic management in order to gain access to international capital markets; on eligibility for credits; on procedures and arrangements related to credit arrangements; on negotiating loan agreements more efficiently.

Participants were also informed about UNCTAD's DMFAS Programme and made aware of the need for effectively managing the country's external debt. For most of the participating countries, which have recently gained their independence and statehood, sovereign debt and its management is an unfamiliar territory. Over the next few years, technical co-operation activities will play an important role in order to improve their capacity to deal with the many aspects of financial and debt management.

World Bank Seminar on Debt Management in Tashkent

The World Bank and the Central Bank of Uzbekistan organized a seminar in debt management from 6 to 17 June 1994, in Tashkent, Uzbekistan. This was attended by 21 participants from 4 countries (Uzbekistan itself, Albania, Kazakhstan and Kyrgyzstan). The DMFAS Programme presented a slideshow of the new version, version

5.0, and a demonstration of version 4.1Plus. Speakers from the Turkish Treasury also addressed the seminar to describe the Turkish debt management system. All the participants demonstrated a high level of interest in computerizing their debt management.

Debt Management Seminar in Dakar

In May 1994 the BCEAO organized a regional seminar on public debt management of the countries of the West African Monetary Union (Ivory Coast, Mali, Niger, Senegal, Togo, Burkina Faso and Benin). The main aim of this seminar was to analyze the debt management situation in these countries in order to formulate proposals to harmonize the management of debt in the Union. Each country gave a presentation on how it manages its debt. From these presentations it was concluded that the size and structure of the debt is a source of serious concern; that national debt strategies are not clearly defined; that not all aspects of debt management are always taken into consideration, for instance with regard to internal debt; that there is not enough exchange of information among the governments and that debt information is more or less computerized but the fact that the countries do not use the same software makes the centralization of regional debt information difficult. The recommendations that the participants made at the conclusion of the seminar included the need to reduce the debt service burden, to clearly define debt strategies, to restrict the government giving guarantees, to encourage exchange of information and to speed up the process of computerization.

World Bank Seminar on Debt Management in Sofia

The World Bank organized a seminar in debt management from 11 to 22 April 1994, in Sofia, Bulgaria. This was attended by 26 participants from 12 countries (Bulgaria, Belarus, Croatia, Estonia, Hungary, Latvia, Lithuania, Moldova, Poland, Romania, Slovakia and Ukraine). Guest speakers at the seminar included Lars Kalderen (ex-director of the Swedish Debt office). The participants were given a presentation of the DMFAS. This involved a description of *Effective Debt Management*, an on-screen slide-show of the main aspects of the DMFAS Programme, including a description of DMFAS version 5.0, an explanation of the project cycle, and a demonstration of the system itself.

The participants reported back to their authorities on return to their countries, and most are expected to recommend adoption of a computerized debt management system.

MISSION NEWS

Several missions were undertaken over the last 6 months. The following are a few highlights.

Lebanon

In February 1994, the DMFAS Programme conducted an installation and training mission to Lebanon. With the assistance from a DMFAS expert from the Central Bank of Egypt, Lebanese officials from the Ministry of Finance, the Council for Development and Reconstruction (CDR) and the Central Bank were trained in the use of the DMFAS and established an up-to-date and accurate data base on the country's public and publicly guaranteed external debt. The Government has also taken major steps to improve collaboration and information flows related to debt between all institutions concerned.

Trinidad and Tobago

In March 1994 a DMFAS mission went to Trinidad and Tobago, at the request of the government to install DMFAS version 4.1 Plus Update 2 in the Central Bank and in the Ministry of Finance. In Trinidad and Tobago data entry of debt information is divided among the these two institutions, namely, the former is responsible for external debt and the latter for domestic debt. A brief demonstration was given on the updated features and on how to run DMFAS under Windows. The recommendations of the mission included stressing the importance of making regular use of the back up and restore functions of the DMFAS and to install virus detection programs to protect data.

EXTERNAL DEBT MANAGEMENT - THE ZIMBABWEAN EXPERIENCE

Cornilious Deredza, Assistant Economist at the Reserve Bank of Zimbabwe, here describes his country's experience with the DMFAS and with debt management in general, in his capacity as President of the DMFAS Users' Club in Anglophone Africa.

The management and monitoring of the external debt of Zimbabwe are the prerogatives of the Reserve Bank of Zimbabwe (RBZ) and the Ministry of Finance (MOF). The two institutions have in place operational offices that monitor both old and new foreign loan contracts and related transactions as well as tracking developments on pipeline loans. The Debt Office of the Accountant General Department of the MOF monitors all public debt and maintains detailed manual records of every government external loan. On the other hand, the Debt Unit of the RBZ's Economics Department registers all publicly-guaranteed and private sector debt. This Unit updates computer records of all central government external loans, while the MOF Debt Office is in the process of getting computerized.

Management of Public Debt in the Debt Office of the MOF

Line ministries submit their projects to the National Planning Commission (NPC) in the MOF for appraisal, which in turn, forwards eligible project proposals to the Domestic and International Finance section (DIF) in the same ministry. The DIF then seeks external funding from prospective foreign financiers. The outcome of the negotiations (draft agreements) are submitted to the External Loans Co-ordinating Committee (ELCC) for vetting against set borrowing criteria.

Once loan contracts have been approved by the ELCC, they are submitted for signature to the Senior Minister of Finance and the creditors. Copies of the signed documents are forwarded to the MOF Debt Office for registration and accounting purposes, and the Debt Office records details of the loan in a manual Foreign Currency Ledger. Entries into another book, the Memorandum Register, which is used for control of actual disbursements, are also made. This book presents a summary of actual disbursed amounts, the local currency equivalent and draw-down dates. The register also reflects the details of the invoices raised against user/line ministries in order to recover the local currency-equivalent of the disbursements received by them. These payments have to be effected through the Exchequer.

Since it is the mandate of the MOF to borrow on behalf of the State and its public enterprises (PEs), it is therefore its obligation, as the borrower, to service and repay all foreign public debt. Thus, the MOF will prepare payment instructions (telegraphic transfers) to be executed by the RBZ's Gold and Foreign Exchange Department. These instructions have to be accompanied by applications to purchase the foreign currency needed for this purpose. The applications are made on standard forms. The debt officers keep a "diary system" of loan maturity dates, which serves as a reminder to service particular loans falling due on a particular date.

Details of transactions on government loans are periodically provided to the RBZ Debt Unit for the compilation of the country's balance of payments position and forecasts. Although the MOF Debt Office still maintains an up-to-date manual debt accounting system, the office is now computerizing these accounts through UNCTAD's DMFAS.

Management of Publicly-guaranteed and Private Sector Debt: the RBZ Debt Unit

Since the installation of the DMFAS in the RBZ Debt Unit in 1987, all foreign loans have been recorded on computerized accounts in that Unit. Although the MOF Debt Office is responsible for monitoring public debt, information on government loans is extracted from the manual system of the MOF Debt Office by RBZ Debt Unit staff, for balance of payments purposes. The rest of this sub-topic will elaborate how the RBZ Debt Unit sources debt statistics from both PEs and banks (on behalf of their private sector clients).

When PEs intend to undertake new projects or to expand existing ones and cannot raise the required financing from either their own resources or from domestic borrowing, they can resort to external funding. Procedurally, they must keep the government, through the MOF, informed of their intentions to source funds off-shore because of the "contingent liability" implications of such government-guaranteed debt. In fact, it is common practice for the DIF to be represented on the borrower-side during negotiations of PE loans. The resultant draft agreements of the PEs are submitted to the ELCC for consideration, after which a copy of the signed agreement is sent to the BRZ Debt Unit for recording.

Private sector debt is also subject to approval by the ELCC and, in addition, must meet the vetting criteria of both their agent banks and that of the Zimbabwe Investment Centre (ZIC). The latter assesses the potential of the proposed projects to generate employment and/or save/earn foreign currency. When approved by the ELCC, a copy of the final loan agreement is submitted to the Debt Unit for recording.

Perhaps it is worth mentioning that although there is no legal instrument for the submission of such debt information by both PEs and private companies, not withstanding the future importance of enacting such an instrument after deregulation of the relevant exchange control stipulations, there has been remarkable co-operation based on simple moral suasion and the knowledge that the Exchange Control Department of the MoF, as a matter of practice, will not authorize the remittance of foreign exchange before consulting with the RBZ Debt Unit. The Debt Unit maintains updated and detailed records of every external loan in the economy on the computerized accounts of the DMFAS. Each debt officer keeps track of developments relating to a particular loan group (government, public enterprises, and private sector debt) and records new loans as soon as they are signed.

EXTERNAL DEBT REPORTING: VERSATILITY AND FLEXIBILITY

The types of reports produced

There is a wide range of multi-purpose reports that can be run on the DMFAS. These range from control reports, to projections of inflows and outflows on individual or categories of loans. Of particular usefulness are the many classifications by creditor, debtor, loan maturity, and by interest structure and also by loan currency. These facilitate the analysis of debt stocks and flows under different categories and scenarios.

A substantial number of the reports obtainable from the DMFAS are not an end in themselves, but serve as inputs into other more user-specific classifications of debt reports. For instance, projections of disbursements and repayments are run and entered onto the capital account format which is designed by loan purpose and more broadly by sector.

The RBZ Debt Unit also uses the DMFAS to provide statistical and analytical write-ups on external national debt matters for the Reserve Bank's "Quarterly Statistical and Economic Review". Zimbabwe is currently undergoing economic reform in co-operation with the International Monetary Fund (IMF). The Fund thus needs to be informed quarterly on the debt stock and flows by creditor and debtor and also by maturity structure. It also requires the completion of "Balance of Payment Standard Components forms" on a quarterly basis. Similar reports are also provided to other international multilateral financial institutions. The World Bank requires the annual submission of World Bank Forms 1,2,3 and 4. These are completed by the MOF Debt Office and RBZ Debt Unit for government and PEs and private sector respectively.

Need for computer-based debt management systems (CBDMS)

At the operational level the accounting for, and reporting on external debt needs to be timely and accurate to facilitate an optimal borrowing decision-making process. Computerization of debt accounts alleviates the delays in debt reporting that manual systems usually entail. Accuracy is also enhanced as most computer technologies have in-built mechanisms that check on the accuracy and consistency of the data entries made. Classification of debt statistics to meet the individual users' requirements is also expedited by the use of such computerization. Computer systems, like UNCTAD's Debt Projections System (DPS) and the World Bank's Debt Strategy Module (DSM), which show the effect of different debt scenarios on the overall balance of payments position and other macroeconomic variables, improve the analysis of debt data considerably.

The line of communication among institutions and units involved has to be clearly defined and simplified together with the procedures for obtaining and processing debt information with as little bureaucratic red tape as possible. The central offices tasked with recording debt information should have sufficient legal authority to obtain debt information in the most efficient way. This co-ordination requires the establishment of a committee with adequate representation and authority to enforce and oversee the implementation of executive decisions and policies regarding debt management for the whole economy. This will also ensure informed control over borrowing activities; thus keeping the economy within its present and future debt-servicing capacity.

Need to develop necessary skills and expertise

Another important need of debt offices is the development of necessary debt monitoring and reporting skills and expertise. These range from the simple use of different relevant computer systems and packages, to the flexibility to adapt to the changing reporting requirements of different national creditor institutions.

Training in the analysis and interpretation of debt figures is a strong tool for successful debt management, since informed decisions can only be made on the basis of incisive analysis of the given debt statistics. This analysis of debt statistics can only be facilitated and complemented, but not completely replaced, by computerization.

Prevention of "brain drain"

There is a growing need to prevent brain drain from debt management, especially at the operational level where statistical, analytical and computer skills are acquired at great cost. Staff retention, through various incentives is more cost-effective in the long-term than high training budgets spent on new entrants to the field of external debt management.

Creation of training fora on debt management

The usefulness of regional and international seminars and workshops on debt analysis and management cannot be over-emphasized. Third World countries could develop regional pools of debt management expertise and training programmes which are tailor-made to meet their unique circumstances and requirements. Regional initiatives which seek to build capacity in debt and reserves management, like the one currently under way in Southern and Eastern Anglophone Africa (ESAIDARM), are thus a crucial stride in the right direction.

Strengthening of regional debtor-groupings

The strengthening of existing groupings of Third World countries facing similar debt circumstances, to negotiate for favourable terms, concessions and relief on their existing and pipeline loans needs to be re-invigorated in light of the existence of such highly organized and powerful groupings on the lenders' side, e.g. the London and Paris Clubs.

TECHNICAL FOCUS

In this issue of the technical focus we will look at the new faster top-of-the-art PCs available. We will also give you a few tips on how to make your PC work more efficiently with the hardware you already have.

New PCs

One year ago, a PC with an Intel DX2 486 processor running at 66 MHz was the fastest PC. Now, two new Intel processors are available, making PCs even faster.

The first one is a new 486 DX4 processor. While the DX2 processor doubled the frequency of the processor (e.g. from 33 to 66 MHz), the DX4 can triple the frequency, making a 486 PC running at 100 MHz (it will also be available in 75 MHz and 83 MHz versions). A 100 MHz 486 DX4 PC will be roughly 30% to 60% faster than a 66 MHz 486 DX2.

Even faster are the P5 or Pentium chip (which people expected would be called 586). It is available in 60, 66 and 90 MHz version, and by the time you read this Newsletter, the 100 and 150 MHz versions will also be available. How much faster a Pentium is compared with a 66 MHz 486 depends on the hardware configuration of the PC, but roughly one can say that a 90 MHz Pentium is on average about 40% to 80% faster, while floating-point tasks (such as complex mathematical modelling) will be as much as 5 to 6 times faster.

We have also seen a few other trends over the last year. ● **CD ROM drives** are getting more and more common in PCs. A CD ROM looks exactly like a music CD, can contain 600 Mb of data and the production cost (for mass production) is approximately US$ 1 per CD. It is not unusual that today's modern software packages comes on 10 diskettes or more. For software suppliers it is actually cheaper to send a CD than to send 10 diskettes, and of course, it is more convenient for a PC user to install software from a CD. ● **17" screens** are getting more common, and very useful for Windows users (most of you have probably 14" screens). A 17" screen has almost a 50% larger viewing are than a 14" screen, and can therefore either enlarge the screen contents with 50% or contain more information. For example you can use half of the screen for DMFAS 5.0 and the rest of the screen for your wordprocessor. ● **Accelerated screen adapters** are much more important when using Windows than with DOS programs. Since Windows has a graphical interface, even a PC with a fast processor will appear slow when running Windows if the screen adapter is not capable of redrawing the screen fast enough. A fast accelerated screen adapter is at least 10 times faster than the normal screen adapter delivered with most PCs a year ago.

So how much does a fast PC cost today? This, of course varies a lot from country to country, but we have done a comparison between two adds from the same PC supplier in May 1993 and May 1994 to see how much the prices have been reduced, and we would expect the same relative changes in other countries. We have done two comparisons. First we have looked at the prices for the same PC (a 66 MHz 486 with 8 Mb ram and 340 Mb hard disk), and then we have seen what we can get for US$ 4,000 today compared with what we could get for the same price one year ago.

As you can see from the table, the price of a 486 PC has dropped by 30%. Furthermore, with the same amount of money that last year you could get you a fast 66 MHz PC with a 14" screen, this year you can buy a 90 MHz Pentium with a 17" screen.

Year	1993	1994	1993	1994
CPU	486	486	486	Pentium
Frequency	66	66	66	90
Memory	8	8	16	16
Hard disk	340	340	500	525
Screen	15	15	14	17
CD ROM	Yes	Yes	Yes	Yes
Price	$ 2,995	$ 2,075	$ 3,995	$ 3,995

Backing up DMFAS data

There are two good reasons for backing up your DMFAS data: One is ● cleaning up the index areas, and the other is ● taking a safety backup of your data base in case of hardware failures etc.

● Clean up index areas
The indexed files in DMFAS should regularly be backed up and restored to clean up the index areas (see chapter 17 in the DMS manual). If this is not done regularly, the result might be a corrupt data. We just had an example from one of the DMFAS countries, where the ledger file GDB029.DAT was corrupted, and we had to use an old ledger backup to be able to access the ledger data for some of the loans. Since taking backup to diskettes takes time, it is better to back up to the hard disk instead. To be able to back up to the hard disk, you will have to make two changes to the DMFAS system

1. Change the C:\BATFILES\DM.BAT file line PIB C: A: to PIB C: C:
2. By default, the system expects you to back up to diskettes. If a backup file is bigger than your diskettes' capacity, it is necessary to divide the backup into several smaller files, each with the maximum size equal to the capacity of the diskettes you use. The capacity of the diskette is set for each file by entering it's Break Point Value (see sections 2.B.4 and 17.B in the DMS manual).

If you back up a file to the hard disk whose capacity is greater than your diskettes' capacity (this may be the case for the ledger, GDB029.DAT, and/or the schedule, GDB002.DAT, file), you should set the Break Point Values higher for these backup files to ensure that the backup does not stop when the backup file reaches the size of your diskettes' capacity. Do this by entering **System>Administration>Update reference files>Data dictionary>Update file description** and insert the backup file with the Break Point Value you want to change (1. File Id), and change the Break Point Value (9. Break Point) to 999999.

When you now take a backup, the FDB files (backup files) will be saved on your hard disk. When the files are backed up, start the restore functions with the same files, and thereby cleaning the index areas.

● Safety backup of the data base
In case of hard disk problems, it is very important to take backups of the data base regularly. This can be done by using the DMFAS standard backup procedure, but this takes long time and may require several diskettes. Alternatively you can use a backup program that compresses the data when it is backed up. One such program is the shareware PKZIP programs (PKZIP 2.04g and PKUNZIP) which is available through Bulletin Board Systems. If you do not have this and are interested in obtaining it, send us a fax and tell us what kind of diskette format you prefer, and we will send it to you. PKZIP can compress all your data files into one file. By using this compression technique, your DMFAS data will be compress to about 10% of it's original size. You can therefore zip around 14 Mb of data into one High Density 3 1/2" diskette. To be able to use it, PKZIP.EXE and PKUNZIP.EXE have to be either in the current directory, or in a directory in the PATH. To compress your data, type the following:
PKZIP DATA C:\DEBT2\GDB*.DAT /EX

All your GDB files will now be compressed into the file DATA.ZIP in the current directory (change this name as you wish). The /EX switch tells PKZIP to use maximum compression. Copy the zipped file to a diskette, and you have now taken a backup copy of your DMFAS data in a tenth of time you would need using the backup from the DMFAS menus. If your data base is so big that you cannot fit the zipped file into one diskette, you have two options. One is to change the name of the amortization file GDB019.DAT to GDB019.XXX before using PKZIP. This file is often several Mbs, and by not including it in your backup, you might be able to reduce the zipped file to less than your diskette's capacity (remember to rename the GDB019.XXX back to GDB019.DAT afterwards). If this is not enough, you can zip your files directly to diskettes, and let PKZIP divide the backup on the necessary diskettes by typing
PKZIP A:DATA C:\DEBT2\GDB*.DAT /EX /&

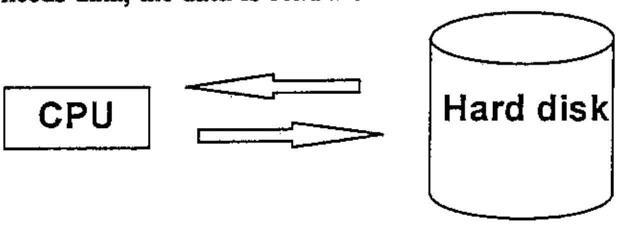
If you need to restore the data back to a PC again, you should use the PKUNZIP program and type
PKUNZIP A:DATA C:\DEBT2

PKUNZIP will warn you if existing data files already exist in the DEBT2 directory. Type A if you want to replace all these file. For more information about PKZIP, see the PKZIP manual on the PKZIP diskette, or type **PKZIP /?** or **PKUNZIP /?** to get help about the program's syntax.

Making your PC run faster by improving disk access

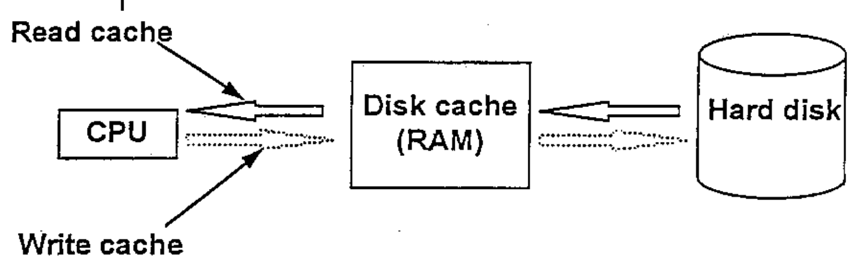
Disk caching

It is not only the hardware that influence the speed of your PC, but also how it is configured. One of the most efficient ways of making your PC run faster without changing any hardware, is usually installing a disk cache program. Normally, when the processor needs data, the data is read from the hard disk which



is a mechanically and a relatively slow device. During a working session on a PC, the processor (CPU) will have to re-read the same data from the hard disk every time it is needed.

A disk cache program can use part of the faster RAM (memory) as a buffer for reading (read-cache) and writing (write-behind cache) information from and to the slower hard disk.



Read-Cache: The most recent data the processor has accessed from the hard disk will always be kept in the disk cache, so if the processor needs the same data again, there is a good chance that it can get it from the fast cache instead of having to read it from the slower hard disk.

Write-Behind Cache: When data is being saved, the data is written to the fast cache, and the CPU will be ready for new tasks almost immediately. When the PC is idle, the data is copied from the cache to the hard disk. As opposed to the read cache, there is a small risk of loosing data when the write-cache is used. If the PC is turned off, either unintentionally or as a result of a power-cut, while there is data in the cache that has not yet been copied to the hard disk, the data will be lost. The result of using a cache program, is a much faster disk performance, and therefore also faster overall performance.

There are several disk caching programs available, and one of the best is probably SMARTDRV that is included with both DOS and Windows. Look in your DOS and Windows directory for a file called SMARTDRV.EXE or SMARDRV.SYS. If you find several, use the newest one. How you load it, depends on which version you have, but a good tip is of course to look in your Windows or DOS manual. If you use the SMARTDRV.EXE that comes with DOS 6.0 or newer or Windows 3.1, type SMARTDRV to load it, or LH SMARTDRV to load it into the Upper Memory Area if you have that possibility (see the article about memory management in number 4 of the DMFAS Newsletter). Be sure that you have the necessary 575 Kb free conventional memory for DMFAS **after** loading SMARTDRV. If you have enough memory, you can insert SMARTDRV in your AUTOEXEC.BAT file so it will be loaded every time you start the PC. If you do not have SMARTDRV, but have PCTools, you can use the PC-CACHE disk cache program.

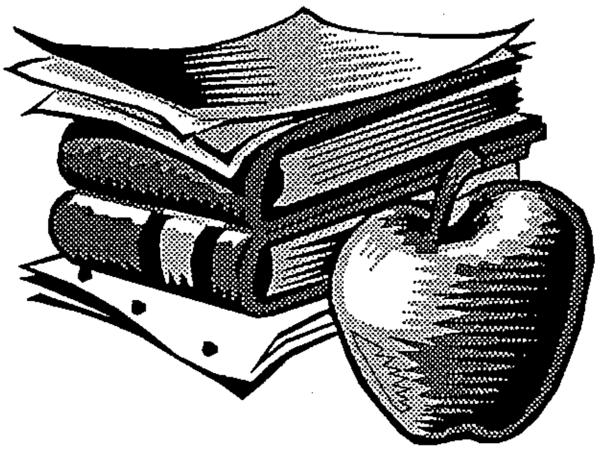
Defragmenting

When delete files on your hard disk, the space these files occupied will be available for new files. But the new files will not fit exactly into the deleted files unless they have exactly the same size. In some cases it is therefore impossible to save files in a continous space on the hard disk, and each file will physically divided into several parts (fragments), resulting in slower disk access. There are tools that will defragment your hard disk, and make the disk access faster again. One of these is the COMPRESS that comes with the PCTOOLS, and another is DEFRAG that comes with DOS version 6.0 and newer versions. If your have access to such a program, make it a habit to run it now and then to increase the disk access. This is particularly effective when you have deleted and installed lots of files on a relatively full hard disk.

SYSTEM ERROR MESSAGES: The following table usefully summarizes when and why messages come up on the screen when the DMFAS is being operated and the action that the DMFAS user should take in order to resolve the underlying problem.

message	when	why	action
Abnormal ending of job	Indicates that file access was unsuccessful.		see following examples...
35. File is missing 92. File not found	Data Entry, Reports, System Administration etc.	a) If you are restoring files, the required backup file might not be in the defined drive/directory. b) Not enough memory to run DMFAS programs. If this is the case, the file name which is normally displayed in the abnormal ending screen is GDB003. c) Environment space defined in the CONFIG.SYS too small so that PIB setting are partly missing.	a) Check that DM.BAT PIB X: X: is correct. b) Change your CONFIG.SYS and AUTOEXEC.BAT files to gain more memory by removing resident programs and drivers or by loading them high (if you have a 386/486 PC with DOS 5.0 or higher and more than 1Mb of memory). c) Check your CONFIG.SYS file and increase the environment space to 3 Kb with the command shell=C:\DOS\COMMAND.COM /E:3072
91. File open error	Data Entry, Reports, System Administration etc.	Number of files defined in your CONFIG.SYS is not enough to run the DMFAS.	Increase the number of files in your CONFIG.SYS file. Minimum requirement = 20.
23. Record not found	When reporting.	If the creation of amortization table failed, otherwise should not appear (if so, then there is a problem in the program).	Recreate amortization tables.
Sequence error	a)When trying to restore a corrupted backup file. b)When trying to restore a backup file which has been (unsuccessfully) manually changed.	a) Additional records - bad records created in the beginning of your backup file. b) After modifications records are not any more in a sequential order.	a) See CORRUPTED BACKUP FILES (DMFAS Newsletter 5, page 4). b) *Do not change manually backup files unless you know exactly what you are doing and you have two sets of backups!*
04. End of file	Appears when trying to take a backup of an empty GDB-file	You have restored a corrupted backup file. Restore program has previously given an abnormal ending with the message "sequence error". Note that corresponding GDB-file is now empty.	Try to restore your loan data from another backup set. If sequence error still appears, correct corrupted backup file. Remember to recreate amortization tables.
10. End of file passed	Appears when trying to restore an empty backup file.	If corrupted backup file has been restored (see pervious step) and after this a new backup is taken of an empty GDB-file.	Same as above.
94. File format error	After installing a new version of the DMFAS system.	Conversion programs for the data files have not been run and existing GDB-files do not match with the file description in the relinked executable modules.	Rerun data conversion programs for which instructions are sent with the system itself.
96. Out of memory	Data Entry, Reports, System Administration etc.	Not enough memory to run DMFAS programs. Minimum memory needed when running DMFAS is 574 K.	Change your AUTOEXEC.BAT and CONFIG.SYS files to gain more memory.
Schedules master pointer missing when recreating amortization tables or printing schedules.	a) Restore of your loan data was unsuccessful (sequence error etc.) b) No schedule data entered for the loan(s).	a) Restore a "clean" backup, fix the backup file(s) if needed before restore. Remember to recreate amortization tables. b) If composite loan header, OK. If single loan or sub-loan, enter schedule data.	
New amortization table cannot be created	All necessary files for creation do not exist.	a) Restore has been unsuccessful.	Restore all data again. If this data is from the previous DMFAS release, check if data conversion needed.
Index file error	Data Entry, Reports etc.	Power cut or machine rebooted when data was in process.	Restore loan data from the backup diskettes and rerun the creation of amortization tables.

BOOK REVIEW



UNITAR'S Training Package: Debt and Financial Management, Legal Aspects

This training package is targeted not only to lawyers but also to government officials, professors and students. Its aim is to educate the reader on the various aspects of debt management and the crucial role played by lawyers in this process. It is made up of a set of 10 modules and is designed to be a self study pack as well as a reference tool.

Module I is an introduction which stresses the focal nature of legal issues with respect to the economic, financial, fiscal and accounting aspects of debt management. It also brings to light the fact that in developing countries lawyers are under-utilized in the debt management process in the cases when they do not have access to complete information or when they are brought in at the end of the negotiating process when their power to influence the successful outcome of transactions is limited. Developing countries need to be sensitized to the fact that the function of a lawyer goes beyond dispute resolution since a lawyer is also a counsellor and can, therefore, contribute to planning transactions with a view to minimizing the risk of a dispute. Furthermore, "borrowers would benefit from providing their legal counsels with full information on their financial dealings and from including them in all stages of their borrowing process". Debtor countries should use the law to their advantage in all stages of loan negotiation, rescheduling and enforcement.

Module II describes the legal aspects of debt management and the role of the lawyer. Basically a lawyer's involvement in debt management includes: participating in loan negotiation and administration; advising the government on debt related issues and increasing public awareness of issues relating to debt. This module looks at the contents of a loan agreement and argues that since loan agreements are concluded between sovereign states they are subject to the basic rules of contract and therefore it is the task of both the borrower and lender to get the best possible bargain. An overview of all aspects of debt management is given and the importance of co-operation and communication among these various units is stressed. Furthermore, it states that the tasks of these units are facilitated by the use of a computerized debt management system.

Module III addresses the issues involved in the process of national borrowing. More specifically it deals with the legal aspects of national budgets and their relationship to debt. It also talks about development financing. It concludes that in order to help prevent foreign exchange crisis debtor countries should have coherent national legislation to guide external borrowing and a debt management unit that registers the country's debts.

Module IV describes the different international sources of finance: official sources of funds (donor governments and multilateral organizations), export credit agencies as well as private sources of funds. It points out the importance of knowing in-depth the regulatory and institutional frameworks of each of these sources in order to optimizing the terms of the funding that developing country borrowers can obtain. A chapter is dedicated to official export credit agencies (ECAs) and advocates that ECAs should incorporate development components in their risk analyses and developing countries should, on their part, follow the type of economic policies that will ensure them an appropriate risk rating.

Module V looks at the work, the structure and the mandate of the World Bank Group and advocates that developing countries need to have a detailed knowledge of the operating rules and procedures of these institutions. In particular lawyers can help debt management teams understand the legal mandates of these institutions and the terms on which the funding is provided in order to contribute to an effective negotiating strategy with them.

Module VI gives an overview of various international financing techniques such as swaps, debt conversions and project financing. It points out that since "the project and all its assets are located in the debtor's country, the debtor's legal environment plays a larger role in project financing than in standard international debt transactions". Therefore, the lawyer in the borrowing country can convert the risk assessment and allocations of the project into legally binding contractual provisions. This module also introduces the concept of co-financing which is when two or more lenders support a borrower's project.

Module VII gives an in-depth look at a Euroloan agreement including a general discussion about the Eurodollar market and the nature of a syndicated loan. It analyzes clauses of loan contracts since a good understanding of this enables borrowers to negotiate their contents even though many clauses are standardized to protect the creditors.

Module VIII looks at the benefits of international arbitration and the Alternative (or Additional) Dispute Resolution (ADR) and puts forward guidelines for its effective use since "exploiting existing as well as alternative mechanisms for dispute resolution is essential for solving enduring problems, such as chronic debt". The ADR is a method of arbitration which is beneficial to developing countries since it is implemented at an early stage of a dispute and goes beyond mediation and conciliation to mini-trials and Rent-a-judge systems. The United Nations Commission on International Trade Law (UNCITRAL) provides Arbitration Rules which are universally acceptable provisions for parties to adopt on an ad hoc basis to regulate and resolve international contractual disputes. UNCITRAL's Model Arbitration Law, in the form of a statute incorporated into the national legislature, allows parties to a dispute to chose any type of arbitration procedures which is then made be subject to rules that ensure respect for fundamental principals of fair procedure in this way foreign parties are assured that "the local framework for international arbitration is familiar and acceptable".

Module IX describes the debt rescheduling techniques of the Paris and London Clubs. It also looks into more recent debt reduction instruments such as swaps and buy-backs and country experiences of implementing them. Furthermore, it analyzes the features of Brady deals and the example of some Latin American countries in concluding them. **Module X** is a glossary of debt management terms.

For information on how to obtain UNITAR's Training Package: Debt and Financial Management Legal Aspects, write to:
UNITAR
Palais des Nations
CH-1211 Geneva 10
Switzerland
Tel: (41-22) 798 84 00
Fax: (41-22) 733 13 83

Letters for the Newsletter to:
DMFAS Newsletter Editor
E10055
UNCTAD
Palais des Nations
CH-1211 Geneva 10
Switzerland

*******HOT LINE*******

(41 22) 907 6049