



The DMFAS Programme



DMFAS 5.2

TECHNICAL INFORMATION NOTE

State of the Art in Debt Management and Financial Analysis Systems: The DMFAS

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State of the Art in Debt Management and Financial Analysis Systems: The DMFAS

The Debt Management and Financial Analysis System (DMFAS) is a computer system designed for the use of Ministries of Finance and/or Central Banks for the management of public debt. The DMFAS is a tool specifically designed to support the *Operational Debt Management Functions*¹; i.e. the day-to-day management, in accordance with executive direction and organisation, of the effective debt management functions. The liabilities arising from a loan contract between a creditor and a debtor, which is a direct or a contingent liability for the government are registered in the system. In connection with public expenditure, the DMFAS 5.2 is easily linked to the budget execution system, when there is one in use at the Ministry of Finance. The DMFAS is also a support tool for the *Executive Debt Management* which might be viewed as the establishment of the “rules of the game”, by the highest levels of the government, regarding public indebtedness within the macroeconomic context of public finance.

The DMFAS allows the user to follow public short-, medium- and long-term debt, both external and domestic, as well as on-lending operations. Private debt and grants may also be registered within the system. DMFAS 5.2 is designed to satisfy three distinct debt management needs; the day-to-day operational needs of the debt manager, the aggregate statistical requirements of the debt office and the analytical needs of the policy-maker. These needs fall into the hierarchical levels of *Operational and Executive Debt Management*.

DMFAS version 5.2 is a WindowsTM-based application which uses all the advantages of this standard graphical user-interface. It also uses Oracle’s Relational Database Management System (RBDMS) and ORACLE Development Tools². The standard DMFAS version 5.2 exists in four different languages, English, French, Spanish and Russian and can be used both in a single-user and in a networked environment.

1. Operational Management

Operational Debt Management³ is the day-to-day management of debt in accordance with executive direction and organisation and involves the recording, analytical, controlling and operating functions. The operational features of DMFAS 5.2 put the main emphasis on the recording and analytical functions, including compilation of aggregated debt figures and analysis of key indicators. This information, in turn, serves as a basis for control of public borrowing.

1.1. The Recording Function

The DMFAS main menu follows the typical operational life cycle of a loan agreement. Loan details are registered in the **Administration** section and, based on the contract information, amortisation tables are calculated and initial drawing estimates made. As real disbursements take place, these will be registered into the loan **Mobilisation** section of the system. This section may also, upon the user’s request, be programmed to automatically print drawing requests. Thereafter, all transactions related to the servicing of loans, including operations on arrears, penalty interest, rescheduling, swaps, etc. are recorded in the **Service** section of the system. The service section contains links to budget allocations. The automatic registry of arrears function enables the user to create blocks of arrears for a given subset of loans. The Administration section also contains a **Reference files** menu where the user enters information on daily exchange rates, variable interest rates,

¹See *Effective Debt Management*, UNCTAD/GID/DMS/15/Rev:1

²ORACLE is a registered trademark of Oracle Corporation.

³Please refer to *Effective Debt Management*, Op. cit.

commercial interest reference rates, budget line identification numbers as well as creditors/debtors and other participants to the agreements.

1.1.1. Type of Agreements that can be Registered in the DMFAS

The DMFAS 5.2 has facilities to register and establish the required links between the following types of agreements:

- **Loans.** The system can record all types of loan contracts, including bonds, and follow individual loans in their original currency. This can be done according to two different “criteria”, one quantitative (i.e. financial terms) and one qualitative (i.e. the user can introduce notes for specific comments or memo items into the system, like the type of legal clauses in the contract). Furthermore, the loans module has facilities for:

- ⇒ recording of *secondary market shares* and share movements for syndicated loans in order to report the exposure of each member of the syndicate at a given point in time;

- ⇒ maintaining records of *amendments* to loan agreements;

- ⇒ maintaining records of the *loan status* throughout the lifetime of the loan, i.e. at what stage it was in pipeline, during which period it was active and when it was fully repaid;

- ⇒ recording *currency pool* loans (World Bank and regional development banks loans)

- ⇒ linking loans and grants information to specific *projects, agreed minutes, on-lending* agreements and *budget allocations*.

- **Grants.** Grant agreements are similar to loan agreements, but have no repayment schedule. The module for registration of grants therefore contains the same facilities as the loans module, except for repayment conditions.

- **On-lending agreements.** The system can record on-lending of loans and the relation between the on-lent loans and the original loan.

- **Composite agreements.** The facility for treating composite agreements permits the user to register the global information on frame agreements incorporating several individual credits (and/or grants), and link this global agreement to the individual loans or grants stemming from it. In DMFAS 5.2, composite agreements are treated as a separate entity and loans belonging to the same global agreement can therefore be associated easily through screens specially designed to link agreements.

- **Projects.** The project information facilities of the system permit easy identification of individual projects and their relationship to loans and grants financing them, as well as the individual disbursements related to them.

- **Debt reorganisation agreements.** The debt reorganisation facility allows the linking of the bilateral loans to the relevant agreed minutes and is designed to provide supporting data for reorganisation negotiations, to facilitate recording of reorganising terms received and to facilitate identification and reporting of reorganised transactions. The next version of the DMFAS will be able to automatically update ledger accounts⁴ with reorganised transactions and their corresponding disbursements.

1.1.2. How is this Information Registered into the DMFAS ?

The DMFAS captures financial terms of individual credits as specified in each loan contract. To enter this data certain users choose to make use of different paper forms for data collection. This provides an opportunity to double check data for consistency. The characteristics to be entered include, among others, the principal terms, interest terms as well as interest and exchange rates. Based on this information, the system automatically calculates estimated disbursements and amortisation tables. Loan information is entered on two

⁴ The design of the procedure for automatic update of ledger accounts is currently under revision in order to cater for the new stock reduction options (Naples terms) of the Paris Club.

levels, General Information and Tranches. Each loan has one General Information section and at least one Tranche section.

1.1.2.1. Administration

The option Administration allows the recording of all the basic data related to loan or grant agreements, projects financed through loans and/or grants, general agreements (i.e. frame agreements, Paris Club Agreed Minutes, etc.) and rescheduling operations.

The actualisation of the Reference Files also takes place here, which contains the following entities:

- The **participants** (debtors, creditors, etc.) in the different agreements. The system requires the availability of a set of information on each one of the participants, i.e. institution type, country of residence, telecommunications data, etc.
- The **common variable interest rates** for projection purposes.
- The **commercial interest reference rates** for calculation of the present value, especially useful within the framework of the HIPC Initiative. These rates are those charges by OECD countries for officially-supported export credits which represent the most favorable terms of fixed rates that a country is able to contract on the international financial market.
- The system captures **daily exchange rates**. These rates are entered into the common exchange rate file for the entire loan portfolio in the system. To enter them on a daily basis is not compulsory, it might be necessary to update only, on a daily basis, the major international currencies.
- The **budgetary lines** are loaded here for use in the disbursement and debt servicing processes, as required.
- The **interest rate groups** and **maturity groups** allow the user to customize the range of these loan attributes for selection and sorting needs.

1.1.2.2. General Information

All the information which is general to the loan agreement such as different loan references, signature date, availability date etc., is entered here. The links to the loan participants or clients (borrowers, lenders, guarantors, beneficiaries, etc.) are also entered on the loan level. There are also, however, facilities for entering loan participant links on the tranche level if the agreement has participants who only relate to a specific tranche. Some of the important features include:

- The system uses flexible **loan identification** so that the user can use his own codification standards and is not limited to pre-defined numeric loan numbers.
- The role of the **participants** to the different agreements (loan, grant, etc.) is defined here with reference to the participants file.
- The **amendments** to the different agreements (loan, grant, etc.) are registered and monitored here.
- The **creditor's participation shares** in a syndicated loan are registered and monitored here with reference to the participants file.
- The record of the **loan status** throughout the lifetime of the loan is registered and monitored here.
- The recording of the **currency pool loans** (World Bank and regional development bank loans) is made here.

- **User-defined fields** allow the debt officers to cater for country-specific loan details which can then be used as selection and sorting criteria when generating reports.

1.1.2.3. Tranche Information

Information on interest payment and principal repayment terms is registered on a detailed level in the so called **tranches**. The notion of tranches in the DMFAS is actually the system's information management unit and allows more accurate treatment of loans in several currencies and with several interest rates. Multilateral borrowing, for instance, often has several currency tranches under the same credit. Each currency will therefore be registered as a separate tranche with its own amortisation schedule. These different tranches may or may not have the same rate of interest. The system captures specific variable interest rates for the tranches. These rates are either entered into the common variable interest rate file for the entire loan portfolio in the system or they are entered as characteristics of a loan tranche.

The DMFAS system provides three different options for manual and/or automatic management of tranches: one tranche only, known multiple number of tranches and unknown number of tranches.

- **One Tranche Only:** There will be one and only one tranche; all disbursements will belong to this tranche. The transactions of this tranche will be always in the base currency of this tranche that must be the same as the loan currency.
- **Multiple Known Tranches:** the creation of which the user manages himself, defining the disbursement profile and amount of each tranche (the system will automatically manage the distribution of the undisbursed amount of each tranche as theoretical disbursements).
- **Unknown Number of Tranches** until the loan is fully disbursed: the DMFAS system assists in this case in the creation of a tranche by automatically generating the so-called 0 (zero) tranche containing the estimated disbursements based on the remaining undisbursed amount of the loan. Each time a real disbursement is registered, it will generate an actual amortisation table starting in the number 1 tranche. Real disbursements may also be entered into existing tranches, in which case the estimated disbursements in the existing 0 tranche will be recalculated, but no new tranche created.

1.2. The Operating and Controlling Functions

1.2.1. Operating Function

The DMFAS records all types of individual real transactions; disbursements (registered in loan Mobilisation) and repayments of principal, payment of interest and commissions, etc. (registered in loan Service).

1.2.1.1. Mobilisation

The option mobilisation is for registering **real disbursements**. The system, can handle disbursements in the same or different currency to that of the tranche and registers the equivalent value in the loan currency, in the tranche currency and in the local currency. For validation all the figures are checked for consistency against the exchange rates registered in the corresponding files. The disbursement can also be related to a project or a programme allocation.

The system has a facility for identifying estimated disbursements in the past and automatically re-distributing these into the future: the **roll forward estimated disbursements**, which is also activated from this option. When a large number of estimated disbursements have not been taken place, the user can update the future undisbursed amounts in batch from this option starting at a given date. The system will thus automatically update the amortisation tables as a result of pushing in the future the estimated disbursements.

1.2.1.2. Service

The **debt service operations** are handled here. There is an option dealing with principal and interests and two other options for commissions and penalty interest. All debt service operations can be entered and/or followed in six currencies: local, tranche, effective, Euro, US\$ and SDR. The user will have access to the following functionalities:

- The debt service operations will be ordered by scheduled date and the field status will inform the user in which stage of the servicing process the maturity is currently in (scheduled, waiting, paid, written-off, rescheduled, payment ordered but no feedback from the payer has been received, etc.).
- The generation of the list of debt service maturities is based on the amortisation tables. These lists must be verified by the user and the maturities in the waiting list (those which scheduled date are before today's date) either registered as paid, rescheduled, written-off, swapped or confirmed as arrears. The system might confirm the overdue maturities as arrears automatically if this option has been chosen by the user.
- The accumulation of arrears will eventually also lead to accumulation of a stock of penalty interest due to different creditors. The DMFAS system estimates this penalty interest based on each individual confirmed arrears transaction in the database. The penalty interest module allows the user to record payments, rescheduled and written-off operations on penalty interest.

This option is also where the **budgetary allocation amounts** are registered.. The system allows entry of budget allocations for comparison with actual payments. The user himself defines the budget periods (within the fiscal year), and loads the budget line identifications and the allocation to each budget line. The allocation is then linked to tranches and individual transactions, and in this way the system automatically monitors the allocation against the accumulated amount of actual transactions during the specified budget period. In this way the budgeting may be monitored on loans, interest, principal and commissions, one line for each item as defined in the budget and can easily be adjusted to the needs of individual countries. The system will issue a warning if the sum of actual transactions exceeds the allocation.

The **adjustment factors** used in some of the currency pool loans from multilateral institutions are registered here. These factors will be used for reporting, as the system will always keep the currency pool loan in book values, using the factors to reevaluate the outstanding and debt servicing at a given date stated by the user.

The **payment order**, a country-specific facility, can also be either printed or electronically transmitted from this option. If there is a linkage with a budget system, the payment order can be processed through the corresponding budget allocations.

1.2.1.3. Historical Amounts

A public debt system should be able to show and calculate historical data. Loading the information about the individual transactions in order to fulfil this requirement can be very tedious and, indeed in some cases, an overwhelming task. The DMFAS, in order to overcome this problem, permits the user to load balances in loan by loan and tranche by tranche basis at a given date (the user-defined DMFAS cut-off date). The historical amount balances will be total principal repaid, total interest paid, etc. at the cut-off date. This will allow the system to calculate, at any date after the cut-off date, stocks and flows at any level of aggregation.

1.2.2. Controlling and Monitoring Functions

The first controlling function is on the data accuracy and data validation. Once the data are entered, they will be updated regularly or deleted, as the case may be. In order to ensure consistency between data for a particular loan, a certain number of controls have been incorporated in the system. By means of a number of error messages appearing on the user's computer screen, the user will correct and validate data. The user may also produce different reports to check the data for correctness.

The system can also produce a large number of reports in view of control and monitoring the debt management operations. It has to be borne in mind that the system cannot perform properly these functions without the proper institutional environment⁵. One example of this is the report of payments falling due the next month, in order to pay them on time. Another one is the selection facility that permits the user to select loans on economic sector, type of creditor, type of financing, etc. that can be used for controlling ceilings on outstanding or debt servicing.

1.3. The Analytical Function

1.3.1. Reporting Facilities

The basic ingredient for this function is a flexible and comprehensive set of reports which, when generated aggregately, can be produced in local currency, in US dollars, in Euro or in SDRs. The DMFAS 5.2 can produce a large number of reports of four types:

1.3.1.1. *Predefined reports without parameters*

The format of the report cannot be modified by the user. The report concerns a very specific topic and will present all available information on the selected "block" of loans. No parameters are therefore required. The Amortisation Table is one example of this type of report.

1.3.1.2. *Predefined reports with parameters*

For this type the format also cannot be modified by the user. The report, however, potentially covers large amounts of data and the user therefore can define the reporting period covered. DMFAS 5.2 produces the Form 1 and Form 2 of the World Bank's Debtor Reporting System (DRS), which are examples of this type of report⁶, as is the Loan Account Statement which is extensively used by debt officers.

1.3.1.3. *User-defined reports*

The personalised reports are a particularly interesting flexible DMFAS 5.2 feature that permits the users to create their own self-designed reports. In addition to a different set of parameters that the user can choose, like the currency, the level of aggregation, the period, *inter-alia*, it is possible for the user to select the contents of the columns among a list of available debt totals from the ledger and/or projections. For certain formats, the report can contain up to 12 columns as well as to include percentages as debt totals. The report format, once the user has created it, is stored by DMFAS 5.2, so that the user can retrieve it in order to print it out with the original or new data, as well as to modify its format if needed.

The procedure followed for the creation of reports in DMFAS is the same as for previous versions of the system; the user starts by defining a subset of loans to work with, then sorts this subset and finally defines the report parameters, such as the currency, the periodicity, the level of detail, etc., as well as the hierarchical order in which the selected criteria appear in the report and how their subtotals are calculated.

⁵ This is the reason why the DMFAS technical co-operation projects contemplate, not only the system's installation, but also the administrative and institutional arrangements of the debt office, as well as its relationships and information flows with other institutions.

⁶ The World Bank forms 1 and 2 can also be "printed" and reported on an electronic support.

DMFAS 5.2 uses a customised Oracle Browser for making subsets of loans and for sorting the subsets. These subsets may, if the user wishes, be given a name and saved for later use.

When creating a user-defined report, the user has to select the report's format:

Format 1: Aggregates in columns and each aggregate is for a specific period;

Format 2: Aggregates in columns and sub-periods are criteria in rows

Format 3: Aggregates in rows and sub-periods are in column

The user will give each new report a name which will be used to retrieve the report for later use. When retrieving previously saved reports, however, the user still has the option of changing the corresponding subset or the report parameters. The report parameters include, among others:

- ✓ **Period base:** The user may produce reports based on the fiscal year, the calendar year or according to an exact period defined by himself. The budgetary year is defined separately as one of the system parameters of DMFAS 5.2.
- ✓ **Adjusted amount:** For loans which have been registered as currency pool loans, the system allows the user to adjust the amounts of the report by the registered currency pool adjustment factors.
- ✓ The user can make a **selection of the individual columns** of a report from a list of columns, defined by the DMFAS staff, and put them together according to the user's own needs. This enables, for instance, the combination of stock and flows columns in the same report, either for ledger transactions or for projections.
- ✓ The user has access to the **specification of the columns** for this report option, implying that he can not only use the existing variables or aggregates for the columns, but can create his own aggregates and include them on the list of predefined columns. The users can, in this way, free themselves from waiting for the DMFAS staff to include new aggregates in the system's reports.

1.3.1.4. Specific reports

- Through direct access to the database

With the help of Oracle Browser and Oracle Reports and other tools like Microsoft Access and Microsoft Query, the user can create any kind of report he wishes accessing directly the different DMFAS 5.2 database tables. In addition, any program supporting ODBC (**O**pen **D**ata**B**ase **C**onnectivity) may connect to the DMFAS 5.2 database, giving the user with the appropriate access authorisation the possibility to use the calculating, sorting, formatting and graphics capabilities of these software on the DMFAS 5.2 database. ODBC is supported by most popular spreadsheets and database programs such as Excel, Lotus 1-2-3 and Access. The links can be based on queries so that the result will change when new entries into the database are made. The contents of an Excel spreadsheet with a query selecting the outstanding of all loans with US dollars as loan currency, will therefore automatically change without the Excel user's intervention as outstanding of these loans in the database changes, and the same applies to graphs based on the same data.

The DMFAS 5.2 therefore has no limit to the number of report formats the user may create.

- By exporting the generated results into Excel

The DMFAS system allows the easy export of the generated results into Excel for further manipulation of the data. However, contrary to the above ODBC option, the data in Excel or other similar spreadsheets is not automatically updated when modifications are made in the DMFAS database.

1.3.2. Analytical Facilities

The analysis module has been specifically designed to calculate projections based on outstanding and the present value of a debt portfolio. The use of the present value instead of the nominal value allows the user

to take into account the terms and concessionality of a debt portfolio and to reflect the costs of servicing the debt in "today's money". The present value also allows the manager to compare more easily debt portfolios between creditors by eliminating the effects of the concessionality. The module on projections based on outstanding is used, among other things, to calculate debt service payments effectively owed, excluding future and hypothetical disbursements.

This module enables the user to choose between different parameters and calculation methods (the pro-rata and the truncation methods), of particular interest to produce and compare different scenarios for the debt sustainability analysis of heavily indebted poor countries (HIPC).

An interface has been created between the DMFAS system and Debt Sustainability Model (DSM+) of the World Bank which is a tool designed to help officials analyze the external financing requirements of a country and to quantify the effects of debt relief operations or new borrowing. This interface provides the DMFAS user with the means to export data from the DMFAS system for subsequent import into the DSM+ system. The interface enables the DMFAS user to benefit directly from the data in the DMFAS database, avoiding the need to re-enter that data in the DSM+.

The DMFAS system also provides **analytical support** for debt managers by, for example:

- Facilitating easy registration of **potential new debt** and analysing the effect of these new debts on the future debt service pattern;
- Permitting easy **simulations** to determine the effect of interest rate fluctuations and exchange rate variations over a period of time;
- Calculating and giving information on detailed **penalty interest** from the scheduled date of a maturity registered as an arrear to a given date;
- Calculating **accrued interest**. The information provided can be of interest for the accounting unit, specially at the moment of settlement of an account.

2. Executive Management

Executive Debt Management gives direction and organisation through the policy, regulatory and resourcing functions and must be embedded into the overall macroeconomic policy of a country. The executive features of the DMFAS, in combination with the World Bank DSM+, include specialised reports to:

- Provide debt managers and planners with easy-to-use tools to assist in policy decision making, evaluation of alternative strategies and development of negotiation strategies. These analytical/decision-support tools integrate debt data with other economic variables (for example, balance of payments components), allowing simulations of debt reorganisations and taking into account hypothetical new loans and financing.
- Provide debt managers with decision-support systems and analytical tools to assist in portfolio management and optimisation of composition, maturities, interest and exchange rate exposure. Such tools allow for sensitivity analysis through simulations which take into account, for example, exchange rate variations or floating interest rate fluctuations.

3. Technical Characteristics

3.1. Overview

The DMFAS system has to be portable and easy to use since it has to work in an environment where its users are not computer specialists. Therefore, significant effort has been devoted to making the system as user-friendly and as flexible as possible so that the user, to the largest extent possible, can operate it independently of the technical staff of UNCTAD. In this light, the following features have been made standard⁷:

- Windows based **graphical user interface** which includes field to field navigation, colour screens, Windows⁸ standards with "Short Cut Keys" and mouse support, easy selection of menu options from selection lists, etc.
- The **code** file of the system is divided into standard and user-defined codes. This allows country specific customisation of codes, such as Location, Economic Sector codes etc.
- **Language independence.** To permit the language dependent parts of the system, for example menus, to be separated from the system itself. In addition, the DMFAS is delivered with all the four standard languages included and the user may easily switch from one language to another. This feature is particularly important for countries operating the system in languages (such as Russian) which they cannot use for reporting to the World Bank and other international organisations or creditors. In this way, they will have the option of producing the reports in English..
- **Access to system codes.** The user may add, delete or modify user-updatable system codes as he likes, provided he has sufficient privileges.
- **Tolerance limits** for data validation are also fixed by the user in the system.

3.2. Security

The security features in version 5.2 include preventing unauthorised personnel from viewing or editing data by assigning different access rights to different users, for instance to ensure that only the database administrator has access to administrative functions of the system. If required, this **access control** can be refined to actually permit the definition and enforcement per individual end-user of groups of data with which the user may work, particular creditors for example, and, for each group of data, the operations which the user may perform on them. A facility of **double control** allows managers to enforce validation of initial registry or modification of data by nominated people other than the user who first registered or modified the data. Among other advantages, the system, if calibrated that way, would not allow the entered or modified data to be used before it was validated, for reporting purposes for example.

Oracle also provides the possibility to keep and consult logs detailing the types of operations performed by each user and keeping track of what the data looked like before an operation in case of a modification.

Oracle provides backup and restore procedures as well as automatic recovery functions in case of power failure. This considerably diminishes the risk of suffering from corrupted data files.

⁷ For further information on hardware and software requirements, please refer to [DMFAS 5.2 Software, Hardware and Training Requirements](#), UNCTAD/GID/DMFAS/MISC.6/Rev.5, April 2000. This document is regularly updated to include the most recent developments in software and hardware technology.

⁸Windows is a licensed software from Microsoft Inc.

3.3. Conversion Software

For current users of DMFAS 4.1Plus who want to upgrade their installation to DMFAS 5.2, UNCTAD has developed an interface for automatic conversion of 4.1Plus data to version 5.2 format with a minimum of manual intervention by the users.

3.4. Support to other Information Systems

DMFAS 5.2 can be linked with other computer systems. The system may therefore provide debt data for other information systems, such as those dealing with balance-of-payments, budget, public and/or central banking accounting, government revenue and expenditure, currency management etc.

3.5. Compatibility with Network Operating Systems

The DMFAS 5.2 is built on Oracle's Relational Database Management System, implementing a client/server architecture. Consequently DMFAS 5.2 can be run on any Network Operating System that supports the ORACLE 7.1 RDBMS server and can have Windows workstations as clients. This includes Novell, Windows NT and UNIX.

4. Documentation and Training

4.1. Documentation

A comprehensive set of documentation is available for DMFAS 5.2. This includes:

- A User's Guide;
- A DMFAS and Debt Glossary;
- Database Administrator Manual and;
- Technical Documentation of interfaces when appropriate.

4.2. Training

The defined training needs have been incorporated into UNCTAD's training programme in debt management which consists of a large number of individual predefined training modules. These modules are organised according to orientations, blocks and levels of management. This menu approach allows a great deal of flexibility in the design of training programmes and is used by UNCTAD to communicate with the DMFAS users in order to design programmes customised for individual countries, debt offices and/or groups of users.

UNCTAD/DMFAS' training framework has three orientations:

- Internal Capacity Building within the National Debt Management Framework;
- Software and Computer (including DMFAS training), and;
- General Debt Management.

These orientations of the training framework are organised within two different categories of training "blocks":

- **Block 1** is what we may call the GENERAL KNOWLEDGE BASE , which is the minimum knowledge any participant should have on each one of the orientations. General Knowledge Base training comprises all basic knowledge and should be given to all officers irrespective of what their function is.
- **Block 2** is what we may call the SPECIALISED KNOWLEDGE BASE, which is the targeted training the different officers will be given in order to exercise the specific functions or tasks which they have been mandated for. Specialised Knowledge Base training will be specific in nature and, in general, only comprises the orientation within which the participating officers have been assigned special responsibilities.

Within each component and block, the training activities are designed for three levels of management, senior management, middle management and operational staff. The delivery of the different training modules will, in general, follow a progressive approach within each level and will evolve from general knowledge to specialised knowledge base training over time.

In all cases, the training is always based on the different information that a system like the DMFAS 5.2 produces and that is available for the users. Paramount importance is given to the selection of the appropriate information for the different functions that have to be performed under different circumstances.