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UNIPLAN INFORMATION MANAGEMENT SYSTEM

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General Description

UNIPLAN is an information system intended for storing and analisys of data which relate to the UNIDO supported projects from the member states and internal UNIDO tasks. The system is organized as a multicomponent application package for the PC, consisting of the data base, indexed notepad, automatic calendar, user interface support and utilities. There are 5 basic functional components in the system:

COMPUTER-AIDED PLANNING
UNIDPLAN FOCAL POINTS
UNIDPLAN CALENDAR
UNIDPLAN PROJECTS
UNIDPLAN ROSTER

1. *Computer-Aided Planning* is a relational data base with the multiple views, which filter the data base records by the problem areas, such as: Forecasting, Investment, Man-Power Planning etc. Each problem area is represented by a number of projects proposed by the member states. A data base record contains information describing the particular project, namely, its title, originating country, organization, required equipment. The user can browse the table representing the list of projects for the given problem area. He can narrow the range of presented project descriptions by imposing additional filters. Each data base record can be veiwed either as a line in a table or as a specially designed screen form. The user can edit record fields, c.:ate new records or simply look at it for getting the necessary information. There is a possibility to print data base contents in a tabular or form format.

2. *Unidplan Focal Points* is organised as a notepad with index and a set of short text cards (memos). The index entries are filled with the names of the countries which are linked to the corresponding cards. The user starts from selecting the appropriate country in the index and immidiately gets access to the corresponding text card which contains an addresses and the names for contact. He can read text cards, modify them and delete if necessary. The cards can be printed out or stored in a separate files. The user interface to this component is straightforward and easy to learn.

3. *Unidplan Calendar* consists of two subcomponents: the *General Calendar* and *Meetings*. The *General Calendar* displays the familiar calendar picture on the screen where the user can select the appropriate date and then gets to the corresponding data base record. The information stored in the record describes the event connected to the given date. It can be entered and modified by the user. The data base can be accessed also directly through the appropriate table or screen form. Another part of the calendar - *Meetings* - provides the user with the tabular view of the data base which contains all the relevant information for the international meetings and seminars supported by UNIDO. Each record of the *Meetings* data base contains the description of the event: its date, organiser, country and also a reference to another data base - *Participants*. There are two basic modes of operations with the calendar: filling in the data base and looking at it. Tables are created in such a way as to provide a simple access to the appropriate data.

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4. *Unidplan Projects* is implemented as another data base with the same user interface as described above. Each database record corresponds to the UNIDO supported projects (tasks). Each project is characterised by its status: ongoing, pipe-lined or completed. There are three corresponding veiws available, each one created by the appropriate filtering over the status field. The budget figures in US dollars and local currencies can be totaled for the selectable groups of projects.

5. *Unidplan Roster* contains information about the specialists working in close contact with UNIDO. The data base keeps their names, countries, qualification, addresses and other information. When accessing this data base the user can search for the specialists from the particular country or with particular qualifications. This is achieved through the same filtering mechanism as for the other data bases.

Implementation

The system is built around the Spectrum application package whicl provides the means for the creation of menus, data bases, indexed notepads and other information structures. The uniform user interface makes it easy to select the necessary items, navigate through the information structures and make the necessary amendments. There are some basic operations performed in the same manner in any system state. The main control keys are the following:

Arrows	- select information item or menu position
Enter	- activate selected item (start editing)
Space	- start editing string or text element
Esc	- go back to previous level
F1	- call help
F10	- call menu
Plus	- get next record in the screen form
CapsLock	- switch alphabet (Latin / Cyrillic)

While working with the tables or screen forms the following keys are used for entering new values or editing:

Enter or Space	- start entering new value or modify the old one
Horisontal Arrows	- move along the value cell
Del	- delete the current character
Backspace	- delete the previous character
Home	- jump to the first character in the cell
End	- jump to the last character in the cell
Enter	- fix the new value in the given cell
ESC	- cancel editing

Getting Started

When the system is started for the first time after botting the computer, the following command must be entered:

START 0

All the subsequent calls are performed by entering:

START

The main menu appears on the screen and the user can select the desired position by pressing the keys with the vertical arrows. Pressing Enter opens the appropriate submenu or brings directly to the data base entry, or to the notepad, or to the calendar.

Opening the data base can start from the list of associated views. Selecting the view and pressing Enter opens the appropriate table or screen form. Some menu positions lead directly to the attached table or screen form.

Tables and Forms

In a table one can move along the rows or columns with the aid of vertical and horisontal arrow keys. In order to select a subgroup of records in a table the user must press F2 key and afterwards enter the restricting values which will filter the data base contents.

In a screen form it is possible to move from one field to another by means of vertical arrow keys. Pressing PLUS or MINUS shows the next or the previous record through the given form.

In some cases the forms show up on the screen straight from the appropriate position, in the other cases the screen form can be called by pressing F3 while working with the table.

Special Operations

In order to compute totals for the table columns which contain the numerical values it is necessary to put the cursor to the starting cell, then press F7, move cursor to the ending cell and press F4. The sum of the figures in the selected cells will be displayed at the bottom of the corresponding column.

Every cell in the table or in the form can be edited from the keyboard. At any stage the user can jump back to the previous system level by pressing ESC.

Getting help is achieved almost in any stage by pressing F1. Menu in the data base is called by pressing F10.

Graphs

In a table view the user can call menu by pressing **F10**. In this menu there are two positions available, labelled *Simple Graphics* and *Extended Graphics*. Through these positions one can call the graph building utilities which take data from the marked block in the given table and build simple bar graphs or linear and piechart graphs. In order to build graphic representation of the numerical data the user has first to mark the block of data in the table which will become the source for building graphs. This is performed in the following way:

- put cursor to the starting sell of the numerical block in the table
- press **F7**, resulting in marking the current cell
- move cursur to the ending cell
- press **F7** again to end marking (this step is optional)
- press **F10** to call menu
- select *Simple Graphics* or *Extended Graphics* position by pressing **Arrows**
- press **Enter** to start graphing.

When the graphs are shown on the screen the user can change their form. In *Simple Graphics* pressing **Space** transposes the source data. In *Extended Graphics* pressing **F3** changes the type of graph between bars, lines and piecharts; while pressing **F4** transposes the source data.

Pressing **Enter** in both modes displays a marker, which can jump from one bar (or point or sector) to another. The corresponding numerical value of the given bar (point or sector) is shown in the corner of the screen. The marker can be moved from one point to another by pressing **Arrow** keys.

ESC stops graph presentation.

Notepad

The notepad is called from the *Focal Points* position of the main menu. It starts with displaying the list of countries, each country being a keyword in the index. The following keys control the notepad operation:

Arrows	- move along the list of keywords
Enter	- open the text card (memo) connected to the given keyword
F2	- search for the necessary keyword by entering its first letters
F7	- open a new (blank) card for entering the text
Ctrl_K	- mark the current word in a card as a keyword
Shift_F8	- print out the given card
F10	- call menu for auxiliary operations
ESC	- go back to the previous level (exit from the notepad).

Calendar

The *General Calendar* starts by displaying the table with dates and weekdays, as it is normally presented on the paper calendars. The cursor shows to the current date (today) from where it is possible to move along the calendar rows and columns. To speed up the movement one can use the following keys:

PgUp   - next quarter
PgDn   - next year
Home   - previous quarter
End   - previous year

After selecting the necessary date and pressing **Enter** the calendar data base is opened displaying the screen form with the corresponding record. The fields of this form can be viewed or filled with the new values.

Direct access to the *Calendar* data base is performed through the *Meetings* menu posistion. There are two **frames** (data base divisions) in the Calendar data base: *Meetings* and *Participants*. The user can enter either of these frames by pressing **Enter** in the corresponding line. Entering new data or modifying the existing ones is performed by the same operations as described above.

The *Participants* frame is internally linked to the *Meetings* frame. Activation of this link is performed when the user fills in the record for the current meeting. After filling Date, Title and other fields in the Meetings table he must press **Alt_1**, and at this moment the link to *Participants* frame will be automatically created. If the user then press **Enter** in the Participants field of the *Meetings* table, the associated subtable of the Participants frame will be open and the user will be able to fill it or browse.

The multicomponent nature of the system makes its architecture open for the new extensions. It can be performed by modifying the existing menus, adding new data bases or notepads and attaching new applications.