

DATA GENIE

***DATABASE UTILITY
SINCLAIR 48K SPECTRUM***

INSTRUCTION MANUAL

 *Audiogenic Software Ltd.*

DATA GENIE

INSTRUCTION MANUAL

The best way to learn about Data Genie is to read through this manual until you get to the section on loading the program. At that point you should load the program and read through the rest of this manual while sitting at your computer. In this way you can try out the various features of the program as they are described, thus leading to a better understanding of how the program works.

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DATA GENIE

Overview

Data Genie is an innovative home database system for the Sinclair 48K ZX Spectrum. The program employs the latest user-friendly control concepts. All of its facilities are controlled by a series of "pop-up" menus which appear on the screen when required, and disappear when not required. In this way you can control the program through its various stages by using only three keys, or a Kempston joystick, thus avoiding the usual "which key do I press now?" dilemma.

Data Genie is user definable. You can tailor the program to your own particular record keeping requirements.

Data Genie allows you to enter information, which can be saved onto cassette or Microdrive cartridge for long term storage. It can then be loaded back in whenever you need to refer to the information. Also the information can be easily updated, changed or deleted as you wish. Data Genie can be used to keep all sorts of information - names and addresses, lists of collections, club memberships, in fact any application that requires easy storage and recall of data.

Data Genie Organization

Data Genie is organised in terms of Records, and a collection of Records that are saved together on a cassette or Microdrive cartridge is called a File. Data Genie allows you to have up to 146 Records in memory at any one time. Each individual Record consists of a certain number of Fields. Let us look at an example of a record. Supposing we use Data Genie to keep a list of names and addresses, then a complete Record could look something like this....

Example 1

```
name: johnny baxter
street: 342 acacia avenue
district: neasden
town: london
county:
postcode: n3 6ww
telephone: 01 987 0065
```

As you can see, the Record consists of 7 Fields, each having a Field Name. The Field Names are name, street, district, town, county, postcode and telephone. The Fields themselves are the blank spaces into which the information, e.g. "342 acacia avenue", has been entered. Data Genie is a versatile program - it allows you to keep Records of anything, not just names and addresses. You can specify how many Fields you need, what their Names will be, and how long they must be to accommodate the information that you are entering. So the first thing you have to do when you are about to use Data Genie is think about how you are going to organise the type of Records you wish to keep; how many Fields do you need?; what is the Field Name of each Field?; how long do the Fields need to be in order to accommodate the information?.

Loading the Program

The program loads into the 48K Spectrum as normal. Place the program tape into the cassette deck, and rewind it. Make sure your cassette leads are plugged in correctly. Press the LOAD key, then follow it by two quotes so that on the screen you have...

LOAD ""

and press ENTER. Then press the PLAY key on the cassette deck. The program should load. You will see the program title appear first and then the main program will load in. If you have any loading problems try experimenting with the volume level on the cassette deck. If you still have problems, the program is repeated on the other side, so turn the tape over, rewind, and try again. In the unlikely event of the tape not working at all, return it to your dealer for free replacement.

Operating Instructions

In this section we shall look at the various facilities of Data Genie in the order in which you, using the program for the first time, are likely to want to use them. When the program has loaded, the first thing that happens is that you are asked how long the fields need to be. You can enter a number between 10 and 20 by typing the number and pressing ENTER. Say you enter 20 - this means that you are telling Data Genie to make each Field 20 characters long, i.e. you will be able to enter up to 20 characters' worth of information into each Field. By now you should have an idea of what each Field is going to be used for, so you should be able to estimate how long the Fields will need to be. When you have entered your length of Field, the screen will clear and then you will be presented with the first of the "pop-up" menus, the Main Menu. But first here's some general tips about....

Pop-Up Menus

All the "pop-up" menus in Data Genie are operated by the same three keys. Every menu contains a list of options and a Cursor Line which you can move up and down with two keys, so that you position this Cursor Line over the option that you want to choose. The keys are....

6 = DOWN and 7 = UP

Practice moving your Cursor line up and down. When you have positioned the Cursor Line over the option you want, you make your choice by using the ENTER key as normal. But, for menu choices ONLY, you can also use the 8 key instead of the ENTER key. This means that you can have speedy three-fingered menu operation using the 6, 7, and 8 keys.

If you have a joystick fitted via a Kempston joystick interface, Data Genie will automatically sense this and allow you to use the joystick to control the menus. Push the stick forward to move the cursor up, pull back to move down, and press the FIRE button to select the option.

Back to the Main Menu. It will help to think of the Main Menu as like the trunk of a tree. The options in the Main Menu are like branches off from the trunk, each taking you a different way. Each option leads on to its own sub-menu, like each branch has smaller branches growing off from it. Going through the menus, you make certain things happen along the way until you can't go any further - you have reached the tip of a twig! Then you have to go backwards through the menus towards the Main Menu, until you come across another option that you wish to branch off on.

The Main Menu

The Main Menu comprises 10 options.....

```
SETUP FILE
ENTER RECORD
SEARCH
STORAGE
CLS
PRINT RECORD
EXIT
SINCLAIR SET
GENIE SET
SYSTEM RESET
```

Most of these options lead onto other menus, except where stated otherwise below....

SETUP FILE - Is the one which we shall be using first. Choosing this option leads you through the part of the program that allows you to specify how many Fields you want, and what their Field Names are to be.

ENTER RECORD - Is the part of the program in which you enter the information into the Fields that you specified in the previous option.

SEARCH - Is the crucial part of the program. The whole point of this program is to allow you to keep Records which are easily accessible, and the Search facility is the one which allows you to access the Records. It enables you to very quickly find the information that you want to refer to, and also to edit, update or delete certain parts as required.

STORAGE - Is the part of the program which deals with the saving, verification, and loading in of your Files. It also allows you to specify either cassette or Microdrive storage.

CLS - Stands for Clear Screen. This option does not lead onto any other menus. Its function is quite simple; after a lot of menu operations you may find that the screen is cluttered by bits of old menu display that you aren't using. If you select CLS from the Main Menu, the screen will clear, and the Main Menu will be redisplayed, but without all the spurious clutter.

PRINT RECORD - Allows you to specify certain or all Records in memory, and print them out to your screen or to your ZX Printer.

EXIT - Does not lead onto any other menus. When you have finished using the program, you can choose Exit on the Main Menu. The program will stop and the message:-
9 STOP statement,28,2 will be displayed on the bottom line of the screen. You can then load another program, or if you selected Exit by mistake, you can continue with Data Genie by pressing the CONT (Continue) key and ENTER.

SINCLAIR SET

and GENIE SET - These two options do not lead to any other menus. They allow you to choose between alternative character sets. When you have loaded the program and it is running it will automatically use the normal Sinclair characters that you are probably familiar with. However, we have provided the Data Genie character set as an alternative so that you can choose whichever is easiest on your eyes. So to choose the Data Genie character set, select Genie Set from the Main Menu, and to get back to the normal character set, just select Sinclair Set.

SYSTEM RESET - When you have finished entering Records you should save them onto cassette or Microdrive cartridge, and verify that they were saved properly. Suppose that you then wish to enter some more Records of a different type, using different Fields and Field Names. System Reset allows you to do this - it clears the memory of all the records that are in there, and then takes you back to the very beginning of the program. Because it clears the memory, it incorporates a safeguard so that you don't wipe out all your Records by mistake. When you have selected System Reset, you will be asked to confirm your choice. Press Y for Yes to go through with the Reset, or press N for No if you don't want to.

Now that you know what each option in the Main Menu is about, let us start using Data Genie.

Operation 1 - Setup File

When using Data Genie for the first time, the first thing you will have to do is specify how many Fields you want, and what their Names are going to be. (Remember, you have already specified the length of the fields at the start of the program.) You are now about to choose your first option from the Main Menu. Position your Cursor Line over the Setup File option, and press the 8 key (or ENTER). The Setup File menu will now appear, overlaying the Main Menu. The menu title, i.e. Setup File, is written at the bottom of the screen - in fact you will find that Data Genie always displays there the title of the particular menu that you are using at the time. These are the Setup File options....

EXIT
NO. FIELDS
ENTER FIELDS
CLEAR FIELDS
SYSTEM RESET

EXIT - Selecting Exit takes you back to the Main Menu. In fact when you select Exit on any menu (except the Main one) it has the effect of taking you back to the previous menu.

NO. FIELDS - Allows you to select how many Fields you want up to a maximum of 15.

ENTER FIELDS - Allows you to give each Field a Name up to 10 characters in length.

CLEAR FIELDS - Clears out all the Field Names if you decide you wish to reName them all.

SYSTEM RESET - Allows you to change the length of the Fields if you decide that the figure you entered at the very beginning was wrong. It has the same effect as the System Reset in the Main Menu, i.e. it takes you right back to the beginning of the program and asks you for the Data Length again. This has the effect of wiping all Records from memory, so be careful when you use this option.

The first thing to do is specify the number of Fields, so select No. Fields. A purple sub-menu will appear, containing two options, Exit and 0 Fields. Select the 0 Fields option, and enter the number of Fields that you want in the Input line at the bottom of the screen, and press ENTER. Let's suppose that you are setting up a name and address File as in Example 1. That has 7 Fields, so we'll enter 7. You will see that the 0 Fields option has changed to 7 Fields, and the Cursor Line is now waiting on the Exit option. Press 8 or ENTER to select Exit, and you will return to the Setup File menu.

The next thing we want to do is specify the Names of the Fields, so select the Enter Fields option. The Enter Fields display will appear. This menu has two choices, Exit and Edit Line, at the top, but below you will see a white block representing the space where we are going to enter our Field Names. Then underneath the white block there is a grey block, which represents the other 8 out of the 15 Fields that we could have had. Move your Cursor Line down to the first blank line below the Edit Line option, and press 8 or ENTER. You can now enter the first Field Name in the Input Line at the bottom. So enter "name" and press ENTER. You will see that the word "name" appears in the line where your Cursor Line is. Now move the Cursor Line to the next line down and repeat the procedure for the next Field Name, i.e. "street". In this way you can continue adding Field Names until you have used up the number of Fields that you selected. Please note, however, that Data Genie will not accept Field Names over 10 characters in length.

If you have entered your Field Names and then you discover that you made a mistake, just move the Cursor Line over the line where the mistake is and press 8 or ENTER. You can then re-enter the proper Field Name in the same way. If you want to add or delete any Field Names, you should select the Edit Line option. A small red menu display will pop up on the right of the screen with five options....

EXIT
INSERT
DELETE
UP
DOWN

You now have two menus on the screen at the same time, the red Edit Line Menu and the yellow Enter Fields menu. In the red menu the Up and Down options are used to control the position of the Cursor Line in the yellow menu so that you can place it over where you wish to insert or delete a Field Name. So position your yellow Cursor Line by selecting the Up or Down options in the red menu, and when you have positioned it, you can then move the red Cursor Line up to Insert or Delete. If you choose Delete, then the line underneath the Cursor Line will be deleted. If you choose Insert, then everything below the Cursor Line will move down by one line, leaving you a gap into which you can enter another Field Name by Exiting from the red Edit Line menu back to the yellow Enter Fields menu, and entering the Field Name as you did before.

Please Note - Data Genie will not allow you to have a Field without a Name. You must give a Name to every Field.

You have now set up your Fields. You have specified how many Fields there are, how long they are, and you have given them their Names. You can now Exit from the yellow menu, which will take you back to the light blue Setup File menu. Exit from that one too, and you will find that you are back on the Main Menu. You are now ready to enter some Records.

Operation 2 - Entering Records

From the Main Menu select the Enter Records option. The purple Enter Records menu will pop up, containing these options....

EXIT
ENTER RECORD
VIEW RECORDS
DELETE RECORDS

EXIT - As usual takes you back to the previous menu.

ENTER RECORD - Allows you to enter the information into the Fields.

VIEW RECORDS - Allows you to look, one by one, through all the Records that you have entered.

DELETE RECORDS - Allows you to delete Records from memory.

The three lines below these options are the Current Record counter, which displays the Record number of the last Record that was Viewed or Searched for; the Total Records counter, which

keeps track of the total number of Records in memory at the time - you will see the figure change as you keep entering new Records; and the Maximum Records indicator, which tells you how many Records you can enter. This figure varies according to the number you entered for the length of Field. If your Fields are 20 characters long, you can have up to 73 Records, and if your Fields are 10 characters long, you can have as many as 146 Records! So the shorter the Fields, the more records you can have.

You are now at the stage where you want to enter your information. Select Enter Record from the menu. What happens? Your screen goes blank and then in the top left hand corner the Name of your first Field is displayed. At the same time in the Input Line at the bottom of the screen the flashing cursor appears, waiting for you to type in your data. Above the cursor you will see a black line. This corresponds in length to the length of Field that you specified earlier. It provides a visual indication of how much room you have in which to enter your data. So type in your data, taking care not to exceed the length of the Field, and press ENTER. Your data will appear next to the Field Name at the top, and the cursor will appear again at the bottom, waiting for you to enter data into the second Field. Carry on in this manner until you have filled all the Fields. You have now entered a complete Record.

After you have filled in the last Field of a Record, the Record will be logged in memory, and the menu will pop up again. Just select the Enter Record option again, and you can go on to enter as many Records as you are allowed according to the Maximum Records indicator. But first, some hints about entering Records....

When entering the information into the Fields, you may find that it is best to use lower case letters only, i.e. no capital letters. Why? - Well, supposing you were to command Data Genie to search through the Records for a particular name or word, for example - baxter, but you had entered it into the Field as Baxter with a capital B. Data Genie, clever though it is, would not be able to find that Record. Thus you will find that when entering the information it pays to be consistent in your use (or disuse) of capital letters.

If you wish to leave a Field blank, you can do so, but only by entering spaces. If you hit the ENTER key without entering anything, you will find that it takes you back to the Enter Records menu. This is provided as a way of exiting from a Record if you need to, for instance if you see that you have made a mistake in one of the previous Fields. A Record is only logged into memory after you have entered the last Field, so if you go back to the menu half way through a Record, any information that you may have entered into that Record will be forgotten, so you will have to enter it again.

Operation 3 - Viewing and Editing Records

When you have entered all the Records you want, you can look at them by selecting the View Records option. As soon as you select View Records, the screen goes blank and then the Current Record (i.e. the Record with the number displayed in the Current Record counter on the previous menu) will appear, and then the purple View Records menu pops up on the right. The Current Record counter will normally be on no. 1, until you use the View or Search facilities; then it displays the number of the last Record Viewed or Searched for. Also displayed at the bottom is the Field counter, which is used during editing. The View Records menu contains the following options.....

```
EXIT
EDIT UP
EDIT DOWN
REC UP
REC DOWN
EDIT REC
LIST REC
LOOK
```

EXIT - As usual takes you back to the previous menu.

EDIT UP - Is used to select which Field you wish to edit.

EDIT DOWN - Also used to select which Field you wish to Edit.

REC UP - Allows you to look at the Record previous to the one currently displayed.

REC DOWN - Allows you to look at the Record after the one currently displayed.

EDIT REC - Allows you to make alterations to the Field that you have selected by Edit Up and Down and which is displayed in the Field counter at the bottom.

LIST REC - Allows you to specify the Record number of the Record you wish to look at, and gets that Record from memory and displays it.

LOOK - You may find that the View Records menu itself is obscuring part of the Record that you wish to have a look at. If you select Look, the menu will disappear until you press a key.

You can use the View Records options to look at the Records when you have just entered them to make sure they are correct. You can also use it at a later date when you want to refer to the information in your File. The easiest way of looking at the Records is to use the Rec Up and Rec Down options to scroll up and down through the Records. For example every time you select Rec Down, it will display the Record after the one currently on screen. In this way you can go through all the Records in memory. Another way you can refer to Records is to use the List-Rec option. Just specify the number of the Record you wish to look at, and Data Genie will display it for you instantly.

If you find when looking through the records that you wish to alter some of the data, this is what you do. Keep the Record that you want to alter on screen, and see which Field contains the data that you want to alter. Then, looking at the Field counter at the bottom, using the Edit Up and Edit Down options, scroll through the Fields until the Field that needs altering is displayed in the Field counter. Then select the Edit Rec option - the flashing Cursor will appear in the Input Line. You can now re-enter the data into that Field and press ENTER. The new data will replace the old data.

Operation 4 - Deleting Records

This is the Delete Records menu....

```
EXIT
DELETE CUR/REC
OTHER RECORD
SYSTEM RESET
```

There are three ways of deleting records....

1 - If you find when looking through the Records that you wish to delete a Record, then, using the View Records menu, find the Record you want to delete and leave it on the screen while you Exit from that menu back to the Enter Records menu. Because that Record was the one you Viewed last, its number will be stored in the Current Record counter. Now you should select the Delete Records option. The red Delete Records menu will appear containing the options listed above. Select the DELETE CUR/REC option, and this will delete the Record whose number is in the Current Record counter.

2 - Another way of deleting Records is to use the OTHER RECORD option. To use this you must already know the number of the Record you wish to delete. When you select this option, the Cursor will appear in the Input Line, waiting for you to enter the number. Just type it in and press ENTER, and that Record will be deleted. When a Record is deleted, all subsequent records are moved up one place to fill the gap.

3 - If you decide that you want to delete ALL the Records in memory, you can choose the SYSTEM RESET option. This is the same as the System Reset option in the main menu, i.e. it wipes the memory of all Records.

CAUTION - Once a Record is deleted it has gone for good (unless you still have it stored on tape). So be sure you really mean it before you delete any Records!

Operation 5 - Storage

Once you have entered all the Records, and have carried out all the Editing and Deleting that you want, you should store your File of Records onto cassette or Microdrive cartridge. To do this, go back through the menus to the Main Menu and select the Storage option. The Storage menu will pop up with seven options....

EXIT
SAVE RECORDS
LOAD RECORDS
VERIFY RECORDS
MICRODRIVE
CASSETTE
NAME: DATA

EXIT - As usual

SAVE RECORDS - Allows you to store your File of Records on tape or Microdrive cartridge.

LOAD RECORDS - When you wish to refer to a File that you have Saved, you can use this option to load the Records into memory from the tape or Microdrive cartridge.

VERIFY RECORDS - As soon as you have Saved your Records, you can use this option to check that they have been Saved properly.

MICRODRIVE

and CASSETTE - These options allow you to select which storage medium you wish to use. The one that is in use at any time is highlighted in black. To change to the other medium, just position the cursor over it and select in the normal way. PLEASE NOTE - If you have a multi-Microdrive system, all Microdrive operations in Data Genie must be carried out on Drive 1.

NAME - When you save or load a File, you must specify a Filename. The Filename is preset as "DATA", but you can easily change it to whatever name you want by selecting this option. The Cursor will appear in the Input Line at the bottom of the screen. You can then enter any name of up to 8 characters, and press ENTER. The new name will appear in the menu where "DATA" used to be. This Filename will be used when you carry out a Saving or Loading operation.

So, you are now ready to store your File. The first thing you must do is give it a name. If you want to call it "DATA" then leave the name as it is. Remember, however, that if you are going to save more than one file onto a single cassette or Microdrive cartridge, you will have to give each of those files a different name. It is probably best to give the file a name that relates to the information in it. To change the name, use the Name option as described above.

The next thing to do is specify the storage medium by choosing either cassette or Microdrive. You can tell which of the two is currently in operation by the black highlight. You are then ready to go to the Save Records option.

SAVING TO CASSETTE - If you are using cassette, make sure you have a blank cassette in your cassette deck, and the saving lead is wired up correctly. Rewind the cassette, but wind it forwards past the leader tape. Select the Save Records option, and a small menu will pop up as a safeguard in case you selected Save Records by mistake. Select the Save Data option from this small menu, start the tape and press a key. The File is saved in two parts, first the Records themselves and then the Field formats. This means that you will have to "Press a Key" once to save the first

part, and again to save the second part. So when saving a File it is essential that you sit by the Spectrum, ready so that you can "Press a Key" the second time when the "Press a Key" message appears on the screen. When the Save is complete you will be told to "Stop the Tape" and you can then press a key to continue.

SAVING TO MICRODRIVE CARTRIDGE - Put a formatted Microdrive cartridge into the Microdrive. You should use a cartridge that has at least 22K of space left on it otherwise you will get an error and have to repeat the operation. Select the Save Records option, and again you will get a small safeguard menu. Select Save Data and you will be asked "Do you wish to Replace a file or Save a new one? (R or S)". To replace a File you must make sure that the current Filename is the same as the Name of the existing File. So type either R or S and press ENTER, then press a key to carry out the Save. When the Save has been carried out, select EXIT to continue.

When storing your Files on cassette it is best to use short tapes with just one File on each side, rather than putting lots of Files on one long tape. You will find that in this way you don't have to keep searching through the tape to find your File. Whether you are using cassette or Microdrive, it is always a good idea to label the cassette or cartridge so that you know what is on there.

After doing a Save, it is always a good idea to Verify the File. So, if you are using cassette, rewind it first, or if you are using Microdrive, leave the cartridge in the drive. Then select Verify Records from the Storage menu. Again there is a small safeguard menu in case you selected the option by mistake, so select the Verify Data option from this small menu, then press a key and, if using cassette, start the tape. What happens is that the File is loaded back into the Spectrum and checked against the File in memory. If it does not Verify, an error message will appear at the bottom of the screen. If that happens, then you have to restart the program by entering the command...

GO TO 10 [ENTER]

This will take you back to the start of the program, but will leave the data in memory intact. You should then try Saving and Verifying your File until it Verifies correctly. You can tell if it has Verified correctly by the absence of error messages.

PLEASE NOTE - Verification of a File should be done immediately after Saving it, because if you go back and do a Search or a View in between, it can alter pointers in memory; this would mean that when you came to Verify the File you would get a verification error even if the File was Saved correctly.

Operation 6 - Reference - Loading and Searching

So, you now have a File Saved, Verified and labelled. At some later date you will want to refer to the information stored there. The first thing to do is, of course, load and run Data Genie. Choose the Storage option from the Main Menu, and from the Storage menu choose the correct storage medium, then set the Name to the same name as the File you wish to load, and finally select the Load Records option. Get your File cassette or cartridge

ready in the cassette deck or Microdrive. Again there is a little safeguard menu, so select the Load Data option, press a key and, if using tape, start the tape. If your File doesn't load properly, you will get an error message, and you will have to restart the program by typing....

RUN [ENTER]

...and try loading the File again.

When your File has loaded correctly, press a key to get back to the Main Menu. Then select the Search option. The screen will clear and the Search menu will pop up on the right, and a list of the Field Names will appear on the left. The Search menu has only three options....

EXIT
SEARCH
CONT SEARCH

...and the Current Record counter at the bottom.

EXIT - As usual.

SEARCH - Allows you to specify a string (i.e. a name or word) that you wish to Search for, and displays the first Record it finds that contains that string.

CONT SEARCH - Allows you to keep Searching for subsequent occurrences of the same string.

So select Search from the Search menu. The flashing cursor will appear at the bottom in the Input Line. You can now enter the word or name that you wish to search for. The maximum number of characters that you can specify is the same as the length of Field that you specified earlier, and is represented by the black line above the Input Line. So do not exceed the length of this black line. So type in the characters and press ENTER. Within seconds Data Genie will find and display the whole of the Record that contains the first occurrence of that string, and displays in the Field counter the Name of the Field where the string occurs. (It also displays the View Records menu in case you wish to do any editing or scroll through the Records.)

Why does it display the first occurrence? Well, the Search procedure starts from Record number 1, and goes through the Records in numerical order till it finds the specified string. So say, for example, you are Searching a name and address File to find the address of John Smith. If you specify "Smith" as your Search string, you may have a few Smiths in your File, and the first occurrence that Data Genie finds may not be the one you want. But if you specify "John Smith" then it will go straight to the one you want (unless, of course, you happen to have more than one John Smith on your File). So when specifying a Search string, it pays to be as specific as you can if you want to get the File that you are looking for immediately. However, if you did specify just "Smith" you could carry on Searching through the Records by using the Cont Search option. So let us suppose that you have found the first occurrence of "Smith" and it is not the one you want. Just go back to the Search menu and select Cont Search. You will then have to enter "Smith" again in the Input Line, but this

time it will find the second occurrence of "Smith". If this is still not the one you want, you can select Cont Search again and repeat the procedure until you find the one you want.

Please Note....

1 - Remember what we told you earlier about using Capital letters when entering the Records. When you search for a Record, make sure that you enter your Search string in the same way that you entered it into the Record.

2 - When you specify your Search string, the string must be of characters from one Field only. For instance, if your name and address File had two separate Fields for first name and surname, then you would have "John" in the first name Field and "Smith" in the surname Field. If you then try to find the Record by specifying "John Smith" as your Search string, Data Genie would not be able to find it because the string contains characters from two different Fields. This should be taken into account when you design your Fields.

3 - Your Search string must be longer than one character - Data Genie will display "Length Error" if you try to enter just one character. In practise, a Search string of one character would be of little value in finding the Record you want, so this limitation should not present any problems.

4 - The View Records menu which appears after each Search is the same as the one described above in Operation 3. The Search and the View facilities together make Data Genie an amazingly versatile reference system for most information handling applications.

Operation 7 - Printing Records

The Print Records option on the main menu allows you to either print the Records to the screen, or hardcopy them via the ZX Printer. If you select the Print Records option from the Main Menu, you will get the blue Print Records menu....

```
EXIT
PRINT CUR/REC
OTHER
MORE THAN ONE
  PRINTER
  SCREEN
```

....plus the Current Record counter at the bottom.

The first thing to do is decide whether you want to print to the screen or to the printer. You can choose by selecting one of the two bottom options, Printer or Screen. When you first come to the menu you will see that "Screen" is reversed out in black. That means that Screen is already selected. If you move the blue Cursor line down to Printer and select that, then you will see "Printer" is now reversed out, and now all printout will be routed to the printer. You can then choose which Records you want printed out by using the other menu options....

EXIT - As normal.

PRINT CUR/REC - Will print out the Record whose number is displayed in the Current Record counter. What will normally happen in practice is that when referring to your File, you will

have found the Record you want by Searching or Viewing. This means that the Record number will be stored in the Current Record counter, so that when you want to print it out you don't need to remember the Record number, you can just select this option and it will be printed out on the screen or printer. When you print to the screen, the Record will stay there until you press a key.

OTHER - Choose this option if you wish to print a record other than the Current Record. You must already know the number of the Record you want to print, and the Cursor will wait in the Input Line for you to enter it. So type in the number, press ENTER, and the Record will be printed.

MORE THAN ONE - This option allows you to specify two Record numbers, and will print out every Record between and including those two numbers. When you select the option, the Cursor will wait in the Input Line for the first number, so enter the first number (FROM), then enter the other number (TO). Of course, you must specify the lower number first and then the higher. When printing to the screen, each Record will stay on the screen until you press a key before displaying the next. You can use this option to print out all the Records in memory.

Saving the Data Genie Program to Microdrive

If you have a Microdrive system, it is likely that you will want to transfer the Data Genie program onto Microdrive cartridge. We have included a routine that allows you to do this. Load the program from cassette as normal and go to the Main Menu. From the Main Menu choose the Exit option. This will break the program and allow you to type into the input line at the bottom of the screen. Put a blank cartridge into the Microdrive and type...

GO TO 9500 [ENTER]

The Save routine will then take place. PLEASE NOTE - the Save routine formats the cartridge, thus erasing anything that might be already on it, so make sure that the cartridge you are using is either blank, or does not contain programs or data that you wish to keep!

To load the program from your Microdrive, first give a NEW command, or switch the computer off and then on, put the cartridge in the drive, and enter....

RUN [ENTER]

The program will then load from the Microdrive and autorun.

Data Genie Error Messages

The following error messages are additional to the normal system error messages, and may occur if you do something wrong...

0 RECORD ERROR - Occurs if you try to View or Search or Delete a Record when there aren't any Records in memory.

0 FIELDS ERROR - Occurs if you try to View, Enter, or Delete Records when you haven't specified your Fields.

DATA GENIE IS FULL - Occurs if you try to enter more Records than the amount given in the Max Records indicator.

LENGTH ERROR - Occurs if you try to enter just one character or too many characters into the Input Line when doing a Search.

When one of these error messages is displayed, the program waits for you to press a key to continue.

Breaks

We have tried to make the program as foolproof as possible, but if it should break for any reason, you should be able to get back into it without losing the data in memory by entering the GO TO 10 command.

Epilogue

You should now know all you need to about how to operate Data Genie. The concept of operating by pop-up menus is a very new one and may be unfamiliar at first, but once you have mastered it you will find Data Genie a lot easier to operate than old fashioned home databases.

Any comments or criticisms of Data Genie will be welcomed. Send them to Audiogenic Software Ltd., P. O. Box 88, Reading, Berks, England.

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