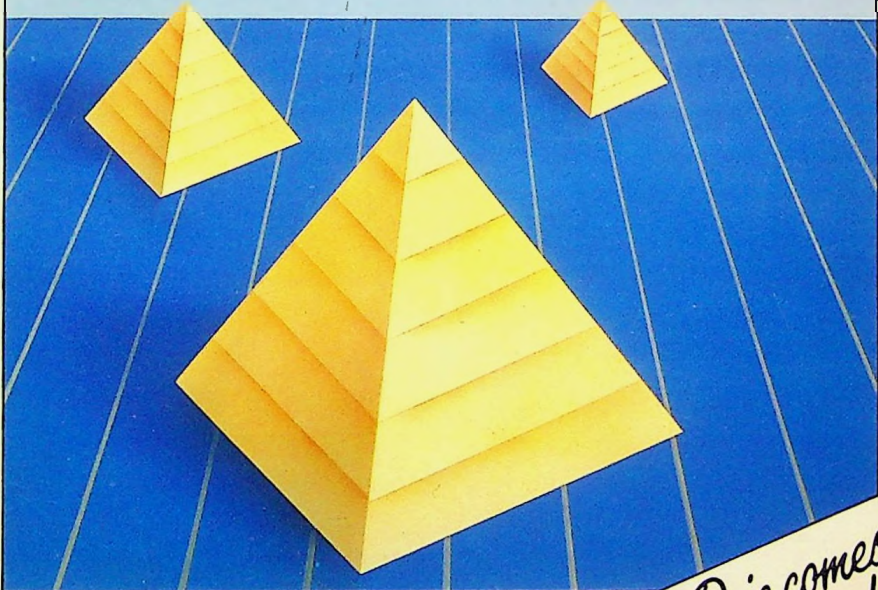


MANUAL

ORIC BASE

DATE: 3/5/86
CODE: 24-29-8684
NAME: GRIBBLIES
QTY : 4500
FILE: GENERAL SALES
NO. : TC/9044



TANSOFT

*Oric comes
of age!*

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Oricbase

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ORICBASE

INTRODUCTION

The Oribase system has been written for the maintenance of personal and small-business information.

It will work with the 48K Oric, leaving about 32K for user data. It will allow you to keep files of information, with easy addition of new records, updating, and reporting.

Oribase formats your reports neatly, and allows you to process your file in a very comprehensive way. Data may even be moved between records according to conditions found.

Oribase is used by giving simple English-like statements, of up to 250 characters, and these may be stored away as Macros.

An efficient Sort may be used to rearrange the order of your records.

For the non-programmer, you can create a file of data very simply and then DUMP out the complete file.

When you get a bit more familiar with Oribase, you can easily write routines to print Address labels, total up numbers, print averages, maximums, delete records which are out of date and so on.

Loading Oribase

The program is recorded once at slow speed on side 1 and twice at fast on side 2. Type CLOAD "", S for slow and CLOAD "" for fast.

The program will automatically run when loaded, and there will be a 10 second delay while it warms up!

You are given the option of loading in a previously created file on tape, or creating a new file.

If this is the first time, select option 2, to start a new file.

Creating a File

Before you can create a file, you have to know which information should make up one record.

For instance, a simple file to store the family's bank account could contain these fields:

NAME
ACCOUNT—NUMBER
BALANCE

The name would contain up to 20 characters, and these characters may be any letter or number. This means that the field is ALPHA. The Account number will usually be NUMERIC (all numbers), but to allow a bit of flexibility, we will make this field alpha too. The BALANCE has to be numeric and we could set a length limit to say 7 digits, allowing for a decimal point.

You will be asked how many records to allow for, how many fields and their length and type.

The number of records should be a reasonable estimate, not too high, but certainly not too low.

For instance, if you were creating a file to store stock control information on your screw factory, you might allocate a record per type of screw you make, and allow 100 records. If you exceed the number of records, it is best to start a second file on another cassette. A field is one set of characters, such as a name or address. A record is made up of a number of fields, and should be 3 for our bank-account example.

The sentences that you type to get Oribase to do your bidding can be saved as Macros, along with your data file.

You will be asked to enter field names, lengths and data types.

The field names are used in later reference to the file, unlike other systems which require you to remember field numbers. The length limits the length of the field; this is necessary so that Oribase can correctly line up fields printed on a report. If a field is stated as numeric, then only numbers are allowed to be entered. Computations can be done on any field regardless, but unless a field is the right type, comparisons and sorts will produce incorrect results.

Saving Data

To save the data, load up your data cassette, press record and play on your machine, and type SAVE into Oricbase. The time to save the data will depend upon how many records you currently have.

An empty file, where 200 records of five fields have been allowed, will take about half a minute.

Macros will be saved with the file automatically.

If you value your data, allocate several cassettes, and use them in a cycle, so that if one cassette is accidentally destroyed you have only lost one day's data.

Adding Records

To add new records, just type ADD.

Now you just supply data against each field as prompted.

If the field has been defined as numeric, a PING will be heard if you attempt to put non-numeric data in. If you do manage to get non-numeric data into a field, it will be treated as zero.

You can finish adding records by hitting only RETURN. If you were partly through a record, then the unspecified parts of the record will become spaces.

Incidentally, do not worry about putting in commas or quotes into your data, as they are all acceptable.

Loading Back

When you run the program, select option 1, and playback the data cassette. If the cassette recording is faulty, or the levels are incorrect, you may get OUT OF MEMORY errors, in which case RUN again.

Using a Printer

If a printer is attached to your Oric, reports can be produced permanently.

An immediate command: PON will direct information to the printer connected.

POFF disconnects the printer.

Oribase Commands

The commands which the program can understand are usually meaningful, such as MULTIPLY and PRINT.

The commands fall into several categories:-

1. Immediate, individual commands, e.g. PON, SAVE, ADD
2. Immediate, but with parameters, e.g. FIND, MACSAV
3. Repetitive, obeyed for various records.

To understand the last type, we will consider how Oribase handles retrieval of data records.

A typical Oribase sentence would be:-

```
FIND ..... BEGIN ..... ATRECORD ..... END .....
```

The FIND part selects which records are required, by restricting the search to those records whose fields contain a certain range of values.

For example, if you want records for anyone aged 30 and under, you might use:-

```
FIND AGE <31 .....
```

Used on its own, a FIND will tell you how many records have been found. This count is also given for other immediate commands.

```
FIND AGE <31 AND AGE >20 OR STATUS = S
```

This will locate those records which show the field AGE containing a value between 21 and 30, or that have the field STATUS equal to S.

In Oribase, sentences have the separate words with spaces between. If you wish spaces to be used in the middle of a word like: FIND NAME = "J BLOGGS", you just use quotes around the whole thing. Remember to leave one space between all words, quotes or not.

A full stop is required at the end, though if you omit one the program will insert one automatically.

Having found the desired records, these records will remain found until further FIND commands.

Having found your data, you can then use the other Oribase commands to process the information. This works as follows:-

1. Obey instructions after the BEGIN
2. Obey instructions after the ATRECORD, once for each record selected.
3. Obey instructions after the END clause.

The instructions that can go after the BEGIN, ATRECORD and END clauses allow you to print, calculate and update on either the current record, or constants and special registers.

At the BEGIN stage, you are able to initialise registers, print headings.

Similarly, at the END, you can PRINT totals and averages and so on.

Far more important is the ATRECORD which lets you use the data belonging to each record in turn.

You can print data from the record, store it into registers, calculate results, and update the same record.

You may also DELETE the record, and the IF instruction allows you to make selective DELETES and updates.

What is a Constant?

A constant is any fixed value, possibly in quotes. It may be used to neaten a report, as in PRINT "TOTAL VALUE" VALUE. Or it can be used in a calculation, as in, MULTIPLY AGE BY 4 (rather unlikely!)

You can use constants in most places during the ATRECORD, BEGIN, END, structures.

Obviously you cannot move or calculate into a fixed value!

Move 4 to 3 is definitely not on!

What is a Register?

Just now we mentioned Registers, as something that can be used with the ATRECORD, BEGIN and END sentences.

A register is identified by the hash sign #, which is followed by a number 1 to 20.

A register can contain variable data, moved in from a constant or a field from the record being processed.

It can contain numbers, and thus be used in arithmetic statements like ADD and SUBTRACT.

The registers make it possible to calculate totals, averages, and move data between RECORDS as well as fields.

The registers retain their value within any one Oribase session, so that one command could find the total value of one FIND and be consolidated into another FIND.

Arithmetic Functions

The Maths functions have the format: FUNCTION operand operand.
The Function is one of: ADD, SUBTRACT, MULTIPLY, DIVIDE, MOVE. (Move just transfers data).

The operands can be

#NN - a register

field name - part of the record currently being examined

constant - a fixed value.

When the operation is performed, the numbers added or whatever, the result will be moved to one of the operands. Which operand depends upon the command, and this is according to common sense.

ADD x TO y ($y=y+x$)

SUBTRACT x FROM y ($y=y-x$)

MULTIPLY x BY y ($x=x*y$)

DIVIDE x BY y ($x=x/y$)

MOVE x TO y ($y=x$)

Examples of Maths

ADD 3 TO #4 DIVIDE #4 BY 2

SUBTRACT 1 FROM TOTAL-TD

MULTIPLY #4 BY AGE

DIVIDE AGE BY COST

Notice how easily that last one updated the file!

Another type of operand that we have not dealt with yet is INPUT which stops and asks for the value to be entered.

This could be used to update a list of records with different values. You use it by just quoting INPUT as one of the operands.

e.g. MOVE INPUT TO RATING

Printing

Apart from calculating, the most important capability of Oribase is PRINTING the data we have stored.

The individual command DUMP can be used to print out the file in one go.

The fields are headed up, but the report may look a bit jumbled if the field exceeds one line.

If PON has been specified, the DUMPed file will go to the printer. During the BEGIN, ATR, and END instructions, you may PRINT constants, fields, and registers using the command PRINT (in fact the word PRINT is unnecessary, but makes the command more readable).

Because the line is only so long, you can force a new line with the CR (carriage return) instruction. To clear screen, or for a printer form feed, use FF.

To clarify this, here is an example to print address labels.

```
.....ATRECORD PRINT CR NAME CR ADDRESS-1 CR  
ADDRESS-2 ADDRESS-3 CR CR CR CR CR.
```

To include spaces in a literal, use quotes to surround the field, as in "TOTAL TO DATE".

A note on numbers

When using numbers for calculations, they will be treated as the numbers are used in BASIC. That is they may be positive, negative, integer or fractional. If a field containing something non-numeric is involved in maths, the number zero will be substituted.

The IF command

When processing during an ATRECORD type of instruction, you may want to only do something when a condition arises.

A good example here is when dealing with a file of magazine subscribers which must only hold current readers.

The IF command could go through and decide whether any records need deleting. It may be that you could just do a FIND based upon start date, and delete all records during the ATRECORD.

But if there was the case that some folk had sent in two years subscriptions, you might want to only delete when certain conditions are true.

The IF command can be used to do conditional processing, The format is IF condition ENDIF.

The ENDIF matches up with the IF, and processing after there will always be done.

The condition is similar to FIND, and either operand can be a register, a constant or a field name.

So IF NAME <SMITH is valid, as is IF AGE > 52

However, you cannot use AND and OR, and INPUT will not work. At the same time, IF's can be nested, as long as there are enough ENDIF's to match up with each IF.

Also the operator used in the condition can be one of:-

<=	less than or equal to	<	less than
>	greater than	>=	greater than or equal to
=	equal to	<>	not equal

Sorting

Sorting means putting the records into a certain order. It will not actually alter the data in any way, but simply rearrange the data into a certain sequence.

For instance, before printing a list of items, you may want to sort into order of part number.

The syntax is:- SORA field or SORD field.

SORA sorts in ascending order, whilst SORD works in descending order.

The sort will take anything from 20 seconds to 15 minutes or more for a large file, so beware! e.g. SORA NAME SORA AGE

Macros

Some of the Oricbase commands can get pretty long, especially if you have arranged a report layout.

Instead of having to keep on re-entering commands the Macro facility allows you to save the sentences for a rainy day.

To save a sentence, type MACSAV FRED where FRED is the macro's name.

Having done that, you can run the macro, and thus repeat the saved sentence, by typing MACRUN FRED. To display the macro, type in MACDIS FRED.

Once you have a few macros available, MACDIR will print a directory of all those macros you have stored.

If you get tired of a macro, type MACDEL FRED to delete macro FRED. It is important to guess correctly at the start, when first creating your file, how many macros you are going to need. Should you need to extend your data file over to another tape, do not just use option 2, to start up again. Instead, having first saved your first lot of data, go through and delete all records using something like:-
FIND NAME > " " ATRECORD DELETE. Then you still have your macro's!

Using Parameters in Macros

A macro wouldn't be very useful if it were always fixed. The macro facility allows variables to be inserted, that can be changed when you run the macro.

By including an ampersand within your sentence (&), you will allow the macro to be changeable at RUN TIME. So if macro FRED contains:- FIND NAME = & ATR..... and you type:- MACRUN FRED JONES. The Jones is substituted into the macro, where the ampersand was, and the amended macro is obeyed.

The substitution is only temporary, and the macro is not actually altered.

As many &'s can be included as required and one matching value must be provided when the Macro is run.

To actually create a macro with ampersands in, it may be necessary to create a command that does not actually work. That is to say, the command with ampersands has not had values substituted when it runs. Don't worry about this, but just save the macro as though it had worked.

Editing

It is quite easy to get a spelling error when entering your Oricbase commands. The EDIT command lets you amend the command in a very easy way.

You are shown the command, and must enter the information which is wrong.

Then you enter the new data to replace what was there. This may be nothing at all, in which case the original data has just been deleted.

To run the command, just press RETURN at the first part of the editing.

If (and it happens) you type EDIT wrongly, type LAST to go back to the last correct statement.

Misc

No check is made to see if the number of records and fields you ask for is reasonable.

To give you a guide, you could store 200 records each with 5 fields, assuming about ten characters in each field.

Occasionally (more often for larger files) the program will completely stop, as the operating system does some in-built tidying up. Please wait (sometimes a couple of minutes) while this happens.

This is known in computer jargon as "Garbage Collection" (obviously American in origin).

The backslash key \ will terminate any DUMP or ATRECORD command, if it is pressed during Oricbase.

Also the command ABORT will terminate an ATRECORD sequence, or return to BASIC, depending on where it is used.

Examples of Use

```
Update Macro:- FIND PART-NO = & ATR MOVE & TO QTY PRINT  
QTY OF PART-NO HELD CR COSTING-S MOVE QTY TO #1  
MULTIPLY #1 BY COST PRINT #1 CR
```

```
Averages and Totals:- FIND NAME > 0 BEGIN MOVE 0 TO #1  
MOVE 0 TO #2 ATRECORD ADD 1 TO #1 ADD COST TO #2 END  
MOVE #2 TO #3 DIVIDE #3 BY #1 PRINT CR "TOTAL" #2 "  
COUNT #1 AVERAGE #3 CR.
```


Glossary

Commands to be used on their own:—

EDIT	... Edit last sentence
LAST	... Repeat last sentence that was understood
SAVE	... Save data
ADD	... Add new record
SORA	... Sort in ascending order
SORD	... Sort in descending order
PON	... Turn on printer
POFF	... Turn off printer
DUMP	... Print whole file quickly
FIELDS	... List defined fields
ABORT	... Return to Basic

Macro commands:-

MACDIR	... List all macros
MACSAV	... Save last command as a macro
MACDEL	... Delete a macro
MACDIS	... Display a macro
MACRUN	... Run a macro (The Macrun is optional)

Oricbase sentences:-

FIND	... Find records
AND	... Restrict FIND to a further condition
OR	... Find records, and add to already found list
PRINT	... Print data
ADD	...
SUBTRACT	... Arithmetic commands
MULTIPLY	...
DIVIDE	...
MOVE	... Move data
DELETE	... Delete record
BEGIN	... Start of commands to be executed once before all records
ATRECORD (ATR)	... Commands for each record selected
END	... Command executed once, at end of records
IF .. ENDIF	... Conditional commands

Operands:-

#NN	... Register to contain temporary data
Field Name	... Data from appropriate record
Literal	... If not a field name, e.g. 4, SINGLE "a b c"
INPUT	... Stop and ask for data

Tansoft Ltd
Units 1 & 2 Cambridge Techno Park,
635 Newmarket Road, Cambridge CB5 8PB