I C O N

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C O N T R O L L E D

C

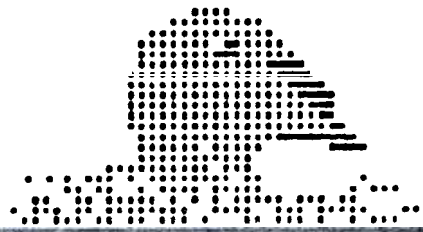## E N V I R O N M E N T

E

EIDERSOFT · LONDON

U S E R ' S M A N U A L

FOR THE SINCLAIR QL

ICE

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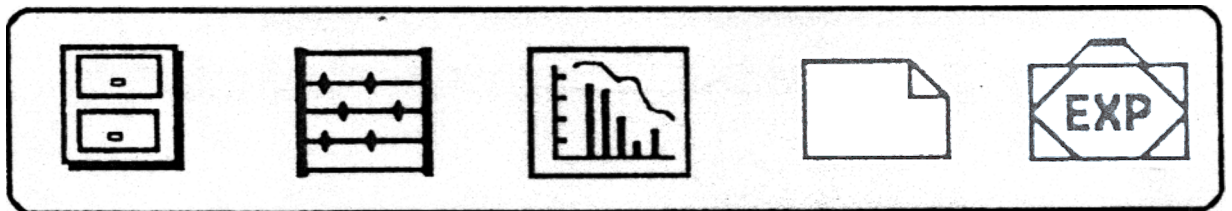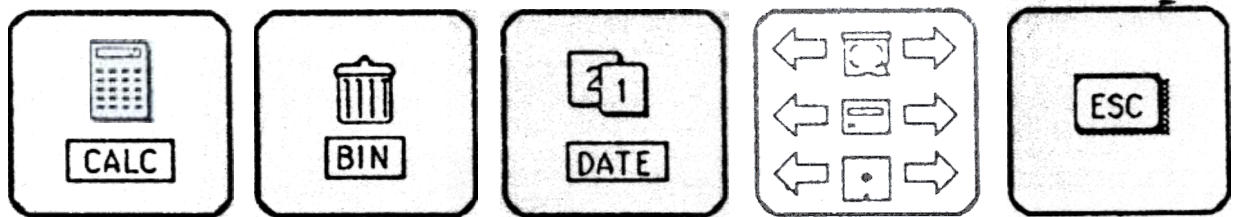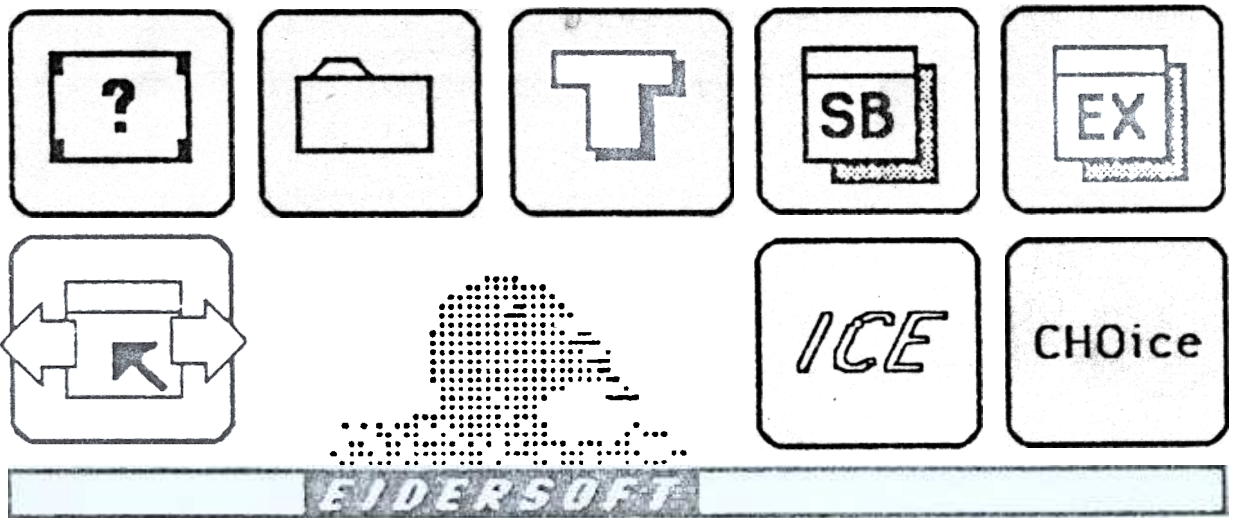Any user of this software uses it at his or her own risk.

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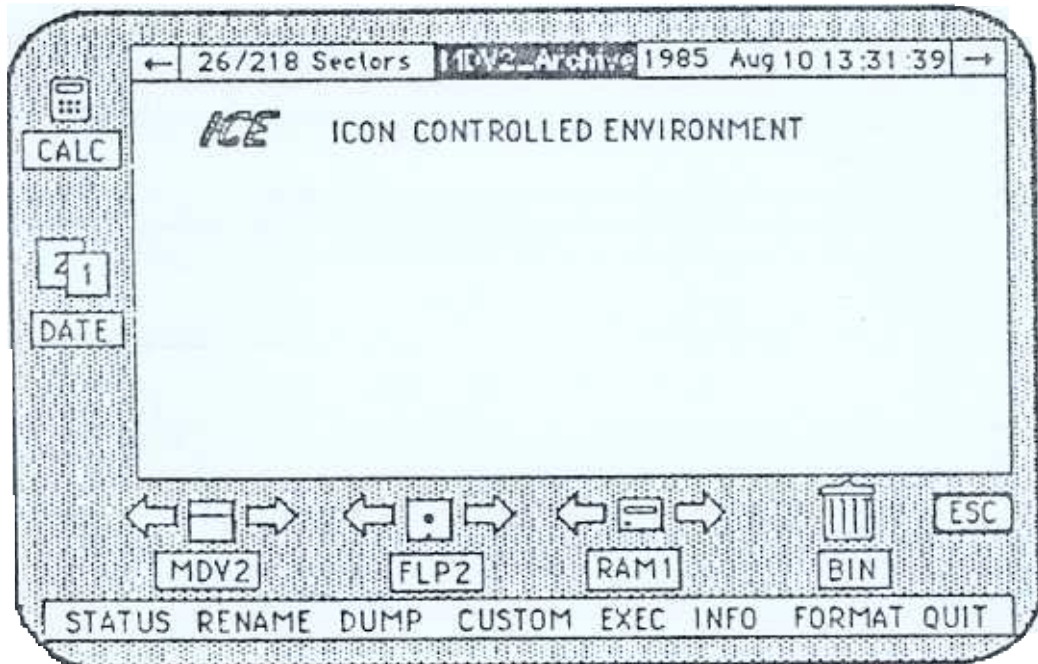The parts of this disclaimer are severable and fault found in any one part does not invalidate any other parts.
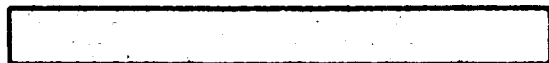
? | briefcase | T | SB | EX

↖ (resize arrows) | EIDERSOFT | ICE | CHOice

CALC | BIN | DATE | (arrows grid) | ESC

(file drawer) | (abacus) | (chart) | (page) | EXP

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CHOice

BOOT	DBASE	RAMBO
BOOT2	DCLICK	RAM_RD_BIN
CHOICE_CDE	EXTEN1	RENAME_HLP
CLICK_HLP	EXTEN2	SYSTEM_HLP
CLONE_BAS	FORMAT_HLP	TASKGEN
COLOUR_BAS	INFO_HLP	VIEW_HLP
CUSTOM_HLP	MERGE	

← 26/218 Sectors MDV2_Archive 1985 Aug 10 13:31:39 →

CALC

ICE ICON CONTROLLED ENVIRONMENT

DATE

⇐ ☐ ⇒ ⇐ ◉ ⇒ ⇐ ▭ ⇒ 🗑 ESC

MDV2 FLP2 RAM1 BIN

STATUS RENAME DUMP CUSTOM EXEC INFO FORMAT QUIT

ICE

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CONTENTS

ICE
- -

CHOICE
- -

INTRODUCTION

I.C.E. or Icon Controlled Environment is a ROM resident program that makes the operation of your Sinclair QL computer simple and convenient. I.C.E. replaces the mysterious commands of the operating system QDOS, and Superbasic, with a pictorial representation of the things you would expect to use in your daily computer operation. For example, to get rid (delete) of programs or data files is now a simple matter of carrying them (by pointing) to the dustbin, instead of typing DELETE mdv1_data_file a dozen times. I.C.E. protects you from the operating system and SuperBasic as well as making the general operation of your computer much quicker. Programs like I.C.E. that hide or "top" the operating system in this way are known as Front End Programs.

I.C.E. is a special kind of front end. To begin with I.C.E. differs from other such programs because in comes mainly in a ROM cartridge. This means that the program been "locked" into a silicon chip. I.C.E. is always available because of this, and does not have to be loaded from microdrive or disk. There is no loading time as with other software and I.C.E. will appear as soon as the F1 or F2 key is pressed after power on. This means of course that I.C.E. can be used at any time without the need to go through extensive loading procedures. Using the powerful CHOice software described below I.C.E. can be accessed at the flick of a switch from the Psion software and similar programs!

ICE

A practical collection of "Bonus Software" can also be provided. This software allows other functions like mail merge and redecoration of the desktop environment.

SuperBasic, QL, QDOS are Trademarks of Sinclair Research Limited, UK.

If you have a QL with extra memory (internal or external expansion) I.C.E.'s sister program **CHOice**, which comes on the accompanying microdrive cartridge,can turn your QL into a powerful multi-tasking computer capable of running five programs simultaneously. CHOice allows you to switch in the tasks easily, freezing the action on the program until you return to it. This gives you the ability to switch between the middle of one Psion application and another, use I.C.E., and move data between the programs using the RAM disk software that is provided with I.C.E.

All of these features are carefully explained in the following sections and it is a good idea to read through the instructions <u>before</u> using I.C.E.. However, no harm can be done to your computer UNLESS you plug in I.C.E. with the power on, which of course you must NEVER do. Always switch everything off when you want to remove or plug in the I.C.E. cartridge.

GETTING STARTED

The I.C.E. ROM module plugs into the cartridge port on the righthand back side of the QL. To insert I.C.E. remove the protective plate by pressing on one side and prising it out with the finger and thumb. I.C.E. is inserted with the I.C.E. label uppermost until it firmly clicks home. If it is too stiff, do not force it. In this case use a small file to widen the location slot on the I.C.E. cartridge edge connector.

NEVER INSERT OR REMOVE I.C.E. WITH THE POWER ON AS THIS WILL DAMAGE I.C.E. AND POSSIBLY THE COMPUTER AS WELL.

When you are sure that you have inserted the cartridge correctly, turn on the power. After a short while the familiar F1 Monitor F2 TV message should appear, together with the I.C.E. header at the top of the screen. If this does not happen, switch off and check that the cartridge is fully home in the slot. Pressing either F1 or F2 will cause the screen to flash momentarily and the I.C.E. main screen to appear. If this does not happen, switch the system off and please consult the 'Problems' section 10 at the rear of the manual, taking care to switch off your computer.

ALT key. If the ALT key is depressed while the QL is refreshing its memory (colours on the screen), after switch on or reset, then pressing the F1 or F2 key will result in the QL loading and executing a SuperBasic file called boot from mdv1_ (flp1_ if disk is present) as per normal operation. This can be useful if you do not wish to enter ICE directly.

ICE

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POINTING YOU IN THE RIGHT DIRECTION.......

I.C.E. Works by replacing typed commands with simple **point** and **click** operations. Central to this idea is the concept of an icon or pictorial representation of a computer or desktop function and a pointer. In I.C.E. the main icons include the calculator, the calendar, the microdrive and floppy disk icons and the dustbin. In addition there is also a menu bar for less obvious choices where a textural description is more informative. The lower menu bar is of this type.

Moving around:
The pointer is controlled by the four cursor keys, a joystick or mouse (when available) and is capable of moving in all directions. For instance, pressing the up cursor and right cursor at the same time will cause the pointer to move diagonally across the screen towards the top. The pointer is error checked from moving off the screen area and cannot be "lost". With practice it is possible to move the pointer with fine movements around the screen. The speed of the pointer may be altered to suit the type of controller you are using and your own taste. (see CUSTOMISING)

Clicking:
Action using I.C.E. takes place by "clicking" the spacebar or joystick button. Clicking is essentially a quick key press without the key being held down. A double click is two short separate key depressions quickly following each other. In general a double click is used to activate something, eg. running a program or a directory of a microdrive, a single click to highlight an option or select an I.C.E. function. If nothing happens when you double click an icon it is probably because you are not clicking quick enough!

ICE
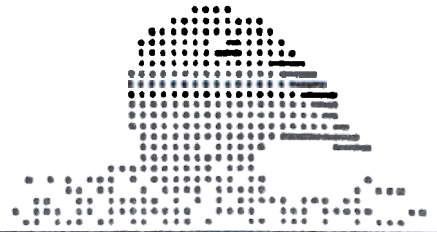
A FIRST LESSON....

Having inserted I.C.E. into the cartridge port and pressed F1 or F2 you will be presented with the I.C.E. main screen. The first job we are going to do with I.C.E. is to set the date. If software is supplied we will and make a backup security copy of the CHOice microdrive cartridge that comes with I.C.E..

To set the DATE move the pointer to the CUSTOM bar at the bottom of the screen so that it lights up and click the spacebar once. A pop up menu will then appear. Move the pointer up this menu until the top bar SET DATE and TIME is highlighted. Then click the spacebar once. A window will open with a line showing 1985. If this year is correct click the spacebar once. If it is not correct use the right and left cursor keys to alter the year. After you have set the year you will be prompted for the month, day and time (24 hour format). Use the right and left cursor arrows to set each one clicking the spacebar once to move to the next. If you make a mistake you will have to start again by going through the choices and then selecting SET DATE and TIME again. When you have finished setting the date and time move the pointer down the menu bar to CANCEL and click the spacebar once. You will notice that the multitasking clock at the top of the screen now shows the correct date and time. IT IS IMPORTANT that the system clock is set at the start of each session as all files/programs will now be date stamped by I.C.E.. Pressing the RESET button will not affect the system clock. RESET the computer now to prove this, pressing F1 or F2 again to return to I.C.E.. Insert a CHOice microdrivecartridge into mdv1 (CHOice for example) and put a blank cartridge into mdv2. If you do not understand how to use microdrives please read page 8 of your QL user guide.
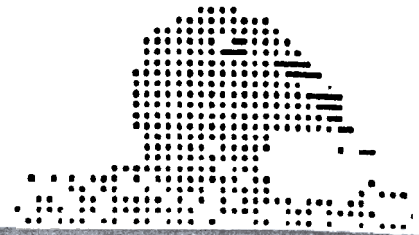
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Using the cursor keys or your joystick control the pointer until it is directly in the middle of the microdrive icon on the bottom left of the screen. When the cursor is in position double click the spacebar or joystick button. Microdrive 1 should whirr into operation. After a short while (one pass of the tape usually) a pictorial directory will appear in the central screen window.

Remove the cartridge from mdv1 and try double clicking the icon again. This time the microdrive motor will start but having checked that there is not a cartridge in that drive I.C.E. will return a bright red error message indicating a problem with mdv1. The cure is simple, replace the cartridge and move the pointer to the RETRY button on the error message and click with the spacebar once. The microdrive will once again whirr into action placing a pictorial directory on the screen. It is impossible to do I.C.E. harm by choosing an inappropriate action such as this.

We are now in a position to make a copy of the CHOice cartridge. If you do not have the CHOice software, you can try to perform a copy of another cartridge To do this we are going to need a freshly formatted cartridge or diskette to copy onto. If you do not have a formatted cartridge or diskette follow the format procedure below. If you have a formatted cartridge or diskette SKIP the next paragraph.

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FORMAT

To FORMAT a cartridge or diskette, place the unformatted media in the chosen drive, say mdv1 or flp1 (floppy disks). Move the pointer to the FORMAT bar on the bottom of the screen and Click the spacebar once only. A window will then appear asking if you really want to FORMAT. Choosing OK at this stage will take you to the next stage of the FORMAT procedure, CANCEL will cancel the whole operation. After OK-ing the prompt you will be asked to point to the drive you would like to format. Move the cursor arrow to the appropriate drive symbol and Click the spacebar once only. Make sure that you click the centre of the drive symbol. If you want to change drive from mdv1 to mdv2 or flp1 to flp2, use the drive change arrow (right and left of drive symbol).

When you have clicked the drive icon of your choice another window will open asking for a name for the formatted cartridge or diskette. Type in the name from the keyboard (the dotted lines show the number of allowed letters for a directory name), and press ENTER. As soon as you have done this the media will be formatted. If you have made a mistake and tried to format the CHOice cartridge a red error message will appear stating that the cartridge is write protected. If you have done this it is a good idea to CANCEL the operation and start again, selecting the correct drive.

To clone or copy the entire contents of the CHOice cartridge to another drive we use the backup facility. If your directory of the CHOice cartridge is not on the screen you will need to directory mdv1 again as described on page 6 of the manual.

BACKUP

To select BACKUP move the pointer to the BACKUP bar at the bottom of the screen and Click the spacebar once only. A window will appear asking if you want to procede (OK) or quit (CANCEL). Click the OK icon and then click the icon of the drive you would like the backup to be made to.This should be the drive with your freshly formatted cartridge in it. The drives will whirr into action and a copy of mdv1 will be made on the chosen drive. If you are using microdrives this could take a few minutes. When complete, remove your cartridge or diskette and label it to avoid confusion. DISK users note that diskettes are capable of storing much more information than microdrives and you may like to use the advanced facilities of I.C.E. to re-arrange the data and programs on your diskette.
(See Section 06)

Place the labelled cartridge or diskette into a drive and directory it as shown in Section 03. Move the pointer to the middle of the SB file called Clone_bas and click the spacebar once. The file will be highlighted in reverse. Now move the pointer to the INFO bar at the bottom of the screen and click the spacebar again. After a short while a window will appear giving information on that file. You will notice that the file has been date stamped with the current date and time. You will find this facility very useful when you are organising your data files. When you have finished looking at the information click the OK button to clear the screen. You will notice that the file Clone_bas is still highlighted on the screen, ready for further action. You may reset the selection of any files by moving the pointer to the ESC key and clicking the spacebar once. Move the pointer to the Clone_bas icon again and click the spacebar once. Then move the pointer to the VIEW bar at the bottom of the screen.
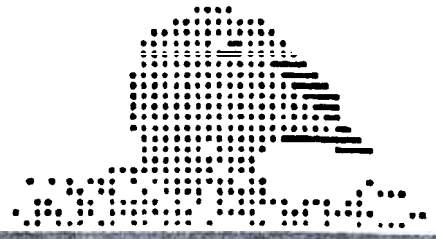
When you move the pointer this time try controlling the movement with fingers on all of the cursor keys. You may move diagonally, describe circles or arcs or in a zig zag fashion. Of course, if you have a joystick you will find moving the pointer easier. When you have reached the view bar click the spacebar once. A pop up menu will appear by the view bar. Move the pointer up this menu to the SCREEN option and click the spacebar once. A window will open with the prompts MORE and CANCEL on the right and the first lines of the clone_bas program on the left. You may click the MORE button to examine clone_bas or the CANCEL button to cancel the operation.

Clear the selection by moving the pointer to the ESC icon and clicking the spacebar once. Then select the EX file Task_EXE by moving the pointer to the centre of this icon and clicking the spacebar once. Move the pointer to the VIEW bar again and select the screen option. This time you will notice that the left of the window is full of rubbish, made up of rectangles and characters. This is how 68008 machine code is represented on your QL! Clearly, viewing this type of file is not a lot of help without a special machine code monitor program.

The next exercise requires you to make another BACKUP of the CHOice cartridge. This can be achieved by following the instructions Section 03 Page 2. When you have completed this we are ready to begin that next part of you I.C.E. instruction. As this will involve copying files and deleting, you are advised to remove your master and clone for saftey and to have a spare formatted cartridge or diskette, as well as the clone you have just made.
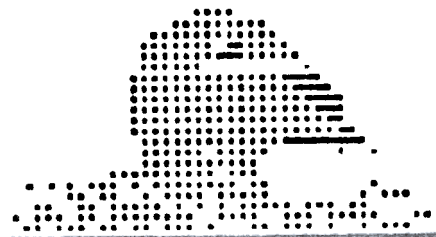
Place your new clone in drive 1 and a spare formatted cartridge or diskette in drive 2. Show the directory of the clone cartridge in the normal way. When the directory appears use the pointer to highlight the following files by moving to the middle of each and clicking the spacebar.

> **boot**
> **clone_bas**
> **merge**
> **dbase**
> **click_hlp**
> **rename_hlp**

You will notice that these files will be highlighted in reverse. Now use the pointer to page the directory by moving with the pointer to the advance page arrow just to the right of the clock. Clicking this icon will cause the page to move to page 2 and the rest of the directory to become visible. You may page through the directory in this way. The page number is shown in red/white at the top left of the screen. I.C.E. allows 12 directory icons (see page) on the screen at once, although it has the whole directory in its memory and remembers any action taken on files. To prove this use the pointer to go back a page by clicking the back page icon, on the top left of the screen. As you can see the files that were highlighted for action are still highlighted.

We are now going to try copying the highlighted files to another drive. Firstly, place a formatted spare cartridge or diskette in drive 2. Then move the pointer to the centre mdv2 or flp2 icon and click the spacebar once. A window will open stating that 6 files have been selected and asking you wish to copy the data. Click the OK button and the copying will procede. When complete the directory will reset itself.
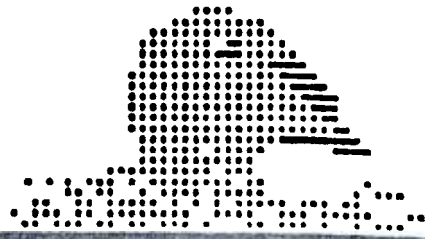
Make a directory of drive 2. You will notice that the files have copied over in exactly the order that you specified by clicking. You will find this feature very useful when you want to design the layout of your cartridge or diskette.

Now use the pointer to select a few files from the directory of drive 2. Choose a few on page two of the directory as well. Then move the pointer to the dustbin icon and click the spacebar once. A window will open with the usual OK or CANCEL buttons to delete the specified number of files. Click the OK button and the files will be deleted (don't worry you have made a backup copy, haven't you?). Notice that the directory is refreshed without the files you have just deleted. There is no way to recover files deleted in this way!

RENAME
Suppose we want to rename a file with a new file name or extension. This is possible from I.C.E. by using the RENAME function. Select any file from the now shortened directory and click the RENAME bar at the bottom of the screen. A window will open showing the existing filename and a line to edit for the changed name. Use the cursors and keyboard in the normal fashion to alter the name. When you have finished press ENTER and the directory will be remade with the changed name, which is also changed on the cartridge or diskette.
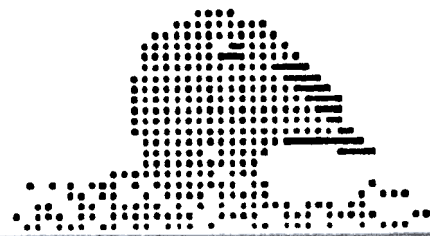
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Well, we are almost through with your first lesson. From now on its up to you to make the best use of I.C.E. that you can. Remember, I.C.E. is always present (unless you pull out the ROM) and is therefore always there to be used. It may be possible to use I.C.E. from other programs by configuring them to call I.C.E. or by using the CHOice tasking software (see below).

QUIT

Move the cursor to QUIT and click the spacebar once. You are now in SuperBasic. Type ice and ENTER, you are back in I.C.E.! Yes it is even possible to use I.C.E. while working on a program in SuperBasic. If you call I.C.E. from SuperBasic and then return via quit your program will still be there!

HELP

If you cannot remember what to do next click the relevant HLP HELP icon on the CHOice directory and select the VIEW to SCREEN OPTION. A short summary will then appear on your chosen action.

ICE
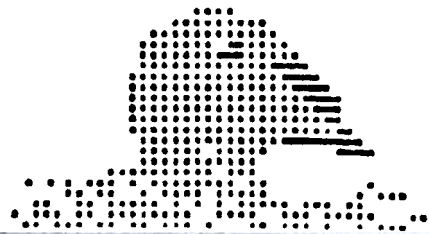
I.C.E. ICONS
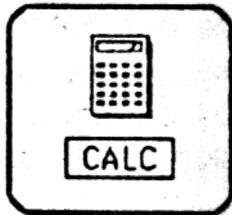
The **CALCULATOR** icon switches the calculator on. The calculator supports all of the features of a standard mini pocket calculator. To use it simply click the desired numbers/functions when the pointer is over them. Move the cursor to the off button and click the spacebar once to finish.
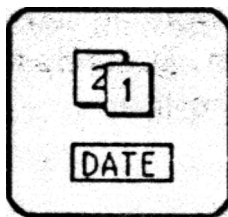
The **DATE** icon activates the calendar window. You may go either forwards or backwards through the months and years by clicking the direction arrows. The current date is shown in red.
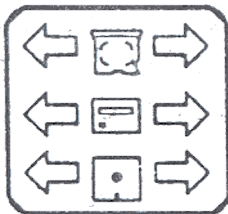
The **DEVICE** icons are used to select the device for action. A device is something that is connected to your QL such as microdrives, floppy disks, ram disks or a hard disk. You may change the names of these devices by using CUSTOM.

The **DUSTBIN** icon represents an electronic waste paper basket where unwanted files are put. The main difference between the electronic waste paper basket and the one by your desk, is that unwanted files put into the electronic waste paper basket cannot be recovered like the real paper ones!

ICE Section 04 Page 1

EIDERSOFT
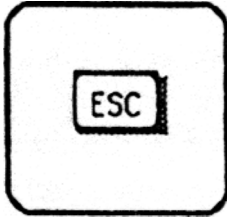
The **ESC** icon is used to ESCAPE from situations that you have entered by mistake. It is similar to pressing the ESC key in many programs. It can also be used to clear the selection made from a directory.
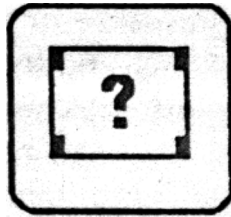
The **?** icon represents a help file. These are files that can be viewed using the I.C.E. VIEW option to help you if you are stuck. You can create your own help files using a text editor and saving them with an extension _hlp. It is a good idea to make these help files the first items on a directory so that they are easily accessible.
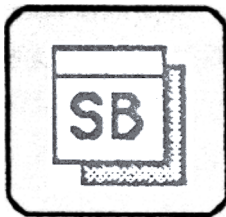
The **SuperBasic** icon **SB** is given to all files ending with the extension _bas. You will need to give all your superbasic programs this extension if you would like them to show up in this way. SB files may be run by placing the pointer over the file and double clicking the spacebar. Some programs may require a SuperBasic loader to run them (see problems)
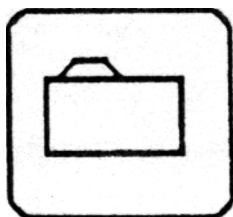
The **EX** icon stands for executable files. These are programs that are capable of multitasking. Like SB files they may be run from I.C.E. directly by double clicking the spacebar over the icon. Only EX files may be used with the CHOice task editor. (see CHOice) I.C.E. recognises EX files automatically without the need for an extension.

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The FILE icon represents a general file or program whose identity is unknown to I.C.E.. Such files include LBYTES machine code files (eg screens) and SuperBasic files without the extension _bas. These files may not be run without the aid of a SuperBasic loader. NB It is worth noting that SuperBasic files not labelled _bas will run and that _bas is used only as an identifier to avoid confusion with machine code files. Double clicking a machine code file may cause spurious results such as a system crash!

The other icons are reserved for the Psion application programs. All Abacus, Archive, Easel and Quill data files are given special representative icons which are shown below. Export files are also given a special export icon.
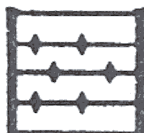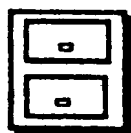
ABACUS   ARCHIVE   EASEL   QUILL   EXPORT

ICE

I.C.E. COMMANDS

SYSTEM

System opens a window which gives details of your present system. The version number of I.C.E. is shown togther with the system memory, the amount of free memory and the number of jobs that are running. On a standard QL the jobs would be 2 (I.C.E. and SuperBasic) and the amount of free memory approximately 75k. The free memory varies according to the programs you have running and the length of directories etc.. It is a good way of checking if a reset is necessary before running a new program. The Psion vers. 2 packages tend to leave the machine "dirty", and generally a reset is necessary after using them. Obviously, if you have extra memory then this will be indicated.

RENAME

renames a file with a new name. On selecting this option you are asked to give the file a new name using the keyboard. You must press enter when you have finished typing. If you rename a file with a different icon extension the new extension will be shown in the directory. You are not allowed to rename a file on a read only device or on a device which contains open files (see CHOice). If you press ENTER without altering the filename the filename will remain the same. Microdrive users note that RENAME can cause severalseconds of microdrive access.

VIEW

allows you to examine the contents of a file. It is similar to the COPY TO SCR command in SuperBasic except the window is smaller and there is a facility to copy to the printer. You may use the MORE button to scroll the display and the CANCEL button to escape. The printer option will copy the contents of the file to the printer, providing the SET PRINTER option has been used to set up the printer. For instructions on how to do this see CUSTOM.

Note : Files containing machine code will show on the screen as rectangles or mixed characters and on the printer as asterisks and charcaters. You may use the VIEW option to examine I.C.E. help files if you are stuck.

CUSTOM

enables you to set up I.C.E. to your taste and to set the date and time. Clicking the custom bar will cause a pop up menu to appear. The following choices are explained.

SET TIME/DATE

This is used to set the system clock. Use the cursor right/left keys to alter the times and click the spacebar once to set a line. The defaults are 1985,1,1,12,30,30.

CHANGE DEVICES

This option is used to change the device names. Use the keyboard to enter the three character device names for microdrive, floppy disk and RAM disk. The defaults are MDV, FLP and RAM. Pressing ENTER on its own will give the default devices. Examples of change include the changing of MDV to WIN for a hard disk or FLP for FDK, for different floppy disk names.

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DEFINE PRINTER

In this option you are first asked for a printer device name such as SER1 or PAR_1000 etc. I.C.E. accepts the usual QL printer devices and extensions as set out on page of the QL User Guide. Having ENTERED this you are then prompted for a baud rate. Simply click the baud rate of your choice. Obviously, this is irrelevant for non-RS232 devices. The defaults are SER1 and 9600 baud. Note : This option only opens a printer channel for the I.C.E. view option and not for SuperBasic and other programs.

SET CONTROLS

I.C.E. allows you to set various controls to your taste. These settings, together with the printer and device settings can be stored in a special def_ICE file by using the save choices option. This file is automatically loaded from mdv1 or flp1 on switch on. If no file exists I.C.E. assumes the defaults.

Repeat - This adjusts the sensitivity of the keys to repeat. A long bar means that the keys are very sensitive, a short one less sensitive. On the highest setting it is almost impossible to type a single letter.

Repeat Rate - This is the length of time between key repeats. The higher the setting (the longer bar) the slower the repeat will be. Conversely, a short bar length gives fast repeats.

Pointer Speed - This adjusts the pointer speed. A long bar gives a fast pointer a short bar a slow pointer. **WARNING** If you adjust the pointer speed too high it may be impossible to escape the CUSTOM option or enter it again!!

Click Length - This adjusts the sensitivity of the .C.E. click mechanism

WARNING
The effects of setting these controls will be noticed in SuperBasic and in some other programs.

SAVE CHOICES - I.C.E. allows you to set various controls to your taste. These settings, together with the printer and device settings can be stored in a special DEF_ICE file by using the save choices option. This file is automatically loaded from mdv1 or flp1 on switch on. If no file exists I.C.E. assumes the defaults.

LOAD CHOICES - This option allows you to manually load a DEF_ICE file from the default drive (either mdv1 or flp1). This is useful if you have made temporary changes and wish to restore original choices without resetting.

CANCEL - Clicking CANCEL will cause the pop up menu to dissappear and a return to the main screen of I.C.E..

BACKUP AND COPY - To use the BACKUP facility of I.C.E. click the backup bar, making sure that the current directory is the one you wish to BACKUP from. You are then asked to OK the option and are given a choice of CANCELing. After OKing you are prompted to select the destination device in the normal manner. All files will be copied from the current directory to the destination drive. If a file with the same name exists the BACKUP routine is interupted and you are asked if you wish to overwrite the data.

Clicking RETRY will overwrite, clicking CANCEL will move on to copying the next file. It is possible to do single drive copying with I.C.E.. This is extremely useful if you have only a single disk drive. To BACKUP a device to the same device simply click the directory device as the destination device. You will be prompted toinsert the COPY and the ORIGINAL cartridge or diskette as many times as it takes I.C.E. to BACKUP the entire cartridge or diskette. I.C.E. tends to copy in chunks, so it may take several swaps to copy one program or file.

COPY

is an implied function. To copy a file or files using I.C.E. is a simple matter and works in essentially the same way as BACKUP, except that only selected files are copied, and that files are copied in the order they are selected. To copy a file first directory a cartridge or diskette in the usual way. Next, select those files you would like to copy by clicking the appropriate icons. The files will highlight as you click them. Don't worry if you go over the page as I.C.E. will remember all the files you have selected. When you have finished the selection move the pointer to the drive icon where you would like the files to be copied to. A prompt will appear showing the number of files selected. Click OK to copy the files to the destination drive. Again, if a file already exists on the destination drive, clicking RETRY will overwite it. If you choose the directory drive as the destination drive you will be prompted to swap the cartridge or diskette until the copying is complete. I.C.E. copies files in the order they are selected. This can be useful when arranging your directories.

FORMAT - This option allows you to FORMAT a cartridge, diskette or RAM disk. It should be used with caution for obvious reasons.

To FORMAT a cartridge or diskette, place the unformatted media in the chosen drive, say mdv1 or flp1 (floppy disks). Move the pointer to the FORMAT bar on the bottom of the screen and Click the spacebar once only. A window will then appear asking if you really want to FORMAT. Choosing OK at this stage will take you to the next stage of the FORMAT procedure, CANCEL will cancel the whole operation. After OK-ing the prompt you will be asked to point to the drive you would like to format. Move the cursor arrow to the appropriate drive symbol and Click the spacebar once only. Make sure that you click the centre of the drive symbol. If you want to change drive from mdv1 to mdv2 or flp1 to flp2, use the drive change arrow (right and left of drive symbol). When you have clicked the drive icon of your choice another window will open asking for a name for the formatted cartridge or diskette. Type in the name from the keyboard (the dotted lines show the number of allowed letters for a directory name) and press ENTER. As soon as you do this the cartridge or diskette will be formatted.

The procedure for formatting RAM disks is essentially the same, except that you give the number of sectors you require as a directory name. Instead of typing Data_File or Letters when prompted for a directory name type the number of sectors you require (memory permitting). As a guide 1 sector represents about 512 bytes or 1 half K. You should not format large RAM disks on a standard QL as the effects onother programs will be uncertain. The directory of a RAM disk will appear as RAM1_RAM1 etc.. This is normal and is nothing to worry about. The software supports up to 8 RAM disks. (See Ram Disk)

INFO - Select this option if you want information on a file. INFO gives the full file name (icon names are trunacated), the length of the file in bytes, the type of the file eg. job, SB etc and the date and time that it was last updated. INFO always gives information on the last file selected. If the selection is empty, INFO will not work.

QUIT - Quit leaves I.C.E. and returns you to SuperBasic. I.C.E. returns to Superbasic in the condition it was in before being called. Thus, if I.C.E. is entered from switch on it will return to the normal mode 4 or mode 8 screens, depending on whether F1 or F2 was pressed. If ice is called during the execution of a program it will quit to that program. As the text "ice" forms an extension to SuperBasic, I.C.E. may be called direct from the command interpreter or from a program. The following procedure can be put into any program and used to call I.C.E. if it is plugged in or ignore the call if it is not.

```
DEFine PROCedure ice
STOP
END DEFine
```

With this procedure in your program you make use the word ice as a SuperBasic keyword to call up I.C.E.. When you QUIT from I.C.E. you will be returned to that point in the program!
This procedure works by defining a procedure called ice in Superbasic. If the real I.C.E. is plugged in it will be called in preference to this procedure as extensions have a higher priority than procedures. If I.C.E. is not present the program will in this case stop. STOP can of course be replaced by a call to another procedure such as a menu.

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I.C.E. and MULTI-TASKING

Basically, the concept of multi-tasking computer programs can be understood as the ability for a computer to be able to run several programs at the same time. This is common place on mainframe and mini systems where many users can be accessing a range of programs simultaneously. Multi-tasking on micros is relatively new and this aspect of the QL received a great deal of attention when the computer was first released.

The QL's multi-tasking ability is limited by its inferior window facility. Essentially, even though it is possible to run two or three programs at the same time, it is not practical, due to the QL's inferior windowing ability. Thus, while it may be theoretically possible to run Quill at the same time as calculating a spreadsheet in Abacus, it would be impossible as Abacus would want to print to the screen at the same time as Quill and so on. The other great draw back to true multi-tasking on the QL is speed, as two large tasks running concurrently can cause extreme slowness on an already slow computer!

Therefore true multi-tasking on the QL is limited to digital clocks and so on and not large applications. However, it is possible to successfully multi-task large programs, providing that the programs are suspended from operation when another task is being accessed. A suspended tasking program is frozen in the state it was left in, and will continue execution from that point on return or activation.

The CHOice tasking software allows this second type of "multi-tasking" where each program, task or job as they are called, is suspended when another one is called. In practice this means rapid change between programs, re-entry to a program at the exact point of exit, and therefore the continuity of tasks.

In closing, it is worth noting that small applications can be truly multi-tasked on the QL providing they are run with the EXEC command from SuperBasic and are of the right file type. I.C.E. will only EXEC_W an execuable file if double clicked from a directory. More information about this can be found on page 21 of the QL User Guide.

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CHOice and the RAM DISK SOFTWARE

CHOice and the RAM disk software can be found on the accompanying microdrive cartridge. You will need to make a configured copy using the CLONE_BAS program before you can use CHOice. The copy you made earlier in the tutorial is a spare master copy, which would need to be configured before use. The configuration routine will allow the CHOice software to be configured for all devices eg. flp,fdk etc.

MAKING A CLONE and CONFIGURING THE PROGRAM

Directory the CHOice cartridge and double click the SB icon clone_bas. The program will then run and you will be prompted for a copy to, destination drive. After this you will be asked for the drive that you will normally load the program.

You will then be prompted to format the copy drive, and you should type in the number of times you wish it to be formatted. This routine will format the cartridge or diskette and then produce a fully configured copy. Make sure that your cartridge or diskette is clean otherwise data may be lost. The clone produced in this way is automatically configured to work with the destination device. If you choose flp1 as the destination, then the program will run from floppy disk one and so on.

NOTE : CHOice and the RAM Disk software will only work if the I.C.E. ROM is present.

ICE

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INSTALLING RAM DISK SOFTWARE
If you are not lucky enough to have a memory board or disk interface with RAM DISK software built in, you will have to load it from your copy of CHOice. To do this, load CHOice by double clicking the BOOT file and simply press the spacebar when the INSTALL RAM DISKS bar is highlighted. The RAM DISK software will load quickly and the menu bar will flash once. When this has happened you may quit back to I.C.E. using the quit option.

NOTE do not reset the QL as the RAM DISK software will be lost. We have also included on the CHOice microdrive cartridge a file called RAM_BOOT which may be used to boot up the RAM DISK directly. It comes configured for microdrive 1. It is a simple matter of loading it in SuperBasic and altering the devices to configure it for floppy disks. To use it just double click it from the I.C.E. directory and your RAM DISKS will be installed.

RAMBO
This is a small basic program that boots up the RAM_DISK software real quick! If you are using floppy disks you will need to change the mdv's to flp's.

ABOUT RAM DISKS...
A RAM DISK on the QL behaves in more or less the same way as a microdrive or floppy disk. However there are several important differences. Firstly, RAM DISKS are much faster than microdrives and floppy disks, because the information they contain is stored in the computer and does not have to be transferred from a disk or tape.
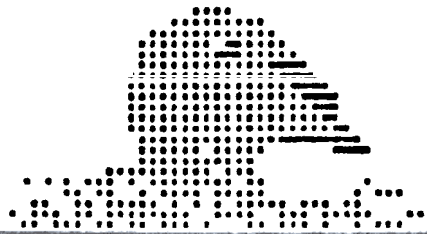
Secondly, the information stored in RAM DISKS is volatile, that means that if you reset or switch off the computer the information will be lost.

RAM DISKS are therefore useful where rapid access to information is required on a regular basis, and when permanent storage is not of importance. A typical example of the good use of a RAM DISK would be the storing of the Psion help files on such a device. This would allow rapid access to the help files when using the programs. This can be easily achieved by copying the HOB help files to a RAM DISK and then configuring the Psion applications to access such a disk for help. (see page Configuration)

If you trust your local power supply (or you have backup power) and your QL, you may even configure all of your programs to save and load to RAM DISK.

Obviously, this will make operation very fast indeed and it is a good way to "speed up" your QL if you do not have floppy disks. However, you MUST be careful to backup the RAM DISK to microdrive at regular intervals, so that you have a permanent record of your work. This can be done easily using the I.C.E. BACKUP command!

To prepare a RAM DISK for use you must first FORMAT it. RAM DISKS differ from other devices in that they are formatted with the number of sectors required rather than a name. One sector on the QL is equivalent to 512 bytes or one half a K. So, to format a RAM DISK with 100K capacity, one

would call it 200 to give 200 sectors. (see FORMAT) You will not ice that I.C.E. names RAM DISKS RAMn_RAMn_ (where n is the RAM DISK number), which is nothing to worry about. One sector of each RAM DISK is used by the system, so that on directory you will get 1 sector less than you requested.

If I.C.E. refuses to format a RAM DISK it is likely that you do not have sufficient memory remaining for this operation. REMEMBER you must backup all data held on RAM DISK before resetting or switching off.

USING CHOice...

CHOice provides your QL with powerful multi-tasking facilities. Using CHOice you may run together up to four programs and I.C.E. itself. The only limits on the type of program you may multi-task are file type, it must be execuable code, and memory, you must have sufficient memory to run the application. Most programs that are suitable for use with CHOice directory as EX files in I.C.E..

The amount of memory that a program takes up is not easy to calculate and setting enough memory space is often a matter of trial and error. Basically, a program uses memory in two ways. Firstly, there is the memory that the program itself takes up. This can be found out by using the INFO section of I.C.E.. Secondly, most programs require data space to store data used while the program runs. It is this latter type of memory use that is more difficult to calculate.

The Psion application programs ABACUS, ARCHIVE, EASEL and QUILL generally require most of the free memory of a standard QL. If there is insufficent memory, the programs will write a temporary file to disk or cartridge. This should be avoided as it prevents you from swapping disks or microdrives. As a rough guide, the Psion applications require between 32k and 50k of data space. If you have very large applications running in Abacus or Archive you may need a greater data area. This is best discovered by trial and error and is a matter of individual requirement.

ICE

E I D E R S O F T

To set up a CHOice file select INSTALL TASKS from the CHOice menu. The screen will then clear and the task editor will load. You will then be presented with four choices, which are accessed by highlighting the relevant bar using the cursor keys, and then pressing the spacebar. The following paragraphs take you through the sequence of setting up tasks.

TASK 1-4 - This allows you to edit each particular task. Selecting this option will produce a further menu as follows.

Define Task - Using this option you may set up the task to your taste. You are first asked to input the name of the program you wish to be that task. For instance, if you wished this task to be the Quill word processor, you would type QUILL. This name MUST be the name of the program that is stored on the microdrive or diskette. So, if you have called your word processor WP or WORD_PRO this is the name you should type in.
NOTE only files that directory in I.C.E. as EX can be multi-tasked by CHOice.

You will next be prompted to input the amount of memory space you require. This is the amount of DATA SPACE as discussed above and not the length of the program. About 40K is sufficient for most of the Psion packages. If you are trying to multi-task another program you will have to experiment! If the program does not have enough data space it may crash or operate very slowly.

After inputting the data memory space you will be prompted to enter information concerning screen refresh. If you are using the Psion packages you should answer YES to the question do you want to preserve the screen display? Most good QL programs have a special combination of keys to refresh the screen. This is necessary, as during multi-tasking the screen display can often be corrupted. The Psion packages use SHIFT F5. The next question, "Does this task have a refresh key? " should be answered YES in the case of this type of program. You should then press the refresh key/s when prompted eg. SHIFT/F5 in the case of the Psion packages. The ASCII number for this key press will then appear on the screen. If you answer NO to "Does this task have a refresh key?" question, you will be asked if you wish to reserve 32K of memory to preserve the display.

This should be used with caution to avoid excessive memory overheads. Some types of program may not agree with this and one should experiment before establishing permanent tasks.

When you have answered the last question in the define task section you will be returned to the task menu. You may then set up the next task or select the other options as required.

Other options on the task editor menu allow you to look at a task, delete a task if you have made a mistake or CANCEL back to the main task menu.

SAVE TASKS - This option permits you to save the tasks that you have created. On selecting this option you will first have to wait while the special CHOice header is loaded. When this has loaded you will be prompted for the device you wish to save the tasks to. You should type mdv1_, or flp1_ etc. You will then be asked what name you wish to give the file eg. PSION or WP_DBASE etc. The program will then print up the file name with the destination device and task extension _TSK which gives the special T task icon in the I.C.E. directory. If you reply Y the file will be saved. If you reply N for NO you will be given the chance of saving the tasks again.

NOTE : It is not necessary to define all of the tasks to save a task suite. In fact, you can even define 1 or 2 tasks, which is quite okay by I.C.E.. I.C.E. is always defined as the 5th task, even if the other tasks are not defined. It may be possible to multi-task 1 of the Psion packages with I.C.E. on a standard machine, although this is not recommended. Effects, when memory is short include lock-ups, return to I.C.E. or to the tasking menu. Programs may operate slowly and define temporary files. You are advised to experiment carefully before typing in valuable data.

USING A _TSK TASK FILE - When you directory the device on which you have saved your _TSK file, you will find it will show up as a capital T. If you have floppy disks you will be able to load the entire task suite from one disk, and you must make sure that all of the programs in the task suite are on that disk, together with any associated help files etc.. If you double click the T icon the tasks will load

automatically and you will be presented with the task menu after a short while. You may then select from the task menu by moving the highlight bar with the cursors and clicking the spacebar. When you are in a task the task menu can be accessed by pressing CTRL and F3 together. You may leave a task at any point, although in practice it is not a good idea to leave when calculation, printing or saving is taking place. Program tasks like ARCHIVE programs are best exited from a menu screen.

If you do not have a disk drive CHOice tasks can be loaded one by one from microdrive. When you save a _TSK file to microdrive it is automatically configured to do this. Double click the _TSK icon and then insert the indicated program into each microdrive until the whole task suite has loaded. CHOice will automatically prompt you to do this. When it has finished you should place a cartridge containing your HOB help files or printer_dat files in the relevant microdrive. If you have enough memory it may be possible to put such files onto RAM DISK to speed up operation.

Sometimes re-entry into a program - particularly Archive programs - from the task menu can cause the screen display to dissappear. Do not panic! your database is still running. CTRL and F5 should bring back your menu. If it doesn't just select a choice ie press a key you know, and all should be well. Archive procedures should have a "screen" command so that the screen is refreshed.
See the Archive manual or a suitable book if you are unsure about this. Although it is more than possible to have several versions of Archive running at once, Archive users should note that more than one set of data files open at once

can cause confusion/corruption, and you are not recommended to do this.

LEAVING A _TSK SUITE - If you select the "QUIT CONTROLLER" option from the CHOice menu you will loose all tasks and go back into I.C.E.. You must take care to close any open data files (especially Archive) before doing this or you may find that your data is corrupt. If you quit out of a program using a QUIT option you will be returned to the task controller. The task you have quitted will have been removed from the task menu. The other tasks in the suite will still be operational and their data intact.

USING I.C.E. FROM A _TSK SUITE - One of the main advantages of _TSK suites is the ability to use the functions of I.C.E. while using other programs. All the functions of I.C.E. will be available with two exceptions. Firstly, you are not allowed to enter Superbasic (QUIT returns you to the Task Controller) as this would cause the tasking suite to become unstable. Similarly, you are not allowed to run a program while tasking others. Double-clicking a program icon will cause a zero response when a tasking suite is operational. Apart from these exceptions you are free to copy, backup, view, delete, calculate format and rename*. To go back to your tasking program click the QUIT bar and the Tasking Controller menu will appear. You may move between tasks (including I.C.E.) as much as you like.

* You may find that you are denied access to a disk or microdrive that contains open data files.

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PROGRAM CONFIGURATION

This section concerns itself with the PSION application programs only. To configure other types of software please consult the relevant instructions or software house.

SPECIAL NOTICE Many disk interfaces and RAM boards are equipped with device alteration software. Such software extensions eg flp_use, ram_use etc. should NOT be activated when using I.C.E. as the results are difficult to predict. To configure the Psion software use the instructions below or those contained in your software manual. It may be impossible to convert some programs for use with disks or RAM disks. Games generally are difficult alter.

CONFIGURING THE PSION PROGRAMS

** Only version 2 programs upwards can be altered in this way or multi-tasked using CHOice.

Insert the microdrive containing ABACUS into mdv2_ and a copy microdrive of the program you wish to configure in mdv1_.

DIRECTORY MDV2 by double clicking the mdv2 icon

LOCATE CONFIG_BAS and double click this icon.

The program will then load and you will be prompted to enter the name of the program you wish to configure (ie. ABACUS, ARCHIVE, EASEL, QUILL) and the drive it is in (ie mdv1_)

ICE

Having answered these prompts you will be asked to press ENTER a few times and then given the prompt press ENTER to modify the sort order or SPACE to set the devices. The sort order is covered in the latest issues of the QL user guide and need not concern us at this point. Press SPACE to set the devices.

The program will then move on to allow you to set the devices (ie Microdrives, RAM disks or floppy Disks) where the application expects to find SYSTEM INFORMATION (The program, printer files etc), DATA (your letters, spreadsheets etc.) and HELP information. You are then given the chance to set each of these to your taste. The default settings are SYSTEM mdv1_, DATA, mdv2_, and HELP, mdv1_. If you want to configure the program to find the HELP information on RAM disk you could type ram1_ instead of mdv1_ for help information and so on.

REMEMBER this will only tell the program where to look for such information. It is up to you to use I.C.E. to put it there! When you have finished press ENTER to save your configured program.

NOTE if you are configuring the programs for floppy disks it is best to make copies of the disk configured programs onto microdrive cartridges first. When this is complete use the backup facilities of I.C.E. to copy the configured program to floppy disk. Don't forget to copy over relevant files such as the printer_dat.

PROBLEMS...

If I.C.E. fails to give a heading message on start up and does not load check the connection to the ROM socket with the POWER OFF.

If you cannot get a directory you are not double-clicking quick enough. Click..Click quickly!

If you have a disk system and you are getting suprious results, check that you are not using commands like flp_use or ram_use, which are illegal in I.C.E.. Configure your software as outlined above.

If you find that the RAM DISK software is not working you are probably typing a name instead of the number of sectors whenformatting or resetting the machine after you have installed the RAM_DISK software.

If you are trying to move on a page in the directory and I.C.E. does not, then the directory is complete!

If you are using CHOice and when you load the TSK file it reverts back to I.C.E. then you do not have enough memory. Check that you have allocated the data memory correctly (about 32-40k per program) and that you have not saved 32k of screen memory accidentally. You may also find that if

ICE

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memory is near the limit you can access I.C.E., but as soon as you try to do anything the tasking controller menu is evoked. This is because you are short on memory and opening a window in I.C.E. causes the program to revert to the task controller. SOLUTION...a memory board or disk interface with memory...**CONTACT EIDERSOFT!!!**

Some programs will not multi-task successfully using CHOice even though they show as an EX icon in the directory. This is probably due to a conflict of interests between I.C.E. and the program.

ICE

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BONUS SOFTWARE

DESKTOP DECORATOR

MAILMERGE USER NOTES

The idea behind a mailmerge program is to allow the combination of a database of information to be combined with a standard document written on a wordprocessor to produce multiple documents tailored for a purpose. The QL has two very good components of the above system i.e Quill and Archive. Unfortunately Archive has to be programmed a little before it can be used and the transfer of information from Archive into Quill is far from automatic. To remedy this situation this mailmerge package was written...

ICE

In outline the procedure for using the program is as follows.

1. Enter or alter database records using RUN "MAIL" after loading Archive and placing the Program disk in mdv1_ and the database disk in mdv2_. This operation will be known as editing the database. As a convention microdrive cartridges will be known as DISKS throughout this document. A further convention used is that when instructed to ENTER a statement this implies the pressing of the ENTER key after the statement. If instructed to press or select a key then this implies just one key to be pressed.

A DATABASE is a computer language term for an organised store of data. eg. for this Mailmerge program we will be using a store of names and address plus other information as the DATABASE.

2. Write your standard letter or document in Quill. At appropriate places you may specify variable names which will be replaced by the contents of the database when the documents are printed out. These variable names must match up with those used in the database e.g to get the Surname of a person into the letter place SURNAME$ at the place where you need it. This STANDARD LETTER or template as they are known will then be printed out to a disk file. All such files have the file extension _LIS . A test letter and data has been included to be used for the purpose of a "lead through example". If you load your Quill program as normal and place the program cartridge in mdv2_ on this occasion a directory listing would reveal the file egmerge_DOC. This

letter has been completed, you should examine it, perhaps printing it out so that its effect on the finished mailmerged document can be observed. This letter should the be printed to disc instead of the printer to produce a file on mdv2_ called egmerge_lis.

A check message (overwrite?) will appear because you will need to overwrite a previous file. Now Quit from Quill and reset the QL as usual. I always advise removing microdrive cartridges before pressing the reset button.

This is not usually necessary if you have disc drives.

3. The next stage is to convert the _LIS file for use in the Archive database. The program disc should now be mdv1_ and the database disc in mdv2_. Enter

LRUN mdv1_merboot_bas

this program converts e.g egmerge_LIS into the file armerge _PRG . You could at this stage consider renaming this file if you wanted to keep several template letters ready for use. You would then only have to rename or copy the file back into armerge_prg ready for use in the database. On running the merboot_bas program you will always be asked to enter the _lis file created via Quill. In this example you will have entered :-

MDV1_EGMERGE_LIS

The program announces when it has finished processing. The QL must be reset before Archive is loaded. The Arboot_bas file has been provided for use in place of the original Boot file as a welcome improvement although not without its faults. The date and time entry requires numeric data only. It will fail otherwise and you will have to run the program again.

4. LOAD PSION Archive as normal and replace program and database disks in their respective positions. Now ENTER
RUN "Mail".
This should result a command menu screen coming up after much whirring of the microdrives. At this point the database file will be open. Removing a disk, chopping the power or resetting of the compuuter would result in corrupt database, totally unusable. For this reason it is necessary to keep a string of backups of the database file: MAILBASE_DBF so that loss of data when it occurs is minimal. Even with microdrives this need not be a common occurance if great care is taken at all times.

The only total protection of the power supply is an uninterruptable one most usually based on a 12 volt battery,inverter and charging system , but these have a price tag of around '250 upwards. As an immediate effective cover at reasonable cost a simple mains spike filter can prove worthwhile. Next up the range at around '70 upwards is the Line conditioner, this has the effect of maintaining constant voltage despite dips in the power.

To move from the original menu to the next print menu use option G and follow the prompts. You now get the chance to Select the records in the database that you would like to have included in your final mailshot .e.g go into Select by pressing key S then press T and enter the data item Brighton. Now press I which will result in the program returning to the print menu. Note the reduction in the record count. Only go into the print procedures if you have a printer ready to print! If your printer is ready to print press key M, the individual documents may now be run off. It is worthwhile experimenting with all the options before you go live with a database.

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A further user choice is possible at print time : - Each record about to be used in printing the document may be ignored or printed on your request. This choice is an option selectable before any print run is initiated. The option for producing these mailmerged documents is key M. To leave the database use the quit option at either command menu. This safely closes the database file and offers you the chance to backup the database. I would recommend doing this after every session in which the database was ammended or added to. I further recommend using a rotation of three or more disks which results in their always being two versions to go back to.

If a database does become corrupt then the first you will know about it is when the program refuses to load as normal. If this happens then attempt to start run again this time using one of your backups of the program disc. As nothing changes on the program disk it is only necessary to keep 3 or more exact copies in reserve. If this still results in a problem then you have to use your last backup of the database.
Follow these steps :

1. In SuperBASIC or using ICE delete the offending database file (MAILBASE_DBF) or copy it somewhere out of the way and then delete the original. e.g
delete mdv2_MAILBASE_DBF

2. Copy in your most recent backup file. e.g
COPY MDV1_MAILBASE_DBF
$\qquad$ **TO MDV2_MAILBASE_DBF**

3. Now run your database as normal and all should be okay Make new backups immediately.

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Futher explanation to allow use of the Database.

The commands are similar in use to those on Psion programs in that a command menu is presented, which activates an option via a single keypress.

The current record is always on display. Before using delete move back and forward through the database a few records as a double check.

First command menu

Locate.

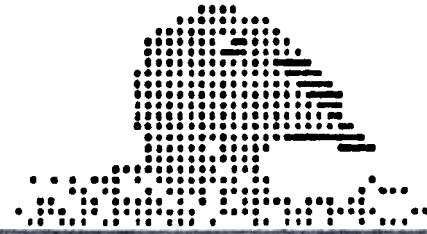This initiates a search on the SURNAME$ field. It is not necessary to use the full name, the program prompts as necessary.

Forward and B ackward step forward and backard through the database from the current record.

Goto print menu

This loads in the command menu with all the printing commands on it.

There is a similar command on the Print menu to get back to the Main Menu.

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Alter

Allows normal altering of an archive record. Tabulate key moves you down the fields (or lines) and Shift Tabulate moves you up. Pressing **F4** key at any stage is effectively quitting without making any alteration. **F5** key updates the record on the database. Also pressing the enter key until you are passed the last line has the same effect as **F5**.

Insert

This is much the same as Alter above but you cotinue to insert new records
after pressing F5/advancing past last line . Pressing F4 takes you out of
Insert mode.

Remove record

Performs a deletion of the current record displayed.

Print command menu

Select records.

This allows the selection of records according to the criteria that you choose from a short menu. You may make as many selections as you like, watch the record count going down! Select I and you will go back to print menu. Note that the record count remains at the level which you selected.
From now on all prints etc. will take placé using just these records. To restore the database, use Restore.

N ame list

This prints a list of the Surname$ and Company$ fields associated with each record, printed in a two across the page layout.

Print labels

An option to allow printing of labels which are the standard 9 rows deep.
Make the selection and just follow the prompts.
Note, one option allows multiple copies of the current label to be printed out. Its also worth remembering that the $ character fields in the database could be filled with anything you wished. The one numeric field can only contain numbers.

Dumpall

This uses the standard DUMP instuction in Archive to throw out all the records so far selected.

Note for programmers :-

If any alterations are made to the database programs they must be saved as OBJECT files.

The label length is found in the PLABEL procedure of the program LABELS_PRO

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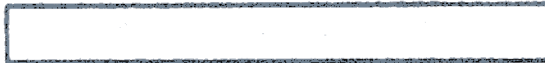
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EXAMPLE

From :-

EIDERSOFT,
THE OFFICE,
NORTH OCKENDON,
UPMINSTER,
ESSEX,
RM14 3QH.

To :-

TITLE$* *FIRSTNAME$ *SURNAME$*
COMPANY$
STREET1$
STREET2$
TOWN$
COUNTY$
POSTCODE$

ICE

E/DERSOFT

Dear *TITLE$* *SURNAME$*

As a valued customer of ours , last order dated *DATE$*custom now totalling R#R *AMOUNT* we would like to make you a specialoffer.
See enclosed price list, please note reduced rate on orders received before the end of NOVEMBER.

Just for the sake of this example letter TO DEMONSTRATE MAILMERGING WITH AN ARCHIVE DATABASE we will print out the Telephone number field (TEL$) in the database (if the field is empty and this applies to any empty field then nothing is printed.:- *TEL$*.

Care should be taken not to allow a field to extend beyond the end of a line when filled later by the database.

It would be advisable to arrange for most database variables to be at the end of a line due to their variable length nature!

Avoid using the star symbols in these templates, use an X to mean multiply or write out your meaning in words.
It would be advised at this stage to keep your templates to one page at this stage, but by all means experiment if you have the time.
As you would expect this letter was put through QSPELL to correct the spellings before being printed out.

Yours Sincerely

S.D.Williams
Database programmer.

BONUS Section 11 Page B

ICE

INDEX

ICE

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INDEX