

BATTERIES INCLUDED



TIME LINK

The Time Management System



Your upcoming day,
week, month and
entire year at a glance

Sophisticated electronic
desk diary, and more

Database functions let you keep
track of expenses and other
time-related information

For anyone who needs to control
their future, schedule their
day and keep track of their past

For Your
ATARI
ST
BIL-2511





TIME LINKTM

The Time Management System



TIME LINK™

The Time Management System

Program and manual written by **Graham Asher** for SofTechnics.
Manual edited and revised by Ian Chadwick for Batteries Included.
Print Production by Desmond Grundy
Art Direction by Martin W. Herzog
Coordinated by Mark Skapinker and Lindsay Swartz

Copyright © 1986 by SofTeck International Ltd
(SofTechnics, England), 12-13 Henrietta St, London WC2.
All rights reserved.

First Printing
June 1986
PRINTED IN CANADA

BATTERIES  INCLUDED

"The Energized Software Company!"

30 Mural St, Richmond Hill, Ont, L4B 1B5

LIMITATIONS OF WARRANTY AND LIABILITY

BATTERIES INCLUDED INC. or any dealer or distributor distributing this product, makes NO WARRANTY, EXPRESSED OR IMPLIED, with respect to this manual, the related floppy disk(s), and any other related items, their quality, performance, merchantability, or fitness for any particular use. It is solely the purchaser's responsibility to determine their suitability for any particular purpose.

BATTERIES INCLUDED INC. will in no way be held liable for direct, indirect or incidental damages resulting from any defect or omission in this manual, the floppy disk(s), or other related items or processes, including but not limited to any interruption of services, loss of business or anticipatory profit, or other consequential damages.

THIS STATEMENT OF LIMITED LIABILITY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. BATTERIES INCLUDED INC. neither assumes nor authorizes any other person to assume for it any other warranty of liability in connection with the sale of its products.

This manual and the computer programs on the accompanying floppy disk(s) which are described in this manual are copyrighted and contain proprietary information belonging to BATTERIES INCLUDED INC.

This manual may not be copied, photocopied, reproduced, translated or reduced to machine readable form, in whole or in part, without the prior written consent of BATTERIES INCLUDED INC.

The accompanying floppy disk(s) may not be duplicated, in whole or in part, for any purpose. No copies of the floppy disk(s) or this manual or the listings of the programs on the floppy disk(s) may be sold or given to any person or other entity. Notwithstanding the above, the accompanying disk(s) may be duplicated for the sole use of the original purchaser.

PRODUCT IMPROVEMENTS

BATTERIES INCLUDED INC. reserves the right to make corrections or improvements to this manual and to the related floppy disk(s) at any time without notice and with no responsibility to provide these changes to purchasers of earlier versions of its products.

WARNING!

This manual and the programs contained on these disk(s) are protected by International Copyright laws. Duplication by any means, for other than personal use, is strictly forbidden and a violation of copyright laws.

VIOLATORS WILL BE PROSECUTED!

Updates and Support

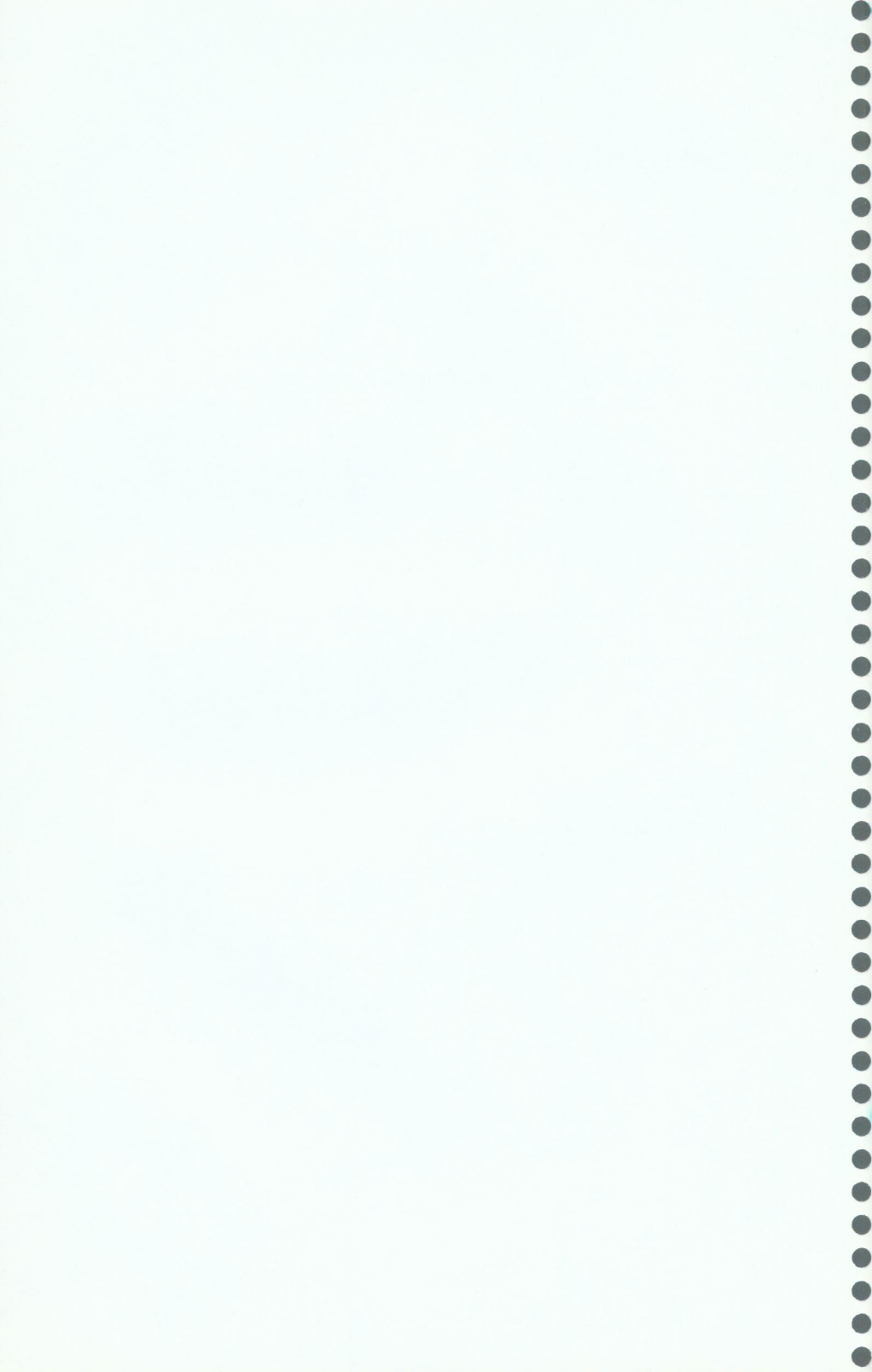
An old adage in the computer industry is that no piece of software is ever really finished. This package is no exception. We are committed to an on-going process of continually improving our software.

You may find enclosed one or more loose sheets or a "Read.Me" file on the disk containing information completed after this manual went to press. Please be sure that you note any comments or corrections they may contain.

It is very important that you send in your warranty card so that we are able to advise you of any future updates and revisions to these programs.

We believe this manual should provide answers to most any question you may have regarding these programs. If your question needs an immediate answer please phone our customer support number during business hours (EST) at (416) 881-9816. If an urgent response is not required, please feel free to write to us. A personal reply will be issued immediately.

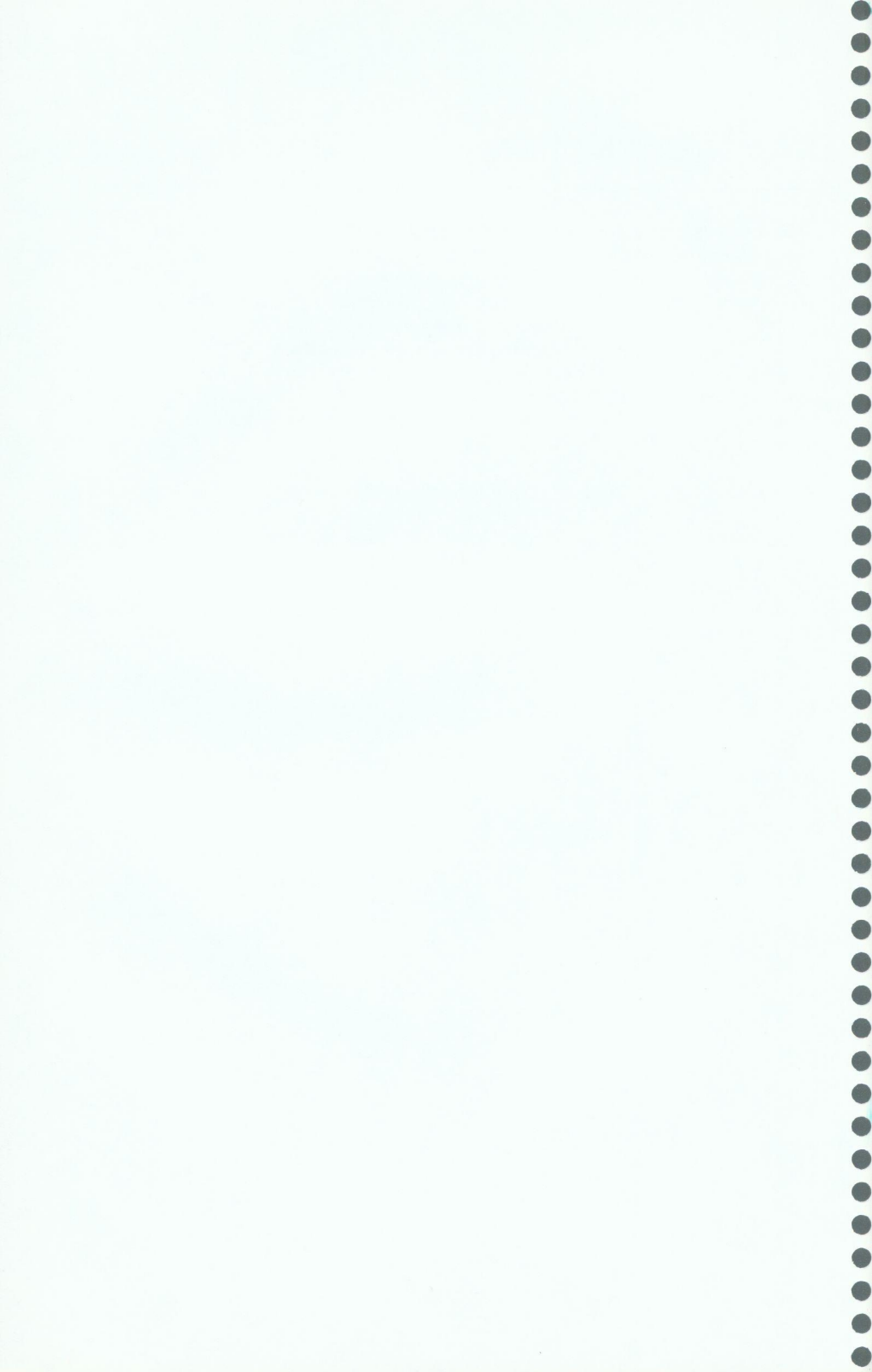
Batteries Included
Attn: Customer Support
30 Mural Street
Richmond Hill, Ontario, Canada
L4B 1B5



Important Notice

TimeLink is provided on an unprotected disk. We recommend that you immediately make a backup copy of your disk and store the original in a safe place. Although you're allowed to make copies of the program for your own use, you don't have the right to make copies for anyone else. You cannot legally distribute to, or accept copies of the program or manual from another person in any form; printed or electronic. Please respect the copyright; many people worked hard to publish this program for your use. Piracy makes their efforts worthless and discourages further efforts on all our parts.

If you are reading a photocopy of this manual, you probably don't have a legitimate copy. Please destroy the photocopy and erase the program copy. A legitimate copy can be purchased in many local outlets for a reasonable price. Authorized owners get the benefit of our customer support number, as well as our newsletter and product updates at very low cost. Support the software publisher who supports you: don't make or accept pirate copies.



Our Commitment

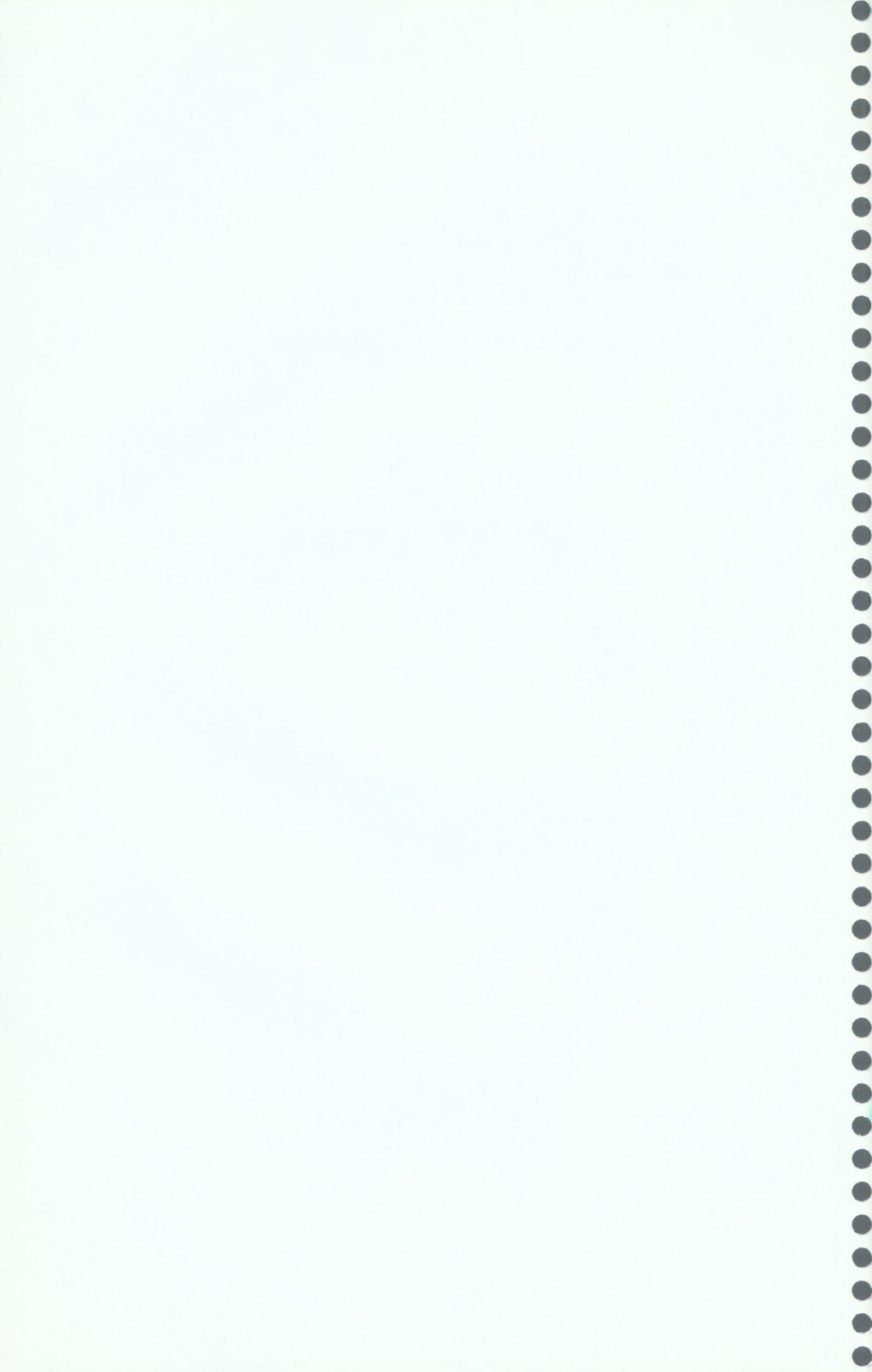
Batteries Included (BI), is one of the oldest and largest publishers in the software industry. We are taking the experience and knowledge gained publishing award winning productivity software in the home and consumer marketplace to bring you this product.

What has eight years of software publishing experience taught us?

Computer users want ease of use, both real and perceived value for the money, quality documentation, available and responsive customer support and above all "power", features and flexibility. We believe we are offering a product which excels in each of these areas.

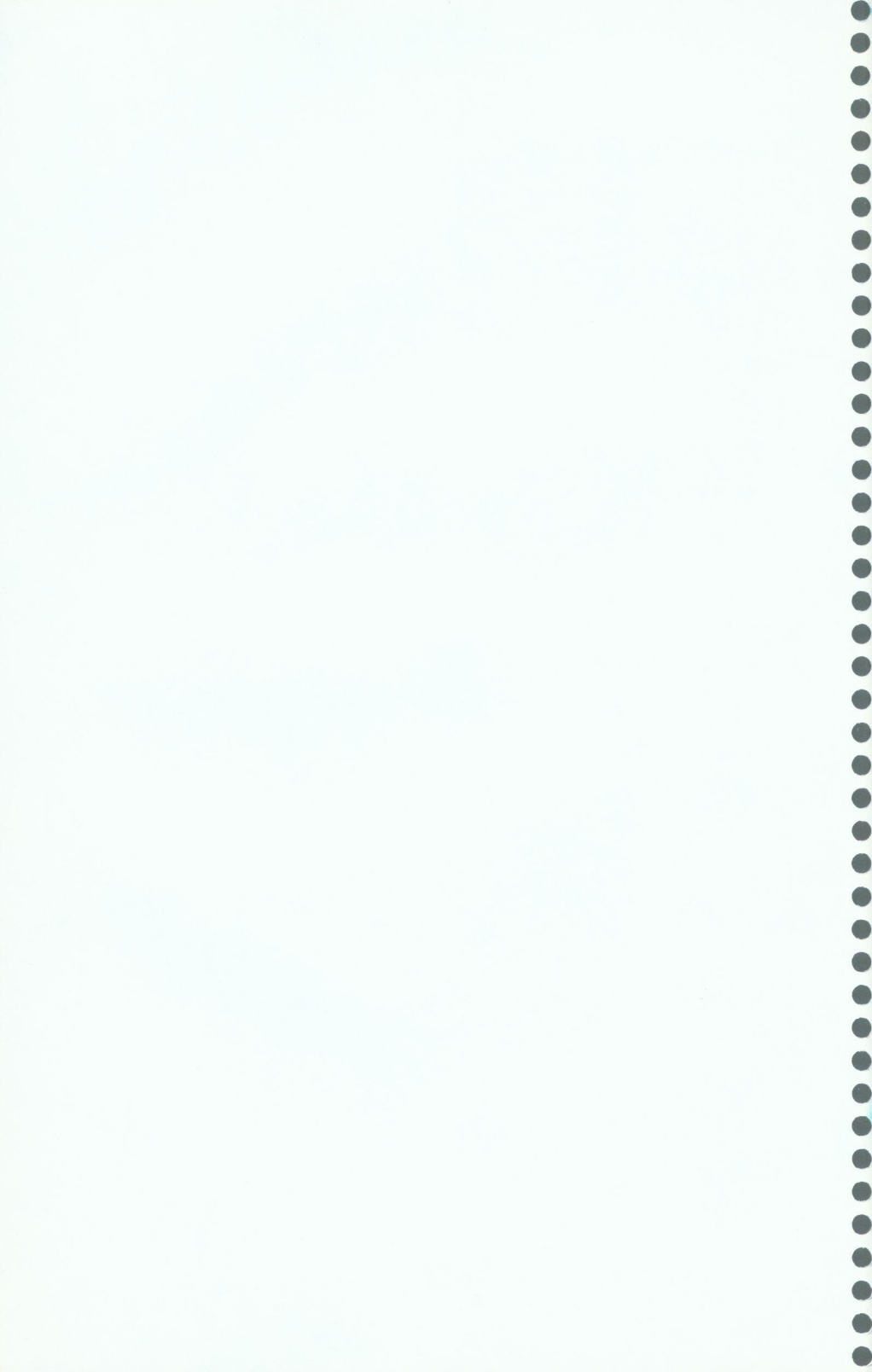
We are not a faceless corporation. Our programmers, marketing and support people are all committed to one goal, your satisfaction. If there is any way in which this product, or our support staff, does not accomplish this task, please let us know.

Michael H. Reichmann
President
Batteries Included
June 1986

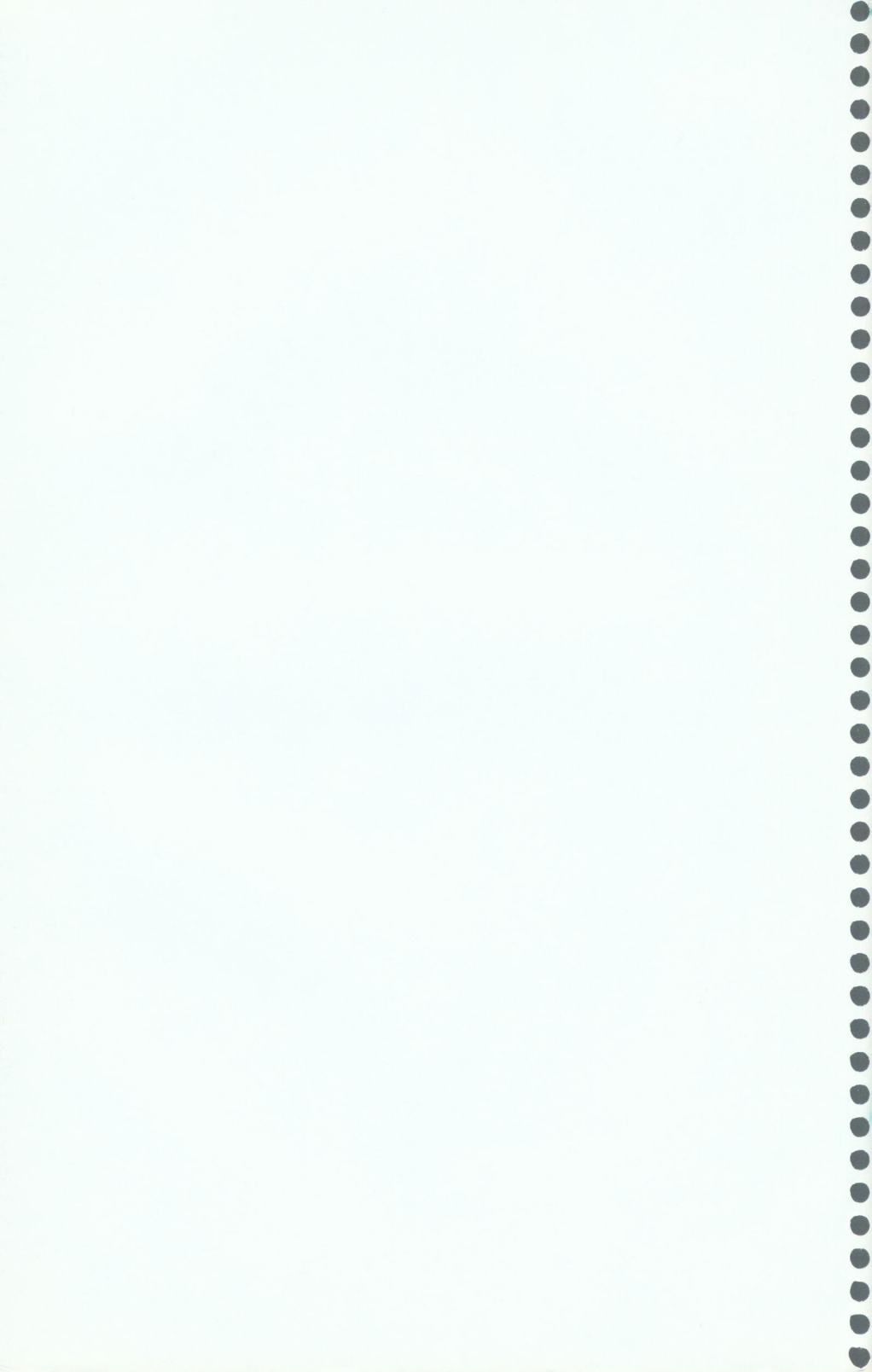


Contents

- 3 Introduction
- 5 Why use TimeLink?
- 7 Getting Started
- 11 Making Entries
- 17 What is an Entry?
- 19 CurrentTime...
- 23 Printing
- 27 Extras
- 31 Editing Text
- 35 Special Note
- 41 Appendix 1 Examples
- 47 Appendix 2 Security and Recovery from Errors
- 51 Appendix 3 Reference
- 57 About the Author



INTRODUCTION



Introduction

ST and Macintosh Owners

This manual covers versions of TimeLink for the Atari ST and the Apple Macintosh. Both machines have very similar user interfaces, so you should not find this approach confusing (GEM on the ST is almost identical visually to the Macintosh OS). However, there are a few things to note before reading the manual.

ST owners should use the *left* mouse button when a button click is called for. ST owners may also size the display windows using the lower right hand size box. **Please NOTE:** Any special documentation specific to TimeLink for the Atari ST will be preceded by **(NOTE: ATARI ST)**. All other documentation in this manual may be read as applicable to either the Atari ST or the Macintosh.

Make sure your time and date are correctly set in the control panel accessory. ST owners must set the date and time *each time* they boot the computer unless they have an external clock such as the Logikhron™ Clock Card. Macintosh owners only need to set time and date once and the internal, battery-powered clock updates it automatically.

In the pull down menus, the Apple icon on the Macintosh is identical in function to the DESK menu on the ST. Other than that, the menus are the same on both machines. Desk accessories also differ between the two computers although in most cases their functions are the same.

ST owners should have TOS in ROM, not on disk, and use as few desk accessories as necessary in order to have more available RAM. When you create a TimeLink file and exit to the ST desktop, select that file by clicking on its icon and then select **Install Application** from the **Options** menu. Make the file a 'TOS Takes Parameters' file (TTP) and the associated file to load **TIMELINK.PRG**. This permits you to double click on the file itself to load it, rather than on the program and then load the file.

The Macintosh version of TimeLink comes on a start-up disk but the program files may be copied to other system disks. You can load a file directly on the Mac by double clicking on the file icon itself.

The ST version of TimeLink works in medium (color) or high (monochrome) resolution but not low. If you boot up in low resolution, use **Set Preferences** from the **Options** menu to select medium resolution. If you have a printer attached, make sure you have installed the printer using the proper desk accessory first.

Other differences in the machines, keyboards and computers will be obvious or noted. The menus and options for each system are listed in **Appendix 3: Reference**. Where there are any machine specific activities, illustrations or options you will also be told.

Why Use TimeLink?

TimeLink organizes your time-related information — it is a time management system or 'temporal database' much like an electronic appointment calendar or datebook. It is very easy to use - the power of TimeLink is as much in its simplicity to the user as in the elegance and sophistication of its underlying data-handling methods. Any piece of information can be put into TimeLink as long as it is associated with a date or time. You can enter as much information as you like, split it up and categorize it in any convenient way and display any part of it on the screen. Naturally, TimeLink employs the standard Macintosh/ST (GEM) interface - windows, icons and mouse - in the same way as other applications programs do.

TimeLink can display your information in four different ways: by **Day**, **Week**, **Month** and **Year**. These display windows provide various views of the same information and update automatically whenever you make an entry - much like making a new note on your wall-chart year planner every time you write an appointment in your desk diary. All you have to do is type in your entries.

TimeLink is aimed at people who need to organize and structure their time: executive secretaries, doctors and dentists, lawyers, club administrators, teachers, hair stylists, salespeople - anybody, in fact, who wants to get at time-based information (appointments, events, meetings, activities, phone calls, classes etc.) quickly and easily. It can be used for project scheduling and management, conference, seminar and convention planning or consulting with hourly billing requirements. But it's not restricted to business use; it can help organize your personal time as well. It can be an electronic diary for individual use. Entries, of course, need not be in the future. TimeLink is an excellent tool for keeping a record of past events as well.

The central facilities which allow you to store and retrieve information are supplemented by a number of useful extras. For example, you can put numbers into the text and even distinguish among various categories of numeric information by name (chosen by you, of course). These numbers can be totalled over any time range. This means that using TimeLink you can keep track of business expenses, car mileage, time spent doing different types of work, or work on the accounts of different clients for project management and client billing, and so on - without having to decide in advance what sort of information you wish to store.

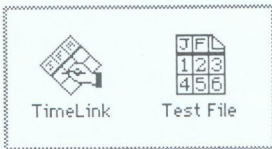
Any information in your TimeLink file can be printed out on an ImageWriter or other printer attached to your Macintosh or a dot-matrix printer attached to your ST. You can also send the contents of the screen, (or the frontmost window on the screen on the Mac), straight to the printer at any time, using the standard control-key sequences (**NOTE: ATARI ST**). (**Alt-Help** on the ST; make sure you have properly installed the printer first through the Desk menu option).

Several users can all share the same TimeLink files or each person can have their own. In multi-user situations, individual entries can be keyed by name and only those entries with that name displayed. Or all entries can be displayed simultaneously, depending on your information needs. This could be in a business, a club or organization, a classroom or a family.

Getting Started

All you need to run TimeLink is the TimeLink disk (Macintosh; it is also a startup disk) or the **.PRG** and **.RSC** files (ST owners). There is some room on the TimeLink disk for documents, but if you have an external or second disk drive it is more convenient to use separate data disks. Macintosh users don't have to format any disks in advance - TimeLink uses the standard Macintosh file dialogue, which gives you an opportunity to format any unformatted disk you may insert. So just turn your computer on and put the TimeLink disk into the drive.

ST users should format their data disks prior to using TimeLink and be in medium resolution if using a color monitor.



The icons used by TimeLink on the Mac.

The icon in the left of the box is the program itself - double-click on it to start TimeLink running. The test file is used for data files created by TimeLink - double-click on any data-file icon to start TimeLink *and* automatically open the file. ST users also have a resource file called **TIMELINK.RSC**

Once you've done this, move the cursor (the arrow that moves around under the control of the mouse) to the diamond-shaped TimeLink icon (**NOTE: ATARI ST**). (ST: the icon or file named **TIMELINK.PRG**) and click the mouse button quickly twice in succession. If nothing happens apart from the icon turning from black on white to white on black, try again, but do the double click a little faster.

If all is well, the screen clears to display a menu bar containing the word TimeLink, the disk drive whirs and after a few seconds the TimeLink menu bar appears.

TimeLink has been designed to look and act exactly like a standard Macintosh or GEM application program. There are deliberately no surprises in the way it works. If you are familiar with the Macintosh and have used programs such as MacPaint (or the ST and HomeText or 1ST Word), you should be able to use the basic features of TimeLink immediately, without looking at the rest of the manual.

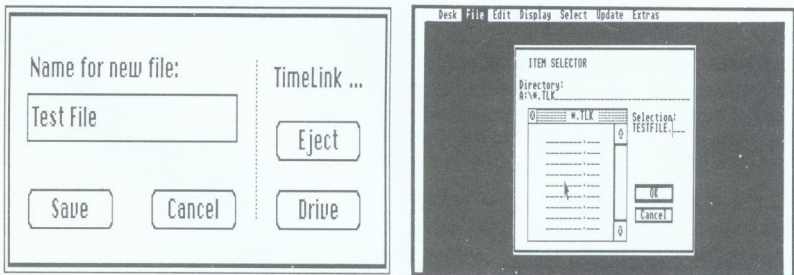
Feel free to experiment. The only thing with which to be careful is when using the **New** option in the **File** menu; don't create a file with the same name as one which already exists on that disk. The system warns you if you try to do this but if you continue, you overwrite the existing file with a new file of the same name. This erases any data you may have had in the old file.

You can have as many TimeLink data files as you can fit on a disk, so as to be able to divide your information into convenient categories. If you use a hard disk, you could conceivably fill an entire 10 or 20 megabytes with TimeLink files, if you need to! An entire company staff's time management could be kept in a single file!

Normally you use the **Open...** option in the **File** menu to open an existing data file, but since there aren't any data files yet, you can now create one using the **New** option in the **File** menu.

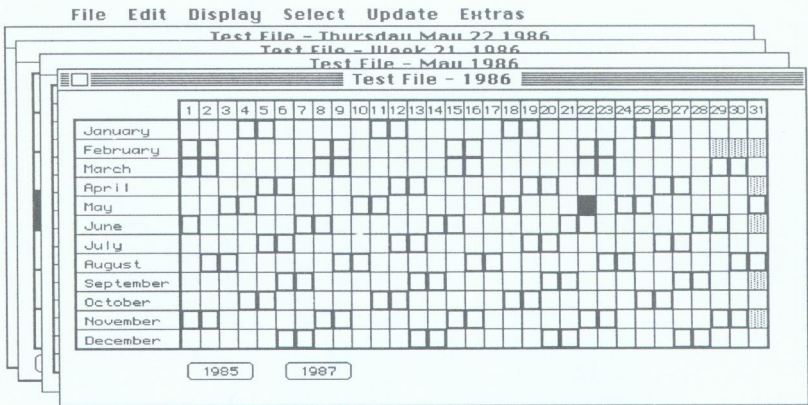
To do this,

- move the cursor to the word **File** in the menu bar
- press the mouse button and hold it down, and move the cursor downwards until it is over the word **New**.
- Now let go of the mouse button. (**NOTE: ATARI ST**). (ST users; move the cursor to the menu name, then click on the menu item). This is the standard Macintosh and GEM way of choosing a menu item.



The dialogue window which appears when you select **New** from the **File** menu.

After a few seconds of disk activity a box appears on the screen asking you to give a name to the new file. Type in something like 'Test File' (or **TESTFILE.TLK** on the ST), then press the **Return** key (or click the mouse in the box marked **Save**). The disk whirs some more as the file is created and formatted (**Macintosh only**; the Mac version requires a disk formatted in a special manner which is done by the program at this stage). Then the screen returns to its original state.



The top left corner of the TimeLink screen with all four windows open - the 'empty appointment diary'.

To see what the 'empty appointment diary' looks like,

- choose one by one the four items **Day**, **Week**, **Month** and **Year** from the **Display** menu. On the Macintosh, the four windows appear overlapping, each one slightly below and to the right of the previous one. On the ST, each window appears centered on the screen in front of the last one displayed.
- Move the window slightly when it opens to make the one just behind it visible until at least a part of all four windows can be seen on the screen.

When you have finished, the 'year planner' window is at the front. Each window has a title made up from the name of the file (and drive:\folder\ on the ST) you are using followed by the day, week, month or year which the window shows.

You can move these windows around by 'dragging' in the title bar at the top, close them by clicking in the small box at the top left corner, and you can bring any window to the front by clicking in any part of it, if it's behind another window. If you want to bring a window to the front, but it's completely hidden by another window or windows, it's easiest to just select the window from the **Display** menu again. ST owners can also resize the windows by clicking and dragging the size box in the lower right corner of the window. This permits you to display only the immediately used area of each window if desired. All these window-manipulation techniques are completely standard, and are explained in detail in your Macintosh or ST manual.

Making Entries

Now you can make a few entries and see how they are displayed in the various windows. To make an entry,

- choose **Add** from the **Update** menu. A large window appears on top of any other windows which are currently visible, with four text editing areas in it, marked **Time**, **Date**, **Key** and **Text** (ST: the text box isn't marked but there is another field; **Duration**).

A vertical line (flashing slowly on and off on the Mac) in the **Time** box is the text entry point. If you type, text appears at this point. You can move from one entry box to the next by pressing the 'tab' key which is near the top left corner of the keyboard (on European Macintosh keyboards this is marked with a right arrow and a vertical line). Or you can also use the mouse to position the cursor on another entry box. These cursor positioning and text editing methods fit in with the usual Macintosh and GEM way of doing things.

This shows part of the window which appears when you choose **add** from the **Update** menu.

The Time box: put the time of day of the entry in here. Any sensible format will do; the program is intelligent enough to make sense of most entries. Here is how TimeLink interprets some of them:-

2:30 pm
14:30
9

2:30 pm - no problems here
2:30 pm
9 am - hours from 8 to 12 inclusive
are assumed to be in the morning.

3.25	3:25 pm - hours from 1 to 7 inclusive are assumed to be 'pm'.
4AM	4 am - but no space needed between '4' and 'AM', and 'AM' can be in capitals if you like.
now	TimeLink gets the time from the built-in system clock. ST users must make sure they have set the time in the control panel accessory first.
cur	Whatever the 'current time' is - the time you are 'looking at'. Not the same as 'now'.
Current	Same as 'cur'.

If you put nothing at all in the **Time** box, or the word 'day', the entry is marked as referring to the whole day and appears before the other entries for that day. This is useful for events like due dates, holidays and birthdays. As you can see, you won't have to remember any special rules about time. TimeLink nearly always makes good sense of what you enter.

The Date box is for the date of the entry and like the Time box accepts nearly any understandable format. Here are some examples:-

21st September 1985	21st September 1985
Sep 21 '85	21st September 1985
Sept 21	21st September, whatever the current year is. (Not this year, necessarily - just the one you're 'looking at'.)
9/2/86	9th February 1986 - but if you have set American date format on the Extras menu, this is taken to be 2nd September 1986. STusers can select YY/MM/DD, MM/DD/YY or DD/MM/YY date entry format.
week 12, 1985	The Monday of that week.
today	Takes the date from the system clock - may be abbreviated to 'tod'. ST users must first set the date in the control panel accessory.
yesterday	One day before the system clock - may be abbreviated to 'yes'.
tomorrow	One day after the system clock - may be abbreviated to 'tom'.

current	Takes the current date - may be abbreviated to 'cur'.
Monday	The first Monday after today. Like all other words recognised, may be abbreviated to the first three letters.

The Key box provides you with a useful option. If you need to keep several different types of entry in the same file, you can distinguish them by assigning a key of up to seven characters to each category. For example, if you were managing the affairs of several people in an office, you could assign each person a key consisting of their initials or name. Events not tied to a particular person could be given other keys, such as 'launch' for the date of a product launch, 'hol' for a public holiday and so on. If you don't need to use this feature just leave the box blank and move on to the Text box by pressing 'tab'.

The importance of the key entry comes when you want to display all entries relating to a specific key. Then all other entries are suppressed and only those with the requested key are displayed.

The Text box: up to 241 (ST: 511) characters of text can go in here. This can be literally anything you want. You can format the entry into lines by pressing the **Return** key at the end of a line, but if you don't do this the text automatically wraps around when you get to the right hand side of the text box like in a word processor.

Duration is another invaluable option available only on the ST. If you wish to schedule a half-hour meeting and make sure that it doesn't conflict with other appointments, enter '30 min' in this box and when you press **OK** to make the entry the system automatically checks for any conflicting entries *with the same key* and asks you to confirm or cancel if there is an overlap.

When checking for overlaps, TimeLink goes back as far as the beginning of the preceding year — an overlapping entry starting three years ago, with a duration of ten years, will not be found. As usual, you are free to type anything sensible in the **Duration** box, with the following two rules to observe:

- (i) the legal units are years, months, weeks, days, hours and minutes;
- (ii) you can only use *two* units in one entry - e.g. '1 hour 25 minutes' is okay, but '1 month 2 days 10 hours' uses three different units and is read as '1 month 2 days'.

If you do not enter a duration, TimeLink does not check for overlapping entries. Durations appear in the **Day** window prefixed to the entry. Thus the entry 'This is an entry' with a duration of 2 hours 45 minutes appears as '2 hr 45 min: This is an entry'. This does *not* of course mean that the duration has become part of the text. When you edit an entry using **Change** on the **Update** menu, the duration is shown where you entered it - in the **Duration** box. Remember; Duration is only available on the ST version.

- When you've finished the entry, click on the **OK** box to accept it.

When you have made a few entries, you can see the various ways they appear in the four windows.

- * In the **Year** window, just the first character of the key of the *first entry for the day* is shown. If there is no key for that entry, the first character of the text itself is displayed. This obviously makes it useful for year-planning purposes to devise keys which begin with different characters.
- * The **Month** window gives the time, key and first few words of text from the first entry for each day.
- * The **Week** window shows more text, and three entries for each day rather than one.
- * The **Day** window shows the entire text of every entry for which there is room.

If there are too many entries to be shown in the day and week windows, small arrows appear on the right hand side of the window. In the case of the **Day** window, the display is scrolled up by five entries, or down to the next 'page' of entries. The **Week** window works the same way, scrolling up or down by three entries at a time, except that it is always the current day which is scrolled. The current day is the one which is highlighted (shown in white on black rather than black on white). This is important to remember when using 'cur' or 'current' as a time entry: the current day being displayed is not necessarily 'today'.

Try editing one of your entries. To do this,

- select the entry by clicking on it in one of the windows. When you've done that correctly, the time of the entry is highlighted and you'll see that the **Change** option in the **Update** menu is now enabled.
- Select this option and the entry is presented, ready for editing, in the same dialogue box used for making a new entry.

As a general rule, if you click on an entry, that entry becomes the current entry and its time becomes the current time. If you click on a position in the week, month or year window which has no entries in it, you select a new current time, but there is now no current entry. The **Change** and **Delete** options in the **Update** menu are only enabled when there is a current entry to change or delete.

If you want to keep this file and begin a new file, select **Close** from the **File** menu then **New** (or **Load**) to continue work on an existing file. You should decide whether you want to use one large file for your entries or smaller, individual files; e.g. personal and business entries.

When you have finished experimenting with your test file, you can leave the program by selecting the **Quit** option from the **File** menu. This automatically closes the file and makes sure that all the changes are written to disk. **NEVER LEAVE TIMELINK BY SWITCHING OFF THE COMPUTER!** This nearly always results in the data file being totally or partially destroyed. At best, some of the entries you have made will be lost and you must type them in again. The **Quit** command takes under ten seconds to execute, so you don't save any time by living dangerously.

Remember to backup your data files or disks *before* you turn off your computer.



What Is An Entry?

This section gives you a more precise description of a TimeLink entry. An entry is made up from the following parts:

Date and Time	(to the nearest minute)
Key	(up to seven characters)
Text	(up to 241 characters, Macintosh) (or 511 on the ST)
Duration	(to the nearest minute; ST only)

The **Date** and **Time** (and **Duration** on the ST) are entered by you in completely free format, as described above under '**Getting Started**'. If you do not enter the time of day, or type 'day' in the **Time** box, the entry is taken to be a 'whole-day' entry which always appears before other entries when displayed in the various windows.

There is a restriction on the range of dates that TimeLink handles. Only dates between 1904 and 2039 (Macintosh) or 1980 to 2050 (ST) inclusive are valid. This restriction is caused by the use of the standard Macintosh/GEM internal format for dates and times.

Note: for the inquisitive: on the Macintosh this is an unsigned 32-bit number representing the number of seconds since midnight, 1st January 1904.

Once you have made an entry with a particular time, that time is *not* 'taken' in any way. You can have a hundred entries all referring to 3:18 pm, Christmas Day 1999 if you like. Entries with the same time appear on file in the order in which they were created.

The **Key** is a field for text entry up to seven characters long. It can be used to distinguish different categories of entry within the same file, in conjunction with the **Key** choice in the **Select** menu. You need not enter a key, but if you leave it out you must enter some text in the text box below: you can't have an appointment with no key and no text.

The **Text** may be up to 241 (Macintosh) or 511 (ST) characters long, and can include **Return** characters. Anything within square brackets [like this] in the text can be scanned by the **Sum numeric fields** function in the **Extras** menu: anything outside square brackets is ignored by this function. See '**Extras**', for more about this.

(NOTE: ATARI ST). The **Duration** (ST only) is either blank, or consists of either one or two quantity-plus-unit pairs. The quantity can range from 1 to 8191, and the unit must be **year, month, week, day, hour** or **minute**. Small units are *not* accumulated into larger ones: if you enter a duration as '1 hour 100 minutes' it is stored as such internally. However, if you enter two identical units they are added together: '3 days 4 days' reappears (if, for example, you edit an entry) as '7 days'.

Current Time, Current Entry and Current Key

These three concepts in the chapter title determine what you see on the screen in the **Day, Week, Month** and **Year** windows. There is *always* a **Current Time**. When you start TimeLink up, this is set to the real time taken from the clock built into the Macintosh or ST. The Macintosh clock has a back-up battery, so it keeps good time even when it is turned off. If you have a battery powered clock card or cartridge for your ST, it should work the same and update the time automatically. You can set the clock from the control panel, which is one of the 'desk accessories' in the Apple (ST: DESK) menu which always appears, whichever program is in use, at the left hand end of the menu bar.

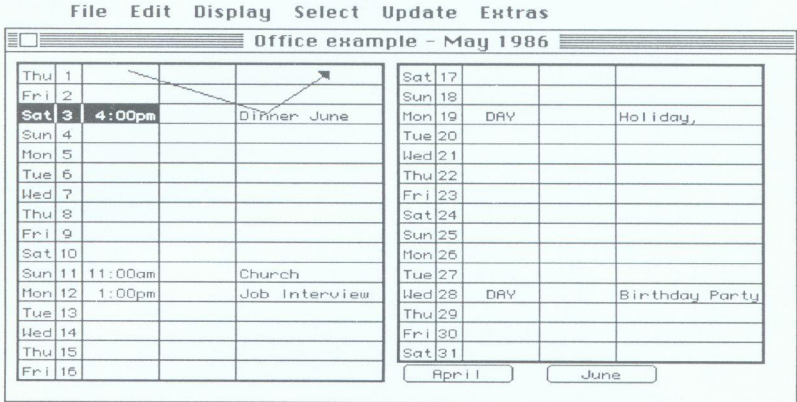
The day window always shows the day that includes the current time. The week, month and year windows follow the same rule: the area of time they cover always includes the current time. Therefore these four windows can be thought of as a series of magnifying glasses, of different powers, but all placed over the same underlying picture. In the week, month and year windows (but *not* the day window, since it is bound to show the current day) the day including the current time is highlighted by making it white on black rather than black on white.

You can select the current time by using the **Date** option in the **Select** menu. This is the simplest method to use if the time you want to get to is a long time from where you are. If not, there are a variety of ways to move around:

- click on any part of the **Day, Week, Month** or **Year** window to move to that time (if the part you click on is also part of an entry, it becomes the current entry - see below);
- or click on the **Previous day** or **Next day** buttons in the day window, or the similar buttons in the week, month and year windows.

There is *sometimes* a **Current entry**. This is the entry which is affected by the **Change, Copy** and **Delete** choices in the **Update** menu. You cannot use any of these functions until you have selected a current entry. If you have just added, changed or copied an entry, the entry you worked on is automatically the current one. Otherwise you can choose a current entry by moving the mouse pointer to the

entry you want to select, and clicking the mouse button. If there is a current entry, part of the entry itself is highlighted (the part giving the time of day and key) as well as the **Day-box** next to it. If the current entry appears in more than one window it is highlighted in all the windows in which it appears.



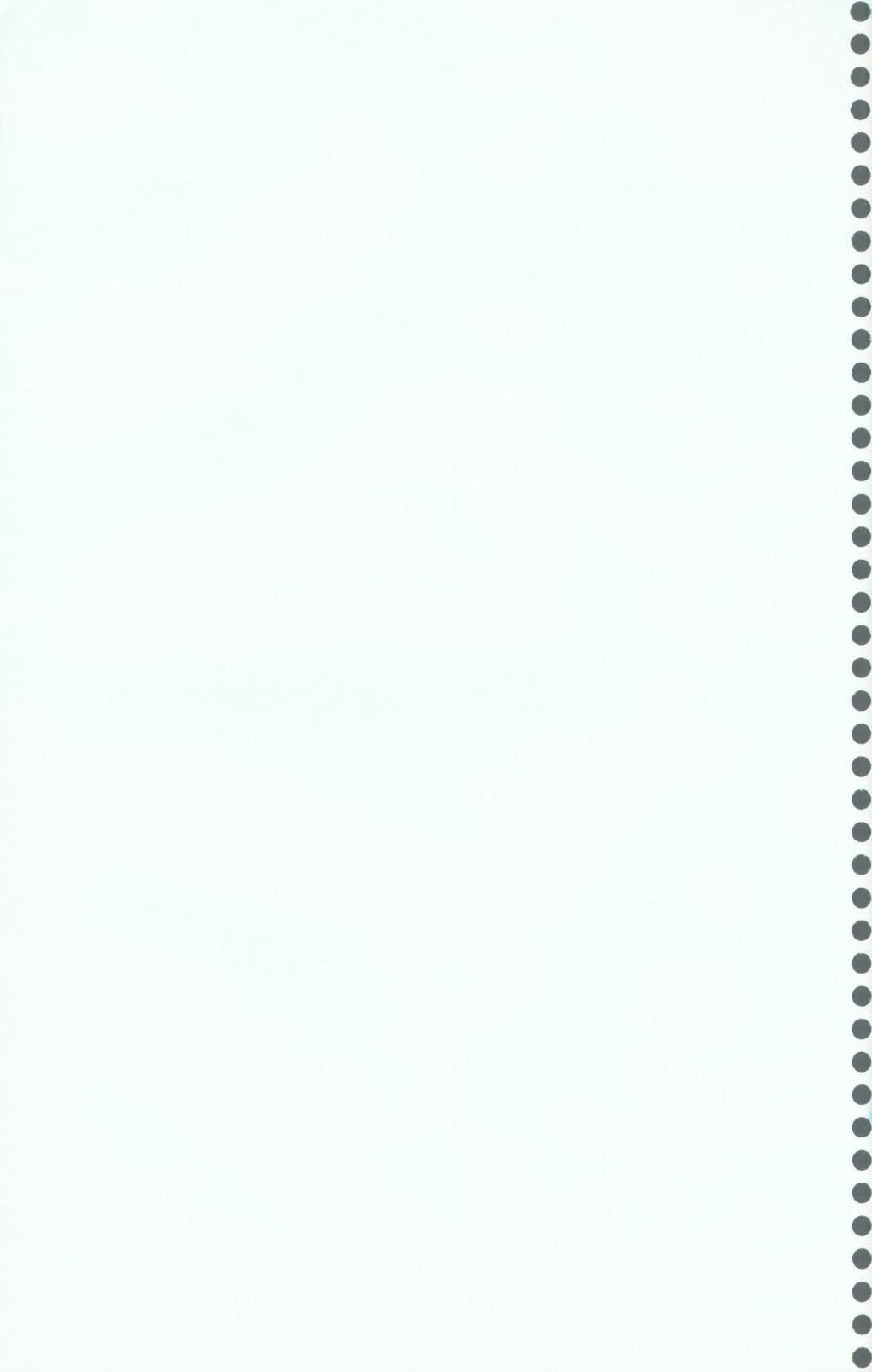
Choose a current entry by clicking anywhere in the part of the window which 'belongs' to that entry.

Choosing a **Current entry** always sets the **Current time** to the time of that entry. This means that if there is a current entry, it usually appears on any of the **Display** windows which are visible. But note that you may have to scroll the day and week windows up or down using the arrows to find the current entry, and that the month window always shows only the first entry for each day. A quick way to look at the current entry is to choose **Change** from the **Update** menu, then click the **Cancel** button when you have finished looking at it.

There is *always* a **Current key**. This starts off as blank (ie: nothing) when you start TimeLink up and so all entries are shown. If you choose **Key** from the **Select** menu you can type in a new current key and after that the windows show only entries with that key. To set the current key to 'null' or blank again, choose **Key** and press the **backspace** (Macintosh) or **Esc** (ST) key once (deleting the highlighted text), then click on the **OK** button. If the Current key is not 'null' the titles of the day, week, month and year windows show this by having '(key = xxxx)' after their main titles. The same applies to any report printed out using the **Print** command.

NOTE: Every function except First free half-day (Macintosh) or First free period (ST) is affected by the current key. This includes Sum numeric fields and Print (plus Sum duration and Search for text on the ST), which ignore any entries not matching the current key.

If you start up TimeLink, then open an existing file, the current time, current entry if any, and current key is set to what they were when that file was last in use. If you want the file to open on a specific day next time you use it, select that day before you close the file.



Printing

The easiest way to get a quick hard copy of what you are currently working on in TimeLink is to use the standard **Control-key** sequences on the Macintosh or **(NOTE: ATARI ST) Alt-Help** on the ST. This prints the screen or, on the Macintosh, the current window only. Print functions differ considerably on the Macintosh and ST. For that reason, this chapter is broken into separate computer-specific sections.

NOTE: You can cancel printing by clicking on the Cancel button in either of these two dialogue windows. Before you go ahead with the print run, make sure the printer is turned on and connected to the computer. This is one of the most common causes of the phenomenon of the program mysteriously freezing at the moment you expect the printing to start.

Macintosh Users

You can copy the entire screen to the printer by pressing the **Caps-lock** key, holding down the **Option** and **Shift** keys together, then pressing the **4** key. On European Macintosh keyboards the **Option** key is the one with the 'cloverleaf junction' symbol on it, left of the space bar. To copy just the front window to the printer, use the same control key sequence - **Option-Shift-4** - but without **Caps-lock** being engaged.

These key sequences are standard and can be used in all Macintosh programs. There is more detailed information about them in the manual supplied with the computer.

Print entries over range:

start date:

end date:

This window allows you to choose the range of dates spanned by the printed report. As with all dates within TimeLink, you can use any of the shortcuts - like 'today' - available when adding a new entry.

To print out any portion of a file in a neater format, use the **Print** command in the **File** menu. When you do this a small window appears at the top of the screen where you can specify the range of dates over which you wish entries to be printed. After you have done this there are two more dialogue windows allowing you to choose things like the **Quality** (high quality, standard or draft) of the printed report and how many **Copies** to print.

NOTE: You can cancel printing by clicking on the Cancel button in any of these three dialogue windows. Before you go ahead with the print run, make sure the printer is turned on and connected to the computer.

If you are using high or standard quality printing, an image of the printed page needs to be stored temporarily on disk. This can cause problems if there is not enough disk space. If problems arise, try making more space on the disk by deleting old files, or moving the data file to a disk with nothing else on before printing it.

IMPORTANT NOTE: printing won't work unless the disk with the data file on it also has the system file called Imagewriter. This file contains all the standard printer driver routines. It can be copied freely onto any disk where it is needed - you should find it in the System Folder on any startup disk.

A Short Cut: to open a file and jump straight into the **Print** command, click on the icon of the TimeLink data file, then choose **Print** from the **File** menu in the Finder. If TimeLink is present it starts up, opens the file, and goes into the printing sequence. After printing, the file remains open for normal access and updating.

ST Users

To print out any portion of a file in a neater format than the screen dump, use the **Print** command in the **File** menu. When you do this, a larger window appears, giving you an opportunity to set your paper length and width and edit your printer control codes, if necessary.

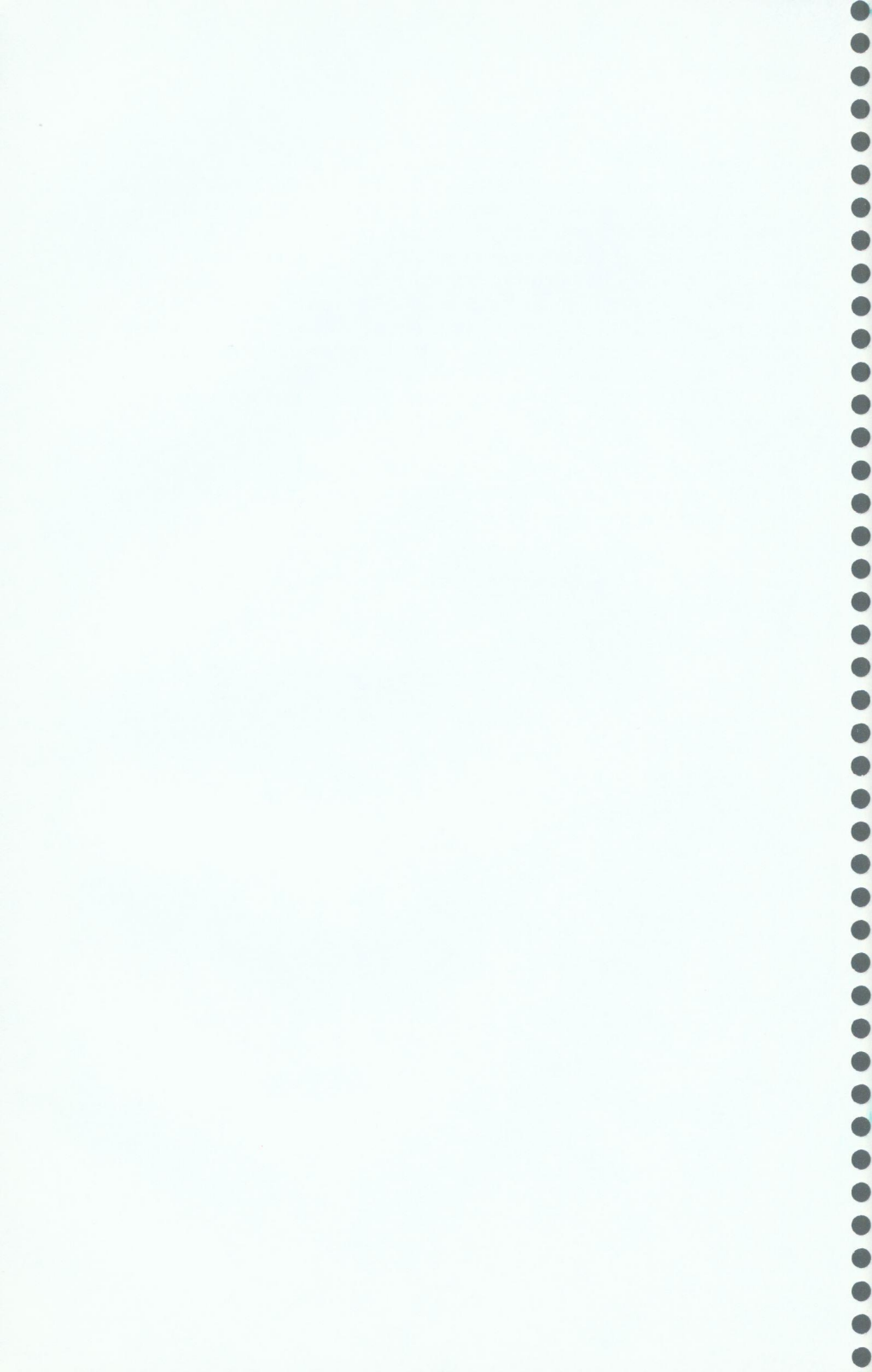
To produce neat reports TimeLink needs to know:

- (i) how to initialize the printer - that is, change it back to its standard mode of operating, turning off any features like italics, alternate character sets, or underlining;
- (ii) how to turn underlining on and off; and
- (iii) how to turn bold face on or off. If your printer does not have one or more of these facilities, simply clear the appropriate editing box.

What is needed in each editing box in the **Printer Control Codes** section is a sequence of up to seven ASCII codes, each of which is a decimal number (*not* a hexadecimal number) separated by a comma. How is this derived from the information in the printer manual?

Let's use the **'initialize printer'** sequence as an example. If you have, say, an Epson FX-80 printer, page 3-64 of the manual contains the information **'ESC @ - printer initialization'**. The ASCII code for **Esc** ('escape') is 27, while the code for the @ character ('commercial at') is 64. So the edit box should contain '27,64' - which it already does, since TimeLink is shipped with the printer control codes set up for the Epson series of printers.

The length and width of the paper and the printer control codes 'stick' to the data file. This means that once you set them for a given file you do not need to set them again unless you change printers.



Extras


The **Extras** menu contains a variety of functions which add immensely to the program's usefulness.

(NOTE: ATARI ST) The ST has several additional menu options not available in the Macintosh version.

American date format on the Macintosh switches between the US and UK ways of interpreting the date format '9/2/86', when typed in by you in one of the dialogue windows, such as the **Add new entry** window. If there is a tick next to this item in the menu (selecting it), that date is taken to mean September 2nd 1986. If not, it is understood as February 9th 1986. In addition, while American date format is selected, dates appear in the format 'April 23 1986' rather than 'April 23rd 1986'. When you choose this item on the menu, the tick appears if it wasn't there before, or goes away if it was.

(NOTE: ATARI ST) On the ST, you have the option of selecting one of three **Date entry** methods: **MM/DD/YY**, **DD/MM/YY** and **YY/MM/DD** where DD is day, MM is month and YY is year. You can also specify whether the suffixes 'st', 'nd' and 'rd' (as in 1st, 2nd and 3rd) are appended to the day. The check mark beside the menu item tells you which is selected.

Set **Week one** (or **Week number** on the ST) adjusts the week numbering system so that the current day becomes the first day of week one (or the specified week number on the ST) and the other weeks are adjusted accordingly. This setting 'sticks' to the current file so that you don't have to reset it every time you open the file.

Time between dates			
Enter two dates (and times if needed):			
1st time:	<input type="text"/>	1st date:	<input type="text" value="1st May 85"/>
2nd time:	<input type="text"/>	2nd date:	<input type="text" value="25th Dec 85"/>
7 months, 24 days (total 238 days)			
Calculate 			

Using the **Time between dates** window to calculate the time to Christmas.

Time between dates calculates the time between any two dates within the allowed range (1904-2039 on the Macintosh, 1980-2050 on the ST). It gives the time in calendar years, calendar months, days, hours and minutes and the total number of days and part-days. Don't worry about the apparent discrepancy between the two numbers of days. This occurs when you calculate the time between, say 1pm today and 10am tomorrow, which is shown as '0 days, 21 hours, 0 minutes (total 1 day)'. The total days is always the number of calendar days between the two dates, which is at least one, although the difference between the times of day makes the times less than 24 hours apart.

Add or subtract time

Amount of time to add or subtract:

Years: Months: Weeks:

Days: Hours: Minutes:

Add to:- Subtract from:-

Time: Date:

Wednesday December 25 1985

Calculate

Use last result Make result current time

Part of the **Add or subtract time** window.

Add or subtract time allows you to enter a starting date and add or subtract any amount of time to it, using any variety of units you like. There is no need to 'carry' excess amounts of a given unit up to the next one: you can add 1 year, 2 months, 3 weeks, 45 days, 67 hours and 89 minutes if you wish. Years and months are 'calendar' units: adding ten years to a given date always brings you to the same day and month, ten years hence. The result of the addition or subtraction must be within the standard date range (1904-2039 on the Macintosh, 1980-2050 on the ST).

Sum numeric fields			
Name or number of field:	Exp		
start time:		start date:	1/5/85
end time:		end date:	today
Sum of Exp (2 items): 39.85			
<input type="button" value="Calculate"/>			

Using the **Sum numeric fields** window to add up business expenses for the month.

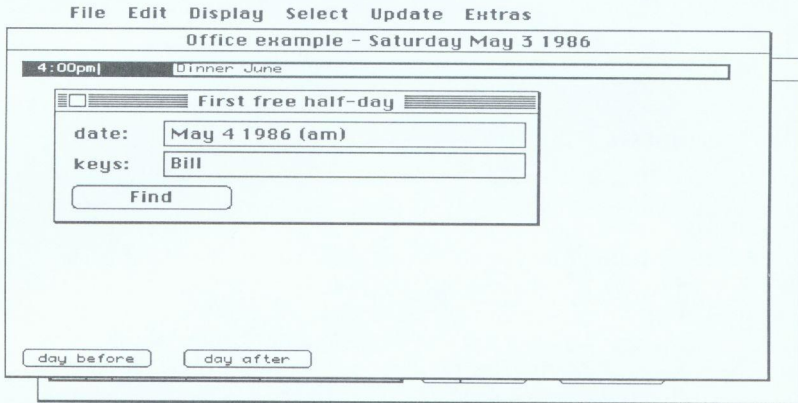
Sum numeric fields allows you to sort your numeric data into any number of categories, with names freely chosen by you, and add this data up over any range of dates. If you wish a number in an entry to be accessible to this function, put it inside square brackets [like this]. If you were logging business expenses, the best way to organise this would be to make an entry for each expense, and put, somewhere in the entry, an item like '[expense=\$18.95]'. The word 'expense' is the **Field name** and can be anything you choose, provided it is made up entirely of alphabetic characters.

When you use the **Sum** function, you can enter the field name and a range of dates and all the entries in that range (and matching the current key) are scanned for the field name and the first number after it is added to the total. The scan ignores anything outside square brackets, so only numbers you wish to be included are added together. If you enter a number rather than a field name when selecting the field to be totalled, this tells the sum function not to look for a specific field name, but to take the n'th number in each entry. This allows you if you wish to have a convention that within certain types of entries the first number, say, refers to business expenses and the second to car mileage, etc.

There is no limit to the number of numeric fields inside square brackets in an entry, or to the length of a field name. Within a particular entry, though, only the first number with a certain field name is added to the total. Also, try to avoid nesting fields like [number =[expense=2] 4].

Numeric fields must follow the following format: up to nine digits, optionally followed by a fractional part. If present, the fractional part must consist of a period (full stop) followed by up to nine digits. Commas cannot occur within a number. Engineering and scientific notation (ie: 1E6 for 1000000) is not supported.

Totalling is done by straight addition, with no rounding: full accuracy is preserved. In the present version there is no check for arithmetic overflow, which occur if the total exceeds 2147483647. This is not thought to be overly restrictive in a program which is not primarily a 'number-cruncher'.



This example shows the top left corner of the screen with the **First free half-day** window on top of the **Day** window. As you can see, the following morning is the first full half-day on which both June and Bill are free.

First free half-day (NOTE: ATARI ST) (**First free period** on the ST) finds the first completely free half day (first completely free period of the specified duration on the ST) after a certain date, for a list of up to ten keys. The primary use for this is if you have organised your file so that everyone in the office has a different key, most conveniently his or her initials or first name (up to seven characters). When you choose this function a window appears where you can type in a starting date and a list of keys (on the ST there are edit boxes to allow you to set the start and end times of day and you can choose whether the search should include weekends). The keys must be separated from each other by spaces, commas or other punctuation. Each key must be made up completely from alphabetic characters, or completely from numeric digits. You cannot mix digits and numbers, or use symbols such as @ and *.

Editing Text

Generally speaking, the text editing method follows the standard Macintosh or GEM way of doing things. Nearly all the differences are enhancements to make entering and editing text as easy as possible on your particular computer.

There are two different types of edit box: single-line and multi-line. All the edit boxes in TimeLink are single-line except for the **Text** box in the **Update** window. In this edit box, the **down-arrow** and **up-arrow** keys on the ST are used not for moving from one edit box to the next but for moving up and down within the multi-line text. In the Macintosh, use the mouse to position the cursor at the location where you want to begin editing.

The only other difference between the two types is that in multi-line editing the **Return** key is used to start a new line, while in a single-line edit box **Return** is ignored.

You can always move the text cursor (the fine vertical line) to where you want it by clicking the mouse at the desired point. You can move between entry boxes by pressing the **Tab** key.

Double-clicking selects the word that the mouse is on, and highlights it by displaying it in inverse - white on black rather than black on white.

You can select a whole sentence - or any area of the text - by moving the mouse to the start of the area and holding the mouse button down while you move the mouse to the end of the area. This is called 'dragging' over an area. To replace a section of text, select it by dragging over it then just type the new text. To move a sentence, drag over it, select **Cut** from the **Edit** menu, click on the place you want the sentence to go, then select **Paste** from the **Edit** menu. If you want to copy a sentence, use the same method, but select **Copy** instead of **Cut**.

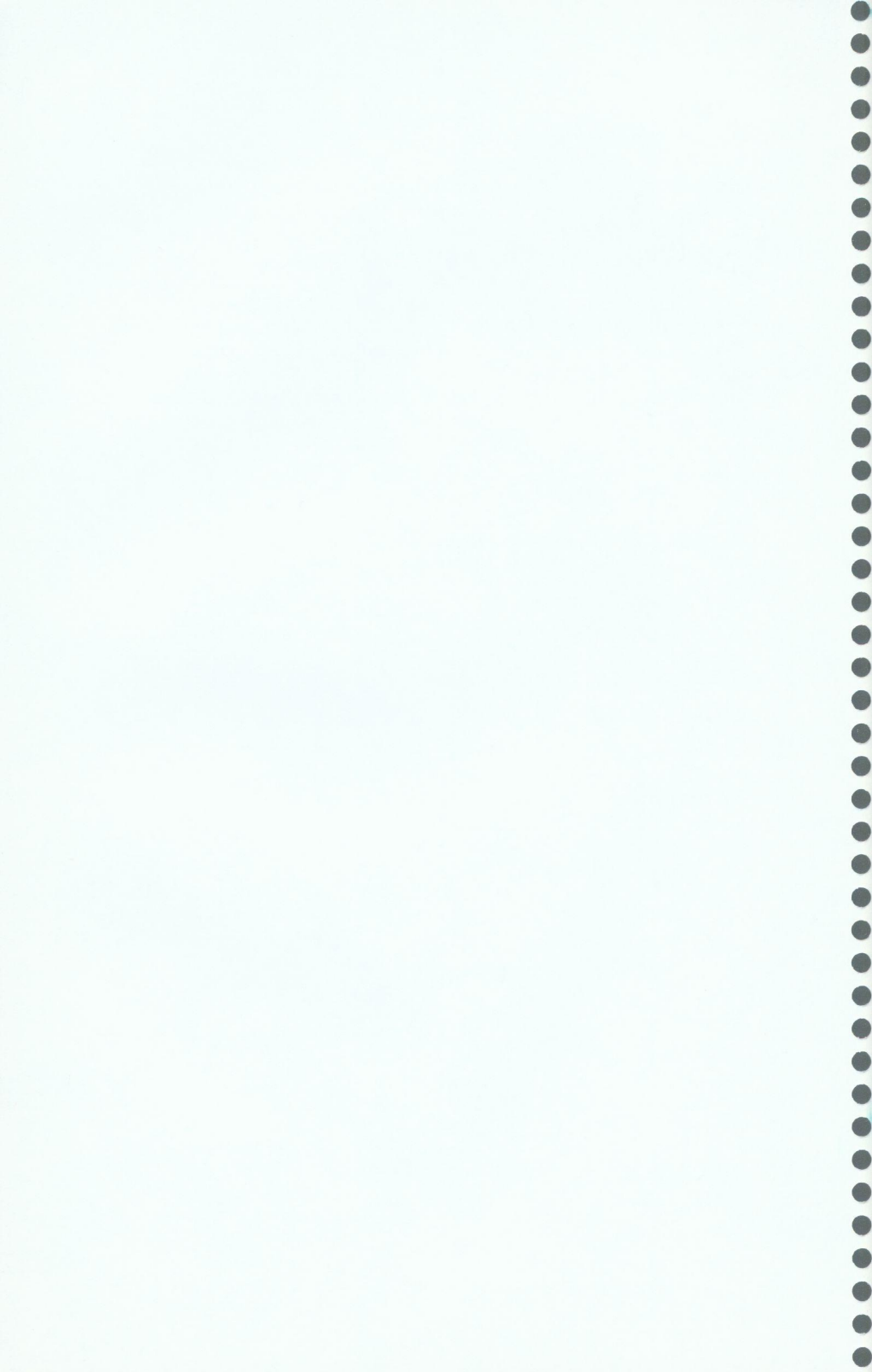
Any text that is cut or copied is placed in a file on disk called '**SCRAP.TXT**' in the ST or in the Clipboard on the Mac. When you select **Paste** this material is read in from that source. This allows other programs, such as SofTechnics' Rhythm, to interchange text with TimeLink. Macintosh users can also copy text into the Scrapbook.

(NOTE: ATARI ST) There are keyboard equivalents for the cut, copy and paste commands on the ST: function keys **F1**, **F2**, and **F3** respectively.

Here is a full list of editing commands:

Key	Action
left arrow (ST Only)	move the text cursor (the vertical line) one character left.
right arrow (ST Only)	move the text cursor one character right.
up arrow (ST Only)	move to the previous editing box, or, if in the multi-line Text area, move the text cursor up one line.
down arrow (ST Only)	move to the next editing box (like Tab) or, if in the Text area, move the text cursor down one line.
Tab	move to the next editing box. This can also be done with the mouse.
Esc	clear the current (ST only) editing box
Backspace or Delete (ST Only)	delete the character left of the text cursor, or if a sequence of characters has been selected, delete the sequence (Mac).
Return	(only works in the multi-line Text area) move to a new line by inserting a carriage-return in the text.
mouse click	move the text cursor to where the mouse was clicked.
mouse double click	select the word on which the mouse was clicked.
mouse 'drag'	(hold down the mouse button and move the mouse) select the area of text covered by the mouse. This area is marked by inverting it to white on black.

- | | |
|-------------------------------------------------------|--------------------------------------------------------------------------|
| Cut (Edit menu) or F1
(ST) | cut out and save the currently selected area. |
| Copy (Edit menu) or F2
(ST) | copy the selected area. |
| Paste (Edit menu) or F3
(ST) | paste the last area cut or copied back into the text at the text cursor. |
| Clear (Edit menu) | delete the currently selected area. |



SPECIAL NOTE

The following features are available on the ST only

Search for text searches through the data file for the next entry, after (and including) the current entry, which contains the text you specify. If there is no current entry the search starts from the current time. If the search is successful you 'move' to the entry that was found and it becomes the current entry.

To avoid the possibility of very long fruitless searches, TimeLink asks if you want to go on or abort the search every time a new year is entered.

Sum duration adds up all the durations in entries which have the current key (or have no key if none is selected) and fall between the start and end dates you choose. This is very useful if, for instance, you are a business consultant with several different clients. Simply assign each client a different key, log your work under these keys, using the duration field in all the entries and then see how much time you have worked on Mr. Smith's case by setting the key to 'Smith' and using the '**Sum duration**' facility.

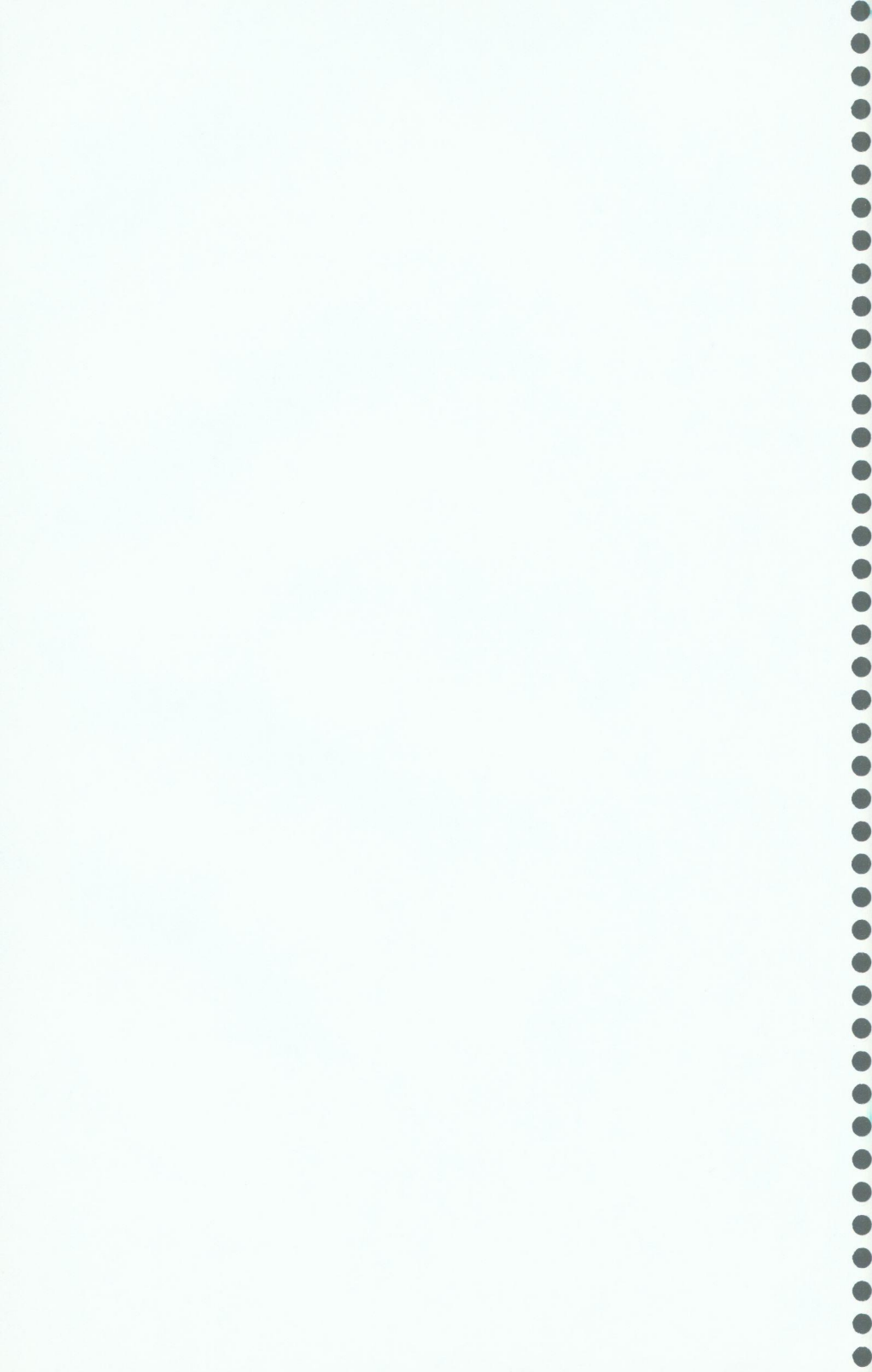
When the summing is done, minutes are accumulated into hours and months into years. Hours are not accumulated into days: this is because work initially logged as amounts of hours is usually totalled by hours rather than by days and hours. No other accumulation of small units into larger ones is done, so be sure to decide on a standard for recording time before creating a large TimeLink database.



APPENDICES



APPENDIX 1: EXAMPLES



Examples

TimeLink is flexible enough to allow it to be useful in virtually any time-based application. This section which describes three ways of using TimeLink may help you see how to use the program to best effect in your own field. By no means are these the only uses for TimeLink; the variety of applications is limited only by your imagination!

A Business Office

This is a simplified example of using TimeLink in an ordinary business office with three people - Harry, Pete and Alice, all sharing a single file. Any events concerning only one person are given a key of that person's first name. Two other keys are in use - **Exp** (for expenses) and **meeting**. Other keys can be added when they are needed to handle necessary entries as they arise. Within **Exp** entries, expenses for the three different people can be distinguished if necessary by using three different field names: **ExpAlice**, **ExpPete** and **ExpHarry**.

The **Day** window at the front shows an entry which has been formatted on to several lines using **Return** characters to make it clearer. This window was moved to the bottom of the screen so that the **Week** window can be seen more clearly (**NOTE: ATARI ST**(ST users can also resize the window to display only the necessary information area). In both windows the current entry is highlighted by making it white on black instead of black on white.

The Alarm Clock desk accessory (Macintosh only) has been selected from the Apple symbol menu and moved to the top left corner of the screen. Time and date can also be shown by selecting the control panel accessory.

The user is just about to select **Sum numeric fields** from the **Extras** menu, perhaps to total his or her expenses for the month.

File Edit Display **Select** Update Extras

Office example - Week 16, 1986			
Monday			
April 14			
Tuesday	9:00am	harry	meeting to discuss new release
April 15	11:00am	pete	exercise
Wednesday			
April 16			
	2:00pm	alice	discuss wedding plans
Office example - Thursday April 17 1986			
	2:00pm	alice	discuss wedding plans

A Hairdressing Salon

This small hairdressers' has three employees: Sue, Anthea and Phil. The appointments are entered simply by using the first names of the employees as keys and then putting the customer's name and requirements in the text of the entry.

File Edit Display **Select** Update Extras

Hairdressing example - Thursday May 9 1985			
9:30am	Sue	Mr. D. Spencer	- cut
10:00am	Sue	Mrs. A. Crossland	- tint
11:00am	Anthea	Mrs. J. Armstrong	- trim
11:00am	Sue	Mrs. E. Harrison	- tint
2:30pm	Phil	Mrs. J. Saxby	- perm
2:30pm	Anthea	Mr. F. Gilbert	- wash and cut
3:30pm	Phil	Mrs. R. Bailey	- usual
4:00pm	Sue	Mrs. R. Cherwell	- perm

Select key:

In the Mac version, the user is just about to use the **Select key** window to see Sue's appointments alone. This makes it much easier to see exactly when Sue is free.

Desk File Edit Display Select Update Extras

B:\EXAMPLES\HAIR.TLK - Friday May 9 1986 (key = sue)

5:30am SU	78 min: Mr. N. Engner - cut
10:00am SU	Find first free period
11:00am SU	
3:00pm SU	

start time: 9:00am start date: friday may 9, 1986

period: 45 minutes

start time of day: 9:00am end time of day: 5:00pm

keys: sue

11:30am, Friday May 9 1986

day before

Find (any) Find (weekday only)

(NOTE: ATARI ST). In the ST version, the user is just about to use the **Find first free period** window to find out when Sue is next free for a period of 45 minutes. Here the **Find (weekday only)** button is used - Sue does not work on Saturday. The start and end times of day are set to 9am and 5pm so that the time found is within her working day.

A receptionist answering the phone to take appointments could easily and quickly find out if a specific hairdresser was free for an appointment and when the next free time was for each individual.

A Running Diary

Two points are illustrated by this example. First, TimeLink can be used to make a record of past events as well as keeping a schedule of future ones. Second, TimeLink is a useful personal tool in the home as well as a business program in the office. Personal entries can easily be included in the same file as business entries but keyed separately.

File Edit Display Select Update Extras

Running example - Sunday May 19 1985

7:00pm|MH (miles = 15.7, time = 107) Running quite strongly at

Running example - Week 20, 1985

Running example - May 1985

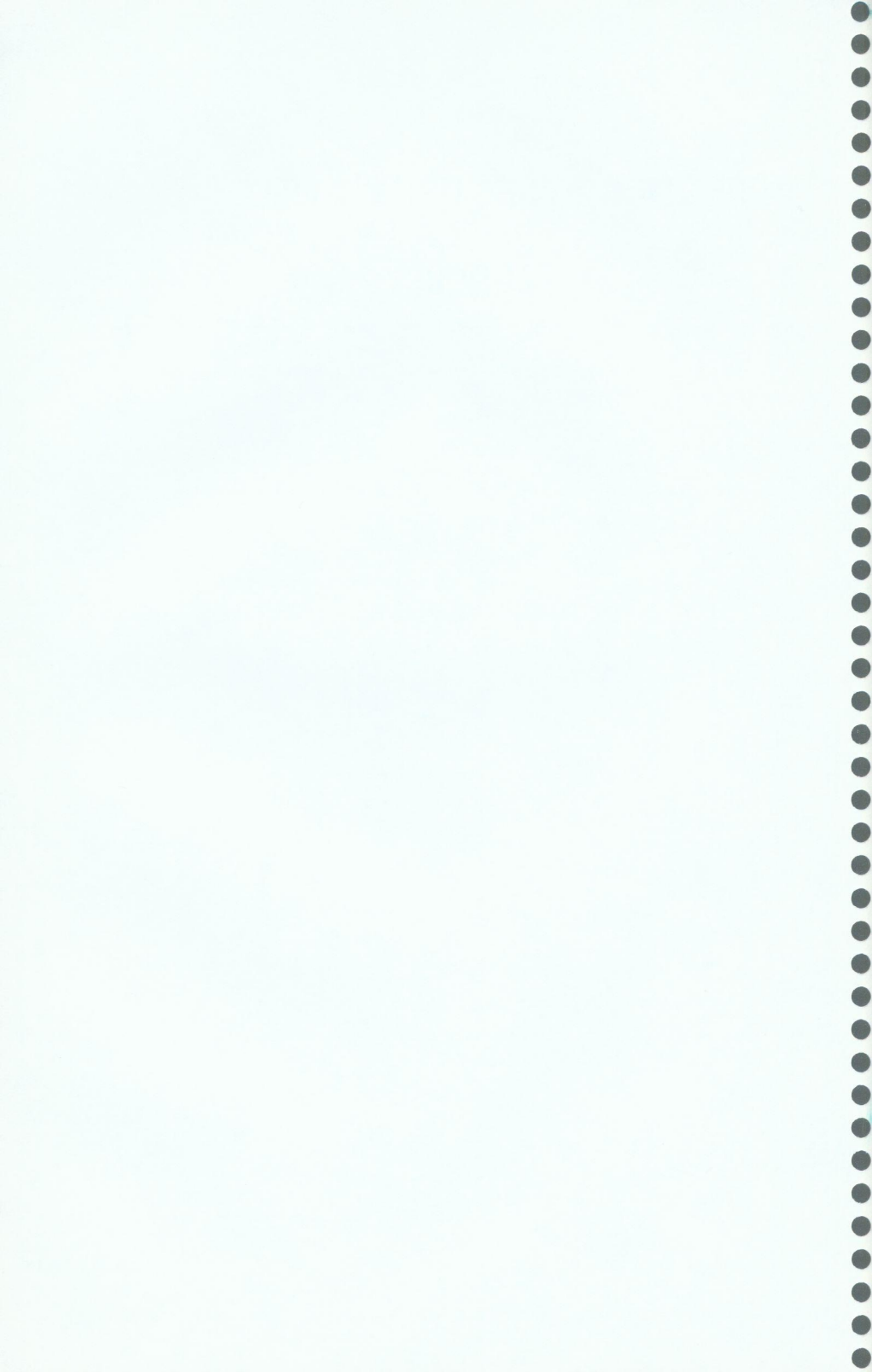
Wed 1				Fri 17	2:30pm	HE	(miles=5.2,
Thu 2				Sat 18			
Fri 3				Sun 19	7:00pm	MH	(miles = 15.7,
Sat 4				Mon 20	6:00pm	HE2	(miles = 6
Sun 5				Sum numeric field			
Mon 6				Name or number of field miles			
Tue 7				start time: start date: 15th May			
Wed 8				end time: end date: 24th May			
Thu 9				Sum of Miles (7 items): 56.1			
Fri 10				Calculate			
Sat 11							
Sun 12							
Mon 13							
Tue 14							
Wed 15	4:00						
Thu 16	7:00						

This is part of the training diary of a runner. Each of the runs has been given a key, such as HE, MH or HE2. The keys are mnemonic -

MH is 'Mill Hill' and refers to a route from the runner's house to Mill Hill and back. Each entry has two numeric fields: **miles** and **time**. A minor inconvenience is that time has to be given in minutes and tenths of minutes, rather than minutes and seconds (e.g. 17.5 is 17 minutes, 30 seconds), or it would not add up properly. Remember that numeric fields are not the same as time or date fields.

Here the user is finding out his or her total training mileage over a ten-day period. The **Sum numeric fields** window also shows that this period includes seven runs. It would be quite easy to find out the average speed in minutes per mile by totalling the time field and dividing the sum by the total number of miles, which we already have, using the **Calculator**, which can be chosen from the Apple menu (Macintosh) or using a calculator accessory such as Rhythm from the Desk menu (ST).

**APPENDIX 2: SECURITY AND
RECOVERY FROM
ERRORS**



Security and Recovery from Errors

It is a sad fact that disks do not last for ever. TimeLink files can be copied like any other files, by dragging their icons with the mouse, and you should make frequent backup copies of your working files onto other disks. The simplest nearly foolproof backup scheme is as follows:

- Make *two* backup disks, called, say 'Backup 1' and 'Backup 2'. Keep one next to the computer with your other disks, including your working disk, and the other in a different room if possible.
- At the end of each day or long working session with TimeLink, copy your working files from your work disk on to whichever of the two backup disks is next to the computer. Then *swap the backup disks*.
- Every few weeks, put the backup disks in a permanent archive somewhere, marked with the date, and format two more fresh backup disks. Format a new working disk and copy everything on the old one to it, then archive the old work disk.

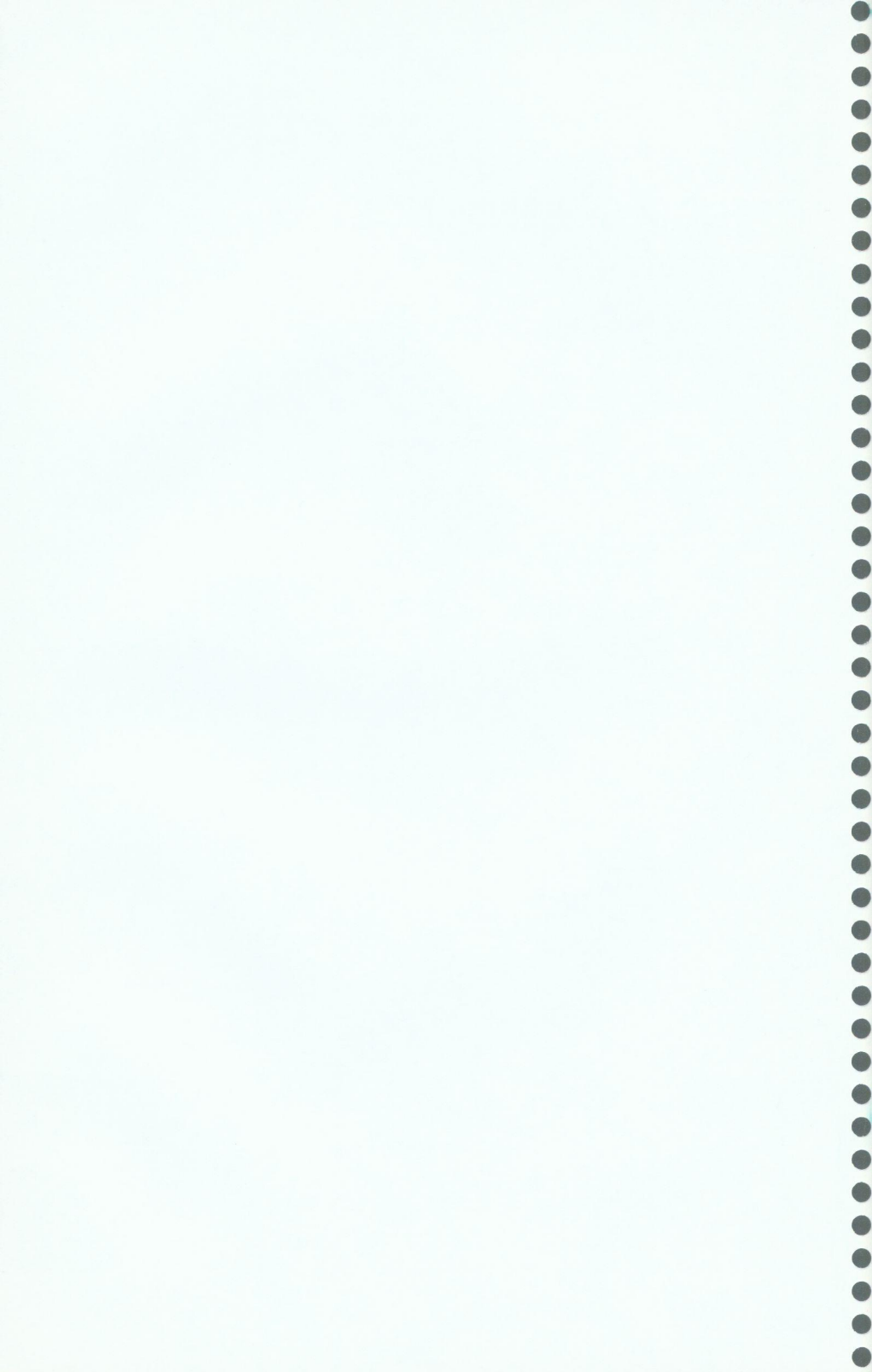
The reasoning behind this scheme is that:

- (i) the latest backup is always in the next room, not next to the computer where it would partake in any disaster (spilt coffee, etc.) affecting the working disk;
- (ii) there are two backups, not one - essential to prevent the sort of disaster caused if you were in the process of copying the files from the work disk to your only backup, and if there were a power fluctuation, destroying both disks; and
- (iii) no disks are ever thrown away: if you loose both current backups you can always go back to the latest archive disk, and you need only re-enter information entered since the last archiving.

If you *run out of disk space* at the moment of entering or changing an entry, TimeLink lets you know of the problem and refuses to add the entry to the file. You are able to continue working on the file and everything else goes on working normally. You should quit and remove any unnecessary files from the disk so that you can go on adding to your TimeLink file, or copy the file to a new disk with plenty of room.

TimeLink has been carefully tested and should never crash under normal circumstances. Any crashes which do occur are almost certainly caused by power fluctuations or damaged disks. However, it is the nature of writing computer programs of this size and complexity that bugs can survive the most thorough testing. If you think you have found one, please write to or call **Batteries Included** giving as many details as you can. Your report will be taken seriously and investigated. However, we are unable to accept any liability for loss of data, or any losses consequential upon incorrect or lost data, arising from the use of TimeLink.

APPENDIX 3: REFERENCE



Reference - TimeLink Functions at a Glance

Macintosh Version:

Menu	Choice	Result
Apple	About TimeLink	display copyright notice and version no.
	others	perform standard desk accessory functions
File	New	create a fresh, empty data file & open it
	Open...	open an existing TimeLink data file
	Close	close the currently open file
	Print	print data from current file
	Quit	leave TimeLink and go back to the Finder
Edit	Cut	remove and save selected text
	Copy	take a copy of selected text
	Paste	insert previously cut or copied text
	Clear	delete selected text without saving it
Display	Day	display day window
	Week	display week window
	Month	display month window
	Year	display year window
Select	Date	select new current date
	Key	select new current key
Update	Add new entry	add a new entry to the current file
	Change entry	change the currently selected entry
	Copy entry	create entry by changing existing one
	Delete entry	delete the currently selected entry
Extras	Time between dates	calculate time between two dates

Add or subtract time	add or subtract time to/from start time
Sum numeric fields	sum any numeric field over any range
Set week one	set start of week one to current day
American date format	toggle interpretation of date e.g. 6/7/89 is treated as June 7, 1989

Ranges and limits

Date range:	1st Jan 1904 ... 31st Dec 2039
Entry size:	text: 241 characters; key: 7 characters
File size:	file can be as big as can fit on the disk
Entries in one file:	no limit
Entries in one day:	no limit
Numeric range:	-2,147,483,648 ... 2,147,483,647

ST Version:

Menu	Choice	Result
Desk	About TimeLink	display copyright notice & version no.
	others	standard desk accessory functions
File	New	create an empty data file & open it
	Open...	open an existing TimeLink data file
	Close	close the currently open file
	Print	print data from current file
	Quit	leave TimeLink & go back to desktop
Edit	Cut	remove and save selected text
	Copy	take a copy of selected text
	Paste	insert previously cut or copied text
	Clear	delete selected text without saving it
Display	Day	display day window
	Week	display week window
	Month	display month window
	Year	display year window
Select	Date	select new current date
	Key	select new current key
Update	Add new entry	add a new entry to the current file
	Change entry	change the currently selected entry
	Copy entry	create entry by changing existing one
	Delete entry	delete the currently selected entry
Extras	Time between dates	calculate time between two dates
	Add or subtract time	add/subtract time to/from start time
	Sum numeric fields	sum any numeric field over any range
	Set week one	set start of week one to current day

MM/DD/YY	toggle date entry method
DD//MM/YY	" " " "
YY/DD/MM	" " " "
st/nd/rd	toggle numeric suffix on (ie: 1st)
Find first free period	find free period for up to 10 keys
Search for text	move to next entry containing the text
Sum duration	sum durations over specified range

Ranges and limits

Date range:	Jan 1, 1980 ... Dec 31, 2050
Entry size:	text: 511 characters; key: 7 characters
File size:	file can be as big as can fit on the disk
Entries in one file:	no limit
Entries in one day:	no limit

Free Memory - Clicking on '**About TimeLink**' reveals the amount of free memory.

ABOUT...

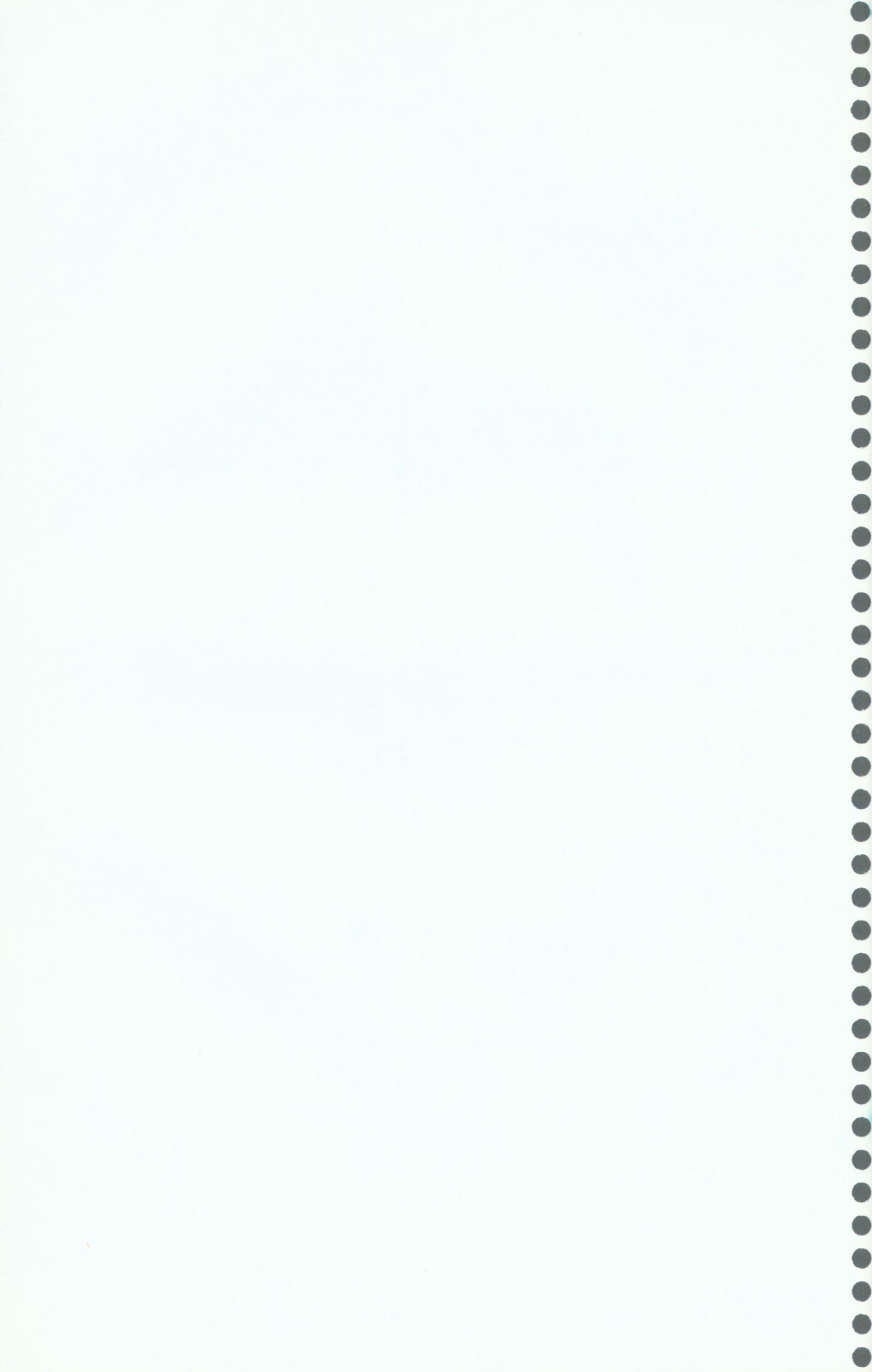


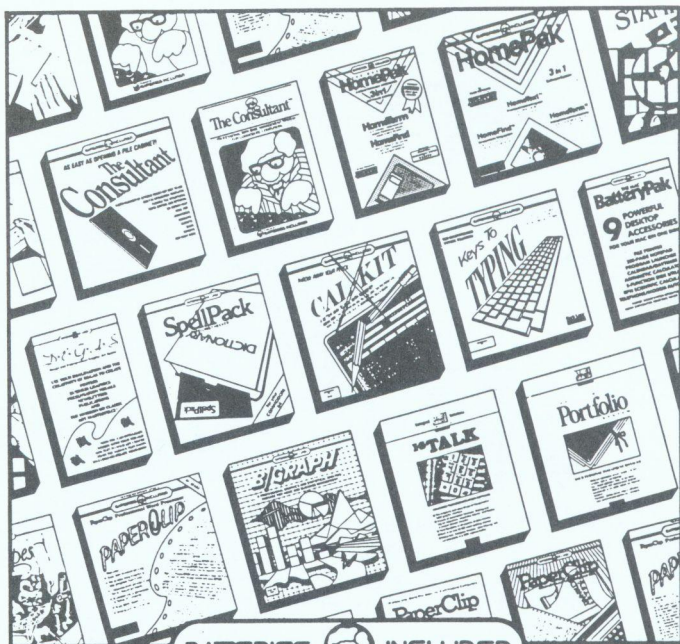
About SofTechnics and the Author

SofTechnics is the business and home productivity division of one of Great Britain's leading software publishers, SofTek International Ltd. Founded in 1982, SofTek has been a market leader in Great Britain in publishing both games and small business/home productivity packages. They are one of the few British publishers who have specialized in programming for the window/icon environments such as the Macintosh, Atari ST, Amiga and GEM based micros.

SofTechnics is run by SofTek's president, **Dr. Tim Langdell**, who was also partly responsible for the design of TimeLink. Dr. Langdell has also been the president of Britain's 'Guild of Software Houses' and is a director of Britain's 'Federation Against Software Theft'.

Graham Asher, program author of TimeLink, heads SofTechnic's team of programmers and has been with the company for more than a year as Chief Software Technician.





BATTERIES INCLUDED

NEED HELP?

Having problems? Have you got questions about Batteries Included software? Call the **BI Customer Support Hotline**. We'll be glad to help you in any way we can. Because this is a **free service** we must ask that you **keep your questions brief and to the point**. Since a limit of 5 minutes of free service is permitted per call, prepare your query carefully and have pertinent materials (e.g. your manual) on hand when you phone; there will be an additional charge for calls over five minutes. Our hours are 9am to 4pm (est), Monday to Friday. Best time to call — mornings. Worst time to call — midday. If our lines are busy, please be patient. Do not call our switchboard; they cannot patch you through or take messages for customer support. If you would rather not phone, or your question or problem is not urgent, please do write. We'll be glad to send you a personal reply.

Please note:

Customer support is a free service for registered owners only.
Please make sure you have sent in your registration card.

**Customer Support (416)
881-9816**

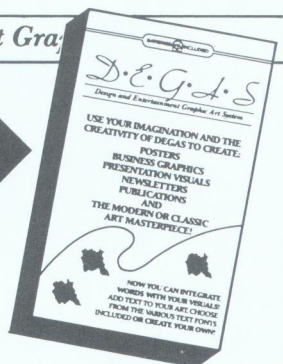
30 Mural Street Richmond Hill Ontario Canada L4B 1B5

D.E.G.A.S.

Design and Entertainment Gra

ALSO
AVAILABLE
FOR YOUR
ATARI

ST



The artistic standard for the ST! Beautiful graphics program for business and pleasure. All the key draw/paint functions, text integration and graphic design tools!

Overall performance: Excellent
Graphics quality: Excellent
Ease of use: Easy
Value for money: Excellent
Documentation: Excellent
Error handling: Excellent
Family Computing

"D.E.G.A.S. manages to put that computer's (Atari 520 ST) high tech hardware to work for you with the kind of sophisticated results that make you ask, 'Did I really do that?'... the potential for graphic creativity is enormous. D.E.G.A.S. represents a lot of power for a little money..."

Kent A. Davenport, Family Computing

"...only one programmer had managed to pull together a full-featured paint program that takes complete advantage of the ST's fabulous graphics: Tom Hudson. The program is

called **D.E.G.A.S.** and **Batteries Included** has it. Congratulations to Tom Hudson and **BI!**...written on the ST, designed on the ST, and uses the ST like no program I've seen... We don't have room to describe all the **D.E.G.A.S.** options... if you want the best graphics package available for the Atari 520 ST, get **D.E.G.A.S.**...
Jack Powell, Antic

"D.E.G.A.S. allows you to take full advantage of your ST's stunning graphics capability, to produce nearly anything you can imagine..." "Created specifically for the ST by Tom Hudson, this is sure to become an ST standard..."

Analog Computing

**Also look for
D.E.G.A.S. Elite!**

BATTERIES INCLUDED



T H E I S G U R

Portfolio™

Available for IBM, Macintosh,
Atari ST. Coming soon for
the Amiga.



- Designed by Lee Isgur, one of the world's top financial analysts and first VP of PaineWebber

- GEM interface makes it easy to operate — just point the cursor at the command you want

- Update your portfolios with the latest data from on-line services — instant and accurate

- Telecommunications module is pre-set to receive Dow Jones, CompuServe, The Source and InfoGlobe

- Package also includes I*S Talk full-scale telecommunications program for those who want to do more while on-line

- Powerful analytical features include 'Raise Money', 'Splits/Dividends', 'Cash and Margins', 'Suppose' and more

"...gives serious investors many of the technical analysis and reporting tools used by professionals. It can handle many investment portfolios simultaneously, consolidate multiple portfolios of foreign currency and allow automatic updating of investments in different portfolios."

InfoWorld

"...actually three programs in one. Memo pad and calendar ...portfolio management program...and telecommunications program...extremely easy to use...impressive extras."

Personal Computing

"...It is dangerous to look at any software package and say, 'This is the one,' but this one comes very close."

Computerized Investing



I*S TALK

ALSO
AVAILABLE
FOR YOUR
ATARI

ST



Full-scale telecommunications program. Easy to use and virtually error-proof. Includes 50,000 word spelling checker and three levels of macros.

- Multitude of exceptional features are clearly organized on GEM's drop-down menus — find the capability you need fast
- Call up a help window for every major function
- Exceptionally large capture buffer — 300,000 possible bytes in memory or unlimited if spooled to disk
- Uses X-Modem protocol and Kermit protocol
- Totally flexible data routing to any combination of devices — disk to modem, memory to memory, screen to modem...

Three levels of macros

1. Comprehensive auto-dial and auto log-on capabilities provide totally automated access to remote services
 2. 'Keys' macro associates any text with a single keystroke — use it to save time in entering repetitive data or commands
 3. 'Replay' macro records any complex sequence of operations — even an entire on-line session for playback later
- Check the built-in I*S Bridge Memo function for messages from other systems — or leave yourself memos keyed to future dates



HomePak

Available for Atari, Atari ST,
Commodore, IBM PC, PCjr,
Apple IIe, c, Macintosh.

Three integrated programs on one disk. Telecommunications. Word-processor. Information manager. The easy answer to three key software needs.



1. HomeTerm Telecommunications Module

- The simple way to get on-line with public data-bases, bulletin boards, other users
- Extensive macro facility
- X-Modem protocol
- Compatible with most popular modems
- Download files of virtually any length
- Save incoming text to disk, or send directly to printer

2. HomeText Word-Processor

- Over 20 full-screen editing and formatting features
- Supports most printer functions including boldface, underlining and extended characters

3. HomeFind Database Manager

- Streamlined information management program you can learn quickly
- Natural English-language data entry/retrieval system
- Includes all the key search/sort functions, flexible queries, simple output commands

"This three-in-one program is a bargain...one of the finest values on the market."

Family Computing magazine

"...inexpensive, powerful, integrated software. As such, HomePak is the winner of InfoWorld's Best Buy Award."

InfoWorld magazine

"Quite simply the best."

Analog Magazine

BATTERIES INCLUDED





THUNDER!™

THE WRITERS ASSISTANT

ALSO
AVAILABLE
FOR YOUR
ATARI

ST

3 Powerful Writer's Tools In One Program

Spelling Checker

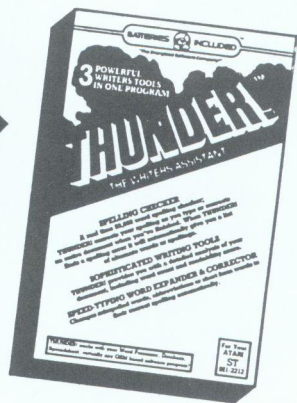
A real-time 50,000 word spelling checker. **THUNDER!** corrects your spelling **as you type** or corrects an entire document when you've finished. When **THUNDER!** finds a spelling error it will automatically give you a list of alternate words or spellings.

Speed-Typing Word Expander and Corrector

Changes misspelled words, abbreviations or short form words to their correct spelling automatically.

Sophisticated Writing Tools

THUNDER! provides you with a detailed analysis of your document, including word count and your readability score on the FOG and Flesch



indexes. These widely-used tests indicate how many years of schooling an average reader will need to understand what you've written.

THUNDER! gives you a powerful, fully concurrent spelling checker from within your favourite application programs. Accuracy is way up, the time you spend checking and correcting is way down.

THUNDER! is, of course, compatible with: PaperClip Elite, HomePak, BTS The Spreadsheet and other programs from Batteries Included and other software companies.

BATTERIES INCLUDED™



THE MAC BatteryPak™

BatteryPak works with any 128K Macintosh and the new Macintosh Plus! Also installs on all hard disk drives.

Available for
Macintosh

"GRAND PRIZE

— and now the award you've all been waiting for...

The Best Desk-Accessory-Package Award goes to **BatteryPak.**"

Sharon Zardetto Aker, A+ Magazine

"This calendar program far surpasses Sidekick's...**BatteryPak's** modest price makes it an attractive purchase...a low-cost utility system that Macintosh users should seriously consider."

Tom Neudecker, InfoWorld

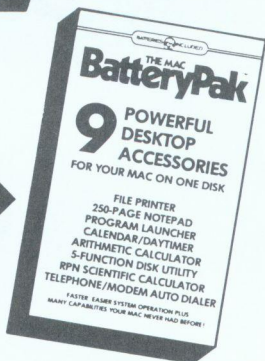
"A Five Mouse Rating!

Batteries Included recently jumped on the desk accessory bandwagon; and to mix a metaphor, it seems to have landed near the top of the heap..."

Stephen Bobker, MacUser

"...all excellent desk accessories which you may find a need for...the calendar and phone-pad alone make the package well worth the money."

Gregg Keizer, Stephen Levy, Compute!



"**BatteryPak** concentrates on a small number of important functions: calendar, calculators, operating system helpers, phone dialer and print spooling. The bottom line is that they're simple to use and get the job done."

Stephen A. Schwartz, MACazine

"I have no hesitation whatsoever in recommending **BatteryPak** to anyone. Each of the individual desk accessories are very well thought out and implemented and the manual is a delight to read and use."

L.J. Kuttan, Computer Shopper

"...The utility that we took an immediate liking to is Disktools. A remarkably simple tool which can save you all those precious minutes quitting, dragging, clicking and re-opening files!..."

Computer Entertainer

BATTERIES INCLUDED™



BATTERIES INCLUDED

Atari
ST
Software

Integral Solutions

D.E.G.A.S.

DESIGN & ENTERTAINMENT GRAPHIC ARTS SYSTEM

by Tom Hudson

The artistic standard for the ST! Beautiful graphics program for business and pleasure. All the key drawing/painting functions, text integration, and graphic design tools! Available: Now!

TIME LINK by Softechnics

Scheduling & Time-keeping tool for home and business. Your day, week, month, year at a glance. Many incredible uses! Available: Now!

THUNDER! by Mark Skapinker

Use this unique real time spelling checker desk accessory within any ST GEM application. 50,000 word real time spelling checker. Abbreviations function completes a word when you enter the first letters. Amazing speed. Available: 3rd Quarter 1986.

HomePak by Russ Wetmore

ST version of InfoWorld's Best Buy of the Year Award! 3 integrated programs on one disk. Telecommunications. Word-processor. Information manager. The easy answer to three key software needs. Available: 3rd Quarter 1986.

BTS THE SPREADSHEET by Alan Porter, Martin Reznier and Jason Loveman

Two in one! Sophisticated full featured spreadsheet program. All the key Math, Stats, Logical and Financial functions. 1000 x 1000 worksheet. Plus Desk accessory version on same disk! Available: 3rd Quarter 1986.

The Consultant by the B.I. Software Development Team

THE ultimate relational data base. Easy to learn. Unique new features. Power and sophistication you can use right away. For business or personal use. Available: 4th Quarter 1986.



BATTERIES INCLUDED

I-S TALK, TIME & BILLING, PAPERCLIP ELITE, CONSULTANT, DEGAS ELITE, DEGAS, PORTFOLIO, BTS SPREADSHEET, HOMEPAK, THUNDER AND B/GRAPH ARE ALL FILE COMPATIBLE, OF COURSE!

WRITE TO US FOR FULL COLOUR CATALOG OF OUR PRODUCTS FOR COMMODORE, ATARI, APPLE AND IBM SYSTEMS. FOR TECHNICAL SUPPORT OR PRODUCT INFORMATION PLEASE PHONE (416) 881-9816, 30 MURAL STREET, RICHMOND HILL, ONTARIO L4B 1S5 CANADA, (416) 881-9941, TELE: 06-986-246, 17875 SKY PARK NORTH, SUITE P, IRVINE, CALIFORNIA, USA 92714, (416) 881-9816, TELE: 509-135. © 1986 BATTERIES INCLUDED. APPLE, ATARI, COMMODORE AND IBM ARE REGISTERED TRADEMARKS RESPECTIVELY OF APPLE COMPUTERS INC., COMMODORE BUSINESS MACHINES INC. AND IBM BUSINESS MACHINES INC.

THE ISGUR
Portfolio
SYSTEM

by Lee Isgur
and
Mark Skapinker

Investment management program designed for private investors and professionals. On-line portfolio updating. Analytical functions for more profitable decisions. A PC Magazine editor's choice! Available: Now!

I-S TALK by Stephen Couchman

Full-scale telecommunications program. Easy to use and virtually error-proof. Includes 50,000 word spelling checker and three levels of macros. Available: Now!

PaperClip Elite by Dan Moore and Steve Ahlstrom

Next generation word-processor. All the high-productivity features plus a real-time spell checker, idea processing, integrated text/graphics, much more! Available: 3rd Quarter 1986.

D.E.G.A.S. Elite by Tom Hudson

Second-generation graphics program creates presentation-quality visuals. Full range of design/color functions. Multiple workscreens, new fonts, many other enhancements. The deluxe Degas Elite is totally compatible with all other Degas files! Integrate your Degas Elite pictures with PaperClip Elite text files. Available: 3rd Quarter 1986.

B/GRAPH Elite by Alan Page, Joe Chiavese and Robert Wilson

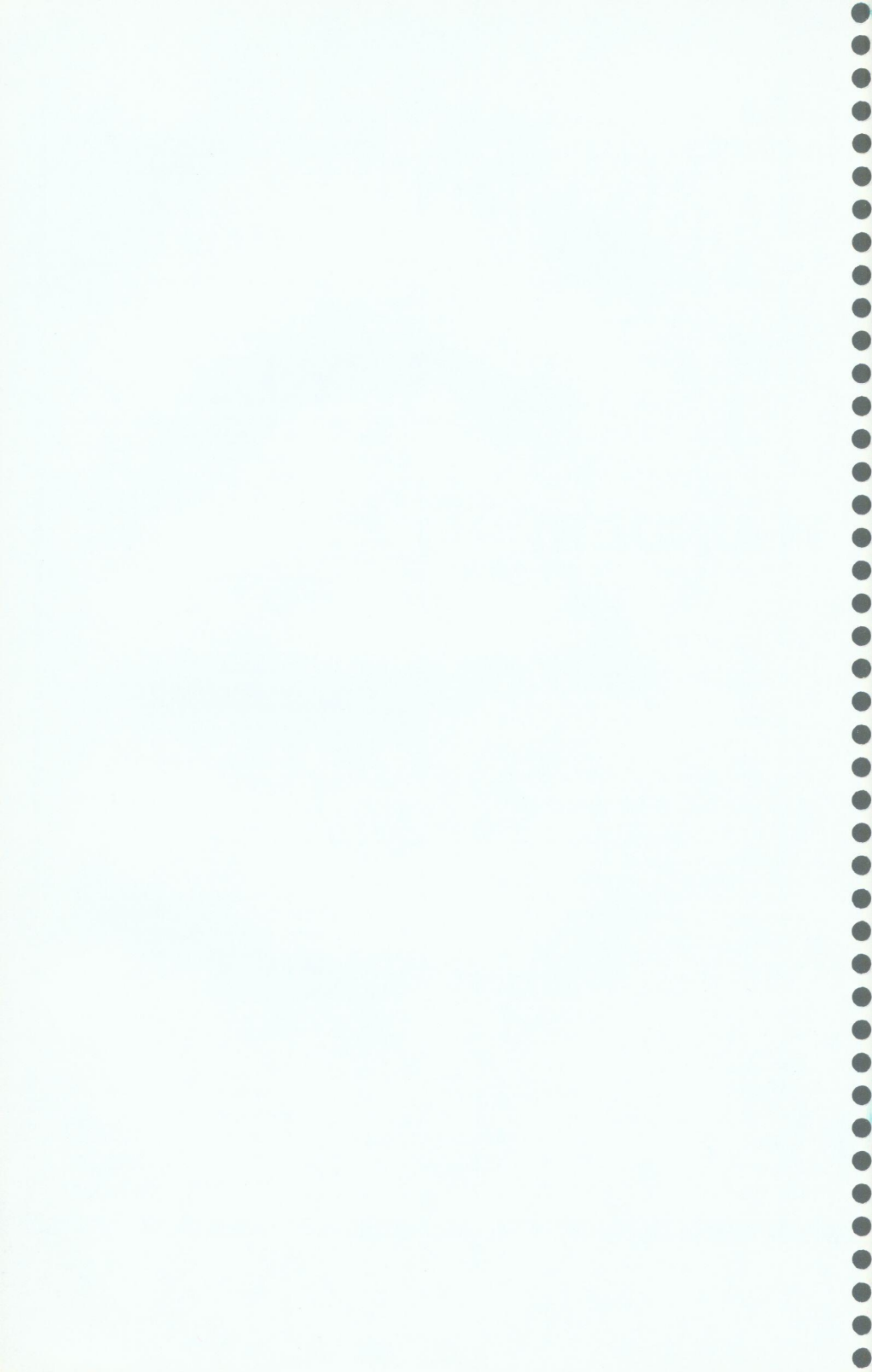
Serious graphics/charting and statistics desk package. Pie charts, 2 and 3 dimensional bar charts, area graphs, much more. Change designs without re-entering data. Make beautiful presentations. Available: 4th Quarter 1986.

I-S TIME AND BILLING by Roy Miller

Office management program for professionals. Functions include Daily Records; Automatic Billing, Accounts Receivable, Billing Breakdowns and more! Available: 4th Quarter 1986.



Integral
Solutions



BATTERIES INCLUDED



TIME LINK™

ATARI ST

WARNING: The programs contained on this disk are protected by International Copyright laws. Duplication of these programs for other than personal use is strictly forbidden and a violation of copyright laws. ~~Violators will be prosecuted.~~

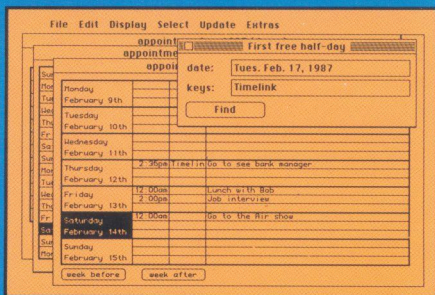
MANAGING THE PAST, SCHEDULING TODAY AND PLANNING FOR THE FUTURE

WHY USE TIMELINK?

- TimeLink is a way of organising time-related information – time management system or ‘temporal database.’
- TimeLink allows you to look at your information in four different ways. The day, week, month and year windows provide various views of the same information – like having a personal secretary make a new note on your wall-chart year planner every time you write an appointment in your desk diary.

HOW TIMELINK WORKS

- call up any combination of diary windows onto the screen at the same time
- instant updating between time frames – change a day, and that change is automatically entered in your weekly, monthly and yearly windows
- “Add or Subtract Time” feature helps you plan out projects with confidence
- time planner doubles as a record-keeping system – for example, keeps track of billable hours for invoicing customers
- instant and to-the-minute calculation of the time between any two points – for example, the time you spent working on an account
- any information associated with a time or date can be stored – expenses, mileage, account names and numbers, experimental results...



- user-defined searching/sorting functions allow you to quickly extract this embedded data and Sum it over any time frame
- max. file size: limited only by disk space
- entries per file and entries per day: virtually no limit

WHO CAN USE TIMELINK?

- anyone who needs to know exactly what's happening and when
- People who need to organise and structure time. Secretaries; doctors and dentists; club administrators – ANYBODY, in fact, who wants to get at time-based information quickly, accurately, and easily.
- one person can keep track of meetings and commitments for an entire office
- add in some of the program's database functions, and investors can use it to chart their investments
- scientists can use it to log time-sensitive experimental data
- engineering firms or construction companies can map out the critical path of complex projects
- and busy social calendars can now be easier to deal with

*This program will quickly become your essential tool for
planning, scheduling and record-keeping.*