DataLite 2

the Disk Doubler
for your Atari
Computer

*High quality software
for all Atari 680x0
Computers from*

User Manual

HiSoft
High Quality Software
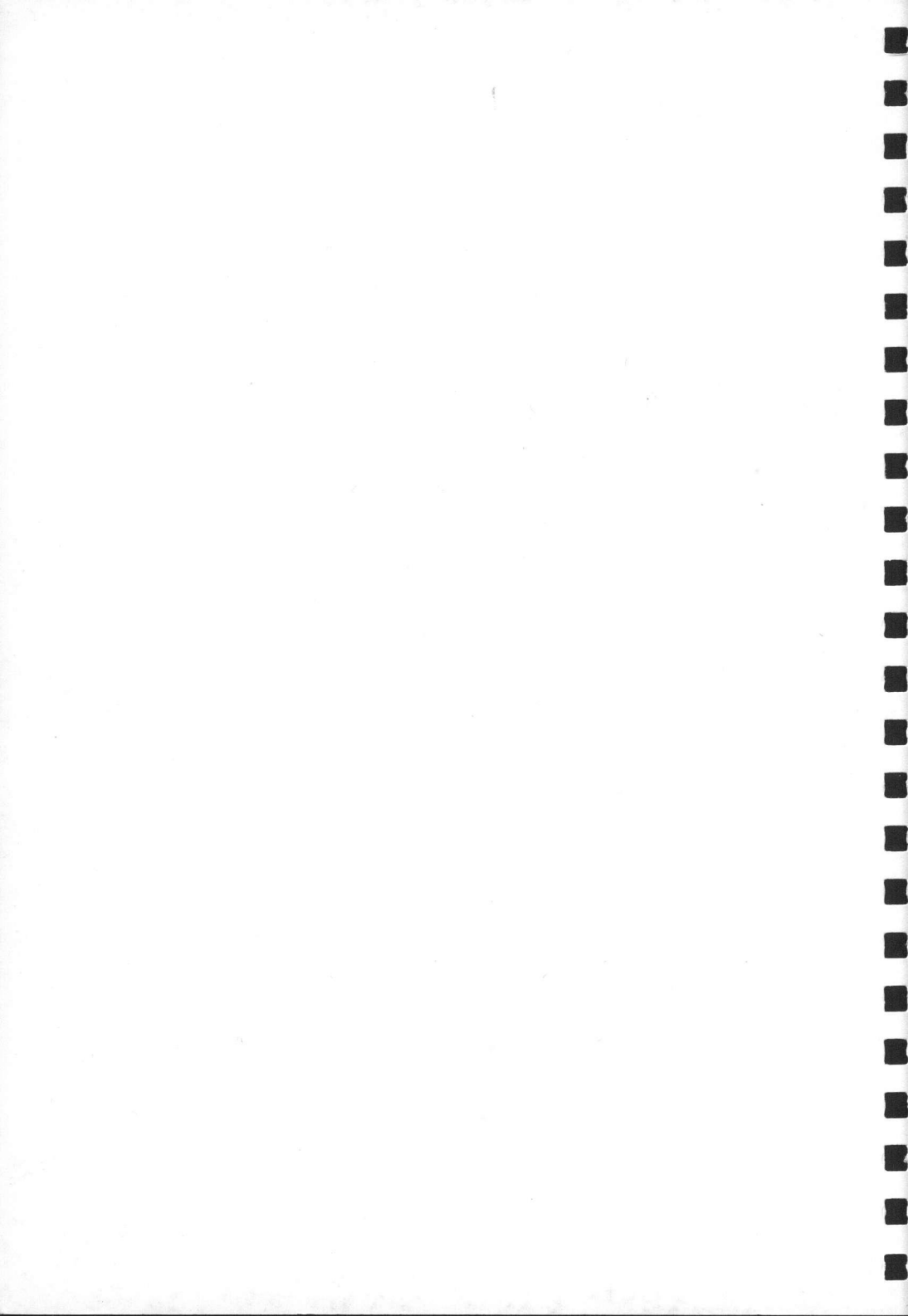
DataLite 2 for the Atari 680x0 Computers

A User's Guide

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Program:
designed and programmed by Logilex GmbH

Manual:
written by Logilex GmbH and HiSoft

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Preface

Introduction

Welcome to DataLite 2.

DataLite is a sophisticated product which combines powerful functions with a transparent user interface to give you an extremely effective 'disk doubler' that compresses the data on your disks, thus seemingly increasing storage capacity. Although it is an easy to use program with an intuitive GEM front end, it is beneficial to know exactly how DataLite works before installing it on your system.

This manual not only explains how to use DataLite and how the product works but also gives a general insight into the function of both hard and floppy disk media.

We recommend that you read this manual carefully before installing DataLite. You will save a lot of time and also avoid the rare, but possible, case of data loss.

This manual requires you to be familiar with your ST/STe/TT/Falcon030 computer.

We welcome user feedback on ideas of how to extend and improve DataLite.

One word of caution right from the start: please make sure that you have backups of all the data that you intend to compress using DataLite - although it is a very reliable package it would be unwise not to be security-conscious when using this type of program.

System Requirements

DataLite 2 works on the following configurations:

- Atari ST with 1Mb of RAM or greater
- Atari STe with 1Mb of RAM or greater
- Atari TT
- Atari Stacy
- Atari Falcon

Making a Working Copy

Before using DataLite you should make a backup copy of the distribution disk and put the original away in a secure place; safe from extremes of temperature, magnetic fields, moisture and children! The disk can be backed-up using the Desktop or any backup utility - before making any backup always write-protect the master to prevent accidental erasure.

The disk is not copy-protected to allow easy backup and to avoid inconvenience; remember though that the software and this manual are protected by international copyright laws and you are only permitted to copy the software for your own personal use. If this sounds officious, look at it another way - if you give away copies of DataLite to your friends we will not receive enough revenue from the sale of the package to improve this and other products. We want to help you, please help us in return.

Registration Card

Enclosed with this manual is a registration card which you should fill in and return to us in order to register your purchase of DataLite. This will entitle you to a free period of technical support and will enable us to keep you informed of future developments to our software.

For details of our technical support services, please refer to the *Technical Support* Appendix in this manual.

You will need to quote your serial number (to be found on the disk label) to obtain technical support and you may find it useful to make a note of it here:

```
Serial No.
```

The Supplied Files

First of all, you should create at least one backup copy of the original DataLite disk as described above.

Please note that the disk is formatted single-sided to retain compatibility with all Atari computers. This means that you can only copy it onto another single-sided disk if you use the disk copy procedure described in the Atari manual. For all following steps, use only the copy and store the original in a safe place.

The disk contains, at least, following files:

INSTALL.PRG	the installation program
DATALITE.PRG	the DataLite start program
DATALITE.ACC	the DataLite accessory
DATALITE.SYS	the DataLite main data file
READ_ME.TXT	latest information on DataLite

In addition, there will be a folder named AUTO which contains a copy of the program DATALITE.PRG.

Please note that our programs are continuously being improved and extended. The manual, of course, cannot be updated as quickly as the programs.

Up-to-date information about the actual version of the software contained on your disk can be found in the text file on the disk named READ_ME.TXT. Double-click on the file icon to read or print this file. You should read this file before installing DataLite.

Installation

Ensure that you made a backup of the DataLite master disk before proceeding to install the package.

Using the Installation Program

Using your backup, simply insert the disk into your floppy drive, double-click on the disk icon from the desktop to open the disk window and then double-click on INSTALL.PRG.

```
┌─────────────────────────────────────────────────────────────┐
│  ┌────────────────────────────┬────────────────────────────┐ │
│  │    DATAlite 2 V2.16         │ This program will simplify │ │
│  │    Installation Program     │ the process of registering │ │
│  │  ©1993 LogiLex Distributed by HiSoft │ and installing DATAlite 2. The │ │
│  │                             │ registration information is│ │
│  │  encrypted and embedded in the program file. All of the   │ │
│  │  required files will be copied to the correct locations. Please │ │
│  │  complete and return your product registration card, it is│ │
│  │  required to receive product support. To get the best performance │ │
│  │  out of DATAlite 2, it is extremely important that you read the │ │
│  │  program reference manual and the README file on the master disk. │ │
│  │                                                           │ │
│  │                                      Install on Drive:    │ │
│  │   Name:   │_____                       │ │
│  │   Address: _____    ▓Hard Disk▓        │ │
│  │            _____    │Floppy Disk│       │ │
│  │                                                           │ │
│  │   ┌─────────Exit─────────┐    ┌────────INSTALL───────┐    │ │
│  └────────────────────────────┴────────────────────────────┘ │
└─────────────────────────────────────────────────────────────┘
```

The DataLite Installation Screen

The installation program will ask you to enter some details, such as your name and address and where you want to install DataLite; do this and then click on INSTALL. The installation program will proceed to do all the donkey work for you.

If you should wish to install the program manually we give some instructions below. Please note that you *must* first run the installation program on a backup of your master disk to install your registration details in the master copy of DataLite. Then you can use this master-installed disk to install DataLite manually on your hard disk, say. Remember, you don't *need* to do this manually - you can use the installation program to do *all* the work for you.

Manual Installation on Floppy Disk

Since you need the DataLite program to access compressed media, it is advisable to install it in the AUTO folder. DataLite will become active after resetting the system. The installation varies depending on the external peripherals of your computer system.

If you do not own a hard disk it is necessary to install DataLite on your boot disk. You can either copy your normal AUTO folder and your desk accessories from the boot disk onto the DataLite backup disk or you can copy the DataLite files onto your boot disk. Here is a brief description of the second method.

First, copy the files DATALITE.PRG, DATALITE.ACC, and DATALITE.SYS onto your boot disk as described in the Atari manual.

Normally, your boot disk should already have a folder named AUTO. If not, create it by clicking on the menu entry New Folder in the GEM desktop menu.

Now you have to copy the file DATALITE.PRG into the AUTO folder. Grab the file with the mouse pointer and drop its shadow on the AUTO folder. After this copy procedure, DataLite is installed and will be loaded automatically whenever you turn on or reset your computer system with the boot disk inserted.

Manual Installation on Hard Disk

If you have to start your hard disk with a special boot disk (as necessary with some older device drivers or uncommon hard disks), the installation of DataLite is just the same as using floppy disks - see the previous sub-section.

Otherwise, your hard disk is bootable and has at least one boot partition. The computer will load device drivers, AUTO folder programs, accessories, and the desktop information file from this partition. In nearly all cases the boot partition is named C. If not, hopefully you know which partition is your boot partition!

To install DataLite, copy the files DATALITE.PRG, DATALITE.ACC and DATALITE.SYS from the DataLite disk onto your boot partition. If your boot partition does not already have a folder named AUTO, create it as described in the Atari manual.

Now you have to copy the program DATALITE.PRG into the AUTO folder. Grab the program icon by pressing the mouse button, move the icon frame onto the AUTO folder icon, and then drop the frame by releasing the mouse button.

Important note: DataLite requires a hard disk driver compatible with Atari AHDI 3.00 (or higher). If you are not sure whether your hard disk driver is compatible we strongly recommend you use the original Atari driver. As this manual was printed, AHDI was available in version 6.03 (further information about hard disk drivers is to be found in the text file READ_ME.TXT).

Manual Installation on Removable Hard Disk

Installing DataLite on removable hard disk drives is the same as installing it on ordinary hard disks - see the previous section. You have to install DataLite repeatedly on each bootable media used.

To ease this procedure first install DataLite on one media and then set the system parameters of the program. All these settings will be stored in the file DATALITE.SYS and you should copy this file on to the other removable hard disks. After this, all disks will contain the same DataLite parameters.

Program Conflicts

If your computer system will not boot properly after installing DataLite the reason is probably a program conflict.

You can check this by following procedure: turn your computer off and on again to make sure the problem appears during booting. Be sure to turn off the computer for at least half a minute as many Atari power supplies maintain the RAM contents for a substantial time.

If the problem still exists after this new boot re-start your system and keep one of the Shift-keys pressed shortly before the DataLite copyright message appears. Type No when the DataLite prompt appears and wait until GEM desktop appears.

Open the AUTO folder and have a look if there are other programs other than DATALITE.PRG. If there are some you should de-activate them by re-naming the last character of their program extension (e.g. *.PRG to *.PRX). Then you should also rename all accessories in the root directory (*.ACC to *.ACX).

After this procedure and a following reset DataLite should install itself properly. Otherwise refer to information about your hard disk driver (as given in READ_ME.TXT) or contact HiSoft or Oregon Research for technical support.

If DataLite works fine after re-naming the programs you have to check which of the programs lead to the problem. Re-install them one after each other and reset your computer until it runs into problems again. You can shorten this procedure by re-naming all *accessories* at once as they are not likely to interfere with DataLite.

After you have found the critical program you can try changing the order of the programs in the AUTO folder. This might eliminate the problem. This is best done with a file sort utility or XBoot 3.

If re-sorting the AUTO folder programs does not help, you must choose which of the programs you prefer. Please tell us about program conflicts as we are always interested to improve the overall compatibility of DataLite.

However, DataLite is an extremely legal program and we obviously cannot be responsible for the behaviour of other, more ill-mannered, programs.

Data Safety

In the daily use of your computer system all data will be as safe with DataLite as it is without. But, naturally, some risks still remain. One likely cause of data loss is a reset of the computer during a write operation. Since the data's structure is stored at a different place from the data itself, they may not be compatible if the reset was invoked between write operations.

This can happen on any system, whether you use DataLite or not, but if you choose to use online compression it will take longer to write the data and structure information. If you also use the option to compress media and new data doesn't fit on to the compressed disk, it may happen that the storing of even a small file takes longer than you would expect. Do not forget that a reset during this operation may lead to data loss.

You should make sure that you do not lose data this way by never using the reset button or turning the computer off while data is being written to disk.

This type of error cannot happen if a program or accessory crashes, even when you are simultaneously optimizing media in multi-tasking mode. DataLite always writes the data and the data structure before giving control to another process.

Having said all this, we regard it as *essential* to take a full backup of all your data before installing DataLite on your system. In normal use DataLite is a reliable and often essential utility but it would be a foolish person who did not guard against the possibility of data loss. Don't risk it, please!

Main Functions

```
┌─────────────────────────────────────────────┐
│ ⊠  ▒▒▒  Version 2.16 - Nr. 216292  ▒▒▒       │
│                                              │
│  DATA lite 2    (C) 1993 LOGILEX             │
│                  BONN GERMANY                │
│                 UK: HISOFT                   │
│                                              │
│                  BY MARTIN A. WIELEBINSKI    │
│  ┌─ Registered to: ──────────────────────┐   │
│  │                                        │   │
│  │            HiSoft                      │   │
│  │                                        │   │
│  │                                        │   │
│  └────────────────────────────────────────┘   │
│                                              │
│   ┌──────────────┐    ┌──────────────┐       │
│   │  Parameters  │    │ Compression  │       │
│   └──────────────┘    └──────────────┘       │
│   ┌──────────────┐    ┌──────────────┐       │
│   │ Preferences  │    │    Cache     │       │
│   └──────────────┘    └──────────────┘       │
│   ┌──────────────┐    ┌──────────────┐       │
│   │    Format    │    │    Drives    │       │
│   └──────────────┘    └──────────────┘       │
└─────────────────────────────────────────────┘
```
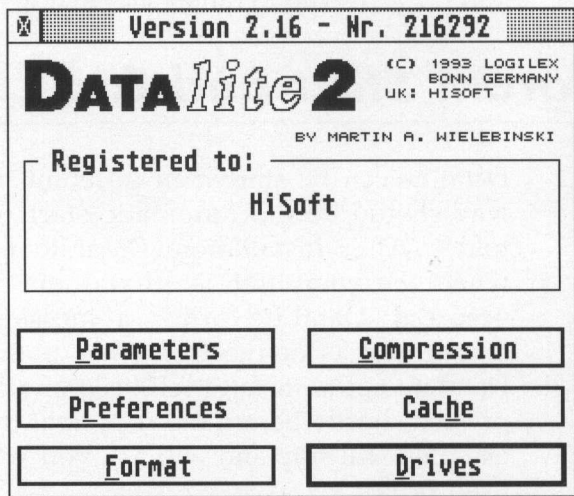
The Main Screen

DataLite is a memory resident driver which uses a shared memory scheme to act either as an AUTO folder program, an accessory, or as an application.

DATALITE.PRG is the controlling program which loads and starts the main code file DATALITE.SYS or starts it directly in RAM if it is already loaded. DATALITE.ACC is a desk accessory identical to DATALITE.PRG. It only tries to start the DataLite code, which must be already be loaded.

As the DataLite user interface gives access to all functions either in the main application or in the accessory these functions are explained here together.

You will notice some letters underlined within the various DataLite dialogs. This indicates the keyboard shortcut for a particular button or selection e.g. in the above dialog simply hold down the Alternate key and press D to go to the Drives dialog.

Program Start and End

DataLite can be started in different ways. The usual way should be the automatic start from the AUTO folder. After installation, DataLite will be executed when the computer is turned on or after a reset occurred. DataLite prints a message on the boot screen and is active from that point. If you want DataLite not to install itself keep one of the Shift-keys pressed shortly before the copyright message appears; DataLite will stop and will ask you whether to install itself or not.

You can also start DataLite from the desktop by double-clicking on its program icon DATALITE.PRG. If DataLite is not yet installed it will ask if you want it to be installed and if you want to return to desktop or stay in the DataLite main application.

If there is not enough RAM DataLite will try to minimize the various cache memory blocks - see the section about the Cache, below. If there still is not enough memory DataLite will print a message and will not install itself. If you want to give DataLite or your complete system more RAM you can de-activate accessories or AUTO folder programs be re-naming the last character of their program extensions (*.PRG to *.PRX, *.ACC to *.ACX). A reset is then necessary.

When DataLite is installed, all functions can be accessed by starting the main application DATALITE.PRG or by selecting DATALITE from the Desk menu.

Please note that some of the functions need additional RAM which might not be available to the accessory if another application has seized it already (which is bad programming style, but still quite common). In this case just leave the application and repeat your commands starting from the desktop.

If you want to de-activate DataLite, start DATALITE.PRG and click on the Quit menu entry while keeping one of the Shift-keys pressed. DataLite will then ask you, if you want to de-install it. Please remember that you cannot access compressed partitions after de-installing.

Function 'Drives'

Using this menu entry or the equivalent accessory button takes you to DataLite's main function. You can create compressed media, optimize the compression of data, or decompress media.
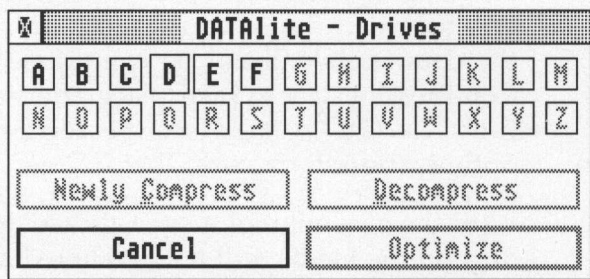
The Drives Dialog

A dialog window similar to the one shown above will appear. Unavailable partitions are displayed grey and cannot be selected. DataLite compressed partitions are displayed with an enlarged button. The drive icons A: and B: display the state of last disk inserted. The state of the current floppy disk will be updated if you select the drive by clicking on the button with the mouse.

You will soon notice, that it is possible to select a set of compressed partitions, but un-compressed partitions can only be selected one at a time. Depending on the partitions selected the following sub-functions are available:

'Newly Compress' Drive
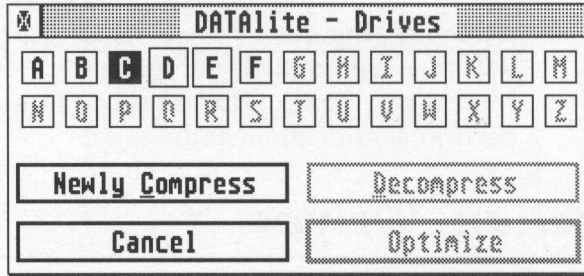
Choosing Newly Compress

This function is only available if you select an un-compressed partition. It changes the media format, enabling it to store compressed data. Please note that this function only changes structures on the media, the data itself will not be compressed at this point. Compression has to take place afterwards, using the function Optimize - see the section below about optimization.

With the exception of a special case described below, data on the media will not be altered and can be used after changing the structure without restrictions. Nevertheless you should make a complete data backup for the following reasons (especially if you are new to this kind of work).

In a similar fashion to a hard disk optimizer or a formatter, DataLite has to change highly sensitive information which the operating system needs to access the data. If a power-failure, a reset or a spurious system crash occurs while changing the structures all data may be lost. This may also happen if you use a hard disk driver not compatible with Atari's AHDI.PRG or special programs which disturb hard disk accesses (e.g. cache programs, hard disk accelerators, etc., normally to be found in the AUTO folder).

Note: You should not compress boot partitions (normally C:), boot disks or the DataLite original disk. As compressed media can only be accessed after DataLite has been executed, you would not be able to start DataLite from a compressed partition.

A few hard disk formatters mark all partitions as bootable. In this case it is acceptable to compress the partitions, all except the real boot partition (normally C:). If floppy disks are bootable when you would not expect them to be, they probably carry a boot sector virus that you will have to eliminate using anti-virus programs.

Tip: Since the boot partition cannot be compressed, you should make it as small as possible using a hard disk formatter. You can then compress all other partitions to reach a high compression rate.

When you choose Newly Compress, the dialog shown on the next page will appear:

```
┌─────────────────────────────────────────────┐
│ ⊠ ▓▓▓  DATALite - Newly Compress  ▓▓▓        │
│ ┌─ Structure ─────────────────────────────┐  │
│ │                  NORMAL   COMPRESSED     │  │
│ │  sector size       512   ◇│ 512 │◇       │  │
│ │  DIR entries       256   ◇│ 256 │◇       │  │
│ │  sectors/media   21400   ◇│42800│◇       │  │
│ │                                          │  │
│ │  max. capacity    100%      200  %       │  │
│ │  bytes free   10956800   21913600        │  │
│ │  Drive name:          └────────·───      │  │
│ └──────────────────────────────────────────┘ │
│                                               │
│    NOTE: MEDIA WITH MORE THAN 32767 SECTORS   │
│     WILL ONLY RUN USING TOS 1.04 OR HIGHER    │
│                                               │
│  ┌──────────────────┐  ┌──────────────────┐  │
│  │     Cancel       │  │     Create       │  │
│  └──────────────────┘  └──────────────────┘  │
└─────────────────────────────────────────────┘
```
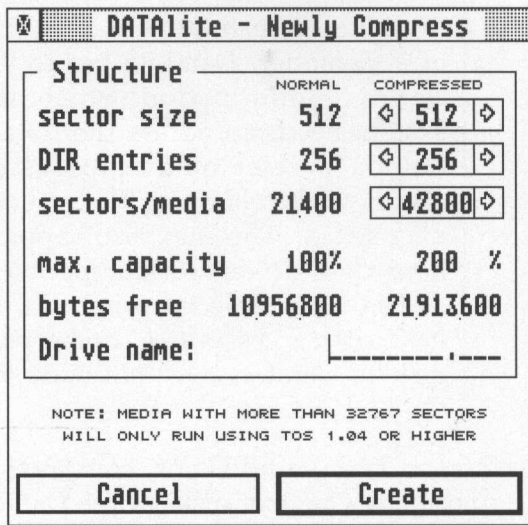
Compressing a drive

This dialog gives you information about the selected partition and allows you to alter its structure. To explain these structures a short introduction into the inner functions of DataLite is necessary.

> Every disk or hard disk has a specific memory capacity. To use the memory efficiently, it is split into blocks of data which are called *sectors*. Sectors have a constant size which ranges between 512 and 4096 bytes (on standard Atari floppy disks or hard disks).

> As a disk may have a maximum of 65534 sectors you can easily calculate the maximum size of an Atari hard disk partition by multiplying sector size and sector number (to reach, in this case, 256Mb). Please note that TOS versions lower than 1.04 as well as old hard disk drivers (AHDI lower than version 3.00) can only handle up to 32766 sectors and therefore are restricted in their capabilities.

DataLite enters exactly at this point and tells the operating system that many more sectors are available than there are in reality. The data written to the media is then compressed by DataLite and is stored in fewer sectors than are actually required.

Since the operating system cannot cope with disks changing their capacity, you have to choose the absolute maximum size each compressed section may offer.

This can be done by changing sectors/media or sector size. Click on the arrows with the mouse to increase or decrease the given values. If you hold the Shift key while clicking the values will scroll faster.

Normally you should only change the sectors/media to reach the desired maximum capacity. Depending on what type of data is going to be stored on the partition you should choose a value that gives a maximum capacity between 200% (e.g. Programs, random data) and 400% (e.g. un-compressed graphic data, databases, program sources). It may happen that you cannot reach the value by only changing the sectors/media value (especially if you use a TOS version lower than 1.04). In this case you have to change the sector size.

Changing the sector size has various effects so the computer has to be reset immediately after creating the new partition, otherwise the hard disk driver would be very surprised and probably crash. But DataLite will warn you and will invoke the reset automatically.

All data on the partition will be lost because changing the sector size is an operation similar to formatting the hard disk.
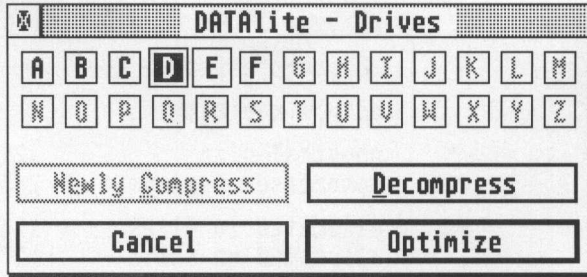
DataLite will display a warning to that effect. In addition, there is a marginal loss of compression efficiency as larger sectors cannot be compressed as efficiently as small sectors (DataLite will compress 4096-byte sectors about 5% worse than 512-byte sectors). All this leads to one simple conclusion: change the sector size only if it is absolutely necessary.

You can also change the number of entries in the root directory (DIR entries). This is the maximum number of files or folders displayed in the original window when you open a drive. Note that this number cannot be changed afterwards. In contrast, the number of files or folders within other folders is not restricted. DataLite will display a number suitable to most situations, but you are free to change it.

When displaying this dialog DataLite will normally assign a maximum size of 200%, which fits most partitions.

After using the Create button, the partition or disk will be changed to the new format. All data will remain un-altered if the sector size was not changed. If you create compressed floppy disks, DataLite will ask if you wish to compress further disks so you can quickly change the format of several floppy disks.

'Decompress' Drive

```
┌─────────────────────────────────────────┐
│ ▓  ░░░░░░  DATAlite - Drives  ░░░░░░      │
│ ┌─┐┌─┐┌─┐┌█┐┌─┐┌─┐┌─┐┌─┐┌─┐┌─┐┌─┐┌─┐┌─┐  │
│ │A││B││C││D││E││F││G││H││I││J││K││L││M│  │
│ └─┘└─┘└─┘└─┘└─┘└─┘└─┘└─┘└─┘└─┘└─┘└─┘└─┘  │
│ ┌─┐┌─┐┌─┐┌─┐┌─┐┌─┐┌─┐┌─┐┌─┐┌─┐┌─┐┌─┐┌─┐  │
│ │N││O││P││Q││R││S││T││U││V││W││X││Y││Z│  │
│ └─┘└─┘└─┘└─┘└─┘└─┘└─┘└─┘└─┘└─┘└─┘└─┘└─┘  │
│                                           │
│ ┌─────────────────┐  ┌──────────────────┐│
│ │  Newly Compress │  │    Decompress    ││
│ └─────────────────┘  └──────────────────┘│
│ ┌─────────────────┐  ┌──────────────────┐│
│ │     Cancel      │  │     Optimize     ││
│ └─────────────────┘  └──────────────────┘│
└─────────────────────────────────────────┘
```

De-compressing Drive D

This function may be used if you have selected one or more compressed partitions. With it you can change compressed media back to its original format. *But note that all data will be lost* (as it is impossible to store doubled data on the original).

To avoid data loss a safety warning will be displayed for each selected partition. If you decompress floppy disks, DataLite will prompt you to insert further disks until you decide to finish.

'Optimize' Drive

```
┌─────────────────────────────────────────┐
│ ⊠ ▓▓▓▓▓▓▓▓▓ DATAlite - Optimize ▓▓▓▓▓▓▓▓▓│
│  ┌─ E: compressed ──────────────────────┐│
│  │ actual capacity:              168%   ││
│  │                                      ││
│  │ physical size          12174336      ││
│  │ compressed maximum     24576000      ││
│  │                                      ││
│  │ allocated in files     12300959      ││
│  │ allocated on media     12794880      ││
│  │ physically allocated    7601152      ││
│  │                                      ││
│  │ physically free         4573184      ││
│  │ average compr. free     7682560      ││
│  └──────────────────────────────────────┘│
│                                           │
│    □ Optimize for speed                   │
│    □ Optimize for size                    │
│                                           │
│    □ no breaks       Pause  ◁ 0 ▷ sec     │
│  ┌──────────────┐  ┌──────────────────┐   │
│  │   Cancel     │  │    Optimize      │   │
│  └──────────────┘  └──────────────────┘   │
└─────────────────────────────────────────┘
```

The Optimize Dialog

After creating compressed media you should use this function to compress the data already on the media. This function also gives information about the actual compression state.

The Optimize function may also be used if you have selected one or more compressed partitions. With it you can compress partitions to their optimum (minimal) size, which might become necessary sometimes, due to your settings of the system parameters.

Selecting the Optimize for size, check box forces
DataLite to use the best compression algorithm
instead of the one actually selected - see the section
about compression. It also will fill up empty blocks
with easy-to-compress data. Use this setting to
'squeeze' the last possible byte out of a partition.
Naturally this will slow the compression process.

Use of the other check box - Optimize for speed,
will sort the data blocks to accelerate hard disk access.
This is similar to optimizing or de-fragmenting the
drive. Some hard disk optimizers cannot be used on
DataLite partitions. Using this function will
considerably slow down the compression process but
will speed up later disk accesses.

Check the no breaks box if you want to optimize
multiple partitions. Normally the dialog window
will be displayed before optimizing each partition
and DataLite will wait for confirmation before
optimizing the next drive. If you select No breaks,
all partitions will be optimized without further
delays.

The next setting is the Pause value which can be set
from 0 to 9 seconds; this is useful when running
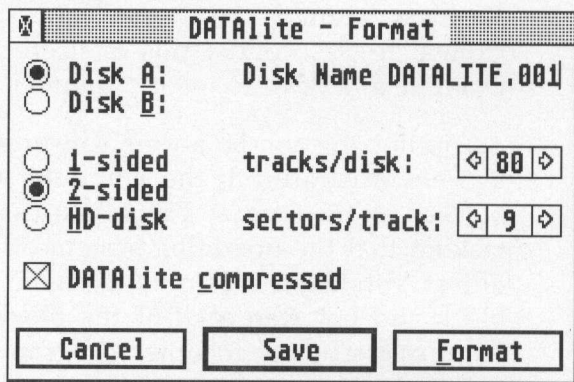DataLite as a desk accessory or under MultiTOS.

As optimizing can be a time consuming job it would
be very frustrating if the computer was completely
blocked all the time. so DataLite uses a form of multi-
tasking that the operating system offers (even in the
oldest versions). Optimizing takes place block by
block and between each of the blocks DataLite will
hand over control to other programs (normally the
main application or accessories). This will happen
even if you turn the pause to 0 seconds.

The best setting depends very much on the CPU speed of your computer if the processing time DataLite needs disturbs you when using other programs at the same time. It may be bearable if text in a word processing program is displayed with a short delay, but it can be distracting if mouse clicks are late or missing in a CAD program. In these cases you should increase the value of the pause to give more time to other processes. You may change the pause value at any time, even during optimization.

Another feature of DataLite is that you can read or save data to a partition while it is being optimized. But note that newly-written data cannot be optimized in the same cycle.

If you close the dialog window or click the Cancel button, optimizing will not go ahead. This will also happen if you optimize using the accessory and start or quit a GEM application.

Function 'Format'

```
┌─────────────────────────────────────────┐
│ ▨    ░░░░░ DATAlite - Format ░░░░░       │
│ ◉ Disk A:      Disk Name DATALITE.001│   │
│ ○ Disk B:                                │
│                                          │
│ ○ 1-sided     tracks/disk:  ◁ 80 ▷      │
│ ◉ 2-sided                                │
│ ○ HD-disk     sectors/track: ◁ 9 ▷      │
│                                          │
│ ⊠ DATAlite compressed                    │
│ ┌──────────┐ ┌──────────┐ ┌──────────┐  │
│ │ Cancel   │ │   Save   │ │  Format  │  │
│ └──────────┘ └──────────┘ └──────────┘  │
└─────────────────────────────────────────┘
```

The Format Dialog

This dialog features standard formatting facilities as well as the option to format compressed floppy disks.

You may select whether to format a disk in drive A or B and choose if the disk is to be formatted one-sided, double-sided or in high-density mode. Choose only formats that are supported by your disk drive.

You can set the number of tracks, which defaults to 80 tracks. Please note that using too high values may lead to problems and may potentially damage the disk drive.

You can also select whether a 9 (standard) or 10 sector format will be used. The 10 sector per track mode works fine on most disk drives and allows you to store about 10% more data than usual (un-compressed).

The last setting determines whether the disk will be formatted in the DataLite format or as a normal disk.

Note: the DataLite formatting routine will not format damaged disks although some other formatters allow you to do so. Experience shows that damaged disks soon lose more and more data and therefore should not be used at all.

To start formatting click the Format button. Format settings may be saved by selecting Save.

If you close the dialog window or click on the Cancel button, the original settings will be restored.

Function 'Parameter'

```
┌──────────────────────────────────────┐
│ [X] ▒▒▒▒ DATAlite - Parameters ▒▒▒▒   │
│ ┌─ TOS Values ─────────────────────┐  │
│ │               BOOT   BPB  DFREE   │  │
│ │  abs. minimum  ⦿     ○     ○      │  │
│ │  act. minimum  ○     ⦿     ○      │  │
│ │  average       ○     ○     ⦿      │  │
│ │  abs. maximum  ○     ○     ○      │  │
│ └───────────────────────────────────┘  │
│                                        │
│   ☐ Only legal sectors                 │
│   ☐ Save all boot sectors              │
│                                        │
│ ┌─────────┐ ┌──────────┐ ┌─────────┐  │
│ │ Cancel  │ │   Save   │ │   OK    │  │
│ └─────────┘ └──────────┘ └─────────┘  │
└──────────────────────────────────────┘
```

The Parameter Dialog

This dialog enables the setting of various low level DataLite options. If the check box Only legal sectors is selected, DataLite checks that partition accesses succeed only within the given size of the partition. This is a safety option which should normally be active. You should only turn it off when using hard disk tools like sector editors, formatters or disk monitors.

Selecting Save all boot sectors will ensure that boot sectors viruses will not be spread. Only non-executable boot sectors will be written. If an attempt to write to a boot sector has occurred, you will be informed the next time you open the DataLite accessory or run the program.

TOS Values

Under the TOS Values heading you can select which media size information DataLite will return to the operating system or to other programs. You should not need to change any of these settings under normal conditions (unless you are running disk copying or disk optimising programs such as Diamond Back and Diamond Edge - see below). If you are not sure what these settings do, simply leave them as they are.

The options relate to the fact that the operating system is not designed to handle media changing its size during a work session. Nevertheless DataLite does exactly that. DataLite cannot predict how well files can be compressed and so it cannot know how much data space there will be for data and programs.

As the various operating system versions as well as other programs use the size information in different ways it is up to the user to select the settings as needed. The following four values can be selected.

Abs. minimum is the original physical size of the partition, as if it had not been compressed. This value should only be selected if you want to use hard disk tools.

Act. minimum is the sum of the data already compressed and the actual physical free disk space. Using this selection is quite advisable as it ensures that all data written will be really stored on the media.

Average is a mathematical operation which tries to calculate the partition's size depending on the actual state of its compression. It simply declares that all data to be written will be compressed at least as well as the data written already. Selecting this is advisable if the programs using it check for function error codes and are capable of handling these errors.

Abs. maximum is the maximum size used when creating the partition - see the *Newly Compress* section. As this value does not correspond with the saved data at all it is only for special cases (e.g. if you want to scan all sectors in a sector editor that checks the sector number with the given sector size).

These four values can be set for three different functions that the operating system or other programs use to check the media's size.

BOOT

The BOOT value which is read out of the media's boot sector is normally only used by 'hard tools' like sector monitors or formatters. As they often access the partition physically it is advisable to set the BOOT value to Abs. minimum when using such tools.

You should change this setting from this value only if you are absolutely sure of what you are doing. Even then you should set it back as quickly as possible as there may be data loss if this setting is not correct (e.g. the Zero Partition function of a hard disk formatter may erase other partitions as well if the BOOT value is not at Abs. minimum).

BPB

The next function value is the so-called BIOS Parameter Block, BPB. It is used by many sector-orientated mass media programs like fast file movers or backup programs. The advisable setting is Act. minimum as it will ensure that all data written to the partition will reach it. Normally it should be even better to use the setting Average, but a few *older* versions of some fast file movers simply ignore error codes (as they were sure that the data must fit on the media), so the recommended standard is Act. minimum.

If you are using a *modern* low-level sector-based program (such as Diamond Edge, Diamond Back and KnifeST) which takes care to check its actions at every step you should set this option to Abs. Maximum; this will ensure that as data is moved around the media (causing the apparently available free space to vary wildly!) that all checks performed by these programs on sector numbers will succeed.

DFREE

The last function which informs programs about media sizes is the GEMDOS function Dfree. This function does not normally suffer the problems described earlier. Therefore it is recommended to set it to Average as all programs using this value ought to check if writing has lead to an error. This value is also the one to be displayed if you choose the desktop menu entry Show info....

If you should have problems with a program (writing incomplete files without an error message, say!), write to the author or inform HiSoft/Oregon Research.

Programs that will not run in a multi-tasking environment may lead to problems with other accessories or AUTO programs. Normally such errors are corrected when reported, otherwise you can simply set the Dfree option to Act. minimum.

But also the setting Abs. maximum is of some interest in special cases: if you use programs creating large amounts of highly compressible data (e.g. typesetter output, true colour graphic data etc.) this option will allow you to write files which are much larger than the physical size of the partition.

If you are not sure which setting you should use, keep to the standard setting displayed by default or use a setting with even lower values (the switches are in increasing order from top down). These settings ensure that all data transferred will reach its destination.

The lower you set the options the more likely a message like No Disk Space may appear even though DataLite assures you that there is disk space available. In this case the desktop or another program has calculated the disk's space and is not yet informed that the data has been compressed. If this should happen you have to force the program to re-calculate disk space.

From the desktop, open the partition's window and press the Esc key. In other programs you may have to de-select and re-select the partition or just change the partition in the file selector. Afterwards repeat the original command and it should be executed successfully.

The settings of the dialog window can be confirmed by selecting the OK button or permanently stored with the Save button. If you close the dialog window or select Cancel, the original state will be restored.

Function 'Compression'

```
┌─────────────────────────────────────────┐
│ ▨ ▦▦▦▦ DATALite - Compression ▦▦▦▦ │
│ ┌─ Compress ─────────────────────────┐ │
│ │  ○ Manually offline                │ │
│ │  ◉ All blocks online               │ │
│ │  ○ Data complete online            │ │
│ │  ⊠ If media full                   │ │
│ └────────────────────────────────────┘ │
│ ┌─ Method ─────────────────────────────┐│
│ │              CAP. COMP DECOMPR       ││
│ │  ○ Huffman   154%  300   300         ││
│ │  ○ HuffWorm  182%   80   800         ││
│ │  ○ LZSS-Worm 200%   50  1250         ││
│ │  ◉ Optimum   220%   40  1000         ││
│ │                    TT-KB/SEC         ││
│ └──────────────────────────────────────┘│
│ ┌─ Cancel ─┐ ┌─ Save ─┐ ┌──── OK ────┐ │
│ └──────────┘ └────────┘ └────────────┘ │
└─────────────────────────────────────────┘
```

The Compression Dialog

The Compression dialog window enables you to select how data is compressed and which method is used to compress it.

Compression Control

You may choose if compression takes place Manually offline, which means that the data is written uncompressed and has to be compressed later using the Drives and Optimize functions. This option leads to fast writing as no compression will slow the accesses.

A good compromise between speed and efficient compression is the All blocks online option, which will only compress large blocks of written data. All small write accesses, which are repeated very often (e.g. when writing into folders) will not be compressed and so the overall performance is much better than if you choose to compress every access. This option is recommended as standard.

If speed is not important, you can choose the option to compress Data complete online, which compresses all data before it is written to disk, but can lead to dramatic speed losses. These speed losses are due to the way the operating system handles data transfers and this option should only be used if you have to write extremely large files to a partition which would normally be much too small to hold these files (see the section about compression). In this case we recommend to write these files to the root directory, which may speed things up a little.

The selection of If media full ensures that all the data of a file is written to the media as long as DataLite is able to optimize the media. This option is recommended as standard.

When using this option, writing small files may occasionally take longer than you would expect. This is especially noticeable when using compressed floppy disks. Remember that this behaviour is not an error. Do not stop the operation, do not invoke a reset, do not take the media out of its drive, or turn off the power of any part of your system. This of course applies to hard disks as well but, as the time gap may be longer on floppies, we have to emphasize it. As DataLite will only optimize the disk until the data fits onto the media, it is recommended that you optimize the partition soon afterwards using the Drives and Optimize functions.

Compression Type

You may also select which compression algorithm will be used to compress the data.

The average efficiency, compression and de-compression, speeds of each method are displayed in the dialog. These values have been obtained using a standard Atari TT030 with TOS 3.06 and the original hard disk driver AHDI 5.00 (processor cache on, code and data in TT RAM, which is standard). The data came from 50 frequently-used partitions and only 'real' data was used for testing (no empty or unused sectors). Nevertheless the given values of all algorithms can vary enormously depending on the data to be compressed.

The actual compression type only relates to data which is written or optimized after changing the setup. You can change the compression method at any time and you are free to compress partitions with various compression algorithms. Note that already compressed data will not be changed. So if have used Huffman compression, which is slow to unpack, the partition will not speed up if you simply select LZSS-Worm compression.

The method named Optimum is in reality not a special algorithm. Instead it tests all the given methods and chooses the best one for each block of data. As it leads to the optimum data reduction and is de-compressed at very high speed we recommend this option as standard although it may take quite some time to compress a disk/partition using this method.

The settings of the dialog window can be confirmed with the OK button or permanently stored by clicking on the Save button. If you close the dialog window or select Cancel, the original state will be restored.

Function 'Cache'

```
┌─────────────────────────────────────────┐
│ ▓ ▒▒▒▒▒▒▒▒ DATAlite - Cache ▒▒▒▒▒▒▒▒▒▒▒ │
│                      ACTUAL   AFTER RESET │
│  DATAlite cache        16    ◄ 18 ► K     │
│  GEMDOS FAT             8    ◄  8 ► K     │
│  GEMDOS DIR/Data        8    ◄  8 ► K     │
│  New folder slots       0    ◄  0 ►       │
│                                           │
│              ┌─────────┐   ┌─────────┐    │
│              │ Cancel  │   │ Save    │    │
│              └─────────┘   └─────────┘    │
└─────────────────────────────────────────┘
```

The Cache Dialog

This function allows you to set the cache size and save your settings. Please note that the new settings will only take effect after re-booting the system.

To work with the structures of compressed media DataLite needs memory. The actual amount of memory needed is determined by the size of the compressed media. The RAM DataLite needs is integrated in the DataLite cache but as this memory is not needed all the time, it will also be used memorize user data, to speed repeated hard disk accesses (like a so-called *read cache*).

With a DataLite cache of say 16Kb you can access partitions up to 52Mb. If you try to access a larger partition DataLite will refuse to do so and will give notice either when installing, or when clicking on the accessory, or starting the main program.

The suggested cache size DataLite displays is normally double the minimum size. Choosing a lower value will slow the process of copying between two compressed partitions. Giving the cache more memory is never a bad idea, but you need not overdo it as the cache can only use up to 256Kb.

If you use removable hard disks you should insert the media with the largest partition before selecting this function to ensure the suggestion of DataLite is at optimum size.
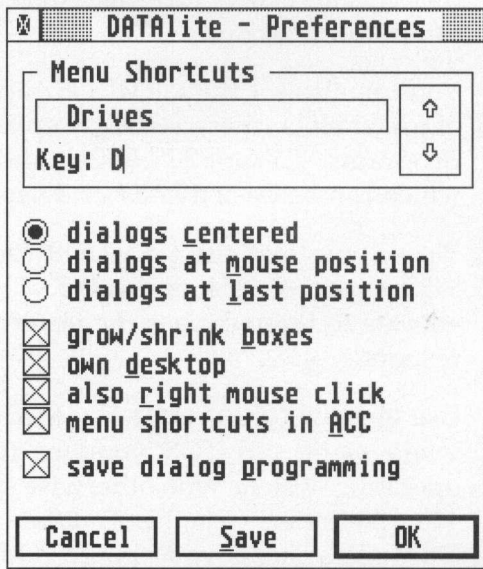
You can also set the GEMDOS cache and the number of folder slots (these settings replace the AUTO folder programs CACHE???.PRG and FOLDR???.PRG, which can be de-activated or deleted).

Please note that the GEMDOS cache is used only in TOS versions 1.04 or higher. The more RAM you allocate to these caches, the faster your hard disk will respond.

Use of New folder slots is, in comparison, essential when using old TOS versions (before 1.04) as the operating system will otherwise crash after opening 40 or 80 folders (whether DataLite is installed or not). On these systems you should add at least 100 folder slots.

The settings of the dialog window can be saved permanently with the Save button, but note that the changes will only take place after a reset. If you close the dialog window or click on Cancel the original state will be restored.

Function 'Preferences'

```
┌─────────────────────────────────────┐
│ ⊠ ▓▓▓▓▓ DATAlite - Preferences ▓▓▓▓▓ │
│ ┌─ Menu Shortcuts ──────────────┐    │
│ │ ┌─────────────────────────┐  ┌──┐ │
│ │ │   Drives                │  │ ⇧│ │
│ │ ├─────────────────────────┤  ├──┤ │
│ │ │ Key: D                  │  │ ⇩│ │
│ │ └─────────────────────────┘  └──┘ │
│ └───────────────────────────────────┘│
│   ◉ dialogs centered                 │
│   ○ dialogs at mouse position        │
│   ○ dialogs at last position         │
│   ⊠ grow/shrink boxes                │
│   ⊠ own desktop                      │
│   ⊠ also right mouse click           │
│   ⊠ menu shortcuts in ACC            │
│   ⊠ save dialog programming          │
│  ┌─────────┐ ┌─────────┐ ┌─────────┐ │
│  │ Cancel  │ │  Save   │ │   OK    │ │
│  └─────────┘ └─────────┘ └─────────┘ │
└─────────────────────────────────────┘
```

The Preferences Dialog

The Preferences dialog window allows customizing of the DataLite user interface.

First of all, you can change the Menu Shortcuts by entering the character attached to the displayed menu entry. With the arrows you can scroll along all menu entries. If you want a menu entry without a shortcut simply erase the character.

The following three radio buttons allow you to set the position where dialog windows and alert boxes appear. You can choose whether they will be displayed at the centre of the screen, next to the actual mouse pointer position, or if they should stay at the position they were moved to.

The grow/shrink boxes box defines whether a graphic effect (an expanding or shrinking box) is displayed when opening or closing windows and dialogs. While this may look pretty, it slows down the drawing of the dialog windows.

own desktop defines whether DataLite displays its own desktop instead of the usual Atari desktop. This only has effect when running the program version of DataLite.

If the box also right mouse click is checked you can use the right mouse button in the top window (GEM only allows to use the right button in background windows). Although this is not a GEM standard, it is a useful feature to use the right mouse button as it is always active, even if a window is not selected.

The box menu shortcuts in ACC selects if the accessory version acknowledges keyboard inputs like the main application. The advantage of using this option is that all menu shortcuts (together with Close and Cycle Window) are available in the accessory even though they are not displayed.

The last box, save dialog programming, allows you to also save the settings of the various dialogs. These settings refer to the position of the windows, the menu and dialog shortcuts, and the programmed default buttons.

The settings of the dialog window can be confirmed with the OK button, or stored permanently by clicking Save. If you close the dialog window or click on the Cancel button the original state will be restored.

Command 'Close'

This menu entry will close the active DataLite window. You could normally also click in the window's close box, but the menu entry ensures the command can be used as from a keyboard shortcut as well.

Command 'Cycle Window'

Using this menu entry you can cycle all DataLite windows until the one desired is on top.

The Dummy Directory

If you try to access a compressed disk/partition when DataLite is not active, a dummy directory will be displayed. A collection of files named LOGILEX.??? And DATALITE.2 will appear in the GEM window or the GEM file selector. You cannot copy, change, delete, or access these entries in any way. They are just a reminder that DataLite has to be installed to access this media and they also ensure that the compressed media is not changed by programs not knowing the special DataLite media format.

Unfortunately a few hard disk drivers do not interpret the boot sector as they should and they do not display the dummy directory but instead a mess of characters and icons. In rare cases this might even lead to a crash of the operating system.

If these problems occur use a different hard disk driver or simply do not access compressed media when DataLite is not active.

Appendix A
DataLite Internals

DataLite works mainly as a BIOS device driver. To the computer and the operating system it simply seems as if a larger media has been attached to the computer. The data written to the media will be combined into blocks and compressed by DataLite. To keep order within these blocks DataLite has to use a reference list similar to the file allocation table (FAT) used by the operating system.

If data is read, DataLite will lookup the position in the list and will then load and de-compress the block and transfer the original data to the caller.

When DataLite is active compressed media can be accessed with a disk monitor or similar special media access programs. The only pre-requisite is that the program uses operating system functions and avoids programming the hardware directly. Fortunately, most programs adhere to these guidelines including KnifeST, Diamond Back and Diamond Edge.

A quite attractive function of disk monitors, the restoring of deleted files, will normally not work with DataLite. You may use the function but it is not likely that the file contents will re-appear. Especially if your files are larger than 32Kb or if you have erased more than one file it is most likely that the un-deleted files will contain mostly zero bytes. This one and only missing function is due to the structure of compressed media and cannot be changed.

DataLite was developed and tested over a very long period on many different computer systems with varying peripherals. It integrates into the operating system and checks all read and write accesses to logical partitions. This concept allows any application to work together with DataLite without compatibility problems. Also the great majority of system-specific programs work together with DataLite.

Compressed media is naturally different from normal media but as long as the media is accessed logically and DataLite controls the access there is no difference from normal media access. Only physical accesses which are not used by normal applications cannot be controlled by DataLite. However, these functions are only available within special disk or hard disk monitors or formatters, which should only be used by people who know what they are doing.

Appendix B
DataLite User-Interface

Elements of the User Interface

DataLite supports improved, non-modal dialog boxes which extend the standard GEM interface. The program also implements many other features that complete a friendly and powerful user interface.

Extended Dialogs

First of all, each dialog button has a keyboard shortcut which can be configured by the user.

Secondly, to ensure MultiTOS compatibility and use the multi-tasking capabilities available when running as a desk accessory, the complete user interface was implemented in non-modal dialogs, which are dialogs in a GEM window. This means that the user can access DataLite dialogs while running other programs. It is also possible to optimise data while actively using other programs.

You should be aware that DataLite always needs an additional window to output alerts or warnings. If there are less than two windows available DataLite will display an alert to this effect.

The implementation of the dialog windows follows the standard GEM convention.

Normally, the left mouse button is used to click on the various buttons, check boxes etc. in the top (active) window. A feature of the Desktop, which we support, is that you can access these various gadgets on windows which are not active by using the *right* mouse button. The selected function will be executed, but the window will not be topped.

This will only work under normal TOS if any DataLite window is a top window. If using Multi-TOS all windows are accessible regardless of which window is on top. The user can optionally select if the right mouse button will also be active in the top window. This simplifies operations since the right button can be used all the time regardless of which window is the top one.

Menu Shortcuts

All menus can also be accessed via keyboard shortcuts, simply press the indicated key while holding the Control key. This is also useful when using the accessory version which does not display the menus. In addition, the shortcuts can be re-defined by the user.

Dialog Window Shortcuts

GEM only supports one keyboard shortcut in dialogs; the Return key can be used to select the default exit button. DataLite takes this further. Nearly all DataLite dialogs support the Undo key to select the Cancel button. In addition, all buttons in a dialog window can be selected by typing the underlined character in the button while holding down the Alternate key.

New Objects

Buttons that have text description on their right can be selected by clicking on the button or by clicking on the text.

Numerical values in dialogs can be scrolled using the arrows. If you hold the Shift key while clicking on one of the arrows the value will scroll faster.

Alerts

DataLite will output most alerts or warnings in a dialog window similar to the familiar alert box but having the advantage of being non-modal and featuring keyboard shortcuts. You can move the alert window or top another window over it.

Some alerts however have to be modal and you will not be able to top another window while the alert is displayed. These are normally warning alerts which require immediate attention before other operations can resume.

Programming the User Interface

DataLite allows the user to customize all dialog button shortcuts as well as menu shortcuts. Just click on any character in a button while holding down the Alternate key and the character will the keyboard shortcut for that button. The new shortcut will be indicated with an underline.

If you select a character that is already used by another button nothing will happen. You will have to change the other shortcut first. This ensures that no keyboard shortcut is defined twice.

You can also change the default button of a dialog. Hold the keys Alternate and Shift down and click on the button you want use as the default exit button. If you click on the existing default button it will become a standard button and the dialog will not have a default exit button any more. You can save all these setting via the Presentation dialog.

Appendix C
DataLite Error messages

Error Messages

DataLite will try to warn you whenever it detects an error. When this happens, you will normally have the choice of removing DataLite from the system or ignoring the message and going ahead with the operation. The warning will be displayed in an alert window whenever possible.

AUTO Folder Message

```
Install DataLite 2? (Y)es, (N)o
```

This message is not really an error message and can only appear if you hold the Shift key while booting. If you select No DataLite will not install and data on the compressed drives will not be accessible.

Messages and Alerts


```
      Drive(s) cannot be accessed
      due to low DATAlight cache.
      Please change and save cache.


          [ Cont ]
```
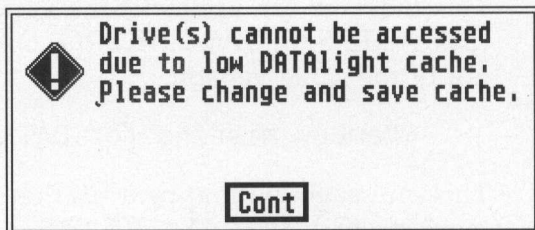
A typical DataLite message

The following messages can appear during booting or while starting DataLite from desktop. These message boxes are normally modal i.e. you must respond to them before doing anything else.

Cannot find DATALITE.SYS

When running DATALITE.PRG, the program will try to load the DATALITE.SYS in the following order: from its own folder, from the root directory of the same drive, from the root directory on the boot drive and then from the root directory of drive A. If it fails to find the file this message will appear. Note that you should not change the file name.

Read error in DATALITE.SYS

This message will appear if DATALITE.SYS could be loaded properly. This may indicate a faulty disk. Check your drive and try to re-copy DATALITE.SYS from the original master disk.

Data error in DATALITE.SYS

This message will appear if DATALITE.SYS was loaded correctly, but the data seems to have been altered. Re-copy DATALITE.SYS from the original disk.

Wrong version of DATALITE.SYS

This message can appear if the various DataLite files (DATALITE.SYS, DATALITE.PRG, DATALITE.ACC) are not of the same version.

Memory missing for DATALITE.SYS

This message will appear if there is not enough memory to load DATALITE.SYS. In this case you should have a look if a program such as a RAM disk is grabbing nearly all available memory.

DataLite cache minimized due to low RAM-memory

This messages states that DataLite could not install as much cache memory as saved in its parameters. DataLite will attempt to install the cache by repeatedly halving the cache size until the system is able to supply the required RAM.

Not enough RAM-memory to install DataLite

This message will appear if there is not enough RAM to install DataLite. The cache sizes are already at minimum so in this case you need to check which other programs are using up the memory.

Note: Drive(s) cannot be accessed due to low DataLite cache
Please change and save cache

This note warns you that the internal DataLite cache is too small to access one or more compressed drives. Data on these drives will not be accessible. Please increase the cache size, save the settings and re-boot the system.

WARNING! DataLite2 code was externally altered
(C)ont, (R)emove, (B)oot

This is a serious warning. The code integrity check has failed which normally means that another program has corrupted DataLite, which can lead to severe errors. You are strongly advised to re-boot your system if this message appears. If the message re-appears this may indicate a system virus.

This warning will appear if a program (normally an Auto folder program) does not conform to the official Atari XBRA convention. We advise you not to use these sort of programs. If you decide to use such programs, make sure they are started before DataLite.

GEM alerts

```
┌─────────────────────────────────────┐
│▓▓▓▓▓▓▓  DATAlite - Question  ▓▓▓▓▓▓▓│
├─────────────────────────────────────┤
│  ┌─┐   Do you really want to        │
│  │?│   decompress drive E:          │
│  └─┘   All data will be erased!     │
│                                      │
│    ┌──────────┐   ┌──────────┐      │
│    │  Cancel  │   │    OK    │      │
│    └──────────┘   └──────────┘      │
└─────────────────────────────────────┘
```
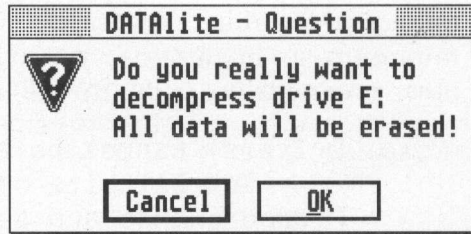
A typical DataLite non-modal alert

There are many other messages that may appear when using DataLite - they usually give you a choice of action.

Many alerts are non-modal, meaning that you can move them around like a window and can click behind them to do something else before responding to the message in the Alert box. You can tell if an Alert is non-modal by the presence of a window title bar at the top of the Alert.

Rather than show all the actual Alert boxes, we list the text of the box, followed by the choices available and a description of the meaning of the Alert. Here are the Alerts that you may see:

> Installing: Do you want to enter the
> DataLite menu or return to desktop?
> Cancel, Desktop, DataLite

This alert will appear if you have loaded DataLite from the AUTO folder and then start it again from the desktop. You can choose whether to cancel the installation, return to the desktop, or stay in the DataLite main program.

> Do you want to cancel this function?
> Yes, No

Some time consuming operations (e.g. formatting) can be aborted by pressing the Undo key. An alert will appear asking whether to stop or continue the operation.

> Not enough RAM-memory available to
> continue this function

It may happen that the system will not have enough memory needed for certain DataLite functions. In that case, if you are using the accessory version, it may help to quit the program you are running and try the same function again.

> Not enough free disk space on drive X:.
> Please delete some files

A few DataLite functions need some free disk space on the desired partition. If there is not enough available this alert will appear.

> Write error during the actual function

This general alert informs you that a specific function could not be executed properly as a hardware write error occurred. Normally a further alert will then inform you how to continue the selected function.

No further windows available. Please close some windows

This message should be self-explanatory.

Drive X: is marked as bootable. Compressing it will destroy bootability Cancel, Cont

This is a warning not to compress your boot partition as it will not be bootable if you do. DataLite allows to compress bootable partitions because some hard disk formatters mark all partitions as bootable.

Boot sector of drive X: is unchangeable. Remove protection

This message will appear if DataLite cannot write to a boot sector of a partition. As this is essential when changing a standard partition to a compressed one, have a look if a protection program or anti-virus tool block the write access.

Unknown drive format Partition cannot be compressed

This message appear if the boot sector and the BPB values provided by TOS do not seem to fit together. DataLite will refuse to compress unknown formats as this could lead to serious errors. Normally this happens if the user selects a RAM disk, a net-partition or other uncommon and non-standard partitions, which should not be compressed.

Bad sectors on drive X:
System sectors cannot be installed

This alert appears in the unlikely event of bad sectors in the disk area where the GEM and DataLite system sectors have to be installed. If this message appears, there is no other choice but to re-partition the complete hard disk with a formatter program. (This error can also occur with the original Atari formatter HDX.)

The FAT of drive X: has invalid entries.
Please check with disk tools

DataLite will check the partition file allocation table (FAT) and will not continue compressing if the FAT has invalid or illegal entries. Please check and repair the partition before compressing it with DataLite.

Drive X: is coded with 1st Lock and
cannot be compressed coded

As DataLite can only compress normal partition formats this message will appear if a partition is coded with the data safety program 1st Lock. You will have to unlock the partition before compressing it with DataLite.

Create compressed format on drive X:
If the program is to be stopped now all
data may be lost
Cancel, OK

This is the last alert DataLite displays before changing a standard partition to a compressed partition. As all these accesses are very sensitive all data can be lost if a power breakdown, a system reset, or a spurious system crash occur during these actions. You are advised to always back-up your data before changing a partition format, especially the first time you install DataLite.

DataLite cache is too small to create this format
Change and save cache

This message will appear when you try to create a large compressed partition which would need more cache than is currently allocated. You will have to increase the cache size and re-boot.

Error when compressing
Drive X: is not altered

This message will appear if a read or write error occurred during the process of changing the partition format. This is normally due to a hardware error. DataLite has not yet made any sensitive write accesses so the partition is still unaltered.

Error when compressing. Please check
drive X: as it may has lost data

Similar to the previous message, this alert will appear if a read or write error occurs during the process of changing the partition format. This error also indicates a hardware error, but since DataLite has now modified sensitive data, the partition data may be affected or even completely destroyed. Remember, you were warned!

You should back-up the data and clear the partition using the Zero Partition function of your hard disk formatter.

The system will now reset
Drive may then be compressed

This message will appear after changing the sector size of a partition. The system has to be re-booted as most hard disk drivers do not support the change of sector size during operation.

**Do you really want to decompress drive X:
All data will be erased!
Cancel, OK**

This message will appear before changing a compressed partition back to a standard partition. Since the compressed data could not possibly fit on the original partition size it has to be erased during this operation.

**Decompress another disk in drive X:?
Cancel, OK**

When decompressing floppy disks DataLite will display this alert to allow the quick decompression of more disks.

Drive X: is not compressed

This message will appear when trying to decompress a drive that is not compressed. This can normally only happen with floppy disks or removable hard disks, which are replaced before the function is executed.

**Error when decompressing drive X:
Please check media**

This alert will be displayed if a read or write error occurs during decompressing the partition. If the partition should not or only partly be cleared use a formatter with a command like Zero Partition to clear the partition format and data.

**Drive X: cannot be optimized as there is
no data on this drive**

DataLite will only optimize partitions containing data. This alert will appear if you try to optimize an empty drive.

```
Error when formatting! Cancel or Retry?
             Cancel, Retry
```

This alert will appear if a error occurs while formatting a disk. You can choose to retry the formatting or abort the function.

```
  Write error during formatting!
    Disk should not be used
```

DataLite will refuse to format disks, which have errors and we strongly recommend not to use such disks, as these errors tend to build up in time.

```
Cannot access the file DATALITE.SYS.
             Drive ready?
             Cancel, Retry
```

This message will appear if the user selects to save parameters setting, but the file DATALITE.SYS cannot be accessed. If you only use floppy disks, insert the original boot disk and click on retry. On hard disks have a look if the file DATALITE.SYS is where it should be.

```
This setting of the TOS values is not
recommended and may cause errors in other
                 programs
         Cancel, Standard, Set
```

This warning will appear when you change the TOS values in the Parameter dialog to a value higher than recommended. As described in the section about these parameters there may be special reasons to do so. You can either cancel the setting, use the recommended standard setting, or insist on using the setting you selected.

This key is in use! Do you want to
redefine it?
Cancel, OK

This message will appear if you have entered a menu shortcut in the Preferences dialog box which is already used for a different menu entry. If you click on cancel you can change the new shortcut. If you click on OK the duplicate shortcut will be cleared.

Really remove DataLite out of RAM memory?
No, Yes

This message will appear if you quit DataLite program while holding the Shift key down. This has the effect of removing DataLite from memory. Datalite compressed partitions and floppy disks will not be accessible if you select Yes.

Appendix D
Technical Support

HiSoft - United Kingdom

DataLite 2 comes with 30 days free technical support, starting from the date of registration; therefore you should send in your registration card quickly. Technical support is available by telephone during our Technical Support Hour, by letter or by fax.

Before contacting HiSoft for technical support, please attempt to re-create the problem so that you can provide us with an exact sequence of events. If the problem re-occurs, then contact us by phone, Fax, or electronically on CIX with the following information:

- *Product Information:* The name, version number, and file date/time of the application program. The version number appears in the About box.

- *Your user registration number*: This appears on the master disk label.

- *System Information:* You'll need to know, the Atari computer model that you own, including memory configuration and TOS operating system version.

- *Disk Drives:* The model and capacity of all of your internal and external disk drives. Also the vendor of your hard disk host adapter and driver software.

- *Additional Hardware:* You'll need to know the brand names of any additional hardware that you have connected to your system. This includes printers, modems, accelerators, custom video cards, PC emulators etc.

- *Auto folder and Accessory Programs:* You will need a list of all AUTO folder and Accessory programs active in your system. You should first try eliminating all AUTO folder and accessory programs and re-booting.

- *Error Messages:* Write down the *exact* wording of any error messages that you received from the program.

- *Attempted solutions:* Make careful note of any steps you took to solve the problem and what the results were.

Should you wish to receive extended technical support, please complete the relevant sections on the registration card, indicating whether you would like to take up the *Silver* or the *Gold* service.

In addition to your name, address and postcode (very important for UK customers), we need payment details before we can accept your extended registration. You can pay by credit card (Mastercard, Eurocard, Access, Visa etc.), UK debit card (Switch, Connect etc.), Eurocheque, UK cheque or Postal Order.

You may have already registered another HiSoft product under our *Gold* or *Silver* service; in this case, there is no need to fill out the payment section.

Oregon Research - United States & Canada

DataLite is backed by Oregon Research's technical support staff trained to provide you with fast and courteous service. If you require assistance beyond what the manual, help features, and readme files can provide, then call or write use with the information listed in the technical support checklist below.

Before calling Oregon Research technical support, please attempt to re-create the problem so that you can provide us with an exact sequence of events. If the problem reoccurs, then contact us by phone, Fax, or electronically on GEnie with the following information:

- *Product Information:* The name, version number, and file date/time of the application program. The version number appears in the About box.

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- *Error Messages:* Write down the *exact* wording of any error messages that you received from the program.

- *Attempted solutions:* Make careful note of any steps you took to solve the problem and what the results were.

If you need assistance beyond these suggestions, and you cannot find the answer to your problem in the manual , help features, or readme files, then please write, call, or Fax us with the information in the technical support checklist. We need all of the information in the checklist to efficiently serve you.

Mail:

Oregon Research Associates

16200 S.W. Pacific Hwy., Suite 162

Tigard, OR 97224

USA

Phone:

(503) 620-4919

Fax:

(503) 624-2940

Electronic Support:

Genie: ORA.TECH Daily

Compuserve: 71333, 2655

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