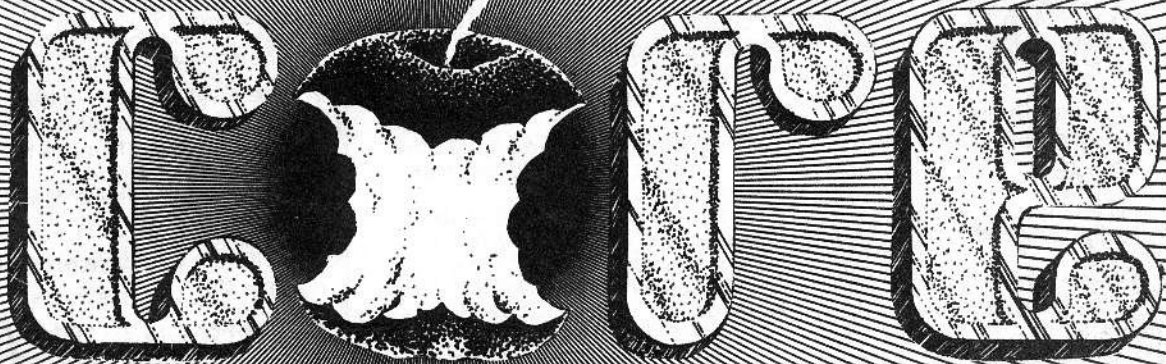


JAN 82



UPDATE 3.2

UNLOCKING HYPERSPACE WARS by Robb Canfield....	3
INTRODUCING SOFTQUEST U.S.A by B. Bryte.....	5
HOW TO SURVIVE NIGHT FALLS by Bev. R. Haight..	8
BACK IT UP II+ TECHNICAL NOTES	9
How To Read The Parm List.....	9
PARAMETERS.....	10
LET'S MAP ULTIMA by Bobby.....	13
HYPERDOS WITHOUT INIT by Robb Canfield.....	14
BUGS.....	15

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for all inquiries that need
a reply.

IMPORTANT ANNOUNCEMENTS

Due to a shortage of people
and computers...

Starting with issue #4, the
HARDCORE Program Library will be
selling programs by the issue or
volume instead of by individual
program.

This means that, like NIBBLE,
each issue will have its own disk
of programs.

In this way, we can maintain a
low overhead and keep the prices
to our readers low.

So this is the last chance for
you to order individual programs.

The volumes will be:

Disk control..... \$18.00
(DiskEdit & DiskView)

Issue #2..... \$18.00
(Artist's Easel, Amber's Is, Text
Invaders, Relief Mapper)

Issue #3..... \$18.00
(Map Editor, Zephyr Wars, Menu,
I.O.B., HyperDOS)

Subscriptions

U.S.A. \$20
Canada \$29
Mexico \$3
S. America \$38
all others \$42

All foreign subscriptions must be in
U.S. funds and prepaid. No credit
cards, yet. NO PURCHASE ORDERS

DOMESTIC DEALER RATES sent upon
request, or call (206) 531-1684.

UPDATES will focus on the subject of
Softkeys, "How to make backup copies
of so-called uncopyable diskettes."
Updates are available only to sub-
scribers and are not sold in stores.

If Hardcore is not published on sched-
ule, your subscription will still be for 4
issues and 4 updates regardless of the
time it takes to fulfill that order.

ADVERTISER'S INDEX

Sympathetic Software.....2
HardCore.....15

DOUBLE your DISKETTES

The only reasons your Apple][
cannot use the back side of your
diskette are:

1. There is no notch.
2. The diskette manufacturer did
not test the back side, or worse,
put the flawed front to the back.

A nibbling tool will solve problem
number 1.

DISK PREP will solve problem
number 2.

DISK PREP formats and tests your
disk. Sectors with flaws are left so
that they cannot be used. Your disk
is left ready to boot, complete with a
flaw report program saved on it.

\$25.00

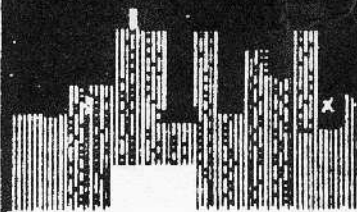
sympathetic software
9531 Telhan Drive
Huntington Beach, CA 92646

California residents add
\$1.50 sales tax

Dealer inquiries invited

NIGHT FALLS

your Gravity Cannon is your Only defense after...



The Gravity Cannon can be made
to appear anywhere on the city
scape: atop intact buildings,
in the streets, amid burning
rubble of blasted buildings
and within the molten craters.
(But shooting from such a
crater will cause the cannon
to melt down.)

UNLOCKING **HYPERSPACE** WARS

REQUIREMENTS:

48K AII+ with Applesoft in ROM
MUFFIN
HYPERSPACE WARS by Continental
Software
A Blank Diskette

When I booted "Hyperspace Wars," I was intrigued by their graphics demo (the picture drips down from the top of the screen as if melting). I wanted to know how they managed to do it, so my first thought was to examine the program.

After looking at the program, my second thought consisted of a host of foul phrases directed at copy-protection. Instead of finding out how the graphics demo worked, I was once again forced to enter the battle of locked software.

BACKGROUND

"Hyperspace Wars" is published by Continental Software (copyright 1980) and consists of two games on a single disk:

- 1) "48K TREK," a text "Star Trek" type of strategy arcade game.
- 2) "3-D Space Battle," one of the pioneers in "real-view" space arcades. In this game, the player is shown an "out-the-window" view in which stars move and aliens abound, zooming towards and away from the player.

"Hyperspace Wars" is on a DOS 3.2 disk. In order to run on DOS 3.3 systems, the game requires either the BASICS disk or the BOOT13 program from the master disk.

In the following sections, I will first explain how I applied my own methods to unlocking "Hyperspace Wars", and then provide a step-by-step method that will make it easy for anyone to do.

NOTE: If the locking method on a more recent version of this package has been altered, the following unlocking technique may apply only to the old version (pre-HardCore). In any case, it will show another method that can be used to unlock your own programs.

by ROBB CANFIELD

HOW I DID IT

To discover what locking method was used, I booted "Hyperspace Wars" and, after the Hello program was loaded, entered the monitor.

The next step was to compare the DOS in memory to a normal 3.2 DOS. To do this, I moved the "Hyperspace Wars" RWTS down to \$4800, using the Monitor Move command:

```
$4800<B800.BFFFFM
```

I then placed a 3.2 disk that had been upgraded to boot on either a 3.2 or 3.3 system in the drive.

After the disk had booted, I compared the two RWTSs.

The only differences that I found were in the address marks and in the Translate Tables. "Hyperspace Wars" uses a data mark of D6 instead of the normal DOS 3.2 mark of D5. The Translate Table had two bytes switched:

(24 and 60)

Another byte was changed from D6 to D5.

It was also necessary to clear the Checksum Value.

All of these changes were easy to make to "Muffin". Since "Muffin" has a 3.2 image of the RWTS (Read-Write Track/Sector) in it (starting at \$1900), all I had to do was make a few changes and, viola, I had an unlocked (normalized) 3.3 version of the game.

YOU CAN DO IT, TOO

From my own methods, discussed above, I have written an easy guide for normalizing "Hyperspace Wars":

1) Boot the 3.3 MASTER disk to insure that there is a good 3.3 DOS in memory.

2) Make sure you are in Applesoft by typing:

```
FP
```

3) Initialize a disk with HELLO as the Hello program. Enter:

```
INIT HELLO
```

Set this disk aside for use in Step 3.

4) BLOAD "Muffin" from your System Master disk:

```
BLOAD MUFFIN
```

5) Enter the monitor:

```
CALL -151
```

6) And make the following changes to "Muffin" (hit RETURN after each line):

```
1A08:D6
```

```
1A76:D6
```

```
1A63:18
```

```
1BD5:60 24
```

```
1DA6:D5
```

The first two changes are to the address marks, and the third change clears the Checksum. The last three bytes change the Read Translate Table.

7) From the monitor, run "Muffin":

```
803G
```

8) Use the initialized blank disk from Step 3 as the target disk to put your copy of "Hyperspace Wars" on.

9) When asked for the FILE NAME, enter an equal sign (=) and copy over the existing Hello name.

You now have normalized "Hyperspace Wars".

I am interested in seeing a description of the "Hyperspace Wars" demo mentioned above, as I spent all my time unlocking the program and couldn't write a description before Update 3.2 was published.

introducing... SOFT

Wouldn't it be great if you could buy top quality games for only

\$5.95

each even when there's only one game per disk?

There is a way to bring the price down to that wonderful figure...

But first,
why are computer games so expensive?

The retail prices of games average about \$30 (some are as high as \$100!) yet disks cost only \$2 to \$5 each. Add to that the cost of copying, labeling, packaging, shipping....

a publishers's point-of-view

My own experience reveals that the inflated price of software is caused by several factors:

1. The number of potential customers is small relative to the general population.
2. The active sales lifetime of games (only about 2 to 6 months) is short.
3. The actual number of new games being written is not yet enough to enable competition to reduce the price.
4. Publishers must spend a lot of money just to promote (advertise) the product;
5. still more money to produce the printed documentation, labels, etc.;
6. and still more money to screen the submissions, suggest or make alterations, make thousands of copies, mail free samples to dealers and reviewers, print documentation, register copyrights, trademarks, etc... all of which must be paid for before the product even begins to produce revenue.

If the product fails to produce the revenue to cover these initial expenses, the publisher will have lost money.

That's the publisher's side of the story.

Let's examine the same story from

a writer's point-of-view.

The writer has expended a lot of time and, yes, money to turn an idea into a game. The finished product is

submitted to a publisher. It may be rejected after a week to even 9 months of waiting. The writer then submits it to another publisher until it gets accepted, or the writer gives up, or decides to self-market it.

If accepted, the publisher will want certain alterations made so that the game will conform to their high standards. That's more time and money spent by the author.

After 3 to 9 months, the first advertisements for the game appear in major magazines and the product begins producing revenue of which the author gets approximately 20% (of the wholesale price which is about 40% lower than the retail price). That means, on a \$30 game which wholesales at \$18, the author gets \$3.60.

That's payment for time and effort that began more than a year ago. In other words, the author doesn't get any monetary return for effort spent until after the game sells, more than a year later.

From the standpoint of the publisher, a higher price tag means higher initial revenue.

From a writer's standpoint, a higher price tag means a higher royalty.

But that higher price tag also means that fewer people can afford to buy it. But software is probably price elastic, which means that a drop in price will usually cause a substantial increase in demand that will result in a higher total revenue due to greater sales.

a pirate's point-of-view

And for a product that can be easily and inexpensively duplicated by the consumers, a high price tag is a way of asking for trouble...and, of course, the industry gets it where it hurts most: in the pocketbook... software theft via casual duplication and distribution.

So high prices are going to stay with us for a long time because the industry is hedging its investment, since they can't reduce the financial risks involved.

Then there are the investors (speculators) who see that the prices are not falling as they should... they see that the prices are, in fact, rising! That's what they mean by 'software is going to be the most lucrative investment in the computer revolution'.

a user's point-of-view

However, as a consumer, I don't like high prices! It limits my enjoyment of games by limiting the games in my inventory... and I don't care to receive stolen goods because I'm also a game writer. And as a writer, I don't like being blamed for the high price of games even though my own income depends upon it.

There's got to be a way to lower the price of software while still maintaining the lucrative aspect of the field both for the writers and the publishers... and I've found one way.

Please follow my logic:

1) If high prices are the result of the financial expenditures and risks required to market a game, then find a way to remove the cost of the risk and the pre-revenue expenditures from the price of the game.

2) If the high price of promotion (advertising) is keeping the price tag sky high then find a way to remove that expense from the price.

Simple, right?
So, how can this be accomplished?

the solution

Let the buyers take the risks involved in producing a game and, that way, lower the price. In other words, buyers would buy a game that is in the pre-sale stage thereby relieving the publisher of that huge initial expense of preparing a game for sale.

And let something else swallow the huge cost of product promotion... for example: a membership fee that would be used to pay for promotion.

Removing just those factors would bring a \$30 game down to \$10 or less.

Now add on the security created by a large number of buyers who have already purchased that game... and I can drop the price down to a paltry \$5.95!

become a micro-publisher!

Would you step into the shoes of the publisher and spend only \$5.95 in order to buy a game that, when finally released, will cost \$20 to \$30?

QUEST U.S.A. (User's

Are you buying a pig-in-a-poke?

You would be if you had no way of making a selection as to what games you will buy. My system would give you the opportunity to make that decision... the same type of decision a publisher must make... except you will not be investing tens of thousands of dollars. And when the game is marketed at the usual retail price, you will have made an investment that returned a value of 400% or more. In other words, you get a price break because you were, in a way, one of the publishers.

Let me explain this in more detail.

First, the amortized advertising expense will be paid for by a nominal membership fee. This fee would also pay for the publication and distribution of a monthly newsletter magazine that would promote the products available and pay the expenses of the organization that would maintain it.

Secondly, members would invest into games and game ideas accepted by this organization... by buying the game before it is released to non-members. The earlier in the game's development you purchase it, the greater the risk you take. So naturally, the cost to you, the investor, is lower. The closer to completion is the game, the less the risk and the higher the cost until, finally, the game is released. At that time the price of purchase will be its retail price.

Thirdly, a game will not be marketed until a large number of buyers (investors) is guaranteed (minimizing the production expenses). That means that at least 1000 copies of the game must be sold before it is produced for outside (non-member) sale.

How will these pre-release games be sold when there isn't yet a product to be sold in the first place?

"pre-sale" certificates

Three types of "CERTIFICATES OF PRE-SALE" will be sold to members:

The first type is the most risky. Called the WHITE SERIES, users will be buying games from first-time authors (writers for whom this is

by B. Bryte

.....
their first marketed game).

The second, the RED SERIES, will be certificates for games produced by authors who have previously had a game marketed by themselves or by another publisher.

The third, the GOLD SERIES, will be games by authors who have had a game marketed by this organization for its members.

Details of each class will be explained later in this article.

benefits for writers

This organization will also have benefits for authors! How else can it maintain its high quality of games?

The first benefit will be simply the royalty... up to 25%.

The second will be the advances or money paid to authors before the game produces revenue on the outside market. That's right, advance payment before the game is published; money paid when the game is accepted for publication. In some cases, money will be paid even before the game is begun!

The third will be their enhanced status among the users and a drop in the rate of software theft.

Let me explain...

an end to piracy?

By keeping the price of games under \$10, I hope to deter software theft by the kids and adults who can't afford to pay \$30 for a game.

At the same time, this organization's newsletter will reveal to users just how long it takes to develop a game because they will be buying a game in the development stage, sometimes even before it is written. That commitment means faith in the game's author. Users will become aware of the authors of the games and find that they are people... people just like them, people who work hard to produce a game for sale to the users. Some authors may even acquire fans, much like some authors of books.

By revealing the people behind the games, users will put greater value on the game, even though the price will be lower than those outside the organization.

That is the idea I like best:

LOWERING THE PRICE OF GAMES,
YET INCREASING THEIR VALUE to users.

That's the founding idea, the motivating concept behind ...

SOFTQUEST U.S.A.

=====
(User's Software Alliance)
= = =

People use games, and people create games. In this computer-based form of entertainment, people become more aware of people. Writers and Users become friends, not adversaries in a price-product war.

And maybe, just maybe, the host of software thieves will think twice before stealing from a friend.

What is a User's Software Alliance?

It's the consumer's side of SOFTQUEST (the other "side" is the Union of Software Authors...).

SoftQuest is an organization that unites the creative talents of program writers with the desires and needs of the Users. It permits the users to become investors into the publication of the games they want.

By being a member and taking on some of the risks of a publisher, users can buy games for one fifth of the final retail price.

In some instances, the users even have a voice (by voting) as to who will write the games.

And, since certificates are usually sold for specific categories (types of games), authors best qualified to write that type of game will compete to be the writer commissioned to create it because a game commission means a pre-advance when the game is started, a regular advance when completed, and up to 25% royalty when the game is sold outside the club at competitive prices (\$20 to \$50).

Now... down to the details of how SoftQuest works.

Users invest in games yet-to-be-marketed. They do this by buying "CERTIFICATES OF PRE-SALE". These certificates are divided into 3 or more series and may either be "Open" or "Closed".

An "Open" certificate is the first offering of the game. Depending upon the class, it will mean different things ranging from "game idea is

SOFTWARE ALLIANCE]

accepted" to "game program accepted but needs work".

A certificate is "closed" when 1000 certificates are sold. The price of a "closed" certificate is higher than an "open" one because the risks have been all but removed.

What follows is a series-by-series explanation of "open" and "closed" certificates, their price, and any options available to purchasers.

WHITE SERIES

You are buying games that are either being written by our local staff or by first-time authors who have submitted games in various stages of completion.

Open: \$5.95

This is the least expensive game deal SoftQuest can offer. You are buying a game that is not assigned yet. When it is closed (1000 sold), it will usually be assigned to a game submitted by a first time author. If a game has already been accepted, the nature of the game and its author will be announced when this series' certificate is closed.

Closed: \$9.95

The writer has been paid an advance of \$500 (out of the sales of the open certificates) and is being readied for outside marketing by SoftQuest or by another publisher. When the game is ready for sale, the author is paid 15% royalty on the closed certificates which were sold.

Completed game

Retail price: \$20 - \$35
Member price: \$12 - \$21
Dealer price: \$12 - \$21

On these sales (which we call "Normal Sales") the author gets a 20% royalty (industry standard).

Open certificate savings:

\$ 6 - \$15 off the member price
\$14 - \$29 off the retail price

Closed certificate savings:

\$ 2 - \$11 off the member price
\$10 - \$29 off the retail price

RED SERIES

These are games and game proposals by writers who have already produced a game sold commercially outside of SoftQuest. The financial risk is less

and the price reflects this favorable status.

These game certificates are sold in separate categories (which overlap somewhat). These include:

1. Adventure games:
including text, lo-res and hi-res adventures.

2. Arcade games:
shoot-em-ups, eat-em-ups, etc.

3. Strategy games:
usually computerized versions of strategy combat games.

4. Space games:
a catch-all for space game fans.

5. Simulations:
of the space shuttle, reactors, nuclear war...

6. Conventional games:
cards, casino, classical games.

7. Sports:
simulations of popular sports.

8. Educational games:
math, spelling, states, etc.
presented in a fun way.

9. Original format games:
arcades in new formats.

10. Original fantasy games:
role-playing games in a style not presently in the market.

Open: \$6.95

These are the "perpetually open" series. When a 1000 are sold, that particular 1000 are closed while all new sales go into the next 1000. In otherwords, the category never really closes, just the collection of 1000 are prepared for game assignment.

Closed: \$10.95

An author is commissioned by a vote of the registered certificate owners. That author is paid a \$1,000 pre-advance and must begin work on the game. It must be completed in 4 months. Upon completion, the author is paid 20% on all the closed certificates sold for that game.

Completed game

Retail price: \$25 - \$40
Member price: \$15 - \$24
Dealer price: \$15 - \$24

On these sales, the author gets a 25% royalty (greater than industry standards).

Open certificate savings:

\$ 8 - \$17 off the member price
\$18 - \$33 off the retail price

Closed certificate savings:

\$ 4 - \$13 off the member price
\$14 - \$29 off the retail price

GOLD SERIES

This is top-of-the-line series and we expect only the very best. These authors have had a game marketed by SoftQuest and are creating yet another game. Certificates are sold based on the marketing success of the author and the game idea being suggested.

Open: \$7.95

The author will present an idea in the SoftQuest newsletter. You will be buying the author's promise to produce a top quality game based on the author's earlier marketing success(es). Certificates will be sold based on that game idea and the buyers' faith in the author. While the certificates are selling, the author will be turning an idea into a game. Only 1000 certificates will be sold at the "open" rate. The author will then receive a pre-advance of \$1,500 when it is closed.

Closed: \$13.95

The author is contracted to finish the game in 4 months from the closing of the series. The sooner the first 1000 are sold, the sooner the author begins collecting on the closed certificates for which is paid a royalty of 25% (higher than the industry standard of 20%).

Completed game

Retail price: \$30 - \$50
Member price: \$18 - \$30
Dealer price: \$18 - \$30

On these normally marketed games, the author gets a royalty of 25%, higher than the industry standard.

Open certificate savings:

\$11 - \$23 off the member price
\$23 - \$43 off the retail price

Closed certificate savings:

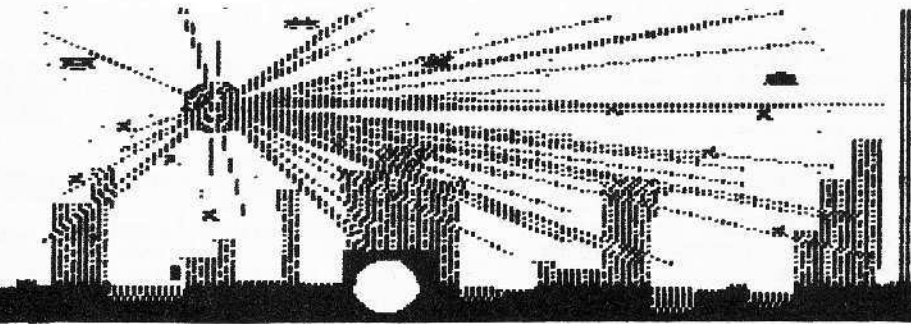
\$ 6 - \$18 off the member price
\$18 - \$38 off the retail price

MONEY BACK GUARANTEE

In order to give some financial security, SoftQuest makes this offer: If, for any reason, the open certificate is not closed in 12 months, the registered certificate owner may:

how to survive

NIGHT FALLS



by bev. r. haight

(NOTE: It seems that some Apple users are so accustomed to locked-up software that they don't bother to find out if a program is copy-protected or not before taking credit for "breaking" it. I mention this sad fact because a friend of mine revealed that he had seen a pirated copy of Night Falls that boots up with a screen image that said "BROKEN BY ZEROX...". That is patently silly because Night Falls is NOT locked. Whoever wrote that absurd text was probably so brainwashed by this era of locked-up software that no effort was made to discover its open format! And that's too bad... So, to that particular "Zerox" I say: You've taken credit for something that is impossible to do... and that is to "break" into something that was never locked in the first place... Your little ego trip has led you to commit an act of libel that, unlike theft, directly harms me! You've lied and passed around copies of that lie, and that lie has harmed me because I have been one of the most outspoken opponents of locked software! By the way, it was Dave Alpert of Omega Microware that first suggested that the program be sold unlocked. I heartily agreed. There should be more publishers like Dave around. ---BRH)

I originally wrote Night Falls in Applesoft. However, it didn't play fast enough so I compiled it with OnLine's Expediter. Then I tinkered with it some more and added some more... The final version was compiled using Microsoft's TASC because MicroSoft was the only publisher that allowed open sale of software that was re-coded using their product. The others were charging fees and royalties just to sell a product re-coded by their compiler.

As you know, compiling a program can be an effective way to prevent

Some elements of the illustration for "How to survive Night Falls" are from parts of its screen images.

its alteration. But since it was not my intention to make the program unalterable, I included the Applesoft Source code as well. Of course, you must compile it after making the modifications. And, of course, I suggest you use TASC.

Night Falls was over a year in the making (on and off while editing HARDCORE) so it isn't a short and simple game. In fact, I was going to publish an early version of it in the magazine...but the code was so long that I doubted anyone would type it in...so I re-wrote it starting from scratch, simplified it a hundred times, and out came ZYPHYR WARS.

The final version of Night Falls published by Omega is quite a bit different from even the early version that I first sent to them. So it evolved quite a bit after Dave made suggestions as to how it should be altered.

For those of you who have already played it, you know how difficult it is to survive level nine. For one thing, the night is 9 times as long as level 1, and there are nearly ninety UFOs waiting to attack, and their power of destruction is 9 times greater than level one...and to make matters worse, most of them are invisible so you have to use the UFO Detector-Counter to determine how many are still attacking and use their deathrays to locate them.

You also know that the stellar vortex just doesn't give you a break, the Mother ship is always madder than a hornet, and the UFOs are so small you have to sit exactly in the center just to shoot them...and that leaves you wide open to attack from their deathrays. The city crumbles so fast that you just want to cry. And the radioactive craters seem to appear everywhere, wiping out your gravity cannons one by one...till that last one vanishes in an explosion that disintegrates the remaining ruins.

And if you still have cannons left, it seems that every mothership heads for your reactor, melting away its protective shell until the very core is exposed and bye-bye city...

Yet you keep trying because you've established a record number of days survived in all the other 8 levels...

and you're not going to quit till you can survive at least one night at level 9, right?

Have you thought of trying to employ Robb's Advanced Playing Techniques or APT on Night Falls?

That's really the secret of survival. Level nine was meant to be nearly impossible to survive. Remember what Captain Kirk said he did (in the second Star Trek movie) in order to survive the final test of a Federation Cadet. He was the only one to survive that test, a test that was designed so that no one could survive. What was his secret? Since the test was a computer simulation of a scenario, he modified the scenario by changing the program! In other words, he used APT to pass his final exam!

So, to survive at level nine, you are urged to examine the program itself and find out how to survive.

I'll give you some clues and leave it up to you to make the changes:

SCORING

The following lines use the variable SA% which is used to increment or decrement the score:
2910, 3270, 3300, 3480, 3500,
3710, 4010, 4190-4220

The score is variable SC% and is altered in lines 4240 - 4290.

CANNONS

The number of cannons is held in CA% and is altered in these lines:
1910, 2960, 5600.

DEATH RAYS

To shoot or not to shoot is governed by lines 3560 (mothership) and 3940 (UFOs). And whether the whole building is vaporized is controlled by line 3590.

INVISIBILITY

The cloak of invisibility is granted in lines 4480 and 4490.

EMERGENCY STASIS

I'm only going to say that it's line 4250.

OTHER MEANS

There are other ways to apply APT to Night Falls but I'll leave those to you who have a desire to alter the

Continued on page 16

BACK IT UP II + TECHNICAL NOTES

Note: The current version of Back It Up II+ is 2.4. The version # can be found on the logo page above the copyright notice.

Some software houses have greatly increased the accuracy of their synchronization requirements. The accuracy of the sync option can be increased if the tracks are not erased before each write cycle. To do this, change parms 0F and 10 to 01. Also, changing parm 0C to x8 improves sync accuracy (where x = any value).

It has become common practice to test for a nibble copy by writing one or more of the bit slip marks out at the self-sync timing rate. To do this, change:

parm 11:00
parm 15:30 (or 60 try both if necessary)
parm 17:03
parm 2A:0A
parm 18-1A to whatever the address marks are as shown in the upper left hand corner of the screen.

NOTE: Any time parm 11 is changed to 00, it is likely that you must also compress tracks.

These copy instructions must be taken in ORDER. Please follow them in 1, 2, 3 order, or they will not produce a workable copy.

Some copy protection methods involve looking to see if the copy diskette is write-protected. This notation follows several copy instructions: IF THE DISKETTE IS NOT WRITE PROTECTED, IT WILL NOT BOOT!

FOR USERS OF:

Back It Up

One final note: Before calling to ask about copy instructions that apparently do not work, ensure you have done the following things.

1. Be certain you followed the copy instructions IN ORDER.
2. Be certain you followed ALL of the instructions, such as write protecting the copy before using.
3. Be certain you are using high quality diskettes to make the copy. You can be certain the original was. 16 sector programs require double density such as Verbatim DATA LIFE DISKETTES or equivalent.
4. If the status line shows Write errors, compress the track. This will compensate for drive speed to some extent.
5. Try swapping drives, that is put the original in drive 2 and the copy in drive 1. MAKE CERTAIN YOU WRITE PROTECT THE ORIGINAL, otherwise you might accidentally write to it and destroy it.
6. Try putting the copy on another diskette. You may encounter defective disks in even the best brands.
7. Try the copy on at least one other set of drives. Some drives are better or worse than others.
8. Try changing parm 25 to 01. This reduces error checking a little bit, but usually does no harm to the copy.

How To Read The Parm List

The format for the parameters has been changed from the original SOURCE list, to make them easier to read.

Look for your program in the list (The names are in alphabetical order) On the far left hand side of the screen will be a letter. This letter corresponds to one of the following required changes.

- S - set SYNCHRONIZATION mode.
- D - set DECODE mode.
- P - set COMPRESSED mode.
- N - set NORMAL mode.
- C - set NIBBLE COUNTING mode.

There may be the word BY following the track number. This is the value of the increment. If no value appears here use 1. Next will appear the parameter changes for copying the

given tracks. The format is:
PARAMETER:VALUE

Where PARAMETER is the parameter number to change and VALUE is the number to set the parameter too.

The dash (-) is used to indicate a range. The notation 04-0A:00 means set all of the parms from 4 through and including 0A to 00. The same holds true for instructions such as copy tracks A-E. This means copy tracks A, B, C, D, and E.

REMEMBER: ALL DISKS MUST BE COPIED IN THE GIVEN ORDER.

EXAMPLE:

- 1) PROGRAM NAME
- 2) D 0
- 3) S 1-10 BY 3 00:FC 01:EE 09-0A:BB

4) P 2.5

- 1) This is the program name.
- 2) Set the DECODE mode before copying track 0.
- 3) Set the SYNCHRONIZATION mode and change parameter 00 to FC, 01 to EE and 09 thru 0A to BB. Set the increment to 3 and copy tracks 1-10.
- 4) Set the COMPRESSED mode and copy track 2.5.

A list of the PARAMETERS to BACK IT UP II can be found by accessing the following file from the source:
TY(12)CL2064)BACK-IT-UP-PARMS

PARM LIST ON NEXT PAGE

PARAMETERS

PARAMETER AND COPY INSTRUCTIONS:

program name
 * tracks change parms

A I HI-RES GRAPHIC ADVENTURES

N 0-21
 C 22 16:FF

AKEM-STONE
 D 0-22

ALIEN RAIN
 N 0-5
 N 6-F 00:FE 0D:21 0E:00

APPLE ADVENTURE
 N 0-22 00:FE

APPLE PANIC
 N 0-5
 N 6-D 00:FE

APPLEWRITER ///
 S 0-22
 NOTE: On ver. 2.1 change 11:02

ASTEROID FIELD
 N 0-12
 NOTE: you may need to compress tracks
 0-2 and 11.

A2-PB1 PINBALL
 N 0-15

AUTOBAHN
 S 0 00:FE
 S 4-6
 S 9.5-C.5

BAG OF TRICKS
 C 0-14 00:FE 11:00 15:40
 17:02 18:FE 19:FD

BEER RUN
 S 0
 S 1.5-D.5

BILL BUDGES SPACE ALBUM
 N 0-11

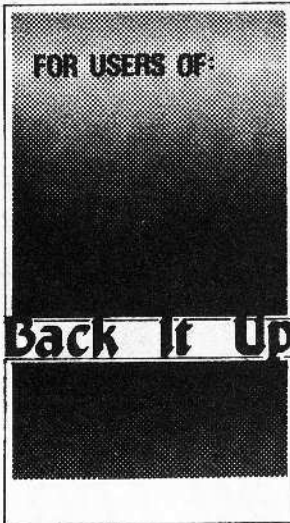
BILL BUDGES 3-D GRAPHICS PACKAGE
 N 0-2
 N 4-8
 N 11-18

BORG
 N 0
 DS 1.5-B.5 00:FE 01:DD 02:AD
 03:DA 04-0A:00
 0B:0C
 DS D-14

BPI GEN LGR, ACC RCV, & PAYROLL
 N 0-10
 N 12-22
 N 11 11:00 15:18 17:04
 18:AD 19:FB 1A:E6
 1B:FF

BUG ATTACK note: req. ver 2.2 or later
 N 0-12
 SD 1D-22 BY 5 00:FE 01:AA 02:D5
 03-0A:00 0B:0C
 0F:01 10:01 16:FF
 22:02 24:02 25:01
 26:02 28:02

NOTE: D-speed of copy drive must be
 adjusted to match nibble count of
 original disk.



CANNONBALL BLITZ
 N 1-22
 D 0 0B:06 05-0A:00
 16:FF

CASINO
 D 0-22 00:DB 11:00 15:C0
 17:08 19:AA 1E:DB
 1F:DB

CASTLE WOLFENSTEIN
 D 0-22 00:FE

CASTLES OF DARKNESS
 N 0-22 00:DB

COPTS & ROBBERS
 D 0
 SD 1.5-F.5 00:FE 02:AD 03:DA
 04-0A:00 0B:0C

COUNTY FAIR
 N 0-11 11:00 15:40 17:02
 18:AF 1E:DE

CRANSTON MANOR
 N 0-17
 N 19-22
 N 18 13:1F

CROSS CLUES
 D 0-22 14:FE 15:60 17:04
 19:BF 1B:AA

CROSSFIRE
 S 0-22

CROSSWORD MAGIC
 SD 0-22 00:FE

THE CROSSWORD MACHINE
 N 0-22

CRUSH CRUMBLE AND CHOMP
 D 0-22

CYBER STRIKE
 N 0
 N 3-B
 N 11-1C

CYBORG
 D 0
 D 1-22 09:EB

CYBORG (new version)
 DS 0-22 00:FE 03:00 05-0A:00
 0B:0C

DARK FOREST
 D 0
 SD 1-5 00:FE 03:A5 04-0A:00
 0B:0C
 SD 9-1F

DB MASTER (NEW)
 S 0-5 00:FE
 S 6.5-22.5
 NOTE: Do NOT use the decode option on
 track 1.

DB UTILITY PACK Same as DB MASTER

DESK TOP PLANNER
 D 0-22 11:00 15:40 17:03
 18:AA 19:EB 1A:FD

DIC-TIO-NARY (Req. ver 2.2 or later)
 N 0-1F
 D 20 0B:05 16:FF

DOG FIGHT (OLD)
 N 0-1
 N 4-10

DRAGON FIRE
 N 0-22
 NOTE: This is a 16 sector diskette.

ELECTRIC DUET
 N 0-22 11:00 15:60 17:02
 18:DE 19:AA

ELIMINATOR
 N 0-20
 N 22
 C 21 16:FF

EPOCH
 N 0
 N 1.5-F.5

EXPEDITER
 N 0-22
 N 3 13:1D
 N 1D

E-Z DRAW
 DS 0-22

FALCONS
 N 0
 D 1.5-4.5 BY 1.5 00:FE 01:DF
 02:AD 03:DE
 04-0A:00 0B:0C

D 5.5
 D 7-A
 D 10-12
 D 13.5-14.5
 D 16-17.5 BY 1.5
 D 19-1A
 D B.5

FIREBIRD
 SD 0
 S 1.5-B.5 00:FE 01:DD 02:AD
 03:DA 04-0A:00 0B:0C

FLIGHT SIMULATOR
 N 0-22
 N 0-21 by 1.5
 N 7-8
 N 9.5

FOOSBALL
 D 0
 SD 1.5-9.5 00:FE 01:DD 02:AD
 03:DA 04-0A:00 0B:0C

D B-22 25:02 26:03 27:03
 SD A 0F:01 10:01 12:7E
 21:17 25-27:04

GAMMA GOBLINS
 DS 0
 DS D
 DS 1.5-B.5 00:FE 01:DD 02:AD
 03:DA 04-0A:00 0B:0C

GENETIC DRIFT
 D 0
 D 1-3 00:FC 01:BB 02:05
 03:DD 04-08:00 09:BB
 0A:BB 0B:0C

D 4.5-6 by 1.5
 D 7.5-B.5
 D D 01:D4
 D E.5-22.5 01:AD 02:B5 03:DE

GENERAL MANAGER
 N 0-22
 N 4 13:1D

GENERAL MANGER (alternate version)
 N 1-22
 DC 0 05-0A:00 0B:06 16:FF

GOLD RUSH
 DS 0-22 00:FE 03:00 05-0A:00
 0B:0C

GORGON
 N 0
 S 1.5-F.5
 NOTE: Newer versions may use SNEAKERS
 copy instructions.

HELL FIRE WARRIOR
 D 0-22

HI RES CRIBBAGE
 N 0-2
 N 4-22
 N 3 13:1F

HI RES ADVENTURE #2
 N 0-22

HUNGRY BOY
 D 0
 N 1.5 00:FE 01:AD 02:DE
 03:BE 04-0A:00 0B:0C

N 3.5-13.5 by 4
 N 5-15 by 4
 N 6-16 by 4

INTERNATIONAL GRAN PRIX
 N 0
 N 2
 N 4-C
 N 11

INVENTORY MANAGEMENT SYSTEM
 D 0-22

JAWBREAKER
 N 0-22
 N 3 13:1D

KAIVES OF KARKHAN
 D 0-22

LAFF PAK
 D 1-22
 D 0 05-0A:00 0B:06 16:FF

LOGO
 N 0
 N 2-22
 C 1 16:FF

LOWER REACHES OF ASPHAI
 D 0-22

MARAUDER
 D 1-22
 DC 0 05-0A:00 0B:06 16:FF

MASTER TYPE
 D 0-22 00:FE 03:00 05-0A:00
 0B:0C

MOUSKATTACK
 N 1-22
 D 0 05-0A:00 0B:06 16:FF

MISSION ESCAPE
 D 0
 N 1-1D

MISSILE DEFENSE
 N 0-22

NEUTRONS
 D 0-22

OO-TOPOS
 D 0-22

OO-TOPOS (NEW)
 DS 0-22 00:FE 03:00 05-0A:00
 0B:0C

ORBITRON
 DC 0
 DS 1.5-E.5 00:FE 01:DD 02:AD
 03:DA 04-0A:00
 01:05 02:D5 03:AA
 14:FF

OUTPOST
 DC 0
 DS 1.5-9.5 00:FE 01:DD 02:AD
 03:DA 04-0A:00 0B:0C
 N B.5 01:D5 02:AA 03:AD

PEGASUS II
 N 0-22
 N 3 13:1D

PFS & PFS REPORTS
 D 1-13
 D 0 01:93 02:F3 03:FC
 04-0A:00 11:00 15:E0
 17:04 18:93 19:F3
 1A:FC 1B:FF

NOTE: Write protect copy diskette
 before using.

PFS & PFS REPORTS (new release)
 DSC 0-1
 DSC 3-22
 DSC 2 11:02 14:F8 15:60
 17:04 19:F3 1A:FC
 1B:FF

NOTE: Set max retries to 2. Write
 protect the copy disk before using.

PHANTOMS 5
 N 0
 N 2-1C

PRISM PRINT (Req Ver. 2.3 or later)
 S 0-21 0C:08 0F:01 10:01
 SD 22 00:FE 01:AA 02:D5
 03:9F 04-0A:00 0B:0C
 11:02 15:10 17:03
 18:AA 19:D5 1A:9F
 25:02 26:03 28:03

THE PRISONER
 N 0-22

PULSAR II
N 0 00:FE
N 2-C
N 11-19
N 1A.5-1D.5

RASTER BLASTER
DS 0
DS 1.5 00:FE 01:AD 02:DE
03-0A:00 0B:0C

DS 3.5-F.5 by 4
DS 5-11 by 4
DS 6-12 by 4

REAR GUARD
N 0-20
N 22
C 21 16:FF

RETRO-BALL
D 0 00:FE
D 4-6
D 9-C
D E-10
D 12-14
D 17-1D
D 20-22

REVERSAL
N 0-2
N 3.5
N 5-22

RINGS OF SATURN
D 0-22

SABOTAGE
N 0-22

SAT ENGLISH (SIDE 1)
NOTE: this requires version 2.2 This is a two sided diskette.

SD 0
D 1-3 01:EE 02:FC 03:97
04-0A:00
D 6-22
DS 4-5 00:FE 01:FF 02:FF
03:DB

Note: the copy process may "hang up" during the analyze mode of tracks 4 & 5. This is normal; if it happens, press RESET and try the track again. If you fail to copy these tracks properly, the diskette will continuously attempt to reboot.

SAT ENGLISH (SIDE 2) note:
this requires version 2.3
See all notes for side 1. Side 2 is very similar.

SD 0
D 1-3 01:97 02:EE 03:D5
04-0A:00
D 6-22
SD 4-5 00:FE 01:FF 02:FF
03:DB 26:06 28:06

SCREENWRITER
N 1-22
CD 0 05-0A:00 0B:06
16:FF

SNACK ATTACK
N 0-11 11:00 15:40 17:02
18:AF 19:DE

SNAKE BYTE
P 0
S 1.5-F.5

SNEAKERS
N 0
S 1.5-F.5

SNEAKERS (NEW)
DS 0
DS D.5
DS 1.5-C.5 00:FE 01:DD 02:AD
03:DA 04-0A:00 0B:0C
DS 2.5 00:FF

SNOGGLE (JOYSTICK)
N 0-2
N 3-D 00:FE

SOFT PORN
N 0-22
N 3 13:1D

SOUTHERN COMMAND
D 0 07:00
D 1-22 01:D4 03:B7

SPACE EGGS
N 0
N 2-6
N 11-13
N 14-1A

SPACE RAIDERS
N 0-4

SPACE WARRIOR
D 0
D 1-5 by 4 00:FE 01:DF 02:AD
03:DE 04-0A:00 0B:0C
D 2.5-6.5 by 4
D 3.5
D 8-11

SPECIAL DELIVERY SOFTWARE
D 0-22

STAR BLASTER
D 0
D 7-20 by 1.5 00:FE 01:DF 02:AD
03:DE 04-0A:00
0B:0C

STAR THIEF (NOTE: Requires Vers. 2.2)
NC 0-13
NC 22 16:FF 21:05 22:02
NOTE: You will have to open the copy drive to adjust the D-speed. This is required to preserve the nibble count.

STEP BY STEP (new)
D 0-22

SUICIDE
D 0
D 11.5-20.5 by 1.5 00:FE 01:DF
02:AD 03:DE 04-0A:00
0B:0C

SUPER SCRIBE
N 0-22
N 3 13:1D

SUPER STELLER TREK
D 0
D 1-22 00:FE 01:EE 02:EF
03:FE 04-0A:00 0B:0C
1-22

SWASHBUCKLER
D 0-22 00:DB 11:00 15:C0
17:00 19:AA 1E:DB
1F:DB

TEMPLE OF ASPHALT
D 0-22

TETRAD
N 0-22

THIEF
D 0
D 1-3 00:FE 01:AE 02:DE
03:FE 04-0A:00 0B:0C

D 6-22
DS 4 01:DB 02:AD 03:FE
0F:00
DSP 5 0F:01

NOTE: Drive speed must be exactly set according to APPLE's D-speed test. Vers. 2.2 and above may copy tracks 4 & 5 by preserving the nibble count. To do this, change perms: 16:FF, 0F:01, 10:01, then copy tracks 4 and 5 synchronized.

THRESHOLD
N 0-22
N 1 13:1D

TIME ZONE (disk 1)
DS 0-22

TIME ZONE (remaining diskettes)
N 0-22

TWERPS
P 0
N 1.5-E.5
N 1A

ULTIMA (player master side)
N 0-22
ULTIMA (program side)
N 0-22 00:FE 25:0B
NOTE: Set retries to 3 and recopy tracks with read or write errors as many times as required to copy properly.

ULYSSES AND THE GOLDEN FLEECE
N 0-22
N 3 13:1D

VISICALC ///
S 0-22
NOTE: On Ver. 2.1 change parm 11:02.

VISICALC 16 (Early versions)
N 0-22

Continued on page 15

Let's map ULTIMA

Requirements:

Ultima (both sides on normal DOS)
Access to a printer

Use the Copy Ultima program from Update 3.1 to copy the program side of Ultima. The player side is normal 13 sector DOS with a slight change.

The Copy Ultima program must be changed before it will handle the player side of Ultima. Make the following changes:

```
1010 DV = 1 : CD = RD : IO = 797 :
      GOSUB 50 : GOSUB 80
```

```
1015 IF TK = 17 THEN POKE 12289,20
```

Making Maps

The binary files BTERRA0 thru BTERRA3 are the four island maps in encoded form. The maps are 64x64 characters. The high nibble of each byte determines the character. In the case of castles, towns, towers and dungeons, the low nibble will determine which town, castle, etc you are in.

by Bobby

Ltr	Code	Object
*	10	land
*	20	trees
X	30	mountains
M	40	castle (2 on each map)
I	50	tower (2 on each map)
#	60	town (8 on each map)
U	70	dungeon (8 on each map)
Y	80	player
H	90	horse
C	A0	cart
R	B0	raft
F	C0	frigate
A	D0	aircar
S	E0	shuttle
e	F0	time machine

The Map Ultima program will print a map of each of the four islands on the Ultima disk. The program uses letters to imitate the different characters as shown in the chart.

At the right edge of the map are numbers. They correspond to the

actual town, castle, tower or dungeon and are listed in the chart by map number.

A Simple APT

The file BEVERY on the player disk contains all the variables. It is loaded into memory and the zero-page pointers are changed to the correct values to let the program know where it is. Changes to this file would have to be made by a running program.

Use the normal save game command to save the file BEVERY after any changes.

A simpler APT would be to modify the INIT DISPLAY program. This program sets up your character when you first start a game. The variable DIS in line 400 is the number of points you may use. It is set to 90 but you may change it to whatever you wish. If you change line 400 then change line 520 to:

```
520 UTAB (5+X) : HTAB 27 : Q = 3 :
      GOSUB 20000 : Q = VAL (NAS)
```

LISTING ON NEXT PAGE

TRANS.	ARMOR	GEM	SPELLS	WEAPONS	CHARACTERS
HORSE	LEATHER ARMOR	RED GEM	OPEN	DAGGER	GUARD
CART	CHAIN MAIL	GREEN GEM	UNLOCK	MAZE	BARD
RAFT	PLATE MAIL	BLUE GEM	MAGIC MISSILE	AXE	THIEF
FRIGATE	VACUUM SUIT	WHITE GEM	STEAL	ROPE & SPIKES	MERCHANT
AIR CAR	REFLECT SUIT		LADDER DOWN	SWORD	WENCH
SHUTTLE			LADDER UP	GREAT SWORD	NESS CREATURE
				BOW & ARROWS	
				BLASTER	

Continued on page 16

BTERRA0

- 1 THE CASTLE OF LORD BRITISH
- 2 THE CASTLE OF THE LOST KING
- 1 THE TOWER OF KNOWLEDGE
- 2 THE PILLARS OF PROTECTION
- 1 THE DUNGEON OF PERINIA
- 2 THE LOST CAVERNS
- 3 THE MINES OF MT. DRASH
- 4 MONDAINS GATE TO HELL
- 5 THE UNHOLY HOLE
- 6 THE DUNGEON OF DOUBT
- 7 THE DUNGEON OF MONTOR
- 8 DEATHS AWAKENING
- 1 BRITAIN
- 2 MOON
- 3 FAWN
- 4 PAWS
- 5 MONTOR
- 6 YEW
- 7 TUNE
- 8 GREY

BTERRA1

- 1 THE CASTLE BARATARIA
- 2 THE CASTLE RONDORLIN
- 1 THE PILLAR OF OZYMANDIAS
- 2 THE PILLARS OF THE ARGONAUTS
- 1 SCORPIAN HOLE
- 2 THE SAVAGE PLACE
- 3 THE HORROR OF THE HARPIES
- 4 ADVARI'S HOLE
- 5 THE LABYRINTH
- 6 THE GORGONS HOLE
- 7 WHERE HERCULES DIED
- 8 THE DEAD WARRIOR'S FIGHT
- 1 ARNOLD
- 2 LINDA
- 3 HELEN
- 4 OWEN
- 5 JOHN
- 6 GERRY
- 7 WOLF
- 8 THE SNAKE

BTERRA2

- 1 THE CASTLE OF OLYMPUS
- 2 THE BLACK DRAGONS CASTLE
- 1 THE SIGN POST
- 2 THE SOUTHERN SIGN POST
- 1 THE METAL TWISTER
- 2 THE TROLLS HOLE
- 3 THE VIPERS PIT
- 4 THE GUILD OF DEATH
- 5 THE END....
- 6 THE TRAMP OF DOOM
- 7 THE LONG DEATH
- 8 THE SLOW DEATH
- 1 NASSAU
- 2 CLEAR LAGOON
- 3 STOUT
- 4 GAUNTLET
- 5 IMAGINATION
- 6 PONDER
- 7 WEALTH
- 8 POOR

BTERRA3

- 1 THE WHITE DRAGONS CASTLE
- 2 THE CASTLE OF SHAMINO
- 1 THE GRAVE OF THE LOST SOUL
- 2 EASTERN SIGN POST
- 1 SPINE BREAKER
- 2 FREE DEATH HOLE
- 3 THE DEAD CAT'S LIFE
- 4 THE MORBID ADVENTURE
- 5 THE SKULL SMASHER
- 6 DEAD MANS WALK
- 7 THE DUNGEON OF DOOM
- 8 HOLE TO HADES
- 1 GORLAB
- 2 DEXTRON
- 3 MAGIC
- 4 WHEELER
- 5 BULLDOZER
- 6 THE BROTHER
- 7 THE TURTLE
- 8 LOST FRIENDS



HYPER DOS w/o INIT

Here is a program for putting the fast DOS subroutine into the init code area of DOS. This will overwrite the format routines so you will not be able to initialize a disk. The program only works if the target disk is a 48K slave. The program does no error checking so use it with caution.

The name HyperDOS has been changed to SpeedDOS as we have been notified that a similar package is being sold commercially under the HyperDOS label.

```

10 REM
SPEED-DOS HELLO
20 REM
BY ROBB CANFIELD
30 HIMEM: 16384
40 NORMAL : TEXT
50 GOSUB 490
60 GOSUB 560
70 HOME : VTAB 10
80 HTAB 3
90 PRINT "PLACE A 48K SLAVE DISK IN
DRIVE 1"
100 VTAB 12: HTAB 5
110 PRINT "AND PRESS ANY KEY TO
CONTINUE";: GET A$
120 PRINT
130 HOME : VTAB 12: HTAB 10
140 PRINT "READING YOUR DOS"
150 CO = 1: GOSUB 280
160 HOME : VTAB 12: HTAB 10
170 PRINT "MODIFYING YOUR DOS"
180 GOSUB 390
190 POKE 17016,175: POKE 17017,190:
REM SET JUMP TO SPEED-DOS
200 POKE 17284,44: POKE 17285,44:
POKE 17286,44: POKE 17287,172
210 CO = 2
220 HOME : VTAB 12: HTAB 14: PRINT
"WRITING DOS"
230 GOSUB 280
240 HOME : VTAB 12

```

```

.....
by Robb Canfield
.....
250 PRINT "DO ANOTHER ONE (Y/N)? ";:
GET A$
260 IF A$ = "Y" THEN 70
270 TEXT : END
280 REM
SECTORS FOR SPEED-DOS
290 POKE BUF,0: POKE BUF + 1,64
300 TK = 0:ST = 8: GOSUB 440
310 TK = 0:ST = 9: GOSUB 440
320 REM
SECTOR TO PLACE
330 REM
JUMP TO SPEED-DOS
340 TK = 1:ST = 3: GOSUB 440
350 REM
CHANGE INIT COMMAND
360 REM
TO A NULL COMMAND
370 TK = 1:ST = 7: GOSUB 440
380 RETURN
390 REM
READ SPEED-DOS
400 RESTORE
410 FOR X = 16559 TO 16738
420 READ A: POKE X,A: NEXT
430 RETURN
440 REM
CALL IOB
450 POKE TRK,TK: POKE SCT,ST: POKE
VOL,0: POKE CMD,CO
460 CALL IO
470 POKE BUF + 1, PEEK (BUF + 1) + 1
480 RETURN
490 REM
POKE CODE
500 RESTORE
510 FOR X = 1 TO 179: READ A: NEXT :
REM SKIP DOWN TO IOB CODE
520 FOR X = 768 TO 796: READ A: POKE
X,A
530 NEXT X

```

```

540 RETURN
550 REM
INITIALIZE VARIABLES
560 TRK = 780:SCT = 781:CMD = 788:RD
= 1: WR = 2
570 SLT = 777:BUF = 784:VOL = 779:IO
= 768
580 POKE BUF,0: POKE BUF + 1,64
590 RETURN
600 REM
CODE FOR SPEED DOS
610 DATA 173,97,170,201,2,176,3,76,
10,164,138,237,230,181,141,240,
183,133,66,152,233,0,141,241,
183,133,67
620 DATA 24,173,203,181,133,64,173,
204,181,133,65,173,230,181,168,
109,96,170,141,250,183,173,97,
170,105
630 DATA 0,141,97,191,24,177,64,145,
66,200,200,249,173,201,181,133,
64,173,202,181,133,65,160,14,
238,241
640 DATA 183,177,64,141,236,183,200,
177,64,141,237,183,200,140,249,
183,177,64,200,17,64,240,60,206,
97,191
650 DATA 240,55,32,101,176,172,249,
183,200,218,200,177,64,240,56,
141,236,183,200,177,64,141,237,
183,173
660 DATA 240,183,72,173,241,183,72,
165,64,141,240,183,165,65,141,
241,183,32,101,176,104,141,241,
183,104
670 DATA 141,240,183,160,12,200,171,
173,250,183,141,51,190,32,101,
176,169,0,141,61,190,76,234,
162,0
680 REM
CODE FOR IOB
690 DATA 169,3,160,8,32,217,3,96,1,
96,1,0,0,0,25,3,0,32,0,0,1,0,0,
96,1,0,1,239,216

```



PROGRAM LISTING FOR..... MAP ULTIMAcontinued from page 13

```

10 LOMEM : 8192 : D$ = CHR$ (4)
20 TEXT : HOME : VTAB 12 : PRINT
"INSERT PLAYER DISK, PRESS
RETURN:" ;: GET A$ : PRINT
30 FOR B = 0 TO 3 : PRINT D$
"BLOOD BTERRA" B
40 PRINT D$"PR#1"
50 PRINT
60 FOR TY = 0 TO 63 : X = 0 : FOR
TX = 0 TO 63
70 T1 = PEEK (4096 + TY * 64 + TX)
: T = INT (T1 / 16) : T1 = T1 -
16 * T
80 IF T > 3 AND T < 8 THEN X = X + 1
: A (X) = T1

```

```

90 ON T + 1 GOSUB 170,180,190,200,
210,220,230,240,250,260,270,280,
290,300,310,320
100 NEXT TX
110 IF X > 0 THEN FOR C = 1 TO X :
PRINT A (X) ;: NEXT C
120 PRINT : NEXT TY
130 PRINT : PRINT
140 PRINT CHR$ (12)
150 NEXT B
160 PRINT D$"PR#0" : END
170 PRINT CHR$ (254) ;: RETURN
: REM WATER
180 PRINT " ": RETURN : REM LAND
190 PRINT "*": RETURN : REM TREES

```

```

200 PRINT "X": RETURN : REM
MOUNTAINS
210 PRINT "M": RETURN : REM CASTLE
220 PRINT "I": RETURN : REM TOWER
230 PRINT "#": RETURN : REM TOWN
240 PRINT "U": RETURN : REM DUNGEON
250 PRINT "Y": RETURN : REM YOU!
260 PRINT "H": RETURN : REM HORSE
270 PRINT "C": RETURN : REM CART
280 PRINT "R": RETURN : REM RAFT
290 PRINT "F": RETURN : REM FRIGATE
300 PRINT "A": RETURN : REM AIRCAR
310 PRINT "S": RETURN : REM SHUTTLE
320 PRINT "@": RETURN : REM TIME
MACHINE

```



BUGS

CORRECTIONS TO: CASTLE WOLFENSTEIN

Page 9, middle column.

Change: 63015 DATA 169,3,160,8,32,0,16,96
to: 63015 DATA 169,3,160,8,32,240,24,96

Page 10, first column reads "After making all your changes, return to BASIC." This isn't necessary, since you should already be in BASIC.

Also, when using FID or any other file-by-file copy method, make these changes:

1. Enter the monitor by typing:
CALL-151
2. BLOAD @INIT
1863:E [changes B to E]
187A:F [changes C to F]
BSAVE @INIT,A*880,L*1243
3. BLOAD @WOLF
95F:E [changes B to E]
976:F [changes C to F]
BSAVE @WOLF,A*810,L*16EB

If you are using COPYA, or any other sector-by-sector copy method, the above changes are not needed.

CORRECTIONS TO: BOOT CODE TRACING REVISITED

Page 7, middle column.

Line 9008:02 4C 59 4C 59 FF
should read: 9008:02 4C 59 FF

Page 8, third column.

Change 5D00<800.BFFFFM
to 5D00<9D00.BFFFFM

CORRECTIONS TO: USING IOB DATA STATEMENTS

Page 4, third column.

In the 63010 DATA statement, change the 60 to 160.

We would like to thank the readers who called and wrote to us with corrections for Update 3.1.

PARAMETERS continued from page 12

VISICALC 16
D 0
D 2-16

VISIDEX
D 0-22 11:00 15:60 17:03
18:AA 19:EB 1A:FD

VISIFILE
D 0-22 11:00 15:40 17:03
18:AA 19:EB 1A:EC

VISISCHEDULE
D 0-22 11:00 15:60 17:03
18:AA 19:EB 1A:EC

VISITREND/VISIPL0T
D 0-6
D 8-22
D 7 11:00 15:40 17:03
18:AA 19:EB 1A:FC

NOTE: separate versions copy alike.

VISITERM
D 0-5
D 7-22
D 6 11:00 15:20 17:03
18:AA 19:EB 1A:FC

WIZARD AND THE PRINCESS
N 0-22

WIZARDRY
S 0
N 1-9
N F-22
C A 16:FF
S A-E 0B:03 0C:08 0F:01
10:01 16:00

NOTE: place a write protect tab over the notch in the copy of the boot side.

ZORK I & II (new versions)
D 0-22 05:00

ZOOM GRAPHICS
DS 0-22

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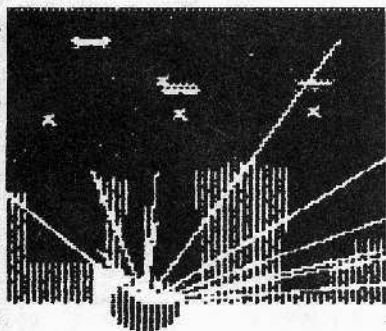
Written by Bev R. Haight.

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SOFTQUEST continued from page 7

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NIGHT FALLS continued from page 8

program in more radical ways.

Remember, don't remove line 10. And dont use any line number less than 10.

For those who try to run the Applesoft version, here are some hints to speed up the process:

(1) To make the program so that it doesnt need to use the "loader program", add these lines to the Applesoft version:

```
15 IF PEEK(104) * 256 + PEEK
(103) < > 16385 THEN 50000
50000 HOME: PRINT "RE-LOADING
ABOVE HI-RES PAGE 1..."
```

```
50010 POKE104,64: POKE 103,1: POKE
16384,0: PRINT CHR$(4)"RUN
name of the modified
applesoft version"
```

(2) The building of the city is a slow process taking several minutes. In order to get into the main game sequence, add this line:

```
1075 GOTO 1090
```

If you compile the program, be sure to get rid of these additional lines.

Good Luck.

MAP ULTIMAcontinued from page 14

- | | | | |
|---------------|-------------------|-----------------|------------------|
| GIANT SQUID | KNIGHT | VIPER | GREMLIN |
| DRAGON TURTLE | NECROMANCER | ORC | WANDERING EYES |
| GIANT OCTOPUS | EVIL RANGER | CYCLOPS | WRAITH |
| HOOD | WANDERING WARLOCK | GELATINOUS CUBE | LICHE |
| BEAR | RANGER | ETTIN | INVISIBLE SEEKER |
| HIDDEN ARCHER | SKELETON | MIMIC | MIND WHIPPER |
| DARK KNIGHT | THIEF | LIZARD MAN | ZORN |
| EVIL TRENT | GIANT RAT | MINOTAUR | DAEMON |
| THIEF | BAT | CARRION CREEPER | BALRON |
| ORC | GIANT SPIDER | TANGLER | |