Anatomy of an Eamon Adventure

Robert Plamondon

How the EAMON Adventure System Works.

OMPUTERIZED adventure games have been surrounded by an aura of mystery that has nothing to do with their story lines. Simply stated, the mystery is this: no one knows how they work.

Like most mysteries, adventure programs are pretty straightforward once the hidden parts are revealed. To bring these secrets to light, let's look at the EAMON adventure system by Donald Brown, which is a set of BASIC programs for the APPLE II and available to members at \$4.00 each on the A.P.P.L.E. "As Is" software series. EAMON is a good choice because it's a good system, it's all in BASIC, and it's in the public domain, which means that you can adapt or copy it at will. It does most of the things that all-text adventures do, so studying it can give you a good idea of how adventure games work.

The Structure of EAMON.

EAMON is a set of programs on disk which call each other as necessary, passing data through text files. The number of programs varies slightly depending on whether you have the original version or an altered one. In my own version I have merged several of the programs together, reducing the number of programs somewhat.

Warning: This gets a little intricate. If you don't care to know about the different programs, and just want to get the crucial stuff, skip this section.

The HELLO program runs when you boot the EAMON Master Disk. It loads an impressive picture of a dragon to the high-resolution graphics display to give you some-

thing to look at, then it runs a program called THE WONDERFUL WORLD OF EAMON.

THE WONDERFUL WORLD OF EAMON is the program that comes up with characters for you to play in the adventure. It prompts for your character's name, then tries to find an existing character of the same name in the file CHARACTERS. If it doesn't find him, it asks if you spelled if correctly (giving you a chance to try again). If you insist your spelling was correct, the program decides that you must be starting a new character and creates one for you, storing the data in the file CHARACTERS, and the name of your character and his record number to the file THE ADVEN-TURER. It also gives you a chance to read the instructions (Listing 1).

If the name you gave matches with an existing record in CHARACTERS, his name and record number are written to THE ADVENTURER. In both cases, the next thing the program does is to issue the command, "RUN MAIN HALL."

The MAIN HALL is where characters go to buy and sell weapons, buy armour and spells, and depart for adventures. The MAIN HALL reads the number stored in THE ADVENTURER, then reads in the character record of the same number from CHARACTERS.

After doing all the buying and selling that appeals to him, the player has two options: he can send his character on an adventure, or quit. If he quits, his updated character record is resaved in CHARACTERS. If he decides to go on an adventure, the character record is partially erased (although the data still exists in program variables), and the player is prompted to insert the disk with the adventure on it. The character's data is written to a file named FRESH MEAT, and the file EAMON.NAME is read. EAMON.NAME contains the

name of the adventure program. The MAIN HALL then runs the program of that name, and the main adventure begins.

Okay, so it's complicated. The code that does all the file manipulations is a lot shorter than the explanations, though, and passing parameters between program is not the crucial part of EAMON, anyway. We'll get to the good stuff in a minute.

The reason why the character record is partially erased before the character embarks on an adventure is to make sure that if he dies on the adventure, he stays dead. As it is, there are only two ways to get your character's statistics back into the CHARACTERS file. One is to survive the adventure. The other is to use the RESURRECT program on the EAMON Utility Disk (which contains other interesting programs, as well). Resurrecting a character is considered cheating by purists, but everyone does it anyway.

The program called by the MAIN HALL usually prints out introductory material for the adventure; telling you what's going on, what your character is supposed to do, and so forth. This program in turn calls another program (don't worry, we're almost there): the BASE DUNGEON PROGRAM, which does the actual adventure. The rest of this article will deal with the BASE program.

A (Nearly) Infinite Loop.

The main activity of an adventure program is a loop: the program gets a command from the player, figures out what it means, goes to the appropriate routines to carry out the command, and returns to get another command. This loop continues until the adventure is completed, the character dies, or the power is turned off.

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Getting commands is an easy job. All it takes is a statement like "INPUT A\$." Breaking the command into words, and identifying the actions corresponding to the words is also pretty easy, it turns out. The routines that carry out the actions are usually fairly simple, too.

So where's the hard part? The individual parts are all easy, but there are a *lot* of individual parts. A program that puts them all together can be immense. This makes the design job difficult enough that most people who'd like to write adventures never get started. Fortunately, FAMON

who'd like to write adventures never get started. Fortunately, EAMON makes a good base for all sorts of adventures, and the design work for the programs has already been done.

One Program, Many Adventures.

One of the most useful things about the EAMON system is that the same BASE program is used (with minor alterations) with all the EAMON adventures. This is possible because all the information about a specific adventure is kept in text files, and this data is what controls the adventure.

For example, the information about which rooms connect where is kept in a text file, which is loaded into an array at the beginning of the adventure. This data controls where the adventurer can go. Monster data is likewise kept in files, so the creatures you encounter will vary from one adventure to the next.

The files for each EAMON adventure are:

- EAMON.DESC, which contains the long descriptions for each room, artifact, special effect, and monster in the adventure.
- EAMON.ARTIFACTS holds the data on artifacts (i.e., objects) in the adventure, including names, values, initial placement, etc.
- EAMON.MONSTERS contains monster data, and is similar to EAMON.ARTI-FACTS.
- FRESH MEAT holds information on the character.
- EAMON.ROOMS holds the information on which room connects where.
- EAMON. ROOM NAMES holds the names of each room.

These files provide all the information required to run a unique adventure.

The Program Listing.

Reading the listing of the EAMON adventure system is necessary if you want to understand the way EAMON works. I have added a large number of remarks to the listing to make it more comprehensible (there are very few comments in the original program.) Once you understand how this program works, you should be able to write your own adventure program, if that appeals to you. If you want to write adventures, but don't want to design a new program, EAMON is the system for you. It's only available for the Apple \[[(as far as I know), but it would be fairly easy to convert it to run on other machines.

This is my version of the BASE program, which is a modification of John Nelson's modification to Donald Brown's original. John Nelson's version is the one on the Dungeon Designer Version 5.0; mine is Version 5.1, and previous versions are (as far as I can tell) Donald Brown's original creation. A number of routines have been changed. Some of these make the program run faster, some correct errors in coding or concept in the original, and some make the output more readable.

A Brief Overview of the Program.

Lines 100-900 make up the main loop. Lines 100-200 print out a description for the room and each monster and object in it. If something has been encountered before, its name is printed. If something is being seen for the first time, the long description is printed.

Lines 200-290 get the player's command and process it. The input is broken into a subject and verb (S\$ and V\$), and the verb is compared to the list of commands in the string array C\$. If a match is not found, an error message is printed along with a list of acceptable verbs. If there is a match, the appropriate routine is jumped to in line 290. If the player just hits RETURN, rather than typing anything, his previous command is repeated.

Lines 300-900 control combat. Each monster in the room gets its chance to attack. Morale is checked for each monster: if the morale check fails, the monster flees from the room. A monster's morale decreases as it is wounded. Line 900 is "GOTO 100" — forming the (nearly) infinite loop.

Lines 1000-2000 handle initialization. Variable and arrays are set to their initial values, and data is read in from disk. The list of command words is in line 1920.

Lines 2000-3000 handle the end of the game. If your character lives, he gets to sell his treasures and return to the MAIN HALL program. If he died, the MAIN HALL program runs THE WONDERFUL WORLD OF EAMON, giving you the chance to start a new character.

Lines 3000-4000 handle movement. The program determines which direction you want to move, and checks to see if it's possible. If it is, you are moved into another room.

Lines 3600-3900 handle monster reaction. If the monster hasn't been met before, "dice" — random numbers — are rolled and compared to its "Friendliness." The monster will be either friendly, neutral, or hostile. If may follow you from room to room (it will always do so if friendly, never if neutral, and will sometimes chase you when hostile). This makes monster reaction important to the movement routine.

Lines 4000-5000 handle picking things up. It checks to see that the item is in the room, and isn't too heavy. If the character is unarmed, and the item is a weapon, the weapon becomes his "ready" weapon — the one he is prepared to fight with. The command "GET ALL" causes the character to pick up everything that's not too heavy for him.

Lines 5000-6000 make up the DROP routine, which is the GET routine in reverse. DROP is used to get rid of unwanted baggage, and is helpful in combat to arm a comrade who has lost or broken his weapon. If a weapon is on the floor, any unarmed combatant will pick it up. (GIVE doesn't work during combat, though perhaps it should.)

Lines 6000-7000 are the LOOK or EXAMINE command, which is usually used in the form of "EXAMINE SWORD." The long description in EAMON.DESC is printed if the thing you're looking at is in the room.

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Lines 7000-8000 make up the combat routine. The combat system is suspiciously similar to that in *Rune-Quest*, a popular fantasy role-playing game (not a computer game). Each creature has a chance to hit with each category of weapon (axe, bow, spear, and sword). These numbers are in the range of zero to something over 100. If a random number between 1 and 100 is less than the chance to hit, the creature hit its opponent.

Critical Hits do extra damage, and Fumbles cause the attacker to drop his weapon or hurt himself.

Armor absorbs damage, but reduces the wearer's chance to hit because of its weight and bulk. Armour Expertise is the skill of compensating for the hampering effects of wearing armour.

If a creature scores a hit, there is a chance that his skill at the weapon he is using will increase (practice makes perfect).

Lines 7700-7900 handle dying creatures. When a creature dies, its weapons and possessions fall to the floor, and his dead body (an artifact) is placed in the room. Its Courage is reduced to 75% of its current level in case it is resurrected by a POWER

spell (having just died, it would think twice before risking its life again). If the player's character dies, the game is over (this is one way out of the nearly infinite loop).

Lines 8000-9000 handle the FLEE command. The character flees through a randomly selected exit. Sometimes your enemies follow, and sometimes they don't.

Lines 9000-10000 are the GIVE routine. You can give anything you are carrying to a monster. This sometimes makes them friendlier. If you use a number, as in "GIVE ORC 500" the program assumes you are giving that many gold pieces to the monster. Money makes a good bribe.

Lines 10000-11000 form the IN-VENTORY routine, which prints out the name of everything your character is carrying.

Lines 11000-12000 form the BLAST spell, which is used to wound opponents. All spells in EAMON decrease in effectiveness with use: if you have an 80% chance of success on the first attempt to use the spell, it is reduced to 40% on the second try, 20% on the third, and so on. This is not a very effective way of limiting

spell use, but no one has changed it vet.

Lines 12000-13000 form the HEAL spell, which cures wounds on your character, but can't be used to heal his friends (someone ought to fix this).

Lines 13000-14000 are the POWER spell, which does unpredictable things — from causing things to vanish to raising the dead to collapsing the roof on your head. Many adventures have a BASE DUNGEON PROGRAM with a modified POWER spell, just for variety.

Lines 14000-15000 make up the SPEED spell, which increases agility and the base chance to hit. SPEED is nice because you can cast it on yourself before a battle (when spell-casting is safe), and it lasts a reasonably long time.

Lines 15000-16000 are the SMILE command, which is a way to try to make friends. It doesn't really have any effect on the creatures, but it does tell you how they feel about you.

Lines 16000-17000 make up the SAY command, which give you an alternate way of casting spells, and little else. Some adventures use

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magic words, so this routine is modified to let you open doors by typing "SAY OPEN SESAME."

Lines 17000-18000 let you READY a weapon. You can carry a huge number of weapons, but you can only fight with one at a time. READYing a weapon is how you specify which one you're using.

Lines 18000-19000 are the "Save Game" routine, added to the program by John Nelson. The pointers to the start and end of variable and array space are saved into a binary file, and then the variable and array spaces are saved into two more binary files.

Lines 19000-20000 restore a saved game. By retrieving the variables and variable pointers, the game begins exactly where it left off.

Lines 50000-60000 are the error-handling routines, consisting of a short machine-language program that helps fix APPLESOFT's ON-ERR GOTO bugs, a routine to print out the error message (which is disabled by ONERR GOTO), and a jump back to 100. This doesn't always work, but it's helpful. If you are running an EAMON adventure that doesn't have the error-trapping routine, you can get back to where you left off by typing

POKE 51,0: GOTO 100

The Base Program is shown in Listing 2. Table 1 gives an explanation of the variables in the program.

The basic instructions for playing EAMON are given in Listing 1, and tell a lot about the game, especially the combat details.

The Dungeon Designer Disk contains a number of programs that help you to create adventures. The most important of these, DUNGEON EDIT, is used to create the descriptions of rooms, monsters, and artifacts. There are several other useful programs, as well as the Players' Manual and the Dungeon Designers' Manual (which come on text files, with a program to print them out to the screen or a printer).

Getting EAMON. There are two good sources of EAMON adventures. One is good old A.P.P.L.E.; the other is the Apple Avocation Alliance, Inc.

A.P.P.L.E. has a number of adventures available on its "As Is Software" disks, which cost \$4.00 each.

The Apple Avocation Alliance is in business to do essentially the same job as A.P.P.L.E.'s "As Is Software" — the distribution of public-domain software at low prices. Ron Maleika runs 3A almost single-handedly, and although he has complained about being swamped with orders recently, service has consistently been very fast — my orders have been filled from six days to two weeks from the time of mailing them in. A.P.P.L.E. averages about four weeks.

3A will ship disks on DOS 3.2 or 3.3, and Ron is actively acquiring all the EAMON adventures in the known universe. Not a bad deal. Table 2 gives a list of the EAMON adventures in 3A's October, 1982 catalog, plus two more that Ron told me about later.

If you are not an A.P.P.L.E. member, you may order direct from:

Apple Avocation Alliance, INC. 721 Pike Street Cheyenne, Wyoming USA 82009

and enclose \$2.00 for a catalog, and \$3.00 for year's subscription. 3A has a huge number of public-domain programs which they sell for \$1.00 plus the price of the disk (currently at \$2.15). 3A has over thirty EAMON adventures, including the EAMON Master Disk (which you must have to run the adventures), the Dungeon Designer Disk, and two EAMON Utility Disks.

Conclusions.

A lot of the features in EAMON are inelegant, and some are downright crude. Still, EAMON makes a very good system for adventure games, especially combat-oriented adventures. Since it's in the public domain, anyone can use it and try to improve it — but in its present form it is eminently playable and very enjoyable.

The BASE PROGRAM shows you one way to write an adventure game, and makes a good starting point for those who want to write their own adventure systems. People tend to start out by just playing the adventures, but eventually they can't resist the temptation to write one.

The EAMON Adventures:

- 01 EAMON Master Disk and The Beginners' Cave
- 02 Minotaur's Lair
- 03 Caves of the Mind
- 04 Zyphur River Venture
- 05 Doom Castle
- 06 The Death Star
- 07 The Devil's Tomb
- 08 The Abductor's Quarters
- 09 Assault on the Clone Master
- 10 The Magic Kingdom
- 11 Molinar's Tomb
- 12 The Quest for Trezore
- 13 Treasure Island
- 14 Furioso
- 15 Heroes Castle
- 16 The Caves of Mondamen
- 17 Merlin's Castle
- 18 Hogarth Castle
- 19 The Death Trap
- 20 The Black Death
- 21 Marron Quest
- 22 The Senator's Chambers
- 23 The Temple of Ngurct
- 24 Black's Mountain
- 25 Nuclear Nightmare
- 26 Moleman Assault
- 27 Moleman Revenge
- 28 London Tower
- 29 The Lost Island of Apple
- 30 The Underground City
- 31 Gauntlet
- 32 House of Ill Repute
- 33 Nobbin's Hell Hole

EAMON Tournament Adventures:

- 60 Castle of Count Fuey
- Search for the Key
- 62 The Rescue Mission

Utilities:

Dungeon Designers' Disk EAMON Utilities I EAMON Utilities II

Before they know it, they're writing their own adventure system.

Whether you're one of the fanatics described above, or just like to play adventure games, EAMON is worth looking into. The price is right, the variety is stunning, and the quality is surprisingly high.

Happy adventuring!

Call —A.P.P.L.E. March 1983

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	Table I
	Variables used in EAMON's
	BASE DUNGEON PROGRAM
from A Ma	anual for EAMON Adventure Designers
	by Donald Brown
AC -	ARMOUR CLASS of player character
	(how many points of damage the
	character's armour will absorb.
AD%(*,*) -	ARTIFACT DATA The first subscript
	is the number of the artifact, and the
	key for the seconds is $(1 = Value,$
	2 = Type, 3 = Weight, 4 = Room,
	5 = Complexity, 6 = Type, 7 = Dice,
	8 = Sides, 9 = Flag is artifact has been
	seen before)
AE -	ARMOUR EXPERTISE
AN\$(*) -	NAMES OF ARTIFACTS
BANK -	GOLD PLAYER HAS IN BANK
C -	HOLDS NUMBER OF COMMAND
C(*)	GIVEN
C\$(*) -	VERBS PROGRAM RESPONDS TO
CH -	PLAYER CHARISMA
CA\$ ~	LAST COMMAND GIVEN
DF – DIE –	DEFENDER
DIE -	LOGICAL FLAG, 1=PLAYER HAS DIED
DK\$ -	HOLDS CTRL-D FOR DISK
DK\$ -	COMMANDS
DR%(*) -	
DI(70()	DIRECTION
EA -	EFFECT OF ARMOUR ON
2.1	ODDS-TO-HIT
FD%(*) -	FULL DAMAGE OF A SIDE IN
/	COMBAT
FR -	FUMBLE ROLL or FRIEND RATING
GOLD -	GOLD PLAYER HAS ON PERSON
HIT -	LOGICAL FLAG IF HIT IN COMBAT
INC -	LOGICAL FLAG IF ABILITY
	INCREASED
LK -	LOGICAL FLAG IF "LOOKED"
	ALREADY
MD%(*,*) -	MONSTER DATA First subscript is
	monster number, second key is
	(1 = HD, 2 = AG, 3 = FRIEND, 4 = COUR.,
	5 = ROOM, 6 = WGHT, 7 = DEF ODDS,
	8 = ARMOUR, 9 = WEAPON #,
	10=ODDS TO HIT,11=W DICE,
	12 = W SIDES, 13 = HITS TAKEN,
	14 = REACTION; 0 = NOT MET,
	1=HOSTILE, 2=NEUTRAL,
NANIO(*)	3=FRIENDLY)
MN\$(*) -	
	MONSTER MORALE
NA – NBTL –	NUMBER OF ARTIFACTS LOGICAL FLAG IF IN BATTLE
NG -	NUMBER OF COMMANDS
	NUMBER OF COMMANDS NUMBER OF MONSTERS
NW -	TOTAL COUNT OF WEAPONS IN
1111 =	GAME
NZ:	NUMBER ARTIFACTS BESIDES
112.	THE PLAYER'S WEAPONS
LOF -	NUMBER OF OFFENSIVE
201	(ATTACKING) MONSTER
	William Control Die

RAISE -	LOGICAL FLAG IF POWER RAISED
	SOMEONE FROM THE DEAD
REC -	PLAYER RECORD IN CHARACTERS
	FILE
RL -	RANDOM NUMBER 1-100
ROOM -	
RR -	RANDOM NUMBER 1-100 FOR
	POWER SPELL
S\$ -	SUBJECT OF COMMAND GIVEN
	CURRENT SPELL ABILITY
SA%(*) -	TOTAL SPELL ABILITY
SEX\$ -	
SPD -	NUMBER OF TURNS SPEED SPELL
	HAS TO GO
SUC -	LOGICAL FLAG IF SPELL
	SUCCEEDED
TD%(*) -	DAMAGE TAKEN IN BATTLE FOR
	SIDE
TP -	TOTAL PRICE OF TREASURE
V\$ -	VERB OF COMMAND
V%(*) -	FLAGS IF PLAYER HAS BEEN IN
	ROOM
WA%(*) -	PLAYER'S WEAPON ABILITY
WD%(*) -	FOR WEAPON, DICE OF DAMAGE
WN%(*) -	NAME OF PLAYER'S WEAPON
WO%(*) -	WEAPON COMPLEXITY
WP%(*) -	WEAPON POINTER (USED AT THE
d. 90	END OF GAME)
WS%(*) -	SIDES/DIE OF DAMAGE FOR
20.52	WEAPON
WT -	WEIGHT PLAYER CARRYING
WT%(*) -	WEAPON TYPE
WZ -	NUMBER OF WEAPONS PLAYER
	ppottoum

Listing 1

You read the instructions and they say -

BROUGHT

Information About THE WORLD OF EAMON

You will have to buy a weapon. Your chance to hit with it will be the weapon complexity, plus your ability in that class, plus twice your agility.

The five classes of weapons (and your current abilities with each) are —

Club/Mace	20%
Spear	10%
Axe	5%
Sword	0%
Bow	-10%

Every time you score a hit in battle, your ability in the weapon class may go up by 2%, if a random number from 1-100 is less than your chance to miss!

There are four armour types, and you may also carry a shield if you do not use a two-handed weapon. These protections will absorb hits placed upon you (almost always!) but they lower your chance to hit. The protections are —

—(♠)**→**

ILIST

REM

EAMON ADVENTURE

Armour	Hits Protect	Odds Adjust
None	0	- 0%
Leather	1	-10%
Chain	2	-20%
Plate	5	-60%
Shield	1	- 5%

You will develop an armour expertise, which will go up when you hit a blow wearing armour and your expertise is less than the armour you are wearing. No matter how high your armour expertise is, however, the net effect of armour will never increase your chance to hit.

You can carry weights up to ten times your hardiness, or 150 gronds. (A measure of weight, one grond = 10 DOS.)

Additionally, your hardiness tells how many points of damage you can survive. Therefore, you can be hit with 15 1-point blows before you die.

However, you will not be told how many blows you have taken. You will be merely told things such as —

"Wow! That one hurt!"
or "You don't feel very well."

Your charisma (20) affects how citizens of EAMON react to you. You affect a monster's friendliness rating by your charisma less ten, difference times two (20%).

You start off with 200 gold pieces, which you will want to spend on supplies for your first adventure. You will get a lower price for items if your charisma is high.

After you begin to accumulate wealth, you may want to put some of your money into the bank, where it cannot be stolen. However, it is a good idea to carry some gold with you for use in bargaining and ransom situations.

You may also hire a wizard to teach you some magic spells. There are four spells you may learn.

Blast Heal Speed Power	 Hurt your enemies from a distance. Remove damage from your body. Double your dexterity for a time. Does something weird. The exact
	effect is unpredictable.

Other types of magic may work in various adventures and items may have special properties. However, these will not work in other adventures than where they were found. Thus, it is best (and you have no choice but to) sell all items found in adventures, except for weapons and armour.

The man behind the desk takes back the instructions and says, "It is now time for you to start your life." He makes an odd sign with his hand and says, "Live long and prosper."

You now wander into the main hall.

```
EAMON ADVENTURE
      BASE PROGRAM
       BY DONALD BROWN
    WITH MODIFICATIONS
JOHN NELSON & ROBERT PLAMONDON
CALL -A.P.P.L.E. : MARCH 1983
    ONERR GOTO 50
    REM
*** IF 'GAME PTRS' EXISTS
       A CAME HAS BEEN SAVED.
    REM *** IF IT DOESN'T EXIST.
     THE ERROR WILL CAUSE A JUMP
         CHR$ (4): PRINT DK$"VER
     IFY CAME PTRS": COTO 19000
    POKE 216.0: GOTO 1000: REM **
     * SET UP THE GAME.
100
     REM
** ** MAIN LOOP. GIVE RO
     OM DESC. THEN GET COMMAND.
     SPEED= 255
105
110
     PRINT
     IF SPD THEN SPD = SPD - 1: IF
      NOT SPD THEN MD\%(0.2) = MD\%
     (0.2) / 2:MD%(0.10) = MD%(0.
         - 2 * MD%(0,2): IF RND
     (1) > .8 THEN PRINT "YOUR S
     PEED SPELL HAS JUST EXPIRED!
     ": PRINT
     REM
128
*** PRINT ROOM DESCRIPTI
     ON. IF ROOM HASN'T BEEN SEEN
      BEFORE.
     REM *** GIVE A DESCRIPTION.
      OTHERWISE JUST PRINT THE RO
     OM NAME.
     IF V% (ROOM) THEN PRINT "YOU
      ARE": PRINT " ": RNs (ROOM): COTO
     150
     PRINT DK 5: "READ EAMON DESC , R
     "; ROOM: INPUT AS: PRINT DKS:
      PRINT As: PRINT : V% (ROOM) =
149 REM
*** PRINT OUT NAMES OR
     DESCRIPTIONS OF MONSTERS IN
     ROOM.
    FOR M = 1 TO NM: IF MD%(M.5)
         > ROOM THEN NEXT : GOTO
     170
155
    IF MD%(M.15) THEN PRINT "
      )) ":MN$ (M);" IS HERE.": NEXT
     : GOTO 170
     PRINT DK$; "READ EAMON.DESC.R
     ":M + 300: INPUT As: PRINT D
     Ks:MD%(M.15) = 1: IF As ( )
        THEN PRINT AS: PRINT : NEXT
169
    REM
*** PRINT OUT NAMES OR
     DESCRIPTIONS OF ARTIFACTS IN
      ROOM.
    FOR A = 1 TO NZ: IF AD%(A, 4)
      ROOM THEN NEXT : GOTO
     190
```

```
175 IF AD%(A.9) THEN PRINT "
     -- YOU SEE "; ANS(A): NEXT : GOTO
     190
180 PRINT DKS; "READ EAMON. DESC. R
     ":A + 100: INPUT AS: PRINT D
     KS: PRINT AS:AD%(A.9) = 1: PRINT
     : NEXT
189 REM
*** PRINT OUT NAMES OF
     PLAYER CHARACTER'S DROPPED W
     EAPONS.
190 FOR A = A TO NA: IF AD%(A, 4)
      ≈ ROOM THEN PRINT "
                             -> Y
    OUR ": AN$ (A) : " IS HERE. "
200 NEXT A: V% (ROOM) = 1
205 REM
**** GET COMMAND ****
    INVERSE : PRINT "YOUR COMMAN
     D?":: NORMAL : INPUT " "; A$
218 REM
*** PARSE INPUT: GET R
     ID OF LEADING SPACES.
220 IF LEFT$ (A$,1) = " " THEN
     A5 = MID5 (A5.2) : GOTO 220
229 REM
*** IF INPUT IS A NULL
     STRING, DO PREVIOUS COMMAND
     AGAIN.
230 IF As = "" THEN AS = CZS: VTAB
      PEEK (37): HTAB 17: PRINT A
     $: GOTO 275
239 REM
*** FIND END OF FIRST W
     ORD (THE VERB) BY LOOKING FO
     R A SPACE
240 CZ5 = A5: FOR A = 2 TO LEN (
    A$): IF MID$ (A$, A, 1) ( )
     " " THEN NEXT
249 REM
*** FIRST WORD IS VERB
     (V$), SECOND WORD IS SUBJECT
      (S$).
250 V$ = LEFT$ (A$.A - 1):5$ = MID$
    .(A$ .A + 1)
255 LV = LEN (V$)
260 IF LEFT$ (S$,1) = " " THEN
     S$ = MID$ (S$.2) GOTO 260
269 REM
**** SEARCH THROUGH LIS
     T OF VERBS FOR MATCH WITH CO
     MMAND ***
    FOR C = 1 TO 6: IF LEFT$ (C
     s(C).LV) = V$ THEN 290
    NEXT : F = 0: FOR A = 7 TO NC
     : IF C$(A) = V$ THEN C = A: GOTO
     290
273 IF LEFTS (CS(A).LV) = VS THEN
     F = F + 1:C = A: IF F > 1 THEN
     275
274
    NEXT : IF F THEN 290
    PRINT : PRINT "HUH? I ONLY U
     NDERSTAND THESE COMMANDS--
        ":: FOR C = 1 TO NC: PRINT
     C$(C); SPC( 20 - LEN (C$(C)
     )):: NEXT : PRINT : PRINT : GOTO
     210
    IF C$(C) = S$ THEN S$ = V$:V
     $ = C$(C)
285 SPEED= 200
289 REM
**** JUMP TO ROUTINE T
     HAT HANDLES COMMAND ****
```

```
ON C GOTO 3000.3000,3000,300
     0.3000,3000.4000.4000.5000,6
     000.6000,7000.8000,9000,1000
     0,11000,12000,13000,14000,15
     000.15000.16000.17000.18000
300 REM
**** COMMANDS RETURN T
     O HERE: COMBAT LOOP ****
309 REM
*** IF NOT IN BATTLE, G
     OTO 500
    IF NOT NBTL THEN 500
310
319 REM
*** DO COMBAT FOR EACH
     MONSTER IN ROOM.
320 FOR M = 1 TO NM: IF MD% (M,5)
      ( ) ROOM THEN 490
329 REM
*** MORALE CHECK.
                   SEE
     IF MONSTER TURNS TAIL AND RU
     NS.
330 M2 = MD%(M.14) - (MD%(M.14) =
     2): MR = 100 * FD%(M2) / TD%(
     M2) + INT (41 * RND (1) -
     20) - 20 * (MD%(M,9) = -1)
     IF MD%(M.4) ( MR THEN INVERSE
     : PRINT MNS(M):" FLEES OUT A
     N EXIT. ": NORMAL : GOSUB 850
     0:MD\%(M,5) = R2:M2 = MD\%(M,1)
     4): TD%(M2) = TD%(M2) - MD%(M
     .1) \cdot FD\%(MD) = FD\%(M2) - MD\%(
     M. 13): GOTO 490
344 REM
*** BRANCH ACCORDING TO
     MONSTER REACTION: 1=HOSTILE.
      2=NEUTRAL, 3=FRIENDLY ***
345 ON MD%(M,14) GOTO 360,490,39
359 REM
*** MONSTER IS HOSTILE.
       HAVE HIM ATTACK SOMEONE ON
360 \text{ OF} = M: \text{ IF } TD\%(3) = MD\%(0.1) \text{ THEN}
     DF = 0: GOSUB 7500: GOTO 490
370 FOR M2 = 1 TO NM: IF MD%(M2,
     5) = ROOM AND MD%(M2,14) = 3
      AND RND (1) ( .25 THEN DF =
     M2: GOSUB 7500:M2 = 200: NEXT
     M2: GOTO 490
380 NEXT M2:DF = 0: COSUB 7500: COTO
     490
389 REM
*** MONSTER IS FRIENDLY
     . HAVE HIM ATTACK AN ENEMY
390 OF = M
400 FOR M2 = 1 TO NM: IF MD%(M2,
     5) = ROOM AND MD%(M2,14) = 1
      THEN DF = M2: GOSUB 7500:M2
      = 200: NEXT M2: GOTO 490
410 NEXT M2
489 REM
*** IF ANY FOES ARE LEF
     T ALIVE, WE'RE STILL IN BATT
     LE.
490 NBTL = (FD\%(1) \ (TD\%(1)): IF
     NBTL THEN NEXT M
500 REM
***** LOOP TO LINE 100
     FOR NEXT COMMAND ****
900
     COTO 100
```

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```
1000 REM
***** INITIALIZATION
     ROUTINE *****
1005 REM
*** GET NUMBER OF ROOM
     S. ARTIFACTS, EFFECTS. AND M
     ONSTERS
1010 PRINT DKS; "OPEN EAMON DESC"
     PRINT DK$; "READ EAMON DESC
     ": INPUT NR, NZ, NE, NM: PRINT
     DKs; "CLOSE" : NA = NZ
1019 REM
*** READ IN ARTIFACT D
     ATA.
1020 PRINT DKS: "OPEN EAMON. ARTIF
     ACTS,L128": DIM ANS(NA + 4),
     AD\%(NA + 4.9): FOR A = 1 TO
     NA: PRINT DK$; "READ EAMON. AR
     TIFACTS, R"; A: INPUT ANS(A): FOR
     A2 = 1 TO 4: INPUT AD%(A,A2)
     : NEXT A2: IF AD%(A,2) ) 1 THEN
      FOR A2 = 5 TO 8: INPUT AD%(
     A, A2): NEXT A2
1029 REM
*** READ IN MONSTER DA
1030 NEXT A: PRINT DK $; "OPEN EAM
     ON MONSTERS, L128": DIM MN$ (N
     M), MD%(NM, 15): FOR A = 1 TO
     NM: PRINT DK$; "READ EAMON. MO
     NSTERS, R"; A: INPUT MN$(A): FOR
     A2 = 1 TO 12: INPUT MD%(A, A2
     ): NEXT A2 , A: PRINT DK $: "CLO
     SE"
1039 REM
*** READ IN CHARACTER
     DATA
     PRINT DK $ ; "OPEN FRESH MEAT"
     : PRINT DK5; "READ FRESH MEAT
     ": INPUT REC: INPUT MN$(0).M
     D\%(0,1),MD\%(0,2),CH: FOR A =
     1 TO 4: INPUT SAW(A): NEXT
      FOR A = 1 TO 5: INPUT WA%(A
     ): NEXT : INPUT AE, SEX$, GOLD
     , BANK . AC
1049 REM
*** READ IN DATA FOR C
     HARACTER'S WEAPONS.
1050 \text{ NV} = 15: \text{DIM WN}(NV), \text{VT}(NV)
      ,WO%(NW),WD%(NW),WP%(NW): FOR
     A = 1 TO 4: INPUT WNS(A), WT%
     (A), WO%(A), WD%(A), WS%(A): NEXT
     : PRINT DK$; "CLOSE"
1060 PRINT DKS; "OPEN EAMON. DESC,
     L256": PRINT DK$; "OPEN EAMON
      .ROOM NAMES.L64": PRINT DK$;
     "OPEN EAMON. ROOMS, L64"
1069 REM
*** PLAY WITH WEAPON N
     AMES TO ASSURE MONSTER WEAPO
     NS DON'T HAVE THE SAME NAMES
      AS CHARACTER WEAPONS.
1070 FOR W2 = 1 TO 4: IF WN$(W2)
      ( ) "NONE" THEN NA = NA +
     1:ANS(NA) = VNS(V2):AD%(NA, 2
     ) = 2:AD%(NA,3) = 2:AD%(NA,4)
     ) = -1:AD%(NA.5) = WO%(W2)
      :AD%(NA,6) = WT%(W2):AD%(NA,
     7) = VD_{N}(V_{2}) : AD_{N}(N_{A}, 8) = VS_{N}
      (V2): NEXT : V2 = 4
1080 WZ = W2:WT = W * WZ
```

```
1090 FOR W2 = 1 TO WZ; FOR A = 1
      TO NA - WZ: IF ANS(A) = WNS
     (W2) THEN ANS(A) = ANS(A) +
     "#": FOR A = 0 TO 0: NEXT : GOTO
     1090
1100 NEXT A, W2: EA = 0:MD%(0,8) =
     0:A2 = INT (AC / 2): IF A2 *
     2 ( ) AC THEN MD%(0,8) = 1:
1110 IF A2 THEN MD%(0,8) = MD%(0
     (8) + A2 : EA = EA - A2 * 10 : IF
     A2 = 3 THEN MD%(0,8) = MD%(0
     (8) + 2:EA = EA - 30
1120 IF NA ) NZ THEN MD%(0,10) =
     (EA + AE) * ( - EA ) AE) + V
     0\%(1) + WA\%(WT\%(1)) + 2 * MD
     \%(0,2):MD\%(0,7) = 0:MD\%(0,9)
      = NZ + 1:MD\%(0,11) = VD\%(1)
     :MD%(0,12) = WS%(1):MD%(0,14)
1129 REM
*** READ COMMAND WORDS
      INTO AN ARRAY
1130 READ NC: DIM C$(NC): FOR C =
     1 TO NC: READ C$(C): NEXT
1140 FOR S = 1 TO 4: S2%(S) = SA%
     (S): NEXT : DIM V%(96):ROOM =
1199 REM
*** READ IN ROOM NAMES
      AND DATA ON WHICH ROOM CONN
     ECTS WHERE.
1200 DIM ED%(NR.6)
1210 FOR X = 1 TO NR: PRINT DK$;
     "READ EAMON, ROOMS, R"; X: FOR
     Y = 1 TO 6: INPUT ED%(X,Y): NEXT
1230 DIM RN$(NR)
1250 FOR X = 1 TO NR: PRINT DK$;
     "READ EAMON.ROOM NAMES,R"; I:
      INPUT RNS(X): NEXT
1299 REM
*** RANDOM NUMBER FUNC
     TION TO RETURN INTEGER FROM
     1 TO 100.
1300 DEF FN R(X) = INT (RND)
     1) * 100 + 1)
1349 REM
*** ERROR-HANDLING ROU
     TINE IS AT 59000
1350 ONERR COTO 59000
1899 REM
*** GOTO 100 TO START
     GAME.
1900 GOTO 100
1901 REM
*** DATA ***
1910 DATA
              24
1920 DATA
              NORTH, SOUTH, EAST, WE
     ST.UP, DOWN, GET.TAKE, DROP, LOO
     K.EXAMINE.ATTACK,FLEE,GIVE,I
     NVENTORY.BLAST.HEAL, POWER, SP
     EED, SMILE, WAVE, SAY, READY, SAV
2000 REM
**** END GAME ROUTINE
     ****
      SPEED= 255
2005
     PRINT : PRINT "(HIT ANY KEY
2010
      TO CONTINUE)
                      ":: POKE
     16368,0: GET AS: PRINT
2020 PRINT DK & "CLOSE": IF SPD THEN
```

MD%(0,2) = MD%(0,2) / 2

```
2029 REM
*** IF CHARACTER IS DE
     AD, SKIP THIS STUFF. ***
2030 IF DIE THEN 2500
2040 FOR W = 1 TO 4: WNS (W) = "NO
     NE": NEXT : W2 = 1: FOR A = 1
      TO NA: IF AD%(A.2) ) 1 AND
     AD\%(A,4) = -1 THEN WN$(W2)
      = ANS(A):WPW(W2) = A:W2 = W
     2 + 1:AD%(A,4) = 0
2049 REM
*** CHECK FOR EXCESS W
     EAPONS. MAKE HIM GET RID OF
      THEM. ***
2050 NEXT A: IF W2 ( 6 THEN 2300
2060 HOME : VTAB 5: PRINT "AS YO
     U START TO ENTER THE MAIN HA
     LL.": PRINT "LORD VILLIAM MI
     SSLEFIRE APPEARS AND": PRINT
     "TELLS YOU, 'YOU HAVE TOO MA
     NY WEAPONS": PRINT "TO KEEP
     THEM ALL -- 4 IS THE LEGAL LIM
     IT. ": PRINT : PRINT "YOUR WE
     APONS ARE -- "
2070 FOR W = 1 TO W2 - 1: PRINT
      SPC( 4); W; "--"; WN$(W): NEXT
     : PRINT : PRINT "ENTER THE N
     UMBER OF THE WEAPON TO SELL
         (1-":W2 - 1;") "
     VTAB PEEK (37): HTAB 23: INPUT
     A5: W5 = VAL (A5): IF W5 ( 1
      OR W5 > W2 - 1 OR W5 ( ) INT
     (W5) THEN 2080
2090 \text{ ADW}(WPW(W5), 4) = -1:WN$(W5)
     ) = WN5(W2 - 1):WP\%(W5) = WP
     \%(W2 - 1):W2 = W2 - 1: IF W2
      ) 5 THEN 2060
2300 FOR W = 1 TO 4: IF WP%(W) THEN
     WT%(W) = AD%(WP%(W).6):WO%(W)
     ) = AD%(WP%(W), 5): WD%(W) = A
     D%(VP%(V).7):VS%(V) = AD%(VP
     %(W),8)
2309 REM
***** SELL TREASURE **
     * * *
2310 NEXT W: HOME : VTAB 5: PRINT
     "AS YOU DELIVER YOUR TREASUR
     ES TO SAM": PRINT "SLICKER,
     THE LOCAL BUYER FOR SUCH": PRINT
     "THINGS, HE EXAMINES YOUR GO
     ODS AND": PRINT "PAYS YOU ";
2320 TP = 0: FOR A = 1 TO NA: IF
     AD%(A,4) ( ) - 1 THEN 2350
2330 IF AD%(A, 2) ( ) 0 THEN AD%
     (A,1) = AD%(A,1) * CH / 10
2340 TP = TP + AD%(A.1)
2350 NEXT A: PRINT TP;" GOLD PIE
     CES. ": PRINT
2360 GOLD = GOLD + TP: IF GOLD (
     0 THEN GOLD = 0
2370 PRINT : PRINT "(HIT ANY KEY
      TO CONTINUE) ":: GET AS: PRINT
2499 REM
**** GO HOME ****
2500 ONERR GOTO 2500: REM *** R
     ESTART HERE ON ERROR
2510 HOME : VTAB 5: PRINT "(INSE
     RT EAMON MASTER DISKETTE, TH
     EN": PRINT "
                    HIT THE 'C' K
          ":: POKE - 16368.0
     EY)
2520 GET AS: IF AS ( ) "C" THEN
     2520
2530 PRINT AS
```

```
2540 IF DIE THEN PRINT DK$:"OPE
     N THE ADVENTURER, S6, D1": PRINT
     DK $ : "DELETE THE ADVENTURER" :
      COTO 2900
2549 REM
*** WRITE CURRENT CHAR
     ACTER STATISTICS TO MAIN CHA
     RACTER FILE ***
2550 PRINT DK $; "OPEN CHARACTERS,
     L150,S6,D1": PRINT DK$; "WRIT
     E CHARACTERS, R"; REC: PRINT M
     N$(0): PRINT MD%(0,1): PRINT
     MD\%(0,2): PRINT CH: FOR A =
     1 TO 4: PRINT SAW(A): NEXT
2560 FOR A = 1 TO 5: PRINT WA%(A
     ): NEXT : PRINT AE: PRINT SE
     XS: PRINT GOLD: PRINT BANK: PRINT
     AC: FOR A = 1 TO 4: PRINT WN
     $(A): PRINT WT%(A): PRINT WO
     %(A): PRINT WD%(A): PRINT WS
     %(A): NEXT
2569 REM
*** WRITE POINTER TO C
     HARACTER FILE ***
2570 PRINT DKS; "OPEN THE ADVENTU
     RER": PRINT DKS: "WRITE THE A
     DVENTURER": PRINT MNS(0): PRINT
     REC: PRINT DK$; "CLOSE"
2899 REM
***** RUN MAIN HALL PR
     OGRAM ON HASTER DISK *****
2900 PRINT DK$: "RUN MAIN HALL, S6
     , D1 "
3000 REM
**** MOVE COMMAND ***
      IF NBTL AND S$ ( ) "FLEE" THEN
3010
      PRINT : PRINT "YOU CAN'T DO
      THAT WITH UNFRIENDLIES
        ABOUT!": PRINT : GOTO 100
3019 REM
*** FIND DIRECTION PLA
     YER WANTS TO MOVE
3020 FOR D = 1 TO 6: IF LEFT'S (
     V$,1) ( ) MID$ ("NSEWUD",D
     (1) THEN NEXT
3030 R2 = ED\%(ROOM,D)
3039 REM
*** IF R2 IS ZERO, YOU
      CAN'T GO THAT WAY. IF R2 IS
      NEGATIVE, MOVING THAT DIREC
     TION IS A 'SPECIAL MOVE. '
3040 IF R2 > 0 THEN 3500
3050 REM
*** SPECIAL MOVES.
3059 REM
*** GOING TO ROOM -99
     TAKES YOU HOME.
3060 IF R2 = - 99 THEN PRINT :
      PRINT "YOU SUCCESSFULLY RID
     E OFF INTO THE": PRINT " SU
     NSET.": GOTO 2000
3070 IF NOT R2 THEN 3490
3490 PRINT : PRINT "YOU CAN'T GO
      THAT WAY!":V%(ROOM) = 0: GOTO
     100
3499 REM
*** SUCCESSFUL MOVE. R
     2 IS NEW ROOM, R3 IS OLD ROO
     M.
3500 R3 = ROOM: ROOM = R2: GOSUB 3
     600
3590 GOTO 100
```

```
3600 REM
*** CHECK MONSTER REAC
     TION: FRIENDLY, NEUTRAL, OR
     HOSTILE.
3610 \text{ TD}\%(1) = 0:\text{TD}\%(3) = \text{MD}\%(0.1)
     : FD%(1) = 0: FD%(3) = MD%(0,1)
3619 REM
*** DID MONSTER FOLLOW
      CHARACTER INTO ROOM? ***
3620 FOR M = 1 TO NM: IF MD%(M.5
     = R3 THEN IF MD%(M,14) =
     3 \text{ OR } (\text{HD}\%(\text{M}, 14) = 1 \text{ AND } 200 \text{ *}
      RND (1) ( MD%(M,4)) THEN MD
     %(M.5) = ROOM: GOTO 3670
3630 IF MD%(M,5) ( ) ROOM THEN
     3900
3639 REM
*** IF MONSTER HAS BEE
     N MET BEFORE, SKIP NEXT SECT
     ION. ***
3640 IF MD%(M.14) THEN 3670
3649 REM
*** FIND REACTION OF M
     ONSTER ***
3650 FR = MD\%(M.3): IF FR AND FR (
      ) 100 THEN FR = FR + INT (
     (CH - 10) / 2)
3660 \text{ MD}\%(M,14) = 1: \text{ IF FR} > (100 *
      RND (1)) THEN MD\%(M.14) = 2
     : IF FR > (100 * RND (1)) THEN
     MD\%(M,14) = 3
3670 A = MD%(M.14):FD%(A) = FD%(A
     ) + MD%(M.13):TD%(A) = TD%(A)
     ) + MD%(M,1)
3895 REM
*** LOOP UNTIL WE RUN
     OUT OF MONSTERS ***
     NEXT M: NBTL = (TD%(1) > 0):
      RETURN
4000 REM
***** GET COMMAND ****
      GOSUB 4900
4020
    IF S$ = "ALL" THEN 4160
4100 REM
*** IS ITEM HERE? ***
4120 FOR A = 1 TO NA: IF (ANS(A)
      ( ) SS AND LEFTS (ANS(A).
      LEN (S$)) ( ) S$ AND RIGHT$
     (ANS(A), LEN (SS)) ( ) S$) OR
     AD%(A.4) ( ) ROOM THEN NEXT
     : PRINT : PRINT "I SEE NO ";
     S$; " HERE! ": PRINT : GOTO 10
4129 REM
*** IS IT TOO HEAVY? *
4130 GOSUB 4200: IF WT + AD%(A, 3
     ) ) 10 * MD%(0.1) THEN PRINT
     : PRINT "IT IS TOO HEAVY FOR
      YOU. ": PRINT : GOTO 100
4139 REM
*** GOT IT. ***
4140 PRINT : PRINT "COT IT.": AD%
     (A,4) = -1:VT = VT + AD%(A
     ,3): PRINT : IF AD%(A,2) ( 2
      OR MD%(0,9) \langle \rangle - 1 THEN
     300
4149 REM
*** IF ITEM IS A WEAPO
     N, AND CHARACTER IS UNARMED,
```

```
4150
      GOTO 17000
4159 REM
*** GET ALL COMMAND **
4160 FOR A = 1 TO NA: IF AD%(A,4
     ) ( ) ROOM THEN 4190
4170 GOSUB 4200: IF WT + AD%(A,3
     ) ) 10 * MD%(0.1) THEN PRINT
     ANS (A);" IS TOO HEAVY": GOTO
     4190
4180 PRINT ANS(A) + " TAKEN. ": AD
     \%(A.4) = -1:WT = WT + AD\%(
     A, 3)
4190 NEXT : PRINT : GOTO 300
4200 REM
** * INSERT SPECIAL EFF
     ECTS OF PICKING SOMETHING UP
      HERE ***
4210 RETURN
4900 REM
*** ROUTINE TO GET S$
     IF NOT PREVIOUSLY SPECIFIED.
4905 IF S$ = "" THEN PRINT : PRINT
     C$(C);" WHAT":: INPUT S$: GOTO
     4900
4910 RETURN
5000 REM
***** DROP COMMAND ***
5010 GOSUB 4900
5020 IF S$ = "ALL" THEN 5100
5029 REM
*** DOES HE HAVE IT? *
5030 FOR A = 1 TO NA: IF (ANS(A)
      ( ) SS AND LEFTS (ANS(A),
      LEN (S$)) ( ) S$ AND RIGHT$
     (AN$(A), LEN (S$)) ( > S$) OR
     AD\%(A,4) \langle \rangle - 1 THEN NEXT
     : PRINT : PRINT "YOU AREN'T
     CARRYING A ":SS: PRINT : GOTO
5039 REM
*** DROP IT. ***
5040 \text{ WT} = \text{WT} - \text{AD}(A, 3) : \text{AD}(A, 4) =
     ROOM: PRINT ANS (A);" DROPPED
     .": PRINT
5049 REM
*** TOO MUCH WEIGHT RO
     UTINE ***
5050 IF WT > 10 * MD%(0,1) THEN
      PRINT "YOU SUDDENLY FIND YO
     U CANNOT CARRY ALL OF THE I
     TEMS YOU ARE CARRYING. AND T
     HEY ALL FALL TO THE GROUND. "
     : PRINT : GOTO 5100
5060 IF MD%(0.9) ) 0 THEN IF AD
     %(MD%(0,9),4) ( ) - 1 THEN
     MD\%(0,9) = -1
5070 COTO 300
5099 REM
*** DROP ALL ROUTINE *
5100 FOR A = 1 TO NA: IF AD%(A, 4)
     ) = - 1 THEN PRINT ANS(A);
     " DROPPED.": AD%(A, 4) = ROOM
5110 NEXT A:WT = 0: GOTO 5060
6000 REM
***** LOOK COMMAND ***
     * *
```

READY THE WEAPON. ***

```
6019 REM
                                             7400 REM
                                             **** MONSTER TRIES TO
*** GIVE ARTIFACT DESC
                                                  PICK UP A WEAPON ****
     RIPTION ***
                                             7410 IF MD%(OF.10) = 0 THEN RETURN
6020 LK = 0: FOR A = 1 TO NZ: IF
     ANS(A) = SS AND (AD%(A,4) =
                                             7419 REM
     ROOM OR AD%(A, 4) = -1) THEN
                                             *** SEE IF THERE'S A W
      PRINT DK$; "READ EAMON. DESC.
                                                  EAPON ON THE FLOOR ***
     R"; A + 100: INPUT As: PRINT
                                            7420 FOR A = 1 TO NA: IF AD%(A,4
     DKS: PRINT : PRINT AS: PRINT
                                                  ) ( ) ROOM OR AD%(A,2) ( 2 THEN
     : LK = 1
6030 NEXT A: IF LK THEN 300
                                                   NEXT : RETURN
                                            7430 PRINT MN S (OF); " PICKS UP ";
6039 REM
                                                  ANS(A): PRINT : AD%(A,4) = 0:
*** GIVE MONSTER DESCR
     IPTION ***
                                                  MD\%(OF,9) = A:MD\%(OF,10) = M
6040 FOR A = 1 TO NM: IF MNs(A) =
                                                  D%(OF, 10) + AD%(A, 5):MD%(OF,
     S$ AND MD%(A.5) = ROOM THEN
                                                  4) = MD%(OF,4) * 2: RETURN
                                             7499 REM
      PRINT DKS; "READ EAMON DESC,
                                             ***** ATTACK ROUTINE *
     R"; A + 300: INPUT AS: PRINT
     DK 5: PRINT : PRINT AS: PRINT
                                                  ***
     : LK = 1
6050 NEXT A: IF LK THEN 300
                                             7500 HIT = 0: IF MD\%(OF, 9) = -1
6059 REM
                                                   THEN 7400
*** SET FLAG SO ROOM D
                                             7504 REM
                                             *** PRINT ATTACK MESSA
     ESCRIPTION WILL BE GIVEN IN
     MAIN LOOP ***
                                                  GE AND ROLL THE 'DICE'. ***
6060 V%(ROOM) = 0: COTO 300
                                             7505 PRINT MN$(OF);" ATTACKS ";M
7000 REM
                                                  N5(DF): PRINT " --"; RL = INT
******** ATTACK COMM
                                                  (100 * RND (1) + 1):HIT = 0
     AND *******
                                                  : IF (RL ( 5 OR RL ( MD%(OF,
                                                  10) - MD%(DF,7)) AND RL ( 96
7010 GOSUB 4900
                                                   THEN HIT = 1
                                             7510
                                                  IF HIT THEN 7600
7279 REM
                                             7519 REM
*** MAKE SURE VICTIM I
                                             *** A MISS. IS IT A F
     S HERE. ***
                                                  MBLE; ***
7280 FOR M = 1 TO NM: IF (S$ ( )
                                             7520 IF RL ( 97 THEN PRINT "A M
     MNS(M) AND LEFTS (MNS(M), LEN
                                                  ISS.": RETURN
     (S$)) ( ) S$ AND RIGHT$ (M
     N$ (M) , LEN (S$)) ( > S$) OR
                                             7525 INVERSE : PRINT "A FUMBLE!"
                                                  : NORMAL : FR = FN R(X)
     MD%(M,5) ( ) ROOM THEN NEXT
                                            7527 IF FR ( 35 + 40 * ( NOT MD%
     : PRINT : PRINT "ATTACK WHO?
     ": PRINT : GOTO 100
                                                  (OF. 9)) THEN PRINT "
                                                  LE RECOVERED. ": PRINT : RETURN
7289 REM
*** IS ATTACKER ARMED?
                                             7530 IF FR ( 76 THEN PRINT " W
7290
      IF MD\%(0.9) = -1 THEN PRINT
                                                  EAPON DROPPED!": AD%(MD%(OF,9)
                                                  (0.4) = ROOM: MD%(OF, 10) = MD%
      PRINT "YOU HAVE NO WEAPON
     READY!": PRINT : GOTO 100
                                                  (OF, 10) - AD%(MD%(OF, 9), 5):M
                                                  D\%(OF,9) = -1:MD\%(OF,4) =
7299 REM
**** DO THE ATTACK. IF
                                                  MD%(OF,4) / 2: PRINT : RETURN
      IT DOESN'T WORK, SKIP. ** **
7300 OF = 0:DF = M: GOSUB 7500: IF
                                             7532
                                                  IF MD%(OF, 9) = 0 GOTO 7550
                                             7535
      NOT HIT THEN 7360
                                                   IF FR > 95 THEN 7550
7309 REM
                                             7536 REM
*** CHECK FOR SKILL IN
                                             * ** HIGH-QUALITY WEAPO
     CREASE ***
                                                  NS BREAK LESS OFTEN. ***
7310 IF INC THEN W2 = AD% (MD% (0,
                                            7537 IF AD%(MD%(OF,9),5) * 3 ( FN
     9),6):VA\%(W2) = WA\%(W2) + 2
                                                  R(X) THEN PRINT "
                                                                       FUMBLE
7319 REM
                                                  RECOVERED. ": PRINT : RETURN
*** CHECK FOR INCREASE
      IN ARMOR EXPERTISE. ***
                                             75 40 PRINT " WEAPON BROKEN!": AD
7320
         - EA ( = AE THEN 300
                                                  %(MD%(OF,9),4) = 0:MD%(OF,10)
7330 IF
         INT (100 * RND (1) + 1
                                                  ) = MD\%(OF, 10) - AD\%(MD\%(OF,
                                                  9),5):MD\%(OF,9) = -1:MD\%(O
     ) ( = MD\%(0.10) THEN 7360
7340 A = 2: IF EA + AE = - 1 THEN
                                                  F, 4) = MD%(OF, 4) / 2: IF RND
     A = 1
                                                  (1) ) .5 THEN PRINT : RETURN
7350 AE = AE + A:MD%(0,10) = MD%(
     0.10) + \lambda
                                             7545 PRINT "
                                                            BROKEN WEAPON HURT
7360 IF MD%(DF,14) = 1 OR DF = 0
                                                  S USER!"
                                            7550 IF FR = 100 THEN 7560
      THEN 300
7369 REM
                                            7555 D = MD%(OF, 11):S = MD%(OF, 12)
*** ATTACKING A MONSTE
                                                  ): DF = OF: A = 1: GOTO 7635
     R DECREASES ITS FRIENDLINESS
                                             7560 D = MD%(OF, 11) * 2:S = MD%(O
                                                  F, 12):DF = OF:A = 0: GOTO 76
7370 MD%(DF,3) = MD%(DF,3) / 2: FOR
                                                  35
     M = 1 TO NM: IF MD%(M,5) = R
                                            7599 REM
                                            *** A HIT!
     OOM AND MD%(M.14) ) 1 THEN M
                                                       CHECK FOR
     D\%(M,14) = 0
                                                  SKILL INCREASE ***
7380 NEXT M: R3 = ROOM: COSUB 360
     0: GOTO 300
```

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```
7600 \text{ INC} = ( \text{INT} (100 * \text{RND} (1) +
     1) ) MD%(OF,10)):MD%(OF,10) =
     MD\%(OF, 10) + 2 * INC
7605 D = MD%(OF, 11):S = MD%(OF, 12
     ): A = 1: IF RL ) 5 THEN PRINT
     "A HIT!": GOTO 7635
7609 REM
*** CRITICAL HIT ROUTI
     NE. CALCULATE EXTRA DAMAGE
7610 INVERSE : PRINT "A CRITICAL
      HIT!": NORMAL : R2 = FN R(X
     ): IF R2 ( 51 THEN \lambda = 0: GOTO
     7635
7615 IF R2 ( 86 THEN S = 1.5 * S
     : GOTO 7635
7620 IF R2 ( 96 THEN D = 2 * D: GOTO
     7635
7625 IF R2 ( 100 THEN D = 3 * D:
      GUTO 7635
7630 GOTO 7700
7634 HEM
*** CALCULATE DAMAGE.
     SUNTRACT ARMOR VALUE FROM DA
     MAGE. ***
7635 D2 = 0: FOR D3 = 1 TO D: D2 =
     D2 + INT (S * RND (1) + 1)
     : NEXT : D2 = D2 - A * MD% (DF
     ,81 IF D2 ( 1 THEN PRINT "
        BLOW BOUNCES OFF ARMOUR":
      PRINT : RETURN
7640 \text{ MD}\%(DF.13) = \text{MD}\%(DF.13) + D2
     : IF MD\%(DF, 13) > = MD\%(DF,
     1) THEN 7700
7645 A = MD%(DF.14):FD%(A) = FD%(
     A) + D2
7649 REM
*** TELL PLAYER HOW HE
     ALTHY THE DEFENDER IS. ***
7650 PRINT : PRINT MN (DF) :: ON
      INT (MD%(DF, 13) * 5 / MD%(D
     F, 1) + 1) GOTO 7655,7660,766
     5,7670,7675
7655 PRINT " IS IN GOOD SHAPE.":
      RETURN
7660 PRINT " IS LIGHTLY INJURED.
     ": RETURN
7665 PRINT " IS BADLY INJURED. ":
      RETURN
7670 PRINT " IS VERY BADLY INJUR
     ED.": RETURN
7675 PRINT " IS AT DEATH'S DOOR.
     ": PRINT "
                  KNOCKING LOUDLY
      ": RETURN
7700 FLASH : PRINT MN$(DF);" IS
     DEAD!": NORMAL
7702 A = MD%(DF, 14): FD%(A) = FD%(
     A) + MD%(DF,1) - MD%(DF,13) +
     D2:MD\%(DF,5) = 0
7703 REM
*** PUT THE DEAD BODY
     IN THE ROOM. ***
7704 A2 = DF + NZ - NM: AD%(A2,4) =
     ROOM
7705 REM
*** DROP WEAPONS, DISA
     RM, REDUCE COURAGE (IN CASE
     MONSTER GETS RESURRECTED).
7706 IF MD%(DF.9) > 0 THEN AD%(M
     D\%(DF,9).4) = ROOM:MD\%(DF,10)
     ) = MD%(DF, 10) - AD%(MD%(DF,
     9),5):MD%(DF,9) = -1:MD%(D
     F,4) = MD%(DF,4) / 2
```

```
7709 REM
*** IF DEAD CHARACTER
     IS PLAYER CHARACTER, END GAM
7710 A2 = DF + NZ - NM: AD%(A2,4) =
     ROOM: FOR AJ = 1 TO NA: IF A
     D\%(AJ,4) = -DF - 1 THEN AD
     %(AJ,4) = ROOM
7720 NEXT : IF MD%(DF,9) ) 0 THEN
     AD\%(MD\%(DF,9),4) \approx ROOM:MD\%(
     DF, 10) = MD\%(DF, 10) - AD\%(MD)
     \%(DF,9),5):MD\%(DF,9) = -1:
     MD%(DF,4) = MD%(DF,4) / 2
7740 IF DF = 0 THEN DIE = 1: GOTO
     2000
7900 PRINT : RETURN
8000 REM
***** FLEE COMMAND ***
8010 IF NOT NBTL THEN PRINT : PRINT
     "THERE'S NOTHING TO FLEE FRO
     M! ": PRINT : GOTO 100
8020 FOR D = 1 TO 6: IF S$ = C$(
     D) THEN V$ = S$: S$ = "FLEE":
      COTO 3000
8030
      NEXT
8399 REM
*** FIND A PLACE TO FL
     EE TO ***
8490 DR$ = "": GOSUB 8500: IF DR$
      = "000000" THEN PRINT : PRINT
     "THERE'S NO PLACE TO GO !! ": COTO
     100
8495 GOTO 3500
8500 K1 = 0: FOR D = 1 TO 6:K = E
     D\%(ROOM, D):DRS = DRS + STRS
     (K): IF K > 0 THEN K1 = K1 +
     1:DR\%(K1) = K
8510 NEXT : RR = RND (1) * K1 +
     1:R2 = DR%(RR)
8520 RETURN
9000 REM
**** GIVE COMMAND. **
     * * *
9010 A2 = 1
9019 REM
** * SEE IF S$ CONTAIN
     S A MONSTER NAME ***
9020 FOR M = 1 TO NM: IF LEFTS
     (S$, LEN (MN$(M))) = MN$(M) AND
     MD\%(M.5) = ROOM THEN 9050
9029 REM
*** IF NOT, GET MONSTE
     R NAME ***
9030 NEXT : IF A2 = 1 THEN A2 =
     2: PRINT : INPUT "WHO TO GIV
     E TO? "; 55: GOTO 9020
9040 PRINT : PRINT "NOBODY HERE
     BY THAT NAME!": PRINT : GOTO
     100
9050 SS = MIDS (SS, LEN (MNS(M))
9060 IF LEFTS (S$.1) = " " THEN
     S$ = MID$ (S$,2): GOTO 9060
9064 REM
*** IF VALUE OF S$ >0,
      SS IS A NUMBER. ASSUME PLAY
     ER WANTS TO GIVE GOLD PIECES
     . ***
```

9065 IF VAL (S\$) > 0 THEN 9500

```
9069 REM
 *** SEE IF SS CONTAINS
       AN ARTIFACT NAME ***
9070 FOR A = 1 TO NA: IF LEFTS
      (SS, LEN (ANS(A))) = ANS(A) AND
      AD%(A,4) = -1 THEN 9095
 9079 REM
*** IF NOT, GET AN ART
      IFACT NAME ***
9080 NEXT : IF A2 = 2 THEN A2 =
      3: PRINT : INPUT "WHAT TO GI
      VE? ":S$: GOTO 9065
9090 PRINT : PRINT "YOU AREN'T C
     ARRYING A ";S$;"!": PRINT : GOTO
     100
9095 IF A = MD%(0,9) THEN MD%(0,
     9) = -1
9100 PRINT : PRINT "OKAY.": AD%(A
      (4) = -M - 1:MD%(M,14) = 0
      :MD%(M.3) = MD%(M.3) * (1 +
     AD%(A.1) / 100)
9110 IF MD%(M,10) ( ) 0 AND MD%
      (M,9) = -1 THEN MD%(M,9) =
     A:MD%(M.10) = MD%(M.9) + AD%
     (A,5):MD%(M,4) = 2 * MD%(M,4)
9120 R3 = ROOM: COSUB 3600: COTO
     5050
9499 REM
*** GIVE GOLD ***
9500 IF VAL (S$) ) GOLD THEN PRINT
     : PRINT "YOU AREN'T CARRYING
      THAT MUCH GOLD OF
                              YOUR
      OWN!": PRINT : GOTO 300
9510 GOLD = INT (GOLD - VAL (S$
     )):MD%(M,14) = 0:MD%(M,3) =
     MD\%(M,3) * (1 + VAL (S$) /
     100): GOTO 9120
10000 REM
***** INVENTORY COMMA
     ND ****
10010 PRINT : PRINT "YOU ARE CAR
     RYING THE FOLLOWING -- ": A0 =
     0: FOR A = 1 TO NA: IF AD%(A
     .4) = - 1 THEN PRINT " ";A
     NS (A); LEFTS (" (READY WEAPO
     N)",1 + 20 * (A = MD%(0,9)))
     :A0 = A0 + 1: IF A0 = 15 THEN
      PRINT : PRINT "(HIT ANY KEY
      TO CONTINUE)"; CET AS: PRINT
     : AO = 0
10020 NEXT : GOTO 300
11000 REM
***** BLAST SPELL ***
     * *
11010 GOSUB 4900
11469 REM
*** SEE IF TARGET IS
     BLASTABLE ***
11470 FOR M = 1 TO NM: IF S$ ( )
     MN$(M) OR MD%(M.5) ( ) ROOM
      THEN NEXT : PRINT : PRINT
     "YOU CAN'T BLAST "; S$; "!": PRINT
     : COTO 100
11479 REM
*** ATTEMPT TO BLAST
     THE TARGET. SUC = SUCCESS FL
     λG ***
11480 S = 1: GOSUB 11500: IF NOT
     SUC THEN 300
11489 REM
*** SUCCESSFUL BLAST.
      **
11490 PRINT : PRINT "DIRECT HIT!
     ": PRINT :S = 6:D = 1:DF = M
     : A = 0: COSUB 7635: PRINT : COTO
     300
```

```
11499 REM
 *** BLAST SUBROUTINE.
        SEE IF SPELL IS SUCCESSFUL
 11500 SUC = 0: IF SA%(S) THEN RL =
       FN R(X): SUC = (((RL < S2%(S
      )) OR (RL < 6)) AND (RL < 96
 11510 IF SUC THEN 11520
 11511 REM
 *** IF ROLL=1 THEN SP
      ELL HAS BEEN FORGOTTEN. ***
 11512 IF FN R(X) = 1 THEN GOSUB
      11600: RETURN
 11513 REM
 *** FAILURE. ***
 11514 PRINT " NOTHING HAPPENS."
        RETURN
 11519 REM
 *** TEST FOR SKILL IN
      CREASE. ***
11520 RL = INT (100 * RND (1) +
     1): IF RL > S2%(S) THEN S2%(
     S) = S2%(S) + 2:SA%(S) = SA%
      (5) + 2
11530 \ S2\%(S) = S2\%(S) / 2
11540 RETURN
11599 REM
*** FORGET SPELL SUBR
     OUTINE. ***
11600 PRINT : PRINT "THE STRAIN
     OF ATTEMPTING TO CAST THIS
         SPELL OVERLOADS YOUR BRA
     IN AND YOU
                      FORGET IT CO
     MPLETELY.": PRINT :SA%(S) .
     0: RETURN
12000 REM
**** HEAL SPELL ****
12010 S = 2: GOSUB 11500: IF NOT
     SUC THEN 300
12020 PRINT : IF MD%(0,13) THEN
      PRINT "SOME OF YOUR WOUNDS
     SEEM TO CLEAR UP. ": PRINT
12030 MD%(0,13) = MD%(0,13) - INT
     (10 * RND (1) + 1): IF MD%(
     0.13) < 0 THEN MD% (0.13) = 0
12040 DF * 0: GOSUB 7650: GOTO 30
13000 REM
**** POWER SPELL --
     RE-WRITE FOR SPECIAL EFFECTS
13005 REM
*** RANDOM EFFECTS **
13010 S = 4: GOSUB 11500: IF NOT
     SUC THEN 300
13019 REM
*** RESURRECTION OF A
      DEAD MONSTER? ***
13020 RAISE = 0: FOR M = 1 TO NM:
     M2 = NZ - NM + M: IF AD%(M2,
     4) = ROOM OR AD% (M2,4) = -
     1 THEN RAISE = 1: PRINT MNS(
     M);" COMES ALIVE!": AD% (M2,4)
      = 0:MD%(M,5) = ROOM:MD%(M,1)
     3) = 0: WT = WT - AD%(M2,3)
13030 NEXT M: IF RAISE THEN R3 =
     ROOM: GOSUB 3600: GOTO 300
13039 REM
*** AN ARTIFACT VANIS
     HES? ***
```

```
13040 FOR A = 1 TO NA: IF AD%(A,
     4) = ROOM THEN RAISE = 1: PRINT
     ANS(A); " VANISHES! ": AD%(A, 4)
13050 NEXT A: IF RAISE THEN PRINT
     : COTO 300
13059 REM
*** ROOF COLLAPSES? *
13060 RR = INT (100 * RND (1) +
     1): IF RR ( 11 THEN PRINT :
      PRINT "THE SECTION OF TUNNE
     L YOU ARE IN ": PRINT " COL
     LAPSES AND YOU DIE. ": DIE = 1
     : COTO 2000
13079 REM
*** SONIC BOOM? ***
13080 IF RR ( 86 THEN PRINT : PRINT
     "YOU HEAR A VERY LOUD SONIC
                     THAT ECHOES
     BOOM": PRINT "
      THROUGH THE TUNNELS. ": PRINT
     : GOTO 300
13089 REM
*** HEALING? ***
13090 IF RR ) 95 THEN PRINT : PRINT
     "ALL OF YOUR HITS ARE HEALED
     ": PRINT : MD%(0,13) = 0: GOTO
     300
13100 GOTO 14020
14000 REM
**** SPEED SPELL: IN
     CREASE AGILITY AND CHANCE TO
      HIT ****
14010 S = 3: GOSUB 11500: IF NOT
     SUC THEN 300
14020 IF NOT SPD THEN MD%(0.10)
      = MD\%(0,10) + 2 * MD\%(0,2):
     MD\%(0,2) = 2 * MD\%(0,2)
14030 SPD = SPD + INT (25 * RND
     (1) + 10): PRINT : PRINT "YO
     U CAN FEEL THE NEW AGILITY F
     LOWING": PRINT "
                        THROUGH Y
     OU!": PRINT : GOTO 300
15000 REM
*** ** SMILE COMMAND:
     TRY TO MAKE FRIENDS *****
15010 PRINT : FOR M = 1 TO NM: IF
     MD%(M,5) ( ) ROOM THEN 1510
15020 ON MD%(M.14) GOTO 15030,15
     040,15050
15030 PRINT MNS(M): GROWLS AT Y
     OU": GOTO 15100
15040 PRINT MNS(M);" IGNORES YOU
     ": GOTO 15100
15050 PRINT MN $ (M); " "; V$; "S BAC
     K": GOTO 15100
15100 NEXT M: PRINT : GOTO 300
16000 REM
**** SAY COMMAND ****
       COSUB 4900
16030 IF S$ = "BLAST" THEN V$ =
     55:55 = "": GOTO 11000
16040 IF SS = "HEAL" THEN 12000
       IF Ss = "POWER" THEN 13000
       IF SS = "SPEED" THEN 14000
16060
16900 PRINT : PRINT "OKAY, '";55
```

```
17000 HEM
**** READY A WEAPON.
      ** * * *
17010 GOSUB 4900
17019 REM
*** IS HE CARRYING TH
     E WEAPON? ***
17020 FOR A = 1 TO NA: IF ANS (A)
      ( ) 5$ OR AD%(A,4) ( ) -
     1 THEN NEXT : PRINT : PRINT
     "YOU AREN'T CARRYING IT!": PRINT
     : GOTO 100
17029 REM
*** IS IT REALLY A WE
     APON? ***
17030 IF AD%(A, 2) ( 2 THEN PRINT
     : PRINT "THAT ISN'T A WEAPON
     !": PRINT : COTO 100
17979 REM
*** READY IT. ***
17980 \text{ MD%}(0,10) = (EA + AE) * (-
     EA > AE + AD%(A,5) + WA%(AD
     %(A,6)) + 2 * MD%(0,2): MD%(0)
     ,9) = A:MD%(0,11) = AD%(A,7)
     :MD\%(0,12) = AD\%(A,8)
17990 PRINT PRINT "READIED.": PRINT
     : GOTO 300
18000 HEM
*** SAVE GAME ***
18010 PRINT : PRINT "DO YOU WANT
      TO SAVE THIS GAME? ": PRINT
     "(Y/N) :";
18020 GET AS IF AS ( ) "Y" AND
     AS ( ) "N" THEN 18020
18030 FRINT AS: IF AS = "N" THEN
     100
18035 DKs = CHR$ (4)
18040 PRINT DKs: "CLOSE" : X = FRE
18050 PRINT DKS"BSAVE CAME. PTRS.
     A$69, L8"
18060 PRINT DKS"BSAVE CAME. SVAR.
     A": PEEK (105) + PEEK (106)
      * 256;",L"; PEEK (109) + PEEK
      (110) * 256 - PEEK (105) -
      PEEK (106) * 256 + 1
18070 PRINT DKS"BSAVE GAME. STR , A
     "; PEEK (111) + PEEK (112) *
     256;",L"; PEEK (115) + PEEK
     (116) * 256 - PEEK (111) -
      PEEK (112) * 256 + 1
18080 PRINT : PRINT "THE GAME IS
      NOW SAVED. BOOT ON THIS": PRINT
      " DISKETTE TO RESTART THE G
     AME . "
18090 END
19000 REM
*** RESTART OLD GAME *
     * *
19010 PRINT : PRINT "DO YOU WANT
       TO RESTART THIS CAME?": PRINT
      " Y OR N:":
19020 GET AS: IF AS ( ) "Y" AND
      AS ( ) "N" THEN 19020
19030 PRINT AS: IF AS = "N" THEN
       END
 19035 DK$ = CHR$ (4)
       PRINT DKS"BLOAD CAME. PTRS"
 19040
      : PRINT DKS"BLOAD GAME.SVAR"
```

: PRINT DK \$"BLOAD GAME. STR"

;"'": PRINT : GOTO 300

```
19050 PRINT DK$; "DELETE GAME.PTR
      S" : PRINT DKS; "DELETE GAME, S
     VAR": PRINT DK$; "DELETE GAME
      . STR"
19060 PRINT DKS; "OPEN EAMON. DESC
      ,L256": PRINT DKS; "OPEN EAMO
     N. ROOMS , L64": PRINT DK$; "OPE
     N EAMON ROOM NAMES , L 64"
19070 GOTO 100
50000 REM
***** ERROR HANDLING
     ROUTINE ****
59000 REM
*** FIRST POKE IN A R
     OUTINE TO HELP DEFEAT APPLES
     OFT'S 'ONERR GOTO' BUGS. ***
59001 POKE 768, 104: POKE 769, 168
     : POKE 770.104: POKE 771,166
     POKE 772.223: POKE 773,154
     POKE 774 72: POKE 775,152:
      POKE 776,72: POKE 777,96: CALL
     768
59004 X = FRE (0): REM ** THIS A
     LSO HELPS KILL BUGS.
59005 NORMAL
59006 REM
*** PRINT ERROR #, LINE # ***
59010 CODE = PEEK (222): LN = PEEK
     (218) + 256 * PEEK (219)
59020 PRINT CHR$ (7); "*** ERRO
     R *"; CODE; " IN LINE "; LN
59030 IF CODE = 255 THEN STOP :
      REM ** BREAK ATTEMPTED
59199 PRINT
59200 PRINT "*** ATTEMPTING TO R
    ECOVER ***": PRINT : GOTO 10
59999
      END
60000 REM
*** THAT'S ALL, FOLKS! ***
```

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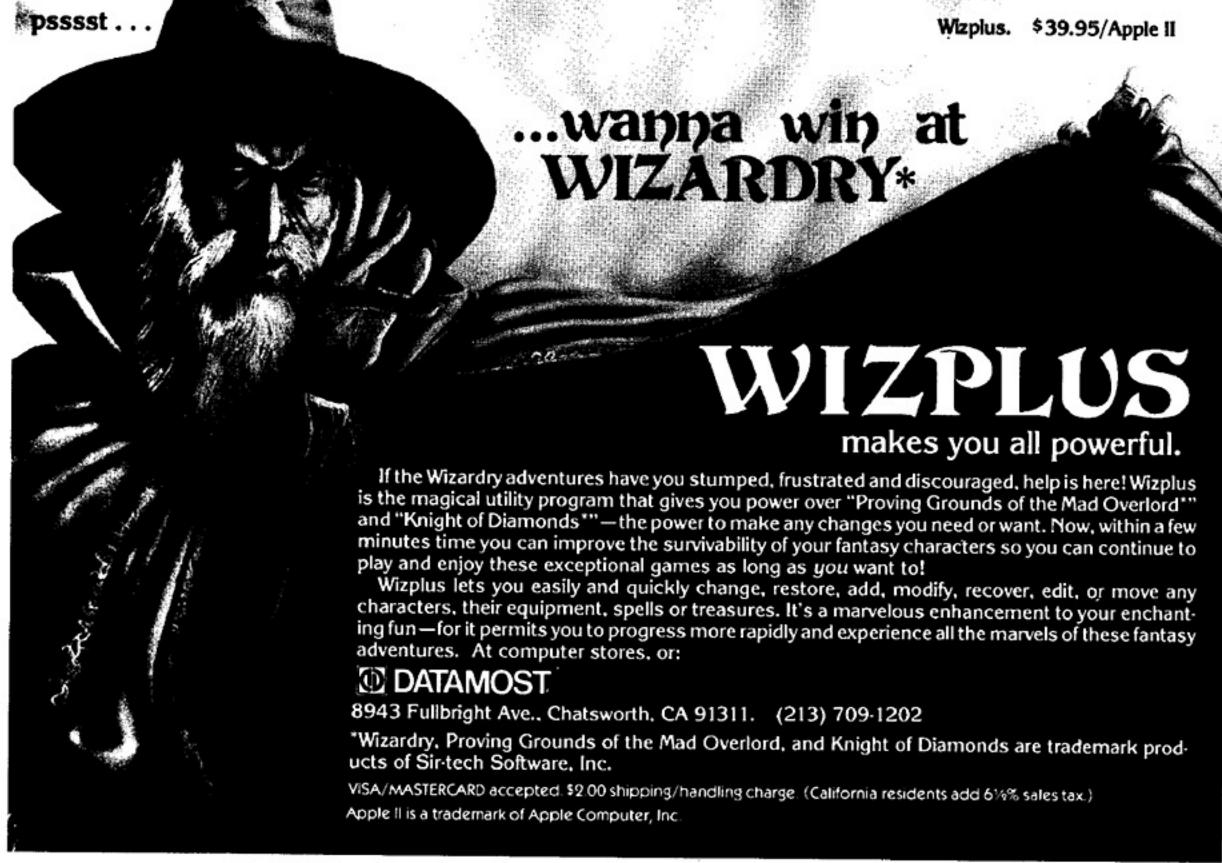
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