

PROGRAM SUBMITTAL

☒ New Program

☐ Revision to Program

Model No.

☐ 67

☐ 97

☒ 41C

Program Title

TREASURE QUEST

No. of Steps/Lines

819

Category No.

820

Category Name

GAMES

Abstract — 50 Word Maximum

Treasure Quest takes the traveler on a trip through highlands and caverns. The goal of the traveler is to gather and return to safe storage all treasures scattered throughout this fixed world. There are numerous hazards to be encountered, most favoring experience over luck. The 41C's alpha capability is used to give the traveler a vivid picture of his surroundings. When the game ends automatically, the score is presented for that game.

Necessary Accessories: Full memory (318 registers)

Name

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Company

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If my program is accepted, my bonus choice is: (Please select two programs if your program is a revision.)

Acceptance Choice: ~~XXXXXX PROGRAMS, 1 CREDIT FOR FOUR PROGRAMS, OR TWO PROGRAMS AND 10 BLANK CARDS.~~

XXX ONE POINT CREDIT XXX

* No partial credit will be given. Select all four programs at the same time.

Submittal Checklist:

Please use the checklist below to insure submittal of all proper program documentation.

☐ Program Submittal

☐ Program Description II

☐ Program Listing(s)

☐ Registers, Status ...

☐ Program Description I

☐ User Instructions

☐ Magnetic Card(s)

☐ Keyboard, Card Labeling (optional)

ACKNOWLEDGMENT AND AGREEMENT

To the best of my knowledge, I have the right to contribute this program material without breaching any obligation concerning nondisclosure of proprietary or confidential information of other persons or organizations. I am contributing this program material on a nonconfidential nonobligatory basis to Hewlett-Packard Company (HP) for inclusion in its program library, and I agree that HP may use, duplicate, modify, publish and sell the program material, and authorize others to do so without obligation or liability of any kind. HP may publish my name and address, as the contributor, to facilitate user inquiries pertaining to this program material.

Signature

Date

PROGRAM DESCRIPTION I

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Program Title TREASURE QUEST
Contributor's Name Gerard Maynard
Address 850 Panorama 1B
City Palatine **State/Country** Illinois **Zip Code** 60067

Program Description, Equations, Variables From the depths of a deep, dark forest, the traveler ventures out to make his fortune. Roaming from the highlands to the bowels of the earth, your goal is to gather the riches lying about and return them to your treasure place. But be wary of the possessive Troll, for he guards his treasures well and will take them away from you unless you are properly prepared. You will find a wealth of different rooms, passages and trails, all described vividly using the alphanumeric capability of the 41C. By keeping track of your travels, you will travel further and find more valuable treasure in the lifetime set for you by the actions you take. Your efforts will be evaluated at the end of this lifetime, and you are encouraged to better previous efforts.

Necessary Accessories full memory (2.2K)

Operating Limits and Warnings Only TREASURE QUEST may exist in user memory.

Reference(s) Several "Adventure"-type games

This program has been verified only with respect to the numerical example given in Program Description II. User accepts and uses this program material AT HIS OWN RISK, in reliance solely upon his own inspection of the program material and without reliance upon any representation or description concerning the program material.

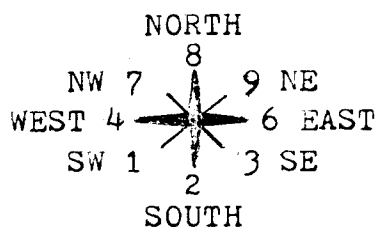
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(CONTINUATION PAGE)

TRAVELING ABOUT THE "WORLD"

In this game, the traveler is offered a number of choices for the direction of travel. In this game, you will use a compass to judge the way to move. As you know, North, East, South and West are the main points of a compass. I have also included the four minor choices: Northeast, Southeast, Southwest and Northwest. Notice that the directions have been given in a clockwise direction from North. I have used this convention throughout the program to eliminate ambiguity.

You will find the choices for direction in the display as N (North), E (East), S (South) and W (West) for the major directions, and NE (Northeast), SE (Southeast), SW (southwest) and NW (Northwest) for the minor choices. Using the keyboard labeled as follows, the appropriate directions are entered as numbers.



Since ambiguity could exist in the displayed choices, you must follow the conventions listed below:

1. In a direction display, the first block of letters are the major choices N E S or W. Following block(s) contain the minor choices NE, SE, SW or NW.
 2. The minor choices are always separated from each other by a space; the major choices are always grouped together without any spacing.
- For example, the choices North, East, Southwest and Northwest would be displayed as NE SW NW.

(CONTINUATION PAGE)

3. Two other choices, UP and DOWN, are displayed as U and D, and are grouped with the major choices. Up is entered by the program as 5 and DOWN is 0.

Entering an improper direction will cause the program to search for the next area in program memory that is entered with that direction. Assuming you are making your own map of the world as any good adventurer would, this will cause you great confusion. You will not be penalized for this, but will certainly miss other exciting areas.

I chose a non error-checking program design because of headroom restrictions. Several interesting elements were added in its place. (Besides, in a land where intelligence and strength are the minimum requirement, misreading a compass is an unforgivable sin.)

STATUS

You will occasionally be asked if you want your "STATUS". The status routine lists all treasure and supplies in your possession. If you desire to know your STATUS, depress any key that doubles as an alpha key (i.e. has blue letters on it) while the alpha annunciator is lit. You have two seconds to decide if you want this report. If an alpha key is not pressed during this time, program execution will continue with your travel decision.

GET SUPPLIES AND TREASURE

When you enter an area containing supplies or treasure, you will be asked if you want to GET that item. You must press any alpha key during the two seconds provided if you do. Once an article is picked up, that item will no longer be available. (There is one "hairy" exception to this. I'm sure you'll discover this soon.)

(CONTINUATION PAGE)

GENERAL INSTRUCTIONS AND SLIGHT HINTS

At times you will need certain things to go in certain directions, and you will also be prohibited from places if you have too much. I'm sure you'll try to figure this out so you can achieve a high positive score. There are other stages in the game where you will be asked if you wish to do something requiring a response on your part. PRESSING AN ALPHA KEY WITH THE ALPHA ANNUNCIATOR LIT IS INTERPRETED AS A POSITIVE RESPONSE (YES). If you wish to say no, do not touch any keys during the prompt.

SPEEDING UP PLAY

As you may know, the jump distances between GTO or XEQ and the local label are stored in the GTO or XEQ statement's extra byte. With this distance in place, execution time is greatly reduced in a program of this length. To take advantage of this, do the following every time you play:

1. Load the cards- DO NOT PACK (or GTO..)
2. Run the program
3. Record the game program again when finished

You can only take advantage of this if you never pack the program. Since it needs full memory, packing will not be necessary anyway. You can stop re-recording after you don't discover any new areas (not too likely for some time).

SCORE

When your game life expires, you will automatically be given your score. The numeric output is interpreted as follows:

| | |
|-----------------|--|
| Negative Score- | O.K. for the first several games |
| 0 | - You should try to put something away for old age |
| 30-60 | - Average score. |
| 100 + | - Plenty of luck. I dare you to try again |

PROGRAM DESCRIPTION II

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Sample Problem (Sketch if Desired)

Run the program

SOLUTION:

| Input | Function | Display | Comments |
|-----------|--------------------------|-------------|--|
| | XEQ SIZE 018 XEQ "TQ" | | |
| seed | R/S | SEED? | enter seed(\emptyset <seed<1) I don't want to give you any clues, but assuming a seed was entered- |
| NORTH (8) | 8 | FOREST | try NORTH to escape (# is equivalent of NORTH) |
| SW (1) | 1 | FOREST | not the right direction |
| UP (5) | 5 | FOREST | next guess |
| | | FOREST NESW | wrong again |
| | | | try climbing a tree |
| | | | that did it! |
| | | | continue your travels by moving either n,e,s or w. |
| | | | If you find yourself back in the FOREST you know how to escape. |

USER INSTRUCTIONS

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| | | | | SIZE: (HP-41C) 018 |
|------|---|-------|----------|-----------------------|
| STEP | INSTRUCTIONS | INPUT | FUNCTION | DISPLAY |
| 1 | Clear all programs or perform a master clear. All registers are necessary for this program. | | | |
| 2 | XEQ "SIZE" 018 | | | |
| 3 | Load the 10 program cards | | | |
| 4 | Execute the program, press | | XEQ "TQ" | SEED |
| 5 | Enter a seed, 0<seed<1 | seed | R/S | FOREST |
| 6 | Game has begun. Enter directions N, NE, E, SE, S, SW, W, NW, U, D until you move out of the "FOREST" and see the prompt- The game continues from here by pressing either of the numbers corresponding to N E S W | | | FOREST NESW |

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| STEP/ LINE | KEY ENTRY | KEY CODE (67/97 only) | COMMENTS | STEP/ LINE | KEY ENTRY | KEY CODE (67/97 only) | COMMENTS |
|---------------|-----------|--------------------------|---------------------|---------------|-----------|--------------------------|-----------------|
| 01 | LBL "TQ" | | | 46 | XEQ 98 | | |
| 02 | FIX 0 | | initialize | 47 | GTO IND | | |
| 03 | CLRG | | | 00 | | | |
| 04 | "SEED?" | | | 48 | LBL 08 | | |
| 05 | PROMPT | | | 49 | GTO 62 | | |
| 06 | STO 00 | | | 50 | LBL 06 | | |
| 07 | .2 | | 200 move life | 51 | GTO J | | |
| 08 | STO 15 | | | 52 | LBL 04 | | |
| 09 | .023 | | | 53 | LBL 64 | | |
| 10 | LBL 29 | | clear all flags | 54 | XEQ 34 | | |
| 11 | CF IND X | | (not all used) | 55 | "FNSW" | | |
| 12 | ISG X | | | 56 | XEQ 98 | | |
| 13 | GTO 29 | | | 57 | GTO IND | | |
| 14 | XEQ 89 | | do random rout. | 00 | | | |
| 15 | 10 | | | 58 | LBL 08 | | |
| 16 | * | | | 59 | GTO F | | |
| 17 | INT | | | 60 | LBL 02 | | |
| 18 | LBL 60 | | "wake up" | 61 | GTO I | | |
| 19 | XEQ 34 | | | 62 | LBL 63 | | |
| 20 | XEQ 98 | | | 63 | XEQ 34 | | |
| 21 | RCL Z | | | 64 | "FSUN E | | |
| 22 | X*Y? | | | NSW" | | | |
| 23 | GTO 60 | | | 65 | XEQ 98 | | |
| 24 | LBL 61 | | first location | 66 | GTO IND | | |
| 25 | XEQ 34 | | | 00 | | | |
| 26 | "FNSW" | | directions | 67 | LBL 02 | | |
| 27 | XEQ 98 | | | 68 | GTO c | | |
| 28 | GTO IND | | | 69 | LBL 04 | | |
| 00 | | | | 70 | GTO 61 | | |
| 29 | LBL 02 | | | 71 | LBL 65 | | |
| 30 | GTO 63 | | | 72 | "LIBRARY | | a room |
| 31 | LBL 06 | | | " | | | |
| 32 | LBL 62 | | listing continues | 73 | 2 | | items in the |
| 33 | XEQ 34 | | with areas you | 74 | XEQ 99 | | room, available |
| 34 | "FSUN E | | may see if you move | 75 | 3 | | for pick-up |
| NES" | | | in that direction | 76 | XEQ 99 | | |
| 35 | XEQ 98 | | | 77 | XEQ C | | |
| 36 | GTO IND | | | 78 | "WED" | | directions |
| 00 | | | | 79 | XEQ 98 | | |
| 37 | LBL 04 | | | 80 | GTO IND | | |
| 38 | LBL 08 | | | 00 | | | |
| 39 | GTO 60 | | | 81 | LBL 04 | | |
| 40 | LBL 06 | | | 82 | GTO 72 | | |
| 41 | GTO a | | | 83 | LBL 00 | | |
| 42 | LBL 02 | | | 84 | GTO 73 | | |
| 43 | LBL F | | | 85 | LBL G | | |
| 44 | XEQ 34 | | | 86 | "ATTIC" | | |
| 45 | "FNEW" | | | 87 | 5 | | |

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| STEP/ LINE | KEY ENTRY | KEY CODE (67/97 only) | COMMENTS | STEP/ LINE | KEY ENTRY | KEY CODE (67/97 only) | COMMENTS |
|---------------|-----------|--------------------------|--------------------|---------------|-----------|--------------------------|-------------------|
| 88 | XEQ 99 | | | 131 | LBL 04 | | |
| 89 | " D" | | one choice only | 132 | GTO H | | |
| 90 | XEQ 98 | | for travel | 133 | LBL 06 | | |
| 91 | LBL 06 | | | 134 | LBL a | | |
| 92 | LBL H | | | 135 | XEQ 34 | | |
| 93 | "KITCHEN | | | 136 | "FCLRG N | | "clearing" |
| " | | | | ES" | | | |
| 94 | CF 05 | | (I'll never tell) | 137 | XEQ 98 | | |
| 95 | 7 | | | 138 | GTO IND | | |
| 96 | XEQ 99 | | | 00 | | | |
| 97 | RCL 07 | | obviously, if you | 139 | LBL 06 | | |
| 98 | X<=0? | | don't have a cup | 140 | LBL 08 | | |
| 99 | GTO 01 | | you can't get the | 141 | GTO 60 | | |
| 100 | 8 | | water | 142 | LBL 02 | | |
| 101 | XEQ 99 | | | 143 | LBL b | | |
| 102 | LBL 01 | | | 144 | XEQ 34 | | |
| 103 | 10 | | | 145 | "FNSW SE | | |
| 104 | XEQ 99 | | | " | | | |
| 105 | "EWU" | | | 146 | XEQ 98 | | |
| 106 | XEQ 98 | | | 147 | GTO IND | | |
| 107 | GTO IND | | | 00 | | | |
| 00 | | | | 148 | LBL 08 | | |
| 108 | LBL 04 | | | 149 | GTO a | | |
| 109 | GTO 65 | | | 150 | LBL c | | |
| 110 | LBL 05 | | | 151 | XEQ 34 | | |
| 111 | GTO G | | | 152 | "FCLR TO | | clear to east |
| 112 | LBL 08 | | | E NEW" | | | |
| 113 | LBL I | | | 153 | XEQ 98 | | |
| 114 | XEQ 34 | | | 154 | GTO IND | | |
| 115 | "FESW" | | | 00 | | | |
| 116 | XEQ 98 | | | 155 | LBL 04 | | |
| 117 | GTO IND | | | 156 | GTO 63 | | |
| 00 | | | | 157 | LBL 03 | | |
| 118 | LBL 02 | | | 158 | LBL 06 | | |
| 119 | GTO 63 | | | 159 | LBL d | | |
| 120 | LBL 04 | | | 160 | "CANYON | | |
| 121 | GTO 64 | | | W NW" | | | |
| 122 | LBL 06 | | | 161 | RCL 05 | | if you don't have |
| 123 | LBL J | | | 162 | X>0? | | it, you can't do |
| 124 | "HOUSE N | | If you are running | 163 | "F D" | | that |
| ESW" | | | the program, you | 164 | XEQ 98 | | |
| 125 | XEQ 98 | | shouldn't be | 165 | GTO IND | | |
| 126 | GTO IND | | reading this !! | 00 | | | |
| 00 | | | | 166 | LBL 02 | | |
| 127 | LBL 08 | | | 167 | LBL 04 | | |
| 128 | GTO F | | | 168 | GTO c | | |
| 129 | LBL 02 | | | 169 | LBL 07 | | |
| 130 | GTO I | | | 170 | LBL 08 | | |

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| STEP/ LINE | KEY ENTRY | KEY CODE (67/97 only) | COMMENTS | STEP/ LINE | KEY ENTRY | KEY CODE (67/97 only) | COMMENTS |
|---------------|-----------|--------------------------|-------------------|---------------|-----------|--------------------------|-------------------|
| 171 | GTO b | | | 216 | *LBL 06 | | |
| 172 | *LBL 71 | | | 217 | *LBL 74 | | |
| 173 | "RIVER W | | | 218 | "TROLL R | | |
| " | | | | M NSW" | | | |
| 174 | RCL 05 | | | 219 | XEQ 98 | | |
| 175 | X>0? | | | 220 | FS? 15 | | check for troll |
| 176 | "FU" | | | 221 | XEQ 93 | | |
| 177 | XEQ 98 | | | 222 | GTO IND | | |
| 178 | GTO IND | | | 00 | | | |
| 00 | | | | 223 | *LBL 04 | | |
| 179 | *LBL 04 | | | 224 | GTO 73 | | |
| 180 | GTO 43 | | | 225 | *LBL 08 | | |
| 181 | *LBL 00 | | | 226 | GTO 76 | | |
| 182 | *LBL 05 | | | 227 | *LBL 02 | | |
| 183 | *LBL 70 | | | 228 | *LBL 77 | | |
| 184 | "LEDGE" | | | 229 | "CRAWL N | | one of the places |
| 185 | 14 | | | SW" | | | in the cavern |
| 186 | XEQ 99 | | | 230 | XEQ 98 | | |
| 187 | "U" | | | 231 | GTO IND | | |
| 188 | XEQ 98 | | | 00 | | | |
| 189 | GTO d | | | 232 | *LBL 08 | | |
| 190 | *LBL 72 | | | 233 | GTO 74 | | |
| 191 | "TRIP" | | oops | 234 | *LBL 02 | | |
| 192 | AVIEW | | | 235 | GTO 79 | | |
| 193 | 0 | | | 236 | *LBL 04 | | |
| 194 | STO 08 | | | 237 | *LBL 75 | | |
| 195 | *LBL 73 | | | 238 | "S SIDE | | |
| 196 | "CELLAR | | things really get | CHASM" | | | |
| " | | | exciting now! | 239 | AVIEW | | |
| 197 | CF 05 | | | 240 | PSE | | |
| 198 | RCL 03 | | | 241 | "ESW" | | |
| 199 | X>0? | | check to see if | 242 | XEQ 98 | | |
| 200 | "FES" | | you have the pro- | 243 | GTO IND | | |
| 201 | "FU" | | per "key" | 00 | | | |
| 202 | RCL 08 | | | 244 | *LBL 06 | | |
| 203 | X<=0? | | bonus life is | 245 | GTO 77 | | |
| 204 | FS? 09 | | quite conditional | 246 | *LBL 04 | | |
| 205 | GTO 01 | | | 247 | GTO 73 | | |
| 206 | SF 09 | | | 248 | *LBL 76 | | |
| 207 | .05 | | | 249 | "PASSAGE | | |
| 208 | ST- 15 | | | EW" | | | |
| 209 | *LBL 01 | | | 250 | XEQ 98 | | |
| 210 | XEQ 98 | | | 251 | GTO IND | | |
| 211 | GTO IND | | | 00 | | | |
| 00 | | | | 252 | *LBL 04 | | |
| 212 | *LBL 02 | | | 253 | GTO 74 | | |
| 213 | GTO 75 | | | 254 | *LBL 02 | | |
| 214 | *LBL 05 | | | 255 | *LBL 78 | | |
| 215 | GTO 65 | | | 256 | "STORERO | | |
| | | | | OM" | | | |

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|---------------|-----------|--------------------------|--------------------|---------------|-----------|--------------------------|----------------|
| 257 | 12 | | | 299 | XEQ 98 | | |
| 258 | XEQ 99 | | | 300 | GTO 85 | | |
| 259 | "NS" | | | 301 | LBL 09 | | |
| 260 | XEQ 98 | | | 302 | LBL 83 | | |
| 261 | GTO IND | | | 303 | "ROCKY C | | |
| 00 | | | | RWL W" | | | |
| 262 | LBL 08 | | | 304 | XEQ 98 | | |
| 263 | GTO 75 | | | 305 | "ALCOVE | | |
| 264 | LBL 02 | | | ED" | | | |
| 265 | LBL 79 | | | 306 | XEQ 98 | | |
| 266 | "STUDIO | | | 307 | FS? 16 | | |
| NU NW" | | | | 308 | XEQ 93 | | |
| 267 | XEQ 98 | | | 309 | GTO IND | | |
| 268 | GTO IND | | | 00 | | | |
| 00 | | | | 310 | LBL 06 | | |
| 269 | LBL 07 | | | 311 | GTO 83 | | |
| 270 | GTO 78 | | | 312 | LBL 00 | | |
| 271 | LBL 05 | | | 313 | "GOLDEN | | |
| 272 | GTO H | | | RM" | | | |
| 273 | LBL 06 | | | 314 | 1 | | |
| 274 | LBL 80 | | | 315 | XEQ 99 | | yet another |
| 275 | "CIRCLE | | | 316 | "D" | | valuable prize |
| RM SPIN" | | | | 317 | XEQ 98 | | |
| 276 | "FNING | | getting dizzy? | 318 | GTO 77 | | |
| " | | | | 319 | LBL 02 | | |
| 277 | AVIEW | | | 320 | LBL 50 | | |
| 278 | XEQ 89 | | | 321 | "DAMP CA | | |
| 279 | 10 | | | VE EW" | | | |
| 280 | * | | random destination | 322 | XEQ 98 | | |
| 281 | GTO IND | | is used to gain | 323 | FS? 20 | | |
| X | | | entry to otherwise | 324 | XEQ 93 | | |
| 282 | LBL 08 | | inaccessible | 325 | GTO IND | | |
| 283 | GTO 77 | | places | 00 | | | |
| 284 | LBL 05 | | (that'll keep | 326 | LBL 06 | | |
| 285 | GTO 61 | | you from cheating | 327 | GTO 80 | | |
| 286 | LBL 06 | | | 328 | LBL 04 | | |
| 287 | GTO 82 | | | 329 | LBL 51 | | |
| 288 | LBL 04 | | | 330 | "DAM E" | | |
| 289 | GTO 76 | | | 331 | RCL 12 | | |
| 290 | LBL 07 | | | 332 | X<=0? | | |
| 291 | GTO 80 | | | 333 | "FU" | | |
| 292 | LBL 01 | | | 334 | XEQ 98 | | |
| 293 | GTO H | | | 335 | GTO IND | | |
| 294 | LBL 00 | | | 00 | | | |
| 295 | GTO 71 | | | 336 | LBL 06 | | |
| 296 | LBL 03 | | | 337 | GTO 50 | | |
| 297 | LBL 91 | | | 338 | LBL 05 | | |
| 298 | "PASSAGE | | | 339 | LBL 52 | | |
| E" | | | | 340 | "LAKE ND | | |
| | | | | " | | | |

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|---------------|-----------|--------------------------|-------------------|---------------|-----------|--------------------------|----------|
| 341 | XEQ 98 | | | 383 | GTO IND | | |
| 342 | GTO IND | | | 00 | | | |
| 00 | | | | 384 | *LBL 04 | | |
| 343 | *LBL 00 | | | 385 | GTO 87 | | |
| 344 | GTO 51 | | | 386 | *LBL 06 | | |
| 345 | *LBL 08 | | | 387 | GTO 61 | | |
| 346 | "DEAD EN | | think it's a dead | 388 | *LBL 36 | | |
| D" | | | end? think again | 389 | "LONG PA | | |
| 347 | 11 | | | SS EU" | | | |
| 348 | XEQ 99 | | | 390 | XEQ 98 | | |
| 349 | "S" | | | 391 | GTO IND | | |
| 350 | XEQ 98 | | | 00 | | | |
| 351 | GTO 52 | | | 392 | *LBL 05 | | |
| 352 | *LBL 82 | | | 393 | GTO 35 | | |
| 353 | "CHAPEL" | | | 394 | *LBL 06 | | |
| 354 | 13 | | wow! another | 395 | *LBL 37 | | |
| 355 | XEQ 99 | | treasure! | 396 | "DUSTY R | | |
| 356 | XEQ A | | | M" | | | |
| 357 | "EWU" | | | 397 | 4 | | |
| 358 | XEQ 98 | | | 398 | XEQ 99 | | |
| 359 | GTO IND | | | 399 | "EW" | | |
| 00 | | | | 400 | XEQ 98 | | |
| 360 | *LBL 06 | | | 401 | GTO IND | | |
| 361 | GTO 84 | | | 00 | | | |
| 362 | *LBL 04 | | | 402 | *LBL 04 | | |
| 363 | GTO 80 | | | 403 | GTO 36 | | |
| 364 | *LBL 05 | | | 404 | *LBL 06 | | |
| 365 | *LBL 87 | | | 405 | "DEAD EN | | |
| 366 | "CHIME R | | | D W" | | | |
| M" | | | | 406 | XEQ 98 | | |
| 367 | 6 | | and another! | 407 | FS? 19 | | |
| 368 | XEQ 99 | | | 408 | XEQ 93 | | |
| 369 | "ESD" | | | 409 | GTO 37 | | |
| 370 | XEQ 98 | | | 410 | *LBL 02 | | |
| 371 | GTO IND | | | 411 | *LBL 84 | | |
| 00 | | | | 412 | "CRAWL N | | |
| 372 | *LBL 00 | | | S SE" | | | |
| 373 | GTO 82 | | | 413 | XEQ 98 | | |
| 374 | *LBL 06 | | | 414 | GTO IND | | |
| 375 | "EAST EN | | this could be | 00 | | | |
| D " | | | a real dead end | 415 | *LBL 08 | | |
| 376 | RCL 12 | | | 416 | GTO 82 | | |
| 377 | X<=0? | | | 417 | *LBL 02 | | |
| 378 | "FE" | | | 418 | GTO 85 | | |
| 379 | "FW" | | | 419 | *LBL 03 | | |
| 380 | XEQ 98 | | | 420 | *LBL 35 | | |
| 381 | FS? 17 | | | 421 | "TINY CA | | |
| 382 | XEQ 93 | | | VE WD" | | | |
| | | | | 422 | XEQ 98 | | |

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|---------------|-----------|--------------------------|------------------|---------------|-----------|--------------------------|----------|
| 423 | GTO IND | | | 463 | LBL 06 | | |
| 00 | | | | 464 | LBL 24 | | |
| 424 | LBL 00 | | | 465 | "N E SW" | | |
| 425 | GTO 36 | | | 466 | XEQ 98 | | |
| 426 | LBL 02 | | | 467 | GTO IND | | |
| 427 | LBL 04 | | | 00 | | | |
| 428 | LBL 85 | | | 468 | LBL 06 | | |
| 429 | "GLASS R | | walk carefully | 469 | GTO 41 | | |
| M NSW" | | | | 470 | LBL 08 | | |
| 430 | XEQ 98 | | | 471 | GTO 23 | | |
| 431 | GTO IND | | | 472 | LBL 05 | | |
| 00 | | | | 473 | LBL 25 | | |
| 432 | LBL 08 | | | 474 | "NESWD" | | |
| 433 | GTO 84 | | | 475 | XEQ 98 | | |
| 434 | LBL 04 | | | 476 | GTO IND | | |
| 435 | GTO 91 | | | 00 | | | |
| 436 | LBL 02 | | | 477 | LBL 07 | | |
| 437 | LBL 86 | | | 478 | LBL 08 | | |
| 438 | "LADDER | | | 479 | GTO 21 | | |
| ND" | | | | 480 | LBL 06 | | |
| 439 | XEQ 98 | | | 481 | GTO 23 | | |
| 440 | GTO IND | | | 482 | LBL 02 | | |
| 00 | | | | 483 | LBL 26 | | |
| 441 | LBL 08 | | | 484 | "NEW" | | |
| 442 | GTO 85 | | | 485 | XEQ 98 | | |
| 443 | LBL 00 | | | 486 | FS? 18 | | |
| 444 | LBL 21 | | enter the maze, | 487 | XEQ 93 | | |
| 445 | "ESWU" | | the main purpose | 488 | GTO IND | | |
| 446 | XEQ 98 | | of which is to | 00 | | | |
| 447 | GTO IND | | eat up life | 489 | LBL 00 | | |
| 00 | | | points | 490 | LBL 06 | | |
| 448 | LBL 04 | | | 491 | GTO 22 | | |
| 449 | GTO 25 | | | 492 | LBL 01 | | |
| 450 | LBL 05 | | | 493 | LBL 04 | | |
| 451 | GTO 86 | | | 494 | LBL 27 | | |
| 452 | LBL 02 | | | 495 | "SWU" | | |
| 453 | LBL 22 | | | 496 | XEQ 98 | | |
| 454 | "U SE NW | | | 497 | GTO IND | | |
| " | | | | 00 | | | |
| 455 | XEQ 98 | | | 498 | LBL 02 | | |
| 456 | GTO IND | | | 499 | GTO 24 | | |
| 00 | | | | 500 | LBL 04 | | |
| 457 | LBL 03 | | | 501 | LBL 06 | | |
| 458 | LBL 23 | | | 502 | LBL 08 | | |
| 459 | "SWU" | | | 503 | GTO 25 | | |
| 460 | XEQ 98 | | | 504 | LBL 05 | | |
| 461 | GTO IND | | | 505 | GTO 26 | | |
| 00 | | | | 506 | LBL 41 | | |
| 462 | LBL 02 | | | 507 | XEQ A | | |

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| STEP/ LINE | KEY ENTRY | KEY CODE (67/97 only) | COMMENTS | STEP/ LINE | KEY ENTRY | KEY CODE (67/97 only) | COMMENTS |
|---------------|--------------------|--------------------------|--------------------|---------------|-----------|--------------------------|------------------|
| 508 | "NARO TU NL NW" | | | 550 | "GET " | | |
| 509 | XEQ 98 | | | 551 | LBL 95 | | |
| 510 | GTO IND | | | 552 | GTO IND | | list of treasure |
| 00 | | | | X | | | and supplies |
| 511 | LBL 08 | | | 553 | LBL 01 | | |
| 512 | GTO 24 | | | 554 | "FGOLD" | | |
| 513 | LBL 04 | | | 555 | 5 | | |
| 514 | LBL 42 | | | 556 | GTO 00 | | |
| 515 | "OIL RM ED" | | | 557 | LBL 02 | | |
| 516 | XEQ 98 | | | 558 | "FAXE" | | |
| 517 | GTO IND | | | 559 | 2 | | |
| 00 | | | | 560 | GTO 00 | | |
| 518 | LBL 06 | | | 561 | LBL 03 | | |
| 519 | GTO 41 | | | 562 | "FLAMP" | | |
| 520 | LBL 00 | | | 563 | 1 | | |
| 521 | LBL 43 | | | 564 | GTO 00 | | |
| 522 | "COAL RM " | | | 565 | LBL 04 | | |
| 523 | 9 | | | 566 | "FJEWEL" | | |
| 524 | XEQ 99 | | | 567 | 4 | | |
| 525 | "EU" | | | 568 | GTO 00 | | |
| 526 | XEQ 98 | | | 569 | LBL 05 | | |
| 527 | GTO IND | | | 570 | "FROPE" | | |
| 00 | | | | 571 | 1 | | |
| 528 | LBL 05 | | | 572 | GTO 00 | | |
| 529 | GTO 42 | | | 573 | LBL 06 | | |
| 530 | LBL 06 | | | 574 | "FBELL" | | |
| 531 | GTO 71 | | | 575 | 3 | | |
| 532 | LBL 00 | | "safety net" will | 576 | GTO 00 | | |
| 533 | LBL 01 | | prevent game from | 577 | LBL 07 | | |
| 534 | LBL 02 | | stopping in case | 578 | "FFLASK" | | |
| 535 | LBL 03 | | the traveler mis- | 579 | 1 | | |
| 536 | LBL 04 | | reads his compass | 580 | GTO 00 | | |
| 537 | LBL 07 | | | 581 | LBL 08 | | |
| 538 | LBL 08 | | | 582 | "FWATER" | | |
| 539 | LBL 09 | | | 583 | 1 | | |
| 540 | GTO 43 | | | 584 | GTO 00 | | |
| 541 | LBL 99 | | treasure and | 585 | LBL 09 | | |
| 542 | AVIEW | | supplies selection | 586 | "FRUBY" | | |
| 543 | PSE | | | 587 | 10 | | |
| 544 | FS? 05 | | | 588 | GTO 00 | | |
| 545 | RTN | | | 589 | LBL 10 | | |
| 546 | RCL IND | | one of each only! | 590 | "FGARLIC" | | |
| X | | | | " | | | |
| 547 | X#0? | | | 591 | 1 | | |
| 548 | RTN | | | 592 | GTO 00 | | |
| 549 | RDN | | | 593 | LBL 11 | | |
| | | | | 594 | "FGEM" | | |
| | | | | 595 | 8 | | |
| | | | | 596 | GTO 00 | | |

PROGRAM LISTING

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| STEP/ LINE | KEY ENTRY | KEY CODE (67/97 only) | COMMENTS | STEP/ LINE | KEY ENTRY | KEY CODE (67/97 only) | COMMENTS |
|---------------|------------------|--------------------------|------------------|---------------|-----------|--------------------------|--------------------|
| 597 | LBL 12 | | | 641 | LBL 96 | | |
| 598 | "FSCULPT URE" | | | 642 | RCL IND | | test for posess- |
| 599 | 5 | | | X | | | ion. You can't |
| 600 | GTO 00 | | | 643 | X<=0? | | drop it if you |
| 601 | LBL 13 | | | 644 | GTO 03 | | don't have it! |
| 602 | "FGRAIL" | | | 645 | CLA | | |
| 603 | 20 | | | 646 | RDN | | |
| 604 | GTO 00 | | | 647 | XEQ 95 | | |
| 605 | LBL 14 | | | 648 | FC? 08 | | |
| 606 | "FJADE" | | | 649 | AVIEW | | display item |
| 607 | 15 | | | 650 | FC? 08 | | |
| 608 | LBL 00 | | | 651 | GTO 03 | | |
| 609 | FS? 06 | | return depends | 652 | XEQ 90 | | test for drop |
| 610 | RTN | | on subroutine | 653 | FC?C 23 | | |
| 611 | "F ?" | | calling | 654 | GTO 03 | | |
| 612 | FS? 08 | | | 655 | "O.K." | | acknowledge drop |
| 613 | RTN | | | 656 | AVIEW | | |
| 614 | XEQ 90 | | test for pick-up | 657 | X<>Y | | |
| 615 | FS?C 23 | | | 658 | INT | | |
| 616 | STO IND | | | 659 | 3 | | |
| Y | | | | 660 | X<>Y | | |
| 617 | RTN | | | 661 | X=Y? | | |
| 618 | LBL A | | | 662 | SF 05 | | |
| 619 | "STATUS?" | | "status" subrou- | 663 | LASTX | | |
| " | | | tine | 664 | RCL T | | |
| 620 | XEQ 90 | | tells you what | 665 | FC? 07 | | |
| 621 | FC?C 23 | | you have in your | 666 | GTO 01 | | if dropped, add |
| 622 | RTN | | posession | 667 | ST+ 17 | | points to total |
| 623 | SF 06 | | | 668 | ST- IND | | (for drop at place |
| 624 | "YOU HAV | | | Y | | | other then special |
| E" | | | | 669 | GTO 03 | | drop site) |
| 625 | GTO 01 | | | 670 | LBL 01 | | or |
| 626 | LBL C | | | 671 | ST+ 16 | | if at drop site |
| 627 | "DROP TR | | subroutine for | 672 | RDN | | add points and |
| EASURE" | | | dropping items | 673 | -.5 | | store drop # |
| 628 | FS? 07 | | in your posess- | 674 | STO IND | | |
| 629 | GTO 00 | | ion, called by | Y | | | |
| 630 | "F?" | | program | 675 | LBL 03 | | |
| 631 | XEQ 90 | | | 676 | RDN | | |
| 632 | FC?C 23 | | return if you | 677 | ISG X | | continue for each |
| 633 | RTN | | don't want to do | 678 | GTO 96 | | item in posession |
| 634 | LBL 00 | | | 679 | CF 06 | | |
| 635 | SF 08 | | | 680 | CF 07 | | restore flags |
| 636 | LBL 01 | | | 681 | CF 08 | | |
| 637 | AVIEW | | | 682 | RTN | | |
| 638 | PSE | | | 683 | LBL 93 | | uh-oh |
| 639 | CLA | | | 684 | "TROLL" | | |
| 640 | 1.014 | | | 685 | AVIEW | | |
| | | | | 686 | TONE 5 | | |

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| STEP/ LINE | KEY ENTRY | KEY CODE (67/97 only) | COMMENTS | STEP/ LINE | KEY ENTRY | KEY CODE (67/97 only) | COMMENTS |
|---------------|-----------|--------------------------|-------------------|---------------|-----------|--------------------------|---------------------|
| 687 | XEQ 89 | | reset troll | 733 | GTO 01 | | |
| 688 | RCL 02 | | | 734 | ST- IND | | |
| 689 | X<=0? | | | | Y | | |
| 690 | GTO 02 | | | 735 | *LBL 01 | | |
| 691 | "USE AXE | | one possible | 736 | RDN | | |
| | ?" | | defense | 737 | ISG X | | |
| 692 | XEQ 90 | | | 738 | GTO 49 | | |
| 693 | FC?C 23 | | | 739 | 10 | | adjust life and |
| 694 | GTO 02 | | | 740 | ST- 16 | | score if unsuc- |
| 695 | RDN | | | 741 | ST+ 15 | | cessful |
| 696 | .7 | | probability | 742 | SF 05 | | |
| 697 | X<Y? | | | 743 | RTN | | |
| 698 | GTO 03 | | | 744 | *LBL 98 | | |
| 699 | "TROLL K | | | 745 | RCL 00 | | |
| | ILLED" | | | 746 | FRC | | |
| 700 | AVIEW | | | 747 | STO 00 | | |
| 701 | BEEP | | | 748 | AVIEW | | |
| 702 | 10 | | | 749 | *LBL 97 | | |
| 703 | ST+ 16 | | bonus for doing | 750 | CF 22 | | routine for storing |
| 704 | ST- 15 | | away with troll | 751 | PSE | | direction for |
| 705 | RTN | | | 752 | FC? 22 | | travel |
| 706 | *LBL 02 | | | 753 | GTO 97 | | |
| 707 | RCL 10 | | | 754 | ST+ 00 | | |
| 708 | X<=0? | | | 755 | ISG 15 | | increment life |
| 709 | GTO 03 | | | 756 | RTN | | |
| 710 | *LBL 94 | | | 757 | 1.014 | | |
| 711 | "TOLL" | | another way... | 758 | *LBL 31 | | score subroutine |
| 712 | AVIEW | | | 759 | RCL IND | | (done at the end |
| 713 | PSE | | | | X | | of the game) |
| 714 | 0 | | | 760 | X<0? | | |
| 715 | STO 17 | | drop accumulation | 761 | GTO 01 | | |
| 716 | SF 07 | | register | 762 | ST+ 16 | | |
| 717 | XEQ C | | | 763 | *LBL 01 | | |
| 718 | RCL 10 | | | 764 | RDN | | |
| 719 | X<=0? | | | 765 | ISG X | | |
| 720 | GTO 03 | | | 766 | GTO 31 | | |
| 721 | 8 | | check for enough | 767 | "SCORE " | | |
| 722 | RCL 17 | | toll paid | 768 | ARCL 16 | | |
| 723 | X>Y? | | | 769 | PROMPT | | |
| 724 | RTN | | | 770 | *LBL 34 | | this word is used |
| 725 | *LBL 03 | | | 771 | "FOREST | | a lot. this |
| 726 | "CHOMP" | | not a good result | | " | | routine saves |
| 727 | AVIEW | | | 772 | RTN | | space |
| 728 | TONE 0 | | | 773 | *LBL 90 | | |
| 729 | 1.014 | | | 774 | AVIEW | | subroutine used |
| 730 | *LBL 49 | | | 775 | AON | | by other subs |
| 731 | RCL IND | | | 776 | PSE | | to test for a |
| | X | | | 777 | PSE | | positive response |
| 732 | X<=0? | | | 778 | AOFF | | |

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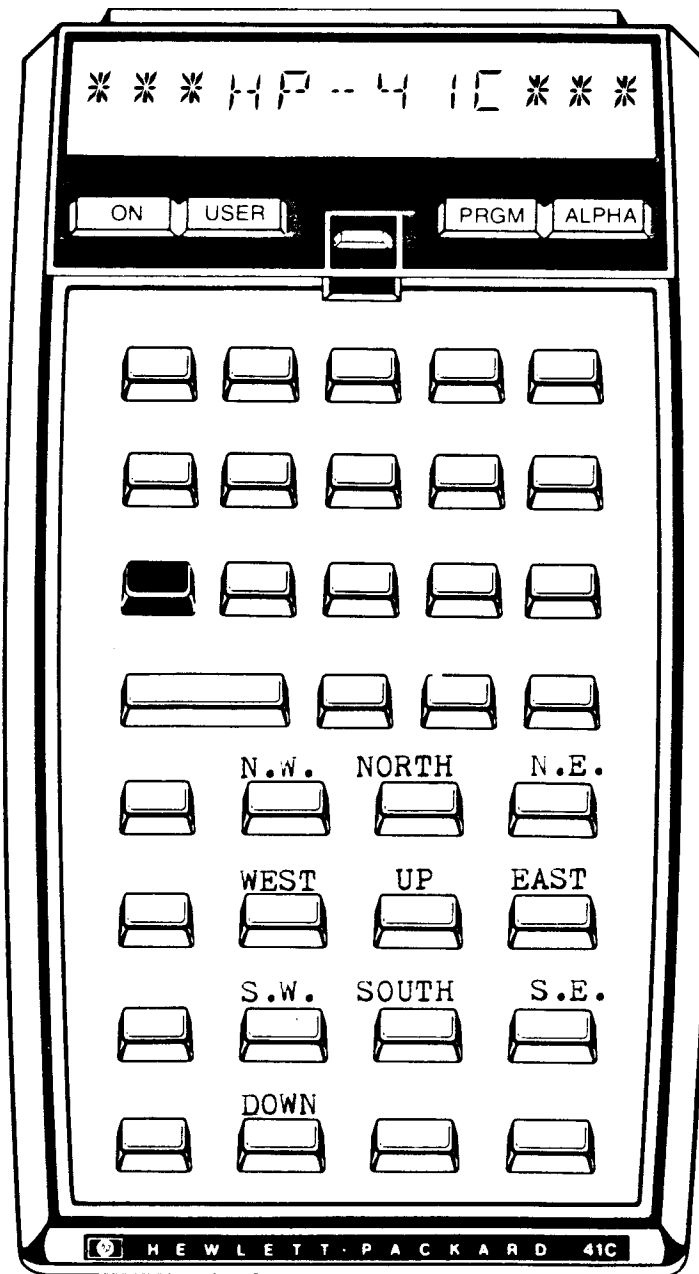
| STEP/ LINE | KEY ENTRY | KEY CODE (67/97 only) | COMMENTS | STEP/ LINE | KEY ENTRY | KEY CODE (67/97 only) | COMMENTS |
|---------------|-----------|--------------------------|----------------------|---------------|-----------|--------------------------|----------|
| 779 | CLA | | | 51 | | | |
| 780 | RTN | | | | | | |
| 781 | LBL 89 | | | | | | |
| 782 | CF 15 | | random number | | | | |
| 783 | CF 16 | | subroutine | | | | |
| 784 | CF 17 | | | | | | |
| 785 | CF 18 | | | | | | |
| 786 | CF 19 | | | | | | |
| 787 | CF 20 | | | | | | |
| 788 | RCL 00 | | | 60 | | | |
| 789 | ENTER↑ | | | | | | |
| 790 | FRC | | | | | | |
| 791 | 9821 | | | | | | |
| 792 | * | | | | | | |
| 793 | .211327 | | | | | | |
| 794 | + | | | | | | |
| 795 | FRC | | | | | | |
| 796 | RDN | | | | | | |
| 797 | INT | | | 70 | | | |
| 798 | R↑ | | | | | | |
| 799 | + | | | | | | |
| 800 | STO 00 | | | | | | |
| 801 | FRC | | | | | | |
| 802 | STO Y | | | | | | |
| 803 | SF 10 | | | | | | |
| 804 | LBL 92 | | | | | | |
| 805 | 6 | | | | | | |
| 806 | * | | also sets random | | | | |
| 807 | 15 | | trolls cruising | 80 | | | |
| 808 | + | | the subteranean | | | | |
| 809 | SF IND X | | world | | | | |
| 810 | RDN | | | | | | |
| 811 | .5 | | | | | | |
| 812 | + | | | | | | |
| 813 | FRC | | | | | | |
| 814 | FS?C 10 | | | | | | |
| 815 | GTO 92 | | | | | | |
| 816 | RCL 00 | | R00 contains a | 90 | | | |
| 817 | FRC | | random # $0 < R < 1$ | | | | |
| 818 | RTN | | and the direction | | | | |
| 819 | END | | vector | | | | |
| 50 | | | | 00 | | | |

REGISTERS, STATUS, FLAGS, ASSIGNMENTS

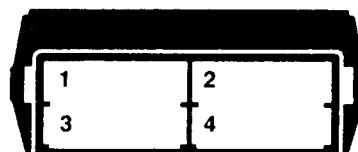
| DATA REGISTERS | | STATUS | | | |
|----------------|----------------------------|-------------|---------------|--------------------------|-----------------|
| R00 | INT (direction) FRC (seed) | SIZE 018 | TOT. REG. 318 | USER MODE | |
| R01 | | ENG | FIX | SCI | ON OFF X |
| R02 | | DEG | RAD | GRAD | |
| R03 | | FLAGS | | | |
| R04 | | # | INIT S/C | SET INDICATES | CLEAR INDICATES |
| R05 | | 05 | C | used by the program to | |
| R06 | | 06 | C | control the various | |
| R07 | | 07 | C | attributes of the quest. | |
| R08 | | 08 | C | " | |
| R09 | | 09 | C | " | |
| R10 | Treasure registers | 10 | C | " | |
| R11 | | 15 | C | " | |
| R12 | | 16 | C | " | |
| R13 | | 17 | C | " | |
| R14 | | 18 | C | " | |
| R15 | "Life" register | 19 | C | " | |
| R16 | Score accumulator | 20 | C | " | |
| R17 | used | 22 | C | numeric entry | not n.e. |
| | | 23 | C | alpha entry | not a.e. |
| | | ASSIGNMENTS | | | |
| | | FUNCTION | KEY | FUNCTION | KEY |
| | | | | | |

KEYBOARD CARD LABELING

KEYBOARD



SYSTEM
CONFIGURATION



CARD

