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ZORK: The Great Underground Empire - Part I  
(PDP-11 version)

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WELCOME TO ZORK!

This is the first in a series of ZORK(TM) fantasy simulation games. ZORK games turn your computer into a dynamic fantasy story in which you participate. You direct the action, you discover the secrets, you fight the battles, you solve the mysteries, and you claim the treasures. You directly experience the story as it unfolds, as it involves you and your computer in vividly described, compelling, fantastic situations. Your imagination is more fantastic than the fanciest graphics when it comes to visualizing the exotic locale of a ZORK game.

## ZORK games feature:

- \* an English sentence analyzer that "understands" several hundred words and the ways you may use them in sentences as verbs, adjectives, direct and indirect objects, and so on;
- \* English responses that spark your imagination, tickle your fancy, and vividly describe the results of your input, right on your terminal;
- \* realistic simulation of objects and characters, both mundane and fantastic;
- \* a "script" stored in the program that is carefully designed to test your wits and ingenuity and to reward you for clear and imaginative thinking.

The main part of the ZORK game program resides in core (main memory), but the entire game won't fit into core all at once. As you play the game and the story unfolds, the program gets different parts of the "script" from the disk and puts them into core as needed. The more memory your PDP-11 has, the less often the program has to use the disk. Don't be surprised if you hear the disk being accessed at different times if you play the game differently or if you play it on a different PDP-11 computer.

RUNNING ZORK

ZORK comes on an RX01-format diskette containing two files. The game program is "GUE1.SAV" and may be run under RT-11 or HT-11 as a background job. The other file, "GUE1.ZRK", contains the game script. It will be accessed at times while the game is being played and must be located on the default device, "DK:". Subject to this restriction, the two files may be moved to any disk device.

ZORK may also be run under RSTS/E using the RT-11 emulator. After moving the above-mentioned files to an appropriate device, run the emulator by typing "SWITCH RT11." Once the emulator responds with its prompt (a dot), type "SIZE 28K" (or the highest allowable number) to allocate as much memory as possible. If necessary, use the "PPN" command to set the default PPN to the directory containing the GUE1 files. Now you can run the program.

After the game is started (for example, with "RUN GUE1"), you will be asked for the terminal line width. Type a number between 1 and 132, depending on the number of characters per line desired. If no number is typed, 80 will be used. If you are using a VT100 terminal and you want the status line, as described below, to be displayed, end the line with a line-feed instead of a carriage-return.

A copyright notice will then appear on the screen and you will see a short description of the imaginary place where the story begins. Now that ZORK is running, you can play as long as you like. If you stop the program, you can only restart it again from the beginning. But, when you come to the end of a session, you will probably want to preserve the state of the game by making a SAVE file. This will allow you to later recover the game as you left it.

#### SAVE FILES

It will take you some time to complete a ZORK-game story, just as it takes you some time to finish a good book. You will almost certainly not finish the story in one sitting. ZORK games allow you to continue playing at a later time without having to start over from the beginning again, just as you can place a bookmark in a book you are reading. There is a ZORK command, called "save", that creates a SAVE file containing a "snapshot" of your position in the game. (This is more powerful than a photographic snapshot, because it includes the essential history of how the game got to its present state.) If you are a cautious player or a prudent player, you may want to make a SAVE file before you embark upon (or after you finish) any particularly tricky or dangerous part of the story. Having done this, you can go back to the SAVED position even if you get lost or killed after you save it.

To make a SAVE file, type the command "save" in response to ZORK's prompt (>). ZORK will respond with a prompt showing the current file name default, which is the name last used, initially "DK:GUE1.ZSV". Simply type the name of the file that you want to create. If you just type a carriage return, ZORK will use the complete default file name. You can also omit just the type or the name and type

to use the corresponding parts of the default. Typing a name without a device will cause "DK:" to be assumed. Note that under RT-11 or HT-11, the handler for the device specified must have previously been LOADED (unless it is the system disk device).

To restore the game situation from a SAVE file, type the command "restore". ZORK will respond as it would to a "save" command, requesting a file name and so on.

If the "save" or "restore" fails, a message will be displayed telling you the reason. Depending upon the reason, either the game will say "Failed" and continue as before, or you will be returned to KMON and will have to restart the game.

#### THE ENGLISH ANALYZER AND THE GAME MASTER

When you play a ZORK game, everything you type is plain English. (ZORK allows you to abbreviate some words, though, because you use them often.) One part of a ZORK game is an English analyzer, which examines each sentence that you type, looking for a verb and any other words that the verb or the situation may require. The analyzer then passes a coded form of your sentence to another part of ZORK, called the Game Master. The Game Master always acts as though your sentence began with "I want to ...", although you should not type those words explicitly. The Game Master then displays a response that tells you whether what you want to do is possible in the current situation, and, if it is, whether anything interesting happens as a result.

An input line is one line of English text, terminated by a carriage-return. All words in ZORK input lines are distinguished by their first six characters, and all subsequent characters are ignored. For example, typing "Disassemble the encyclopedia" is a waste of valuable finger motion (as well as being entirely meaningless), because it is equivalent to typing "Disass the encycl". ZORK doesn't care whether you type in capital letters or lower-case letters or a mixture.

ZORK "understands" many different types of sentences. Some examples:

Take gold. Drop gold. Pick up gold. Put down gold.  
Go north. North. Walk north. N.  
Push button. Push the red button. Open wooden door.  
Look at the wall. Look under rock. Look behind curtain.  
Look in bag. Read a book. Read all of the books.  
Drop all. Take all. Drop all but the knife.

Take all but the knife and the lamp.  
Put the gold and jewels in the trophy case.  
Throw the newspaper, the red book, and the magazine  
into the chasm.

There are only two kinds of questions that ZORK "understands", and each kind is equivalent to an imperative sentence that you could type instead:

Where is the gold?	Find the gold.
What is a grue?	Examine a grue.

You must separate multiple objects by "and" or a comma. You can include several sentences in one input line if you separate them by "then" or a period, for example, "Take book. N. Drop book and candle." You don't need to type a period at the end of an input line. You can sometimes use a comma between sentences, but don't be surprised if ZORK analyzes the input line incorrectly, mistaking a verb for a noun.

In a way, ZORK's vocabulary is lop-sided, because ZORK uses many more words than it "understands". The English Analyzer's vocabulary consists of several hundred words, and it includes nearly all the words that you are likely to use in your input lines. However, ZORK's output tends toward "purple prose" at times, and ZORK will display English descriptions that it couldn't possibly analyze. Indeed, ZORK's output may refer to an object or place that you cannot refer to, perhaps to your dismay. In that case, the object or place is not essential to the story, and it appears in ZORK's output only to enhance your mental imagery.

There are some words, called commands, that you can use as verbs, even though, strictly speaking, they may not be verbs. The commands are listed in an appendix to this booklet. Each command stands alone as a sentence, with neither an object nor any other word required. Most of them affect how you play the game rather than the progress of the story itself.

#### ZORK COMPLAINTS ABOUT AMBIGUITY

ZORK tries to be clever about what you really mean when you don't give enough information. If you say that you want to do something, but you don't say what to do it with or to, ZORK will sometimes decide that there was only one possible object you could have meant. When it does so, it will tell you, by displaying, for example, "(with the rope)". If your sentence is really ambiguous, ZORK will ask what you really meant. Most such questions (for example, "With what?") can

be answered briefly (for example, "rope").

Completely mystifying sentences will cause ZORK to complain in one way or another, and, after making its complaint, ZORK will ignore the rest of the input line. Unusual events, such as being attacked, will also make ZORK ignore the rest of the sentences in an input line, since the event may have changed your situation drastically. A move is a sentence that the English analyzer accepts without complaining and that is not ignored because of a previous complaint or unusual event in the same input line.

The meaning of a complaint ought to be obvious, but here is a list of some common complaints from ZORK, with explanations:

"I don't know the word '[your word]'."

The word you typed is not in the game's vocabulary. Sometimes a synonym or rephrasing will be "understood". If not, the English analyzer probably doesn't know the idea you were trying to get across.

"I can't use the word '[your word]' here."

ZORK knows the word you typed, but the word made no sense where you put it in the sentence: "Open the take," for example.

"You must supply a verb!"

Unless you are answering a question, each sentence must have a verb (or command) in it somewhere.

"There is a noun missing in that sentence."

This usually indicates an incomplete sentence, such as "Put the lamp in the," where ZORK expected another noun and couldn't find one.

"Too many noun clauses."

An example is "Put the troll in the basket with the shovel." A valid sentence has at most one direct object and one indirect object.

"Multiple objects cannot be used with [your verb]."

It is legal for you to use multiple objects (that is, nouns or noun phrases separated by "and" or a comma) only with certain verbs. Among the more useful of these verbs are "take", "drop", and "put".

"I don't understand that sentence."

You typed a sentence that is gibberish to ZORK, for example, "Give troll with sword." You might try rephrasing the sentence.

"Beg pardon?"

Your input line was empty.

"It's too dark to see."

In the story, there was no light to see objects in the room.

"I can't see any [object] here."

In the story, the object you referred to was not accessible to you.

### THE SCREEN

If your terminal is a VT100, ZORK will display, on the top line of the screen, your status in the story: the number of points (or "score") you have so far, the number of moves you have made, and the name of the location (or "room") where you are. The status line looks something like this:

Score: 10/ 5 Living Room

In this example, you have 10 points after 5 moves and you are in the living room. All the other lines of the screen display the dialog between you and ZORK.

ZORK indicates that it is ready to accept your next input line by bringing the status line up-to-date (only on VT100s) and displaying a prompt character (>). You can then type, erasing mistakes one letter at a time by hitting the DELETE key or erasing the entire line with control-U. (ZORK will accept characters you type before it displays the prompt, but you may find the resulting output confusing.) When you finish the input line, you hit the RETURN key to tell ZORK to analyze and act on the line.

### BUGS

It is possible that ZORK may detect an internal error and stop running. Most such errors will not occur repeatedly, because they are due to power glitches, memory parity errors and the like. If an error occurs, ZORK will display an error message and return to KMON. You must re-start the game.

If an internal error occurs repeatedly, please report the problem to Infocom. Include a description of how the error can be re-created. Comments and suggestions about ZORK games are also welcome. We will not be able to reply to all of your comments and suggestions, but, in so far as possible, reports of serious difficulties will be answered.

In reporting a problem, please try to be as specific as possible and include as much pertinent information as possible. It is difficult to deal with a report such as "Saying 'foobar' doesn't work." Situations are possible in which, although ZORK may appear to be doing something strange, the behavior is not caused by a bug in the program. If you think you are encountering strange behavior that is due to an error in the program, type "Bug" to ZORK; it may have a different opinion.

Although this game has been extensively tested, it is "pushing the state of the art", and there will no doubt be some problems. In future releases, bugs that have been discovered will be removed, but new ideas will be incorporated also - some from suggestions made by users - and augmentations and extensions tend to introduce new bugs. New releases will become available when necessary to correct problems or to enhance the game. However, we are not and cannot be responsible for replacing old releases with new ones.

THE GREAT UNDERGROUND EMPIRE - PART I

In this ZORK story, you are near a great underground labyrinth, which is reputed to contain vast quantities of treasure. No doubt, you wish to acquire some of it. In order to achieve your desire, you must remove treasure from the caverns. In order to receive full credit for treasure, you must deposit it safely in the trophy case.

In addition to treasure, the labyrinth contains various objects that may or may not be useful in your attempt to acquire the treasure; you may need sources of light, since caves are often dark, and weapons, since dungeons often have unfriendly beings wandering about in them. Reading material is scattered around as well; you might even find some of it to be useful.

To measure your success, ZORK keeps track of your score. You receive points for finding treasure, for returning it to the trophy case, for performing certain actions, and for visiting certain places. There is a penalty for getting yourself killed.

In this story, time passes only in response to your input, in fits and spurts. You might imagine a giant clock that ticks once per move, and the story progresses only at each tick. Nothing happens in the story while you are thinking and planning your next move, so you can plan your moves slowly and carefully if you so choose.

Beware the thief! He is a dastardly anti-social type and a skilled pickpocket. Watch out for your possessions when he is near. On the other hand, he has a permanent interest only in your valuables, not in other things you may be carrying.

COMMANDS FOR EXPLORING

The best way to move from place to place is to type the direction you want to go, as though it were a verb. Acceptable directions are N (north), S (south), E (east), W (west), NE, NW, SE, SW, U (up), and D (down). When you enter a particular place (any kind of a place is called a "room") for the first time, ZORK normally displays the name of the room, a description of it, and then descriptions of any interesting objects in the room that you might want to do something with. When you go back to a room at later times, ZORK normally displays just the name of the room and the names of the objects in it. The "verbose" command tells ZORK to show the descriptions of rooms and objects every time, not just the first time. The "brief" command tells ZORK to return to the normal mode. For moving through areas

you already know well, the "superbrief" command tells ZORK to show only the name of a room (even on your first visit there), and not even to mention objects. You can always get a description of the room you are in and the objects in it by typing "Look" (or the abbreviation "L").

Experienced adventurers always make a map of newly-explored territory, so that they have a better chance of not getting lost. Copies of the authors' map of the Great Underground Empire - Part I will be available in the future. If you would like to be put on the mailing list for announcements of maps, hints, and other products, send your name and address to Infocom, Inc., P.O. Box 120 Kendall Station, Cambridge, MA 02142.

#### OTHER COMMANDS

"Inventory" (or the abbreviation "I") describes your possessions.

"Diagnose" describes your state of health.

"Score" shows your score (perhaps deflating your ego), the number of moves you have made, and your rank as an adventurer. (The first two of these may also be displayed on the status line of your screen.)

"Quit" (or the abbreviation "Q") stops the game. You might want to "save" first.

"Restart" starts the game from the beginning, in case you are hopelessly lost or wounded.

"Save" saves the state of the game for future playing, and "Restore" restores a previously-saved state. These two commands provide the mechanism for you to continue a game over many sessions. For more information, see above.

"Script" starts printing a transcript of your dialog with ZORK to a file. The first time you give this command in a game, you will be asked for a file name as for "save". You can use any device, but under RT-11 or HT-11 the device handler must have been previously LOADED (or be the system disk device).

"Unscript" stops printing to the transcript file.

"Wait" causes time in the story to pass.

"Version" shows the release number and serial number of your copy of the game. These numbers are important in reporting problems with the game.

"Again" acts as though your last sentence were repeated again.

### COMMAND FILES

Anytime you are being prompted for input with a caret (>), you can tell ZORK to take input from a command file. Do this by typing an at-sign (@) as the very first thing on a line. The rest of the line will be ignored and you will be prompted for the name of a command input file, as for "save", but with different defaults. Input will then be taken from this file until the end is reached, after which input will again be taken from your terminal. The file may contain anything that you could type to a caret prompt.

### CONCEPTS

Some things that you can do with objects in the story are not immediately obvious.

Containment: Some objects, called containers, can contain other objects. Some containers can be opened or closed, and some are always open. Some are transparent, and some are not. Most containers have a limited capacity, and all objects have sizes, so that it is possible to fill up containers. Similarly, some objects have surfaces on which other objects can be placed.

Fighting: Characters in the story will, as a rule, fight back when attacked. They may in some cases attack you unprovoked. Some of these beings are stronger than others; it might be advisable to wait a while before taking them on. Coming off second-best in a fight may leave you somewhat the worse for wear; the "diagnose" command will tell you your condition.

Vehicles: There are objects in the story that have the ability to transport the fearless player to mysterious regions that are inaccessible on foot. Needless to say, one faces great personal peril in venturing into such regions.

Directions: The passages that connect rooms in the Great Underground Empire sometimes twist and turn unpredictably. You cannot expect, after going north, that you can then go south and end up where you were before.

A LAST WORD

There are very few rules for playing ZORK games, once you understand what the English analyzer can and can't do. The only guidelines that we offer here are quite simple.

- \* If your plan might work, try it!
- \* If it doesn't work, try something else!
- \* Even if that doesn't work, you might at least get an interesting response!
- \* Have fun!

APPENDIX: SUMMARY OF COMMANDS

"Again" acts as though your last sentence were repeated again.

"Brief" tells ZORK not to show descriptions of the room and objects in it when you enter a room.

"Diagnose" describes your state of health.

"Inventory" (or "I") describes your possessions.

"Look" (or "L") describes your surroundings, a combination of "room" and "objects".

"Quit" (or "Q") stops the game.

"Restart" starts the game from the beginning.

"Restore" restores a previously-saved state of the game.

"Save" saves the state of the game for future playing.

"Score" shows your score, the number of moves you have made, and your rank.

"Script" starts printing a transcript on the printer.

"Superbrief" tells ZORK to show only the name of a room when you enter it.

"Unscript" stops printing a transcript on the printer.

"Verbose" tells ZORK to show descriptions of the room and objects in it when you enter a room.

"Version" shows the release number and serial number of your copy of the game.

"Wait" causes "time" in the story to pass.

"[a direction]" makes you go in that direction.

"@" starts input from a command file.



