Introduction to the ZOZ

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Introduction to ZOZ

Chapter 1: Introduction

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Welcome to ZOZ!

I hope you enjoy this presentation!

There are two projects here, called WIZ and ZOZ. You might say WIZ and ZOZ are the same thing, but described from two different points of view. The ZOZ is a computer which spans our entire galaxy, and a WIZ is a small piece of it. Their relationship might be like a drop of water is to an ocean: A WIZ is a tiny piece of the ZOZ, and the ZOZ is a huge expanded WIZ.

The ZOZ documentation here is very non-technical. I have tried to write it so that a ten-year old with very little knowledge of computers could understand it. The WIZ is much more technical and will be described in a separate set of documents.

I present the ZOZ to you here in what I think is just the right order so that each new term is defined as I introduce it, and each new idea sets you up for the next. It is therefore extremely important that you read these pages in the order given, and without skipping past anything.

The ZOZ is very different from any computer system you may already know about. I am introducing a number of new ideas here, and if you enter any part of the discussion in the middle you will not know what I'm talking about!

Thanks for being here, and please: read on!

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Chapter 2: Definitions of ZOZ

"The first thing that should be sorted out on any operation
is the intention or the goal. That was a practice of the
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"The primary requisite of cause is a statement of intention and goal...
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Introduction to ZOZ

Chapter 2: Definitions of ZOZ

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--- L. Ron Hubbard, from the lecture "Games/Goals" of 12 Dec 1952.

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The ZOZ is a single computer system made up of zillions of ZOZ Objects located all over the planet -- and soon, the Galaxy.

A ZOZ "Object" can be any physical object which contains any mechanical or electronic device which can input and/or output data.

Inside every ZOZ Object is a ZOZ "Tap", a tiny, special purpose electronic circuit or chip which connects to the device inside the Object, and also connects to (or "taps into") the ZOZ "data stream" outside the Object.

The ZOZ "data stream" is a galactic-scale communication channel (using radios, wires, etc) which connects to all ZOZ Taps and allows data to flow between them.

Thus the ZOZ consists of a large number of Objects, with Taps, located throughout the galaxy, and the communication channel through which they can all exchange data.

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Every ZOZ Tap has a unique serial number which identifies it and the Object it sits in. This serial number is assigned when the Tap is manufactured and is unique in all the galaxy.

Almost anything can be a ZOZ Object. They can range in size from microscopic electronic circuits to toasters to things the size of an entire planet.

The ZOZ Tap in every ZOZ Object converts the object's data into a standard digital format suitable for interchange with other Taps inside other ZOZ Objects in the ZOZ data stream.

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A zillion ZOZ Objects all over the galaxy and all connected to each other will just sit there and do nothing until someone or something instructs the ZOZ to *do something* with them.

The ZOZ has one main function, and that is to contact one pair of Objects, via their Taps, and get one of them to output a single "datum", which it then transports across space and delivers to the other.

The "datum" that is transported is a single number of any size. It could be as short as a single digit or longer than a zillion digits.

This process, of taking a datum output by one Object and transporting that datum across space to a receiving Object, is called a "communication".

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A ZOZ communication can only be initiated by a human or a machine created by and acting on behalf of a human.

A communication is initiated by inserting a ZOZ "Instruction" into the ZOZ data stream via any Tap.

A ZOZ "Instruction" is a pair of numbers which are the serial numbers of the sending and receiving Taps. For example, this is a ZOZ instruction:

    26853 , 3386522

This instruction causes the ZOZ to contact Tap # 26853 and get from it one datum. The ZOZ then transports that datum across space, and delivers it to Tap # 3386522.

These two Objects could be a billionth of a millimeter apart or on opposite ends of the galaxy. Wherever they are, the ZOZ will find them and communicate the datum between them.

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IN SUMMARY THEN:

ZOZ is a zillion

Objects	located all over the galaxy, each with a
Tap	linking it to the
Data stream	and executing
Instructions	from humans which cause desired
Communications	between Objects.

And there you have it: Objects, Taps, a Data stream, Instructions, and Communications.

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Chapter 3: Simple Examples

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Imagine this object: a plastic button. It is about the size of a coin and has a simple mechanical switch inside it. When you squeeze the button the switch turns on, and when you squeeze it again it turns off. Also inside this button is a small Tap chip, serial #12345, with a battery and a radio.

Whenever the ZOZ asks for a datum from it, this Tap outputs a single number: 1 if the switch is on and 0 if it is off.

Now imagine another object: a light bulb, with Tap #5522 in it. When this Tap receives a datum of 1, the light turns on; or if it receives a 0, the light turns off. The light then stays in that state until another datum arrives.

By themselves, they just sit there. Click the button all you want, nothing happens. But suppose we give the ZOZ this instruction:

```
12345 , 5522
```

This instruction causes one datum to be output from the button (#12345) and delivered to the light bulb (#5522). Now if the button is in the ON position at the same moment this instruction is issued, the button's Tap outputs a 1, the ZOZ transports that 1 to the light, the light receives the 1, and the light goes on. Or if the button is in the OFF position at that moment, a 0 is output and the light goes off.

You could glue this button onto a wall near the light, or stick it in your pocket and travel to the planet Jupiter. Pressing it there will still cause the light back on Earth to turn on or off when this instruction is executed.

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Suppose we have a thermometer object. Inside it is an electronic circuit that measures temperature, and a Tap, serial #13579, with a battery and radio. When contacted, this Tap outputs a number from 0 to 100, representing its thermometer's temperature in degrees Celsius.

And suppose there is a fan, with Tap serial #2468. If given a number from 0 to 100, this fan will spin at that percentage of its maximum speed, from 0% (off) to 100% (full on). And it will continue to spin at that rate until another number is given to it.

Suppose we then introduce this instruction into the ZOZ:

```
      13579 , 2468
```

At that moment the ZOZ will get the thermometer to output its temperature -- it will then transport that number to the fan -- and the fan will then spin at that speed. For example, if the temperature were 22 degrees C, then the fan would spin at 22% of its maximum speed.

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Instead of a pair of serial numbers, an instruction can also consist of an "absolute" number and a serial number. An absolute number is a number indicated with parentheses around it, and tells the ZOZ to use the actual number there rather than the Tap with that number. For example,

(50) , 2468

This causes the fan to spin at its 50% rate.

Putting the 50 inside parentheses like this tells the ZOZ to deliver the actual number 50 to the fan. We do not want the ZOZ to go find Tap #50 to get a datum there. The datum we want transported to the fan simply *is* 50.

Only the source of an instruction can be an absolute number; the destination must always be a serial number.

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We can also have a ZOZ object with more than one Tap.

Let's consider a musical speaker object, serial number 4840. You route a number to it and it will play a musical tone at the frequency of that number. For example, the middle C on a standard piano vibrates at 261.6 cycles per second. Thus, to play a middle C, we can do this:

```
(261.6) , 4840
```

We can also tell this speaker how loud and for how long notes are to be played. It has two more Taps, serial numbers 4841 and 4842. Tap # 4841 accepts a number from 0 to 10 to tell it the volume (on a 0 to 10 scale, 10 being the loudest), and Tap # 4842 accepts a number in seconds to say how long to play notes. For example:

```
(5)     , 4841
(3.4)   , 4842
(261.6) , 4840
```

This sets the volume to medium, (5 on a 10 scale), the duration to 3.4 seconds, and then commands a middle C at that volume for that duration.

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On a much larger scale, a city could be a ZOZ Object, with taps that provide information about the city, like its location, current weather, and when is a good time to visit.

On a much smaller scale, imagine a microchip with a number of circuits, each a few millionths of a millimeter in size, and each with a microscopic ZOZ tap connected to a microscopic ZOZ data stream flowing through the chip.

Many more examples will present themselves in the following pages. Read on!

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