These are conversations and debates with Go2Zero supporters. Alan Dechert is the creator of the Global Era Calendar which he hoped would be used starting this year to eliminate the religious connotations of our current AD/BC system, and begin with Year 0, so all the millennia and centuries begin in the "0" year, such as 2000, instead of the current 2001 year. The first 4 files that are primarily posts from me and Alan. Files 5 and 6 contain posts from other people, as well as myself about this and other related subjects. My correspondence is in **Bold** lettering, people other than Alan are in Blue.
****

(Sent via e-mail on 1/16/00)

Hi. I saw your URL in the same Christian Science Monitor article that I was interviewed for, and thought I would write you.

All religious connotations aside, you overlooked one thing about Year Zero -- by the basic definition of zero. When it comes to counting any type of object (tangible or intangible), it is impossible to count it as zero. You make a lot of hoopla about starting a new calendar with year zero -- are you also taking into account month zero and day zero, or are you starting with 1 in each of those counting categories, as is actually proper?

Unless you change the foundation of basic mathematics, you can huff and puff all you want about year zero -- but it will still be wrong. By the way, I have a hundred dollar bill I need broken down into singles. Can you send me 101 (by your use of zero, you have to send me 101 in order to reach $100).

BJWyler
The Real Millennium Group (TM)
www.RealMillenniumGroup.com
"The true measure of a man is the ability to look beyond personal desires and uncover the Truth."
-- Hanok Odbrook

Subj: Re: Basic mathematics precludes zero
Date:1/17/00 3:26:30 AM Eastern Standard Time
From:alan@go2zero.com (Alan Dechert)

Nope. Zero is used all the time as an ordinal in computer science. You have a zeroth sector on the zeroth cylinder on your harddrive. Welcome to the computer age. If we listened to arguments like yours, there would be no computers.
--Alan Dechert

Subj:Re: Basic mathematics precludes zero
Date:1/17/00
To:alan@go2zero.com
You are correct -- but counting years is a completely different mathematical principle than computer ordinals, as you will see. Perhaps my $100 bill example didn't clearly explain the

simple mathematical basic.

First, the definition of zero: 1) The point, marked 0, from which quantities are reckoned on a graduatedscale 2) Nothing. Take notice of the second definition. This is the one that primarily applies to our counting system. The first definition applies to systems such as Coordinate Axes, Thermometers, and the like that either begin at point zero, or use zero as the divider between positive and negative values. Since counting is a linear system, we cannot begin with zero because zero cannot be used to identify an object in a linear counting system. Since our most basic counting system -- assigning a numerical value to an object to add up, unit by unit, to get a total, precludes the use of negative numbers and zero; we cannot use zero as the boundary, or starting point.

Anything can start at point zero -- such as a race. But the race does not begin until we begin to add up a specified amount of time. You can break it down as small as you want, but the number 1 is assigned to the first value of whatever amount of time you are quantifying. That is all we are doing with seconds, minutes, hours, days, weeks, months, and years.

A baby from the day it is born to the exact same time a year later is zero years old, by combined definition of zero and year. But that only applies when we are counting the number of years a baby has. Since it does not have a full year (a period of 12 months) until its first birthday, the zero applies; just as if we were to count whole apples in a basket, and add quarter slices to the basket at a time, there are zero apples until four quarters are in the basket. Of course, we need to count the quarter slices, so we know when we reach a whole apple, therefore we still have to start with 1 -- 4 quarters make a whole, each one needs to be labeled 1, 2, 3, 4. Each quarter is part of the first apple. As soon as the apple is complete, we assign a number to it in order to use the number to come to a total (as we did with the slices). That number must be 1, by definition of our basic mathematical counting system. Each slice, by itself is not an apple, but taken together, for the purposes of differentiating this apple from all the others that are in the basket, and will be added in the future, we must consider each slice part of the whole, and a single numerical value is given it.

If we are to listen to you, we wouldn't be able to count anything at all, because until something is completed, it is nothing (zero) to you. That means all the half apples in the world have no meaning, or existence. Remember, a portion of anything is part of the first count of that item. This is the year 2000 -- but the 2000th year of our system is not complete until 365 days have completely passed. But in order to differentiate, mathematically, these 12 months from the previous 12 months and from the next 12 months, we assign the numerical value of 2000 to this linear set of 12 months, because it is the 2000th set (unit) in the system.

Answer me this. By your reasoning, if you were to give me quarters for my $100 bill, you would have to give me 404 quarters ($101), would you not? Which month is the "zeroth" month of your year? Does each month in your calendar start with the first day (Day 1) or the "zeroth" day (Day 0)? When a recipe calls for 2 1/2 cups of flour, do you ignore the last 1/2 and only put 2 in?

You can give me all the examples you want of how zero is used in different mathematical systems and equations, but that proves nothing beyond the fact that we can use advanced mathematical principles. That doesn't change the fact that the simple mathematical principle of counting does not use zero, and nothing more applies to our system of counting years, no matter how much you would like it otherwise.

Again, I state unless you are prepared to change the basic laws of our mathematical system (which is dictated by the basic laws of the science of the universe), and start counting dollars, apples, cups of flour, and a set unit of time (or any object) by assigning zero to the first respective object, then your calendar is nothing more than a bad math student's drunken nightmare.
BJWyler
The Real Millennium Group (TM)
www.RealMillenniumGroup.com

Subj: Re: Basic mathematics precludes zero
Date:1/17/00 3:32:08 PM Eastern Standard Time
From:alan@go2zero.com (Alan Dechert)

<<Alan, You are correct -->>
Thanks. Glad you see that.

<<1) The point, marked 0, from which quantities are reckoned on a graduated scale 2) Nothing. Take notice of the second definition. This is the one that primarily applies to our counting system.>>
Wrong. The first definition is applicable. Time is a scalar quantity.

<<Anything can start at point zero .....>>
Your analysis is wrong. In any case, it is irrelevant. If people choose to adopt "Year Zero" they are perfectly free to do so quite apart from what any pedants have to say about it.

Why don't you argue the fact that December begins with "Dec" which is a prefix meaning "ten." It used to be that December was the tenth month. Now it's not. So the name is wrong. Do you care about that? Does anybody care?

<<A baby from the day it is born to the exact same time a year later is zero years old, by combined definition of zero and year.>>
This supports the year zero notion. when a baby is born, it is zero years old. It is the baby's year zero. Normally, we don't say it that way, but the year zero is clearly implied. When a baby is six months old, we say "six months" when asked how old the baby is. The "zero years" part is understood. They don't get a "one" until the zeroth year has passed.

Anyway, Jim. I have been debating these issues for almost 4 years now. I guess you just heard about the year zero idea. Your responses are thoughtful but I can't afford to spend time on private debates. If you want to debate publicly, I suggest you join one of the online discussion forums.

I've heard all the arguments a million times. You're not going likely to come up with anything new. If you're interested in some of the arguments going back to may 96, see the Talk 2000 archives at: http://www.escribe.com/history/2000ad/
You can also read discussion from the CALENDR-L list and also Usenet.
Be sure to see my current newsletter at http://www.go2zero.com/newslet.htm
--Alan Dechert

One slightly more specific suggestion on debating this issue that I didn't mention: If you read my newsletter (at http://www.go2zero.com/newslet.htm) You'll find a link in the introduction where I say

"As one writer on the Internet ...." If you click on that, this will put you into a live discussion the began with a recent post from me blasting Gary North. Click on the "Thread " Tab and you'll see all the responses. Feel free to join in anywhere you like. I'll try to respond to you there.
When you find a post to respond to, just click on the "post reply" button and you'll be prompted to register (create username and password), then you'll be all set.

Don't expect any more private responses from me to your comments. Please post them so others can gain from the discussion.
--Alan Dechert

****

Problems of having a Zero Year
Author: bjwyler <bjwyler@my-deja.com>
Date: 2000/01/17
Forum: comp.software.year-2000
I was sent in this general direction by Alan D., but was unable to find a button to post a new message, for this I apologize, but I would like to finish the debate I was having with Alan through e-mail. He stopped answering my e-mail just as I was getting to the crux of my arguement, either due to lack of time, or not being able to refute my points. I am hoping he answers here. The following picks up where he stopped in the e-mail.

(The remainder of the message is a repeat of the e-mail from 1/17/2000, with a couple of additions. I have posted only the additions here, with the surrounding text, to conserve space.)
... in order to differentiate, mathematically, these 12 months from the previous 12 months and from the next 12 months, we assign the numerical value of 2000 to this linear set of 12 months, because it is the 2000th set (unit) in the system. {*this portion added for this post:* **If we were to consider the scalable quantity of time for our year numbering, as with the above baby example, we would not be able to call this year 2000. We would all have to write on our checks: 1,999 years and 15 days. On June 20th, we would have to write: 1,999 years, 5 months, and 20 days.**}

When a recipe calls for 2 1/2 cups of flour, do you ignore the last 1/2 and only put 2 in? {*added:* **What is the definition of "zeroth?" A couple of definitions for first are: Coming or located before all others; Prior to all others; earliest; Foremost in importance or quality; before or above all others in time or rank; the ordinal number that matches the number 1 in a series; the beginning.**}

****

Problems of having a Zero Year
Author: bjwyler <bjwyler@my-deja.com>
Date: 2000/01/18
Forum: comp.softwar.year-2000
This post is to respond to Alan's comments from the first half of my e-mail. Only Alan need to respond to the message, since we seem to have a desire to learn from one another and not waste time with idiotic, nonsensical posting. Anyone having a problem with that can e-mail me from my web site, and we'll discuss suitable medications for your problem.

How is my analysis wrong, and even more, how is it irrelevant? I am just stating the basic facts of mathematics, and their definitions. If the system is wrong or irrelevant, we have more to worry about in the world than creating a year zero, just so the simple-minded can have a nice round-numbered millennium to celebrate. People ARE free to make a choice to adopt a "Year Zero", just as we are free to adopt a "Year Sprrintskdlkgjhse." (An obscure form of Pig Latin I have

recently uncovered). However, they are not free do to so "apart from what any pendants have to say." In order to adopt a new calendar, the countries of the world must agree to use it, in order to continue trade and communication with each other. That is the primary reason the Gregorian has been widely accepted now, countries with their own systems have been forced to use it in order to do business with the rest of the world. So us pendants have the final say.

As for the meaning of December -- what does that have to do with the basic system of math precluding the adoption of a year zero? Of course it's wrong. If a movement is formed and accepted to change the names of September, October, November, and December to correspond with their current position in the calendar, I have no problem with it. But is it going to happen -- I doubt it.

I have always been in favor of a more accurate calendar, such as the proposed World Calendar in 1961 -- but change of this kind of magnitude has always been strongly opposed. We must also remember that any true solar calendar will always be wrong eventually -- the revolutions of the earth around the sun is slowing, so any calendar based on this movement will have to be corrected somewhere down the line.

As for the baby argument, I left out an important notion. The baby is zero years old, but that period of 12 months is the baby's FIRST year of life. See the definition of first in my first post to this board to see why it can't be called Year 0 of the baby's life.

I have just learned about your idea, through the CSM article, but as for finding something new, maybe I have, and maybe I haven't. I really don't see the need to find something new when the very old basis of our universe (science and math) completely negates any argument for a Year 0 you might have.

Re: Problems of having a Zero Year
Author: adechert <adechert@my-deja.com>
Date: 2000/01/19
Forum: comp.software.year-2000
<<... He stopped answering my e-mail just as I was getting to the crux of my argument, either due to lack of time, or not being able to refute my points.>>
Not quite accurate. I couldn't reach many people if I spent all my time debating people in private email messages. If people want to debate me, it has to be in public. Besides, if any new points can be made or clarified, don't you agree it's good to share that? As for "not being able to refute" your points, this is nonsense. I refuted all your points--which wasn't much.

Not this baby argument again!? You are seriously confused. I already explained this to you and now you add even more screwed-up logic. Clue one: time (like distance) is measured as a scalar quantity. Apples and oranges are discreet quantities. Do you know the difference? From your example, it does not appear that you do understand the difference.

Let's put it this way: suppose you were required to enter some information about you and your family into a computer. And suppose this application prompted you for the age of your family members in years and months, with separate entry fields for years and months. And, suppose you have a child that is 5 months old. Question: for your 5-month-old, what do you put in the years field? Probably you would put nothing. But if the field required an entry, you'd have to put zero. The child is zero years and

5 months. In years, the child is zero years old.

The way we handle this is the same as I am suggesting for the calendar. The 5-month-old is in its zero year. Its zeroth birthday is the day the child was born. We say the child is "one" after having lived for one year. This is not the way calendar year-numbering has been done in the past. Year one has usually been recognized before one year on the calendar has actually passed. You are confusing the way we count the age of people with the way we have traditionally numbered years on a calendar. Traditionally the two systems have been different. Actually, what I am proposing is that we do the year numbering on the calendar the same way we number our years of life. The only difference is that before a child reaches the age of "one," the "zero years" part is understood. We don't normally say, "the child is zero years and five months."

<<Of course, we need to count the quarter slices, so we know when we reach a whole apple, therefore we still have to start with 1 -- 4 quarters make a whole, each one needs to be labeled 1, 2, 3, 4....>>
Now you shift to discreet quantities. Here again, you have no point of any value. As I pointed out to you earlier (by email), we use zero as an ordinal quite often in computer science.

<<If we are to listen to you, we wouldn't be able to count anything at all, because until something is completed, it is nothing (zero) to you. That means all the half apples in the world have no meaning, or existence.>>
Nope. If we listened to you, we wouldn't have computers.I see, you have started your own school of logic.
You need to go back and review the baby example. You blew it! Are you claiming that we count our ages the same way the calendar works? If you think so, you are simply wrong. Incorrect. You goofed.

We start at a zero point with scalar quantities. With discreet quantities, we usually start with one. Even then, we may elect to (and often do in computer science) start with zero with no logical difficulty. The only difficulty for you, it seems, is that it is something you're not used to. You are not very convincing. You're talking in circles.

<<Again, I state unless you are prepared to change the basic laws of our mathematical system (which is dictated by the basic laws of the science of the universe), ...and start counting dollars, apples, cups of flour, and a set unit of time (or any object) by assigning zero to the first(see above def.) respective object, ... then your calendar is nothing more than a bad math student's drunken nightmare.>>
Wow! You sound really really authoritative here. Do you have some super-advanced understanding of math and science? How about let's get some peckers on the table here. You know, there are several mathematicians in this ng and at least one former math professor.
Question: what are your credentials?

BTW, I know a little bit of math myself having had advanced calculus at the University level. My last math course at UC Berkeley was linear algebra (I got an "A"). Do you know linear algebra? I believe you're really really good at counting apples and oranges, but do you know anything about n-space?You seem really really sure how to count dollars, apples, etc. This has nothing to do with calendars, however.

Again, you allude to some academic superiority. Somehow, you don't really sound like a math or science authority. Maybe you can impress us with your credentials.
--Alan Dechert
****

Re: Problems of having a Zero Year
Author: John Barron" <news at europa dot demon dot co dot uk>
Date: 2000/01/19
Forum: comp.software.year-2000

In computer science, it is usual to start counting from zero, not from one. Counting from one is a nuisance (perfectly possible, but introduces unnecessary complexity for our purposes). Quite often, computer scientists get so much into the habit of counting from zero that we tend to do it for everything, even real-world artefacts which are usually (by custom and practice) counted from 1. Works just as well - it's only a variation on exactly the same theme.

The reason we tend to count from zero in computer science is (I think? - confirmations please from other computer scientists?) that we also tend to count in modulus arithmetic most of the time. So we tend to say the succeeding number after some arbitrary limit (e.g. 255/ hex FF) is 0, rather than 256, just as the succeeding number to 6 is 7. That's why it's a nuisance if we go from 1 to 256, rather than from 0 to 255, because our modulus arithmetic starts to be hard work if 1 is the successor to 256. Some real-world concepts, like the time (0 to 23 hours on a 24 hour clock), and years (0 to 99 years in a century - 0 follows 99) are used like this by custom and practice anyway. We have no difficulty as humans with the idea of dealing with 00 as representing this year, not 1900 (assuming we've got some contextual idea that it's probably a date somewhere in the vicinity of now).

Admittedly computers can have bugs in them in this regard, which is why this forum exists, although this is quite a nice illustration of why a computer system is not _automatically_ Y2K non-compliant if it uses two-digit storage for years. What's specifically non-compliant is incorrectly applying non-modulus integer arithemetic (0 subtract 99 = minus 99) rather than correctly applying modulus 100 positive integer arithmetic (0 subtract 99 = plus 1).

The only 'in principle' reason for needing more than 2 digits for the year is if a system compares dates which span more than a single century. For this reason, as has been pointed out before, there are systems that quite contentedly use single digit storage for dates, indicating mod 10 the year relative to a decade. Those roll-over fine at the end of each decade, as well, as long as the arithmetic applied is correct.

BTW, I do realise that there are good reasons for using four-digit storage now, such as the fact that there is next to no cost in extra storage, and for cosmetic reasons it may be preferable to output (although probably not to input!) four digits for a year. 01/02/2000 is clearly better for us than 01/02/03, given the difficulty of determining MDY/DMY/YMD context, even though computers are technically quite able to cope fine with either form. I'm simply pointing out that four-digit years for computer storage are a preference we want to exercise, rather than an 'in principle' necessity. Hope that adds something to this thread...
****