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Electrical Science

Electrical behavior is the Root of the Uni-Verse (√-1).

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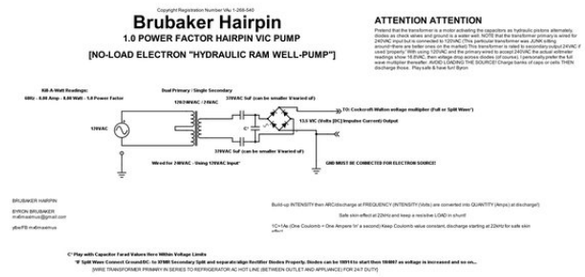
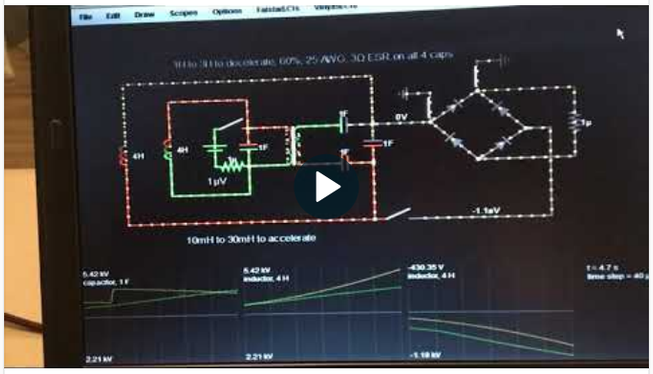
Vin Yasi · Follow
Self-taught hobbyist at Electrical Engineering (2013–present) · Updated 1m

I took Byron Brubaker's Hairpin circuit...

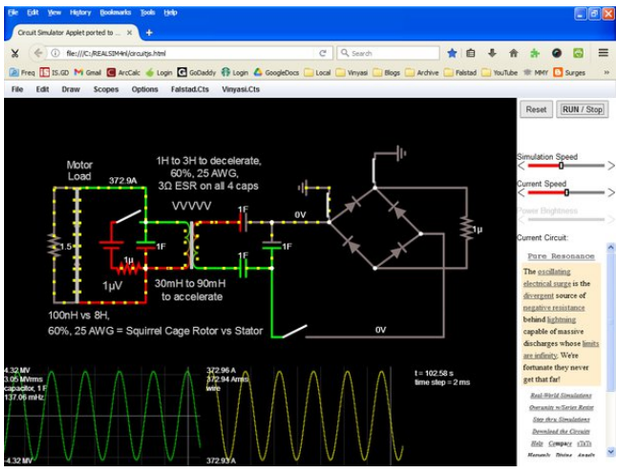


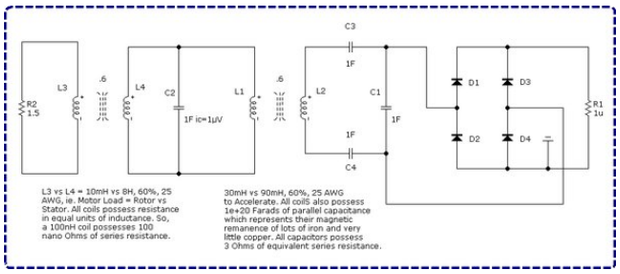
...and made my own revisions to accommodate two simulators, a modified version of Paul Falstad's (realsim, below) and Micro-Cap (a flavor of Berkeley SPICE from Spectrum-Soft).

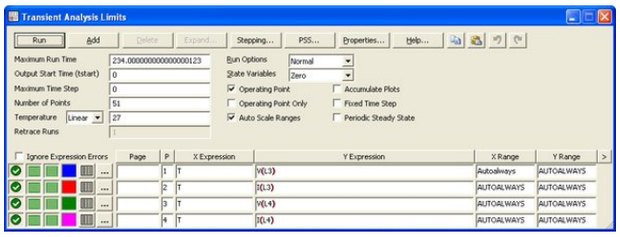


Parallel (parasitic) capacitance within an inductor only helps the inductor when it is involved in a situation of mutual inductance - passing energy back-and-forth between itself and the other inductor. And the inductance has to be above a minimum of 10 milli Henrys (1 milli Henry is not enough to create overunity during the transfer of energy between the two inductors)...

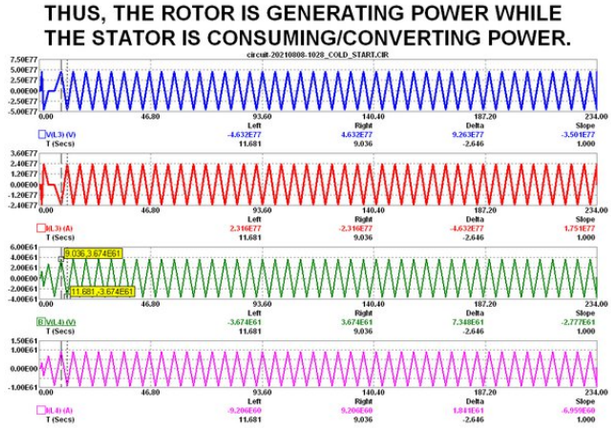
Here's a screenshot...

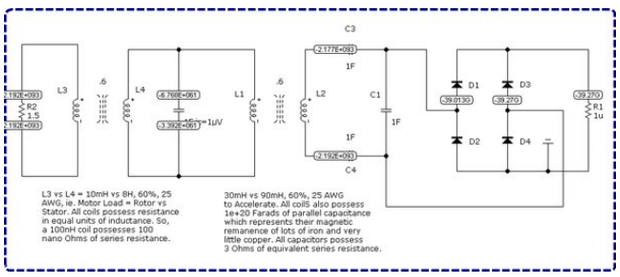






THE ROTOR'S VOLTS AND AMPS ARE OUT-OF-PHASE BY ONE-HALF CYCLE OF OSCILLATIONS, OR 180°. THUS, THE ROTOR IS GENERATING POWER WHILE THE STATOR IS CONSUMING/CONVERTING POWER.





This simulated experiment verified to my satisfaction that the magnetic remanence of Paul Falstad's model of a transformer (which can pass DC) is *effectively* analogous to the Berkeley SPICE parameter of parallel capacitance inside of the same transformer coil which is intended to exhibit magnetic memory and suppress back EMF...

> **Transformer w/ DC**
> An ideal transformer (with sufficiently large inductance and sufficiently low resistance) can pass...
> http://www.falstad.com/circuit/e-transformerdc.html

I took Paul's circuit, above, and modified it...

> **Circuit Simulator Applet ported to JavaScript by Iain Sharp, from the original in Java by Paul Falstad, Used Here to Promote the Simulation of Surges Arising from the Judicious Use of Negative Resistance.**
> http://vinyasi.info/ne?startCircuit=is-this-realistic.txt

shortcut...

https://is.gd/isthisrealistic

...asking this question to myself, and to him, since neither of us knew the answer at the time (a few years ago).

But, now, I know what it is. He has modeled his transformer cores from solid iron suitable for perpetual motion holder experiments which Edward Leedskalnin has made popular and also commercially used inside of computer core memory dating from 1955 until 1975. Present day transformer core material is not solid iron, but is a matrix compressed from powdered ferromagnetic material plus a binder (glue) which suppresses eddy currents, boosts coercivity and severely reduces magnetic remanence causing us to surmise that: "it's not possible to transfer DC through a transformer" when the reality is that: "we refuse to let it happen."

If DC transfer is encouraged, then its only opportunity is in the midst of each half cycle of oscillations.

If AC gets transferred, then it may only occur during the polarity shift in between each half cycle of oscillations.

Hence, there is more time available for the transfer of DC across a transformer's core material then during the break in between each half cycle of oscillations when a polarity reversal is taking place. And suppression of DC transfer encourages back EMF since there is no DC to suppress it.

Someone on the internet has posted his opinion that if back EMF were to be eliminated, overunity would automatically occur. Maybe not a lot of overunity, but definitely more than unity of coefficience of performance, ie. more energy exiting a circuit than what we have to feed it.

So, my instructions to you (for replicating my virtual experiments) are...

Go to here...

Circuit Simulator Applet ported to JavaScript by Iain Sharp, from the original in Java by Paul Falstad, Used Here to Promote the Simulation of Surges Arising from the Judicious Use of Negative Resistance.

http://vinyasi.info/realsim

and load...

circuit-20210810-1711.circuitjs.txt — just beginning to surge, 8/10/2021, 5:11 PM

...versus...

circuit-20210810-1728.circuitjs.txt — precharged, 8/10/2021, 5:28 PM

May also work in...

Circuit Simulator Applet ported to JavaScript by Iain Sharp, from the original in Java by Paul Falstad, Used Here to Promote the Simulation of Surges Arising from the Judicious Use of Negative Resistance.

http://vinyasi.info/ne

...and maybe...

Circuit Simulator Applet

http://falstad.com/circuit/

...maybe with adjustments?

It was originally developed in...

Circuit Simulator Applet ported to JavaScript by Iain Sharp, from the original in Java by Paul Falstad, Used Here to Promote the Simulation of Surges Arising from the Judicious Use of Negative Resistance.

More info...

https://www.youtube.com/results?search_query=chris+bake+hairpin

https://www.youtube.com/results?search_query=chris+bake+hairpin

This zip file is at...

Upload files for free - Byron Brubaker Tesla Hairpin.zip - ufile.io

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https://ufile.io/dahfce70

...and at...

Mho's Law Justifies Free Energy, by Vinyasi - Monday, 26 July 2021

UPDATE...

I tested this circuit in Micro-Cap a few more times and got more data from which I derived the following conclusions (data, in the form of screenshots, follows)...

Overunity may be nothing more than a matter of perspective!

This circuit broadcasts its power to any coil, or wire, which is immediately adjacent to – alongside of – iron, or some other ferromagnetic material, because of its very high parallel capacitance inside of each coil. Needless to say, it is strange that the synonym for parallel capacitance is parasitic capacitance! And it is obvious that popular opinion is hinting at criticizing anyone for thinking that parallel capacitance could create free energy! Instead, it is popularly admitted that parasitic capacitance will destroy equipment without admonishing anyone to make bigger equipment and seek to regulate this destructive tendency of free energy to grow to infinite oblivion if left unchecked.

It is obvious that this discouragement, of popular opinion, is preventing anyone from investigating any further to discover that magnetic remanence is what is being hinted at. And furthermore, that this is effectively equivalent to a magnetic coupling way beyond unity despite the actual coupling is one percent of one percent in this example! I did not bother to find out if there is an actual minimum requirement of coupling coefficience. All I took the trouble to find out is whether or not a magnetic coupling is required, it is, but not how much minimum is needed for this circuit to continue to behave in this manner.

I'm beginning to see a pattern of behavior...

On several occasions, what I see happening is this...

Only coils (and spark gaps) can exhibit the generation of power and it is always reactive power, never real power.

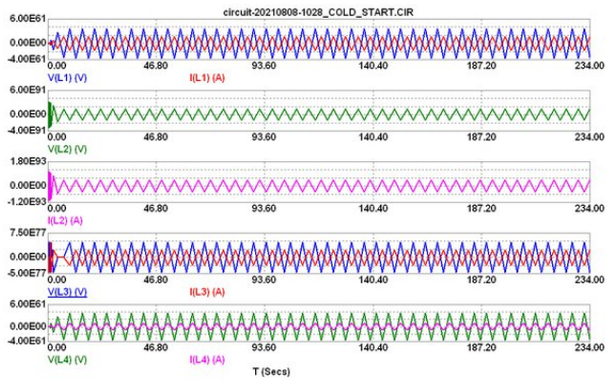
They need not move, ie. rotate. Thus, they are defying Michael Faraday's Law of Induction. And if they did move, they'd probably generate still more power than they are, already generating, constituting an escalation which might spiral out-of-control for all I know. This is speculation on my part, perhaps. But nonetheless, weird things are happening.

Furthermore, regarding the following screenshot (from zip file)... "Byron Brubaker Tesla Hairpin.zip" – located...

Upload files for free - Byron Brubaker Tesla Hairpin.zip - ufile.io

Download Byron Brubaker Tesla Hairpin.zip for free from ufile.io instantly, no...

https://ufile.io/tyk8hmhj



L1 and L3 generate reactance while L2 and L4 consume watts. The volts of L1 is in opposition to the watts of L2. The amps of L3 is in opposition to the watts of L4.

...in this circuit, another condition of the generation of reactive power is occurring.

Not only is the definition of self-induction exhibiting the generation of reactive power, but also the definition of mutual induction is also exhibiting the characteristic behavior of the generation of reactive power. In other words,...

Not only are the smaller of each pair of inductor pairs, L1 and L3, generating power, but they are also generating one-half of electricity relative to the other inductor of their pairing. And each pairing completes each other. So,...

The volts of L1 is in opposition to the watts of L2. And the amps of L3 is in opposition to the watts of L4. So, the mutual coupling of each pair of inductors, L1 coupled with L2, and L3 coupled with L4, are together building a total generation of power when we consider both pairs together as a singular unit of generation. Talk about co-ordination!

So, how do we build parallel capacitance into a coil of wire which is magnetically coupled to another coil of wire? By doing what Nathan Stubblefield did: wind insulated copper wire alongside of bare iron wire. Oliver Heaviside did this, as well, in the 1880s. But he laid it out as a straight transmission line of telegraph communications across the Atlantic oceanic bottom. And they did not replace his technique, which had been: to wind bare iron wire or ribbon around an insulated copper core, until 1956. What took them so long?

They waited until they realized that to not do it would jeopardize their monopoly of free energy. The powers that be want to keep us ignorant. So, they switched over to a new technique.

Instead of boosting the magnetic field – which tends to retard the (di-)electric field, they retarded the electric field so that it wouldn't get ahead of the magnetic field. This is the method used by the utility companies who manage their very lengthy transmission lines across the continent... Eric Dollard talks about this...

Eric Dollard - Origin of Energy Synthesis

http://EricPDollard.com - Join the growing number of supporters for Eric P....

https://is.gd/spacedisjunction

So, they installed (sank to the bottom of the Atlantic ocean) repeater stations of banks of capacitors just like they do on dry land. This way, no one would stumble upon Nathan Stubblefield's method, and Oliver Heaviside's similar method, of boosting the magnetic field by preserving it against decay.

So, if we wind iron wire against copper wire whenever we wind one or more coils on a transformer, we raise the surface of the iron core up to surround each layer of windings.

Normally, we don't do this. Consequently, the surface of the core gets further and further away (ie. separated) from each subsequent layer of winding making it harder and harder to maintain a high coupling coefficience among the multiple coils which are perched on top of this core.

The whole point of the core is to unite the several coils which are wound on top of it. So, why don't we do as Nathan Stubblefield did and elevate the core to engulf all of the layers of windings instead of merely engage the first layer? I don't know...

Parallel capacitance does this, automatically. This is why there is no need to possess any specific coupling coefficience since any value of coupling will be overridden by the value of the parallel capacitance. Yet, we do need some coupling, but how much do we need to minimally possess? Again, I don't know...

There is one more asset to parallel capacitance...and that is...that it is equivalent to magnetic remanence.

So, not only is the coupling coefficience irrelevant due to the presence of parallel capacitance, but also due to the massive iron which we couple to the core to increase its effective mass despite this additional ferromagnetic material being held outside the boundaries of the core (which is restricted to the boundaries defined by the inside diameter of the first layer of windings).

This additional core mass is what we want to build to exhibit parallel capacitance in the coils associated with it.

This is still not enough...

We want to increase efficiency by turning the standard model for a transformer inside-out by putting a copper tube in the center of the winding (to act as its core) and surround this hollow core with an exclusive winding of iron wire. This copper tube has two hollow spheres perched at either end whose interiors are connected to the interior of the tube. This interior is filled with helium and metallic (reduced) aluminum powder, or oxidized alumina (aluminum oxide) powder. This will add parallel capacitance to this winding's core in addition to the iron winding performing an equivalent function.

So, now, we won't have to have so much iron coupled to the core of the windings of this device. Such was the case with the Elektro-U-Boots of the World War II era which the German Nazi's used: a small fleet of conversions swimming around in the oceans of the world with a minimum range of 30k miles fueled by stolen Tesla technology involving the use of his Special Generator dated from 1895 when it was originally stolen from his lab with arson to hide their theft. The patenting, in Germany, that same year by a Carl Linde of Tesla's liquefaction of air device gives away their arson and theft. Many other technologies were stolen: Tesla's neutron bomb, his anti-gravity technology, and many others.

So...

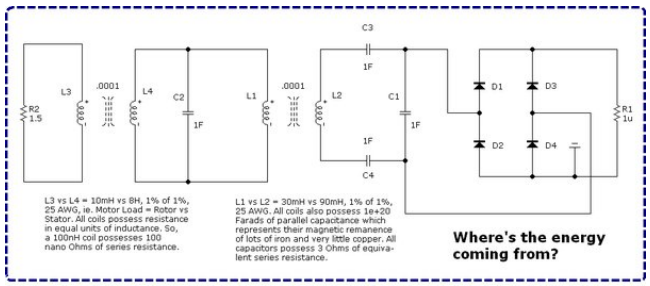
Why does the increase of the mass of iron, magnetically coupled to a transformer core, give us more power – analogous to the behavior of parallel capacitance?

It's a matter of perspective...

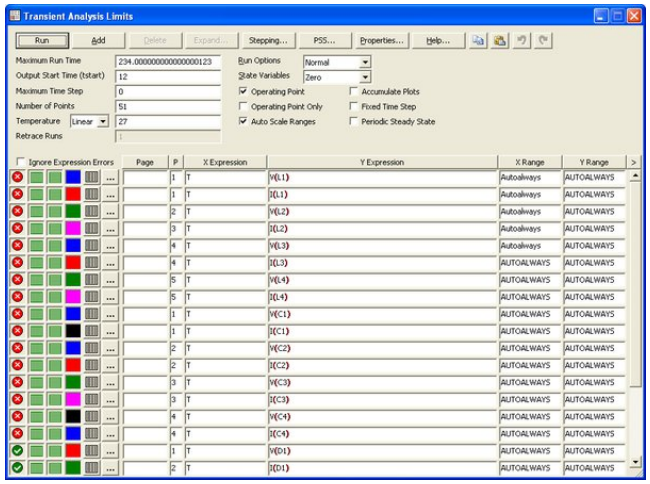
The larger is the mass of a planet nearby a much smaller planet, the greater will be their gravitational attraction despite not reducing their distance.

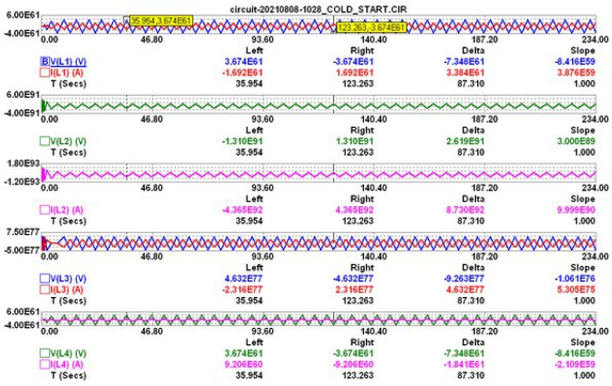
So, if the mass of iron – which is magnetically coupled to the core of a transformer – is increased, then it continues to dwarf the mass of the windings associated with it. Their layers of windings are no longer separated by any severe distance (whose distance would have caused a loss of coupling and, hence, a loss of analogous parallel capacitance). Hence, these windings get closer, and closer, to the core and are, eventually, engulfed by it. These coils become a footnote merely signifying their location in space and their association with the core. But it is the core which begins to dominate their behavior.

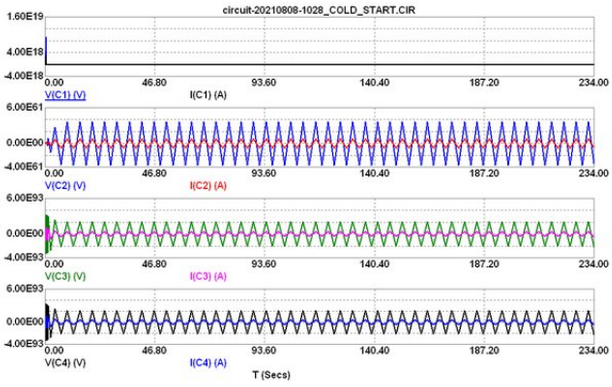
Here are the screenshots in addition to the most recent one up, above...

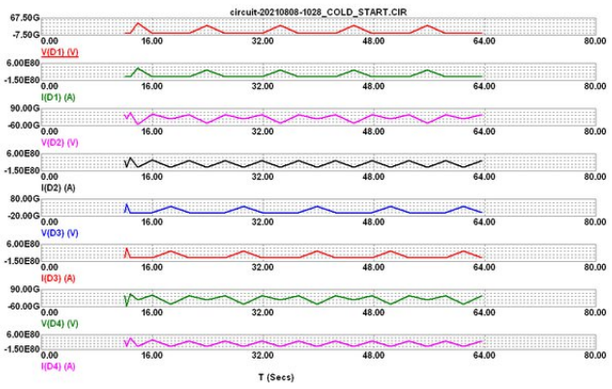


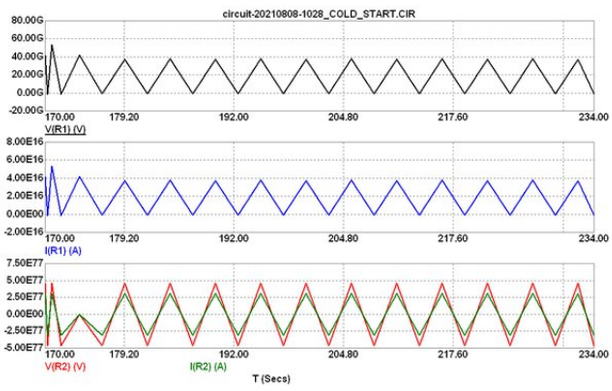
The smaller inductor of each coupled pair, L1 and L3, generates reactance while the larger inductor of each coupled pair, L2 and L4, consumes watts. Everything else consumes watts. Go figure... Notice how small is the coupling percentage?...1% of 1%! Thus, is this device broadcasting power to any coil of wire which is associated with hard magnetic iron or similar. This was the choice for transformer cores of a bygone era.











Hint...Whenever a wave of voltage is in alignment with a wave of current, then that pair of waves are exhibiting the behavior of the consumption, and conversion, of real power. But whenever a wave of voltage is out of alignment with the wave of current by one-half cycle of oscillations, or 180 degrees of angular shift, then that pair of waves are exhibiting the behavior of the generation of reactance.

Eric Dollard likes to call this, the synthesis of electricity from its constituent ingredients of: magnetism, dielectricity and time. These ingredients are infinite in scope. Their limitations are undefined. It is their conjunction (intersection) which creates the limitations of matter and energy.

Imagine, if you will, the intersection of two lines. Geometry defines them as having infinite length. These are the unlimited ingredients of electricity. Yet, whenever these indefinitely lengthy lines intersect, they create (or, synthesize...if you prefer) a finite point of finite characteristics.

So, even a schoolchild already knows about how we may shrink or expand preexisting energy at will by going to its root causation and handling it there before bringing it back to the relativistic field of limitations (which are an illusion, yet very believable to the untrained eye).

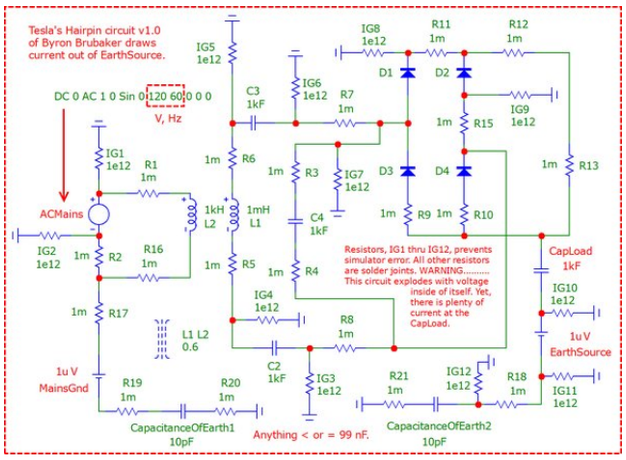
For emphasis, may I repeat the point, ...

...that this definition of wave behavior is not limited to the self-induction of all electronic components. It is also extended to the mutual inductance among two or more inductors (as noted, above)... a sort of collective consciousness among inductances.

Update...

I am grateful to Byron Brubaker for allowing me to play around with his Hairpin circuit and "do with it whatever I want" just so long as I give him the credit for it.

The simulations, up above, may not be accurate since they were performed on a 32-bit computer. The following simulations were performed on a 64-bit computer and, hence, are more reliable.



Index of /mhoslaw/Parametric Transformers/2023/Jan

Name Last modified Description Parent Directory Byron Brubaker Tesla Hairpin.zip 2023-01-18...

http://vinyasi.info/mhoslaw/Parametric%20Transformers/2023/Jan/

What is a Ground?

Up until now, I did not understand how a Berkeley SPICE[1] ground component operates. Nor did I understand its difference from how a ground operates in Paul Falstad's simulator.[2]

But the study of Byron Brubaker's version, 1.0, of Tesla's Hairpin Circuit prompted me to finally understand these differences.

The ground components in both simulators are unique to each other due to how a referencing ground operates in each simulator.

In Paul Falstad's simulator, a referencing ground is already provided by the software. So, the user does not have to insert one anywhere since that has already been accomplished. The only purpose for the user to insert a ground (in Paul Falstad's simulator) is to act as a source for electronic flow of current. This presupposes that the Earth is a battery of around one microvolt whose amp-hour capacity is vast!

A referencing ground is not provided in the Berkeley SPICE family of simulators, to which Micro-Cap[3] and LTSPICE[4] are members. So, this is the only function which a ground represents in these simulators. If you want to represent anything else, such as what a user-inserted ground would represent in Paul Falstad's simulator, then you have to insert a micro volt battery in between a ground and your circuit. You will also have to add a low-level capacitor behind the battery. I have labeled these, *CapacitanceOfEarth1* and *CapacitanceOfEarth2.* Between this battery and the circuit, you may position your load. Mine, here, is a capacitive load, labeled: *CapLoad.* It is *not* a resistive load because that cannot sustain the *transient* (a momentary surge) which this simulation suddenly provokes and quickly dissipates to zero. So, a relatively large capacitive load could retain its charge and a series of switchings could clear these charges to zero by transferring these charges to the actual load that you wish to power and then restart this circuit from another cold start?

All of my capacitors possess 3 Ohms of equivalent series resistance. Both of my coils possess units of resistance equal to their units of inductance to approximate a wire gauge of 25 AWG.

The rate at which over-reactance exhibits overunity is determined by the smallness of the two capacitors, labeled: *CapacitanceOfEarth1* and *CapacitanceOfEarth2.* Although the Earth's capacitance is assumed to be ~711 micro Farads, this does not produce overunity within a reasonable length of time. Or else, it may possibly fail to produce overunity at all. I don't know. I didn't have the patience to wait long enough to find out! So, to speed things up a bit, I chose to use values which are less than 100 nano Farads, such as: 99nF or 10pF or 100 femto Farads.

- BTW, one micro volt is the atmospheric voltage at ground level which is enough to power a crystal radio set from the 1920s.
- *ACMains* amperage is the amperage which is being drawn from the utility grid.
- *MainsGnd* is the amperage which enters the circuit from the ground adjacent to the *ACMains.*
- *EarthSource* is the amperage which the Earth is providing free of charge!
- *CapLoad* voltage (graphed in blue) dominates *CapLoad* amperage (graphed in red) by a factor of 3 to 1 (graphed in green at the very bottom of its output chart of oscilloscope tracings) due to the equivalent series resistance of this capacitive load is set to 3 Ohms.

- BTW, I posted the pre-explosive output of virtual oscilloscope tracings captured at 620 milli seconds rather than the explosive results at 638 milli seconds on the presumption that, if you choose to build this simulation, you may want to preempt these explosions rather than allow this circuit to experience them.

Footnotes

[1] The Spice Home Page

[2] Circuit Simulator Applet

[3] Micro-Cap 12. Analog simulation, mixed mode simulation, and digital simulation software. SPICE and PSpice® compatible circuit simulator.

[4] https://www.analog.com/en/design-center/design-tools-and-calculators/ltspice-simulator.html

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