

## Re: Time Step too small in EWB

**Source:** <http://sci.tech-archive.net/Archive/sci.electronics.design/2004-12/6005.html>

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**From:** Winfield Hill ([hill\\_a\\_at\\_t\\_rowland-dotties-harvard-dot.s-edu](mailto:hill_a_at_t_rowland-dotties-harvard-dot.s-edu))

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Jim Thompson wrote...

>

> *Make sure your circuit has realistic impedances... ideal inductors*

> *can ruin your day ; -)*

Right. Standard spice inductors have zero resistance, which means they have infinite Q. Standard spice capacitors also have zero resistance, which means they have infinite Q. These two components often occur together (all real inductors have self capacitance, and real nodes have capacitance to ground, etc.), potentially creating resonances with infinite Q. How is spice supposed to be able to deal with that? It's up to the user to create real components, by adding appropriate lossy resistances.

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Thanks,

- Win