

Re: PID question

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- *From:* hondgm@xxxxxxxx
 - *Date:* 22 Nov 2006 16:42:29 -0800
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John Popelish wrote:

hondgm@xxxxxxxx wrote:

Yes, integrator windup, I just read about that after I wrote the email. That part I now understand. But I'm unclear about a couple things in the topology. Here's a drawing of how I understand it:
<http://www.yourfilehost.com/media.php?cat=image&file=Drawing1.jpg>

I wasn't sure about where the feedback goes. One problem, if the feedback path is correct as I have it, is that my current range is 0-2500 and the current range is 0-4000. Maybe it just has to be scaled.

The block you call Voltage setpoint would be one DAC output.

The block you call Current setpoint would be the second DAC output.

The PID current control drives the pass element that actually controls load current.

The measure of load current is the feedback to the PIC current controller.

The measure of voltage across the load is the feedback to the PID voltage controller.

Does that make more sense?

Well, not really. I was going to have only one DAC that provides the ref voltage for the regulator, then use that, along with the current sense value, to limit current. Remember the PID is being done in a micro, and the only analog I/O is one DAC out and one A/D measuring load current.

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