Q.
I am going to release a high altitude balloon from my school this spring. I'd like to include a bs2 to collect some data, but I think my goals are larger than my skill level at this time (and I don't know if I have the time to be where I want to be by the beginning of May). I bought a SCP1000 pressure/temp sensor from parallax thinking it was an all in 1 bundle, but found that it needs 3.3V not 5V. So my next order was an xbee 5V/3.3V adaptor board. I think it has more than I need. Ultimately, I think I should have done more research before I spent this money...but I was gung-ho about figuring it out. I also picked up a yellow BS2p.

So I have it working and pulling data using the sample code 3 from this site: http://www.maxentropy.net/stamp/SCP1000/scp1000.htm. I'm still not 100% sure on what info it is reporting, but I see the temp and pressure info.

I think I can make it work, but as I am looking at the data sheet and looking at the code, I really don't know what it's doing. I think I have other options to access the data since I have a bs2p, but haven't gotten that far. There also doesn't seem to be much sample code or info in the parallax forums.

In digging around, I found this wx station kit from Nearsys http://www.nearsys.com/catalog/sensor/weather.htm. In looking at it, I wonder if I can interface it with a BS2p. My gut tells me I can do it, and it will be an easier path than my first option. It's just that I will be out another $50.

What is your opinion? Should I plug along with my current sensors, or should I bail and go with the Nearsys equipment?

A.
Most things now days are leaning toward 3.3 volts, during the transition between 5 and 3.3 volts, this is a minor irritant and requires some thought and caution. Most 3.3 volt systems will not tolerate 5 volts. I use LP2950 voltage regulators to get the 3.3 volts. Then I use either a simple voltage divider or 2N3904 switching transistors to do the voltage conversion between 3.3 and 5 volts and visa versa. The adaptor board you bough obviously works, but you're right, a little overkill.

The SCP1000 looks like a powerful little device. You'll have to dig into the manufactures data sheet to study the device, but at first glance it is pretty informative. You should be able to access it with the BS2 pretty easily (with some voltage conversions).

Depending on how much data you want to collect, you probably could store the data on the BS2 and retrieve it after you get the balloon back. So I don't think you really need the data recorder, but it would be nice to just unplug a thumb drive when the mission is done. I haven't played with the thumb drives with the stamp.

The little weather station from Nearsys looks interesting. In order to use that you will have to use a PIC with ADCs or if you were to use the stamp, you'll have to have an external ADC. There are multiple channel ADCs so you can probably find one with at least the 3 channels you need for that little weather station.

Since you invested in the SCP already, I'd look closer at communicating with that, unless you are also interested in humidity.