

Pargett, Douglas M.

From: Pargett, Douglas M.
Sent: Tuesday, March 13, 2007 3:55 PM
To: 'John Dzenitis'
Cc: Scholin, Chris; Jensen, Scott; Roman, Brent
Subject: FW: changereq20070306

John,

Your proposed changes look good so far. We can discuss them more at the telecom tomorrow afternoon. Brent Roman made a list of comments/questions that may generate more changes. Please review them and we can talk about them as well.

We'll call your desk (925-422-6695) a couple minutes after 2:00pm.
If you don't hear from us, try my cell phone: 650-619-8951

-Doug

-----Original Message-----

From: Brent Roman [mailto:brent@mbari.org]
Sent: Tuesday, March 13, 2007 3:19 PM
To: Pargett, Douglas M.
Subject: Re: changereq20070306

Doug,

This version fixes the typo you found.
Please forward it...

John and Vincent:

Here are some talking points for tomorrow's telecon.

The high level summary is that the changes requested look sensible. However, I took this opportunity to reread the original LLNL PCR Interface Specification document and noticed some minor issues. Let's discuss these tomorrow.
Then, if appropriate, I'll put together a change request based on your template.

These comments and questions reference
Requirements and Interface Specification, Version 1.0, 11 October 2006

On Page 14:

2.5. Message Syntax:

Allow commands to be terminated using either "line feed" or "carriage return" characters to facilitate entering commands from simple terminals (or terminal emulators)

The #<period in milliseconds> streaming syntax confused me. Is this really:

#<repeat rate in milliseconds> ? If so what are its limits? What does 0ms mean, for instance?

I do not believe that the line feed character can also be used to initialize the module if its command buffer is in an unknown state.
Consider the case where a valid command had just been sent less its line feed terminator. The next line feed will execute that command even hours later. Please consider adding a

different command terminator that will cause the current command in the buffer to be ignored.

I'd suggest control-U (line undo) as this is a common Unix/Linux convention.

The boot up message should also display the unit's unique serial number. If these devices have calibration parameters, then they should also have a unique id so the ESP can maintain its calibration database.

A successful RST command should return the boot up message rather than just OK. Alternatively, one could define another message to explicitly return the boot up string. Currently, as I understand the spec, there is no way to get the boot up string without cycling power on the PCR.

On page 19:

Can TEMPC? possibly return a negative (Celsius) value?

What is the rate at which the Integer value of TIME increments?
(milliseconds?)

What is TIME's maximum value?

Is there any way to set or reset TIME?
Does it reset to 0 at program start?

What happens if a PROGRAM is running while TIME wraps around?

On page 20:

The term "line number" is misleading. How about calling them "step numbers" instead?

Must step numbers be contiguous? (1,2,3,4,5) verses (1,3,5,10,14)

Must step numbers be monotonically increasing? (5,2,1,0)

May step numbers be omitted? Assume the first is step 1, the next step 2, etc.

That's it for now. I've sure we will think of more tomorrow :-)

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Brent Roman	MBARI
Software Engineer	Tel: (831) 775-1808
7700 Sandholdt Road,	Moss Landing, CA 95039
mailto:brent@mbari.org	http://www.mbari.org/~brent