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Ethan Roth <ehroth@alaska.edu>

MOCNESS software question
6 messages

Ethan Roth <ehroth@alaska.edu>   Wed, May 5, 2021 at 7:40 AM
To: Carl Mattson <cmattson@ucsd.edu>

Carl,

In the Trip Control screen, there's a new light in the upper right called NFW. What is it for?

Thanks,
Ethan

--
Ethan Roth
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Carl Mattson <cmattson@ucsd.edu>   Wed, May 5, 2021 at 9:17 AM
To: Ethan Roth <ehroth@alaska.edu>

NFW means New FirmWare. If the PKI unit has updated firmware then this indicator will be on and informs the Labview
software that the PKI unit has updated firmware. The new firmware addresses issues on PKI/mocness systems that
require more than 3 steps to trip a net and it improves communications with the Strobe unit. If your system is a 3 step
system and you don't have any net tripping issues then it's not critical to update the firmware.

Carl
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Ethan Roth <ehroth@alaska.edu>   Wed, May 5, 2021 at 9:58 PM
To: Carl Mattson <cmattson@ucsd.edu>

OK, thanks. We have a 3-step system, so it's not critical. But looking ahead, how would we update the firmware on our
PKI unit if it were necessary? Do I have to send it back to you or can I do it myself?

Ethan
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Carl Mattson <cmattson@ucsd.edu>   Thu, May 6, 2021 at 10:42 AM
To: Ethan Roth <ehroth@alaska.edu>

Ethan,

There are 3 options

1. You can send the unit to me for reprogramming
2. I can send you a pre-programmed micro card
3. You can update the firmware yourself.

If you choose option 3 then just grab this file. It has just about everything you need

ftp://somts.ucsd.edu/users/cmattson/Mocness/LVpki/lv2020/Firmware/rfu2.zip

Just run rfu.exe and select PKI_NET.bin. As soon as you select it then it will start programming so you need to connect the COM port to the programming port and power up the board in advance. It defaults to COM1 115200 baud.

But you do need a programming cable which you can buy here:
https://www.mouser.com/ProductDetail/DIGI/20-101-0513?qs=Wh2eQ1xN3gk74Y4UAgPFaQ%3D%3D

You can also get a new micro card to have as a spare
https://www.mouser.com/ProductDetail/DIGI/20-101-0525?qs=hdSwu7a6m9ZHJNao9De6Rg%3D%3D

Carl

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Ethan Roth <ehroth@alaska.edu>   Thu, May 6, 2021 at 11:29 AM
To: Carl Mattson <cmattson@ucsd.edu>
Cc: Sikuliaq Science Support <uaf-skq-science-support@alaska.edu>

Thanks for the info, Carl. Next time we have a MOCNESS cruise, I'll try to burn the latest firmware onto a new micro card so there's a spare.

By the way, we did a tow a couple nights ago down to 2km (it took 4 hrs and 4km of wire out). The old BESS flow meter failed to work below 1km, while the new HydroBios flow meter worked the entire time. I think this will end up as the primary flow meter for us from now on.

Ethan

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Carl Mattson <cmattson@ucsd.edu>   Tue, Jun 15, 2021 at 11:13 AM
To: Ethan Roth <ehroth@alaska.edu>
Cc: Sikuliaq Science Support <uaf-skq-science-support@alaska.edu>

Hi Ethan,

Thanks for the tip on the flowmeter. I got one of these flowmeters and found that it works very well just like you reported. But I needed to change the firmware a bit in order to accommodate the higher flow count rate from the HydroBios flowmeter. The existing firmware only allowed counts up to 2/sec which is fine for the TSK flowmeter but the HydroBios flowmeter count rate is about 7/sec at 2 knots. You can grab the new file (dated 6-3-21) from my site:
ftp://somts.ucsd.edu/users/cmattson/Mocness/LVpki/lv2020/Firmware/

Carl
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