

## Colony - Bug #790

### XBee/Wireless Initialization

10/19/2009 09:38 PM - John Sexton

<b>Status:</b>	Assigned	<b>Start date:</b>	10/19/2009
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	Brad Neuman	<b>% Done:</b>	0%
<b>Category:</b>	Wireless	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>			
<b>Description</b> <p>XBee and Wireless Init functions seem to conflict. dragonfly_init() appears to call xbee_init() [found in serial.c in libdragonfly], while wl_init() appears to call xbee_lib_init() [found in xbee.c in libwireless]. The two functions appear to be arguing over what to assign a few registers.</p> <p>We found that to get the XBees to work, xbee_init() needs to be called again after drangonfly_init(), but before wl_basic_init_default() [which basically just calls wl_init()].</p> <p>We also are not confident that calls to wl_set_channel() are working correctly, or if the channel is getting re-initialized by calls to xbee_init()/xbee_lib_init().</p>			
<b>Related issues:</b>			
Blocks Colony - Enhancement #798: get all the library inti's and functions to...		<b>Assigned</b>	<b>10/21/2009</b>

#### History

##### #1 - 10/22/2009 01:49 AM - David Schultz

xbee\_init() turns on the transmitter and receiver on the xbee and resets the baud rate.

xbee\_lib\_init() cycles the xbee to API mode to communicate with the wireless library and enables the interrupt that gets data from the xbee. They are not arguing as far as I am aware of, since there's only one register overlap and they are just turning on different bits in the register. I don't think the order of these two calls matters, but they both need to be called before doing higher level wireless functions in wl\_init or wl\_basic\_init\_default(). I'm not sure what the problem is with dragonfly\_init, but maybe reordering the call to the end of dragonfly\_init would work.

The channel is not set by any of the init functions, but left at the default value of 0x0C. The set\_channel() call looks right, though I haven't tested it.

##### #2 - 11/05/2009 02:35 PM - David Schultz

- Category set to Wireless

##### #3 - 10/02/2010 07:16 PM - Alex Zirbel

- Priority changed from High to Normal