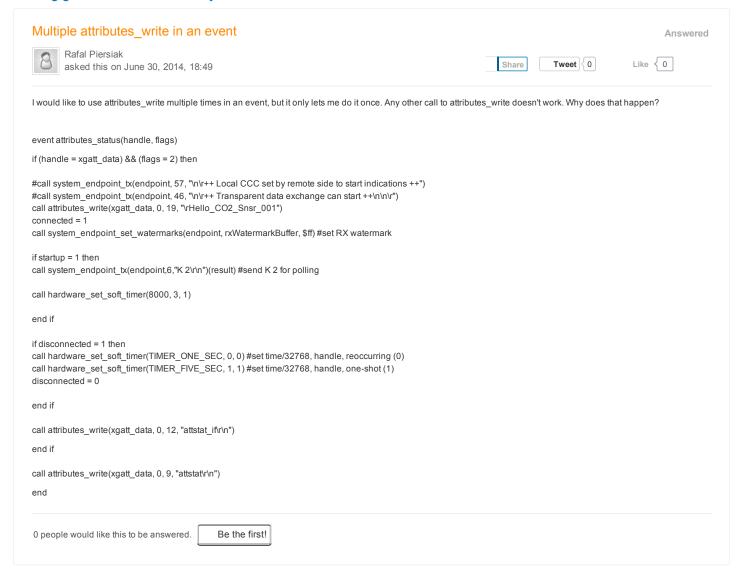
Bluegiga Forums / Community Forums / Bluetooth Smart



Comments



Bluegiga Technologies Hi Rafal,

[THIS RESPONSE NOT APPLICABLE TO ABOVE ISSUE, SEE NEXT RESPONSE]

This will not work because each one of these write operations must be acknowledged before you can send another one. The acknowledgement will come in the form of the [attclient_procedure_completed] event, along with relevant connection and attribute handle data. You will need to cascade these write operations so that the 2nd is triggered when the 1st completes, the 3rd is triggered when the 2nd completes, and so on.

June 30, 2014, 19:00



Does the cascading happen in the attclient_procedure_completed event?

In other embedded systems, if an interrupt occurs, it remembers where it was and comes back to the place where it was interrupted, when the interrupt finishes. Is this true for the BGScript?

Meaning, when I call the first attributes_write, does the code continue to finish executing in the event, so the next thing would be "connected = 1" and so on?

June 30, 2014, 19:04

Hi Rafal, Answer

Multiple attributes_write in an event : Bluegiga Technologies

Support



Jeff Rowberg Bluegiga Technologies

My mistake—while what I said above is correct when using the attclient_attribute_write command when writing a value to a remote attribute as a GATT client, and the same concept applies here, the specific API call is different in this case. You are operating here as a GATT server, using attributes_write to attempt to push data to a GATT client using indications.

Indications are not queued and can only be pushed one at a time, in series, to any given target device. There are three API packets at play here:

- 1. attributes_write command: sent from your MCU, which updates a value in the local GATT database
- 2. attributes_write response: sent back from the BLE module, telling whether the local update succeeded or not
- 3. attclient_indicated event: sent from the BLE module, telling that the remote end received and acknowledged an indication

Because of the way indications are handled, you can send attributes_write commands all day long very rapidly and receive back attributes_write responses with a 0x0000 result code (no error) every time, but still only have a small portion of those updates end up being pushed to the remote device. The "result" code in the attributes_write response packet concerns the local GATT update, not the subsequent indication which may happen if the client has subscribed. Instead, because of the one-at-a-time nature of indications, you must wait for the attclient_indicated event to come back after each update before sending using attributes_write to push a new value.

To answer your other question: in BGScript, events are executed atomically (all at once) an in the order they are queued. An attclient_indicated event which is generated while other code inside your attributes_status event handler is executing will be queue, but it will not be executed until after the rest of the attributes_status event finishes.

June 30, 2014, 19:22

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