



Li Bai <lbai@temple.edu>

Re: Serial Send does not support variable size signals [ref:_00Di0Ha1u._5000ZrvOgs:ref]

Grant Sellers <support@mathworks.com>

Thu, Sep 14, 2017 at 12:46 PM

To: "lbai@temple.edu" <lbai@temple.edu>

Hello again,

I am sorry to hear that solution will not work in this case. In order to better provide you advice on a solution, could you give me some more information regarding your application and your device?

1. Can you modify the firmware of the device?
2. How does the device operate? Does it take in a constant string of serial data and only make changes when the data changes, or does the device do something every time it receives data?
3. Do you plan to send serial data from any other blocks, or solely through the output from Stateflow?

Please reply with this information and I will have a better idea of what steps to recommend.

Sincerely,
Grant Sellers
MathWorks Technical Support Department

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

From: US MathWorks Support [support@mathworks.com]

Sent: 9/14/2017 11:15 AM

To: lbai@temple.edu

Subject: Re: Serial Send does not support variable size signals []

Hello Li,

This is Grant from MathWorks Technical Support, writing in reference to your Technical Support Case #02749656 regarding 'Serial Send does not support variable size signals'.

Thank you for sending your model along with your query - I clearly see the issue you are experiencing. Unfortunately, the Serial Send block does not currently support inputs with variable size vectors. The input data width is set upon compilation time, and will not change during execution.

The clearest workaround is to try setting all of the array sizes to the max array size and pad the arrays with some sort of null character that the hardware will ignore. I would recommend this approach, as it is the most straightforward.

If this workaround will absolutely not work for your application, you could always write a custom Simulink block to do the same functionality. This will likely take longer than the recommended workaround, and would require more programming knowledge, but it is possible. The MATLAB Function block and MATLAB System block should support this functionality. S-Functions, however, do not. Here's a link to documentation on user defined functions.

<https://www.mathworks.com/help/simulink/user-defined-functions.html>

I believe one of these workarounds will work for your application, so I will be closing the case for now. However, please feel free to reply to this email with further questions, and I will be happy to assist.

Please preserve the Reference ID in further correspondence on this query. This allows our systems to automatically associate your reply to the appropriate Case.

Sincerely,
Grant Sellers
MathWorks Technical Support Department

9/27/2017

Temple University Mail - Re: Serial Send does not support variable size signals [ref:_00Di0Ha1u._5000ZrvOgs:ref]

ref:_00Di0Ha1u._5000ZrvOgs:ref