TEMPLE
UNIVERSITY

Li Bai <lbai@temple.edu>

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

US MathWorks Support <support@mathworks.com>   Thu, Sep 14, 2017 at 11:15 AM
To: "lbai@temple.edu" <lbai@temple.edu>

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

.

ref:_00Di0Ha1u._5000ZrvOgs:ref