FAQ 736

How to access bus port components and Custom Code block interface variables with TargetLink API

Keywords

BusInport, BusOutport, CustomCode

Question

How do I access a component of a bus port or an interface variable of a Custom Code block by API?

Solution

A component of a bus port or an interface variable of a Custom Code block is accessed by index operation, for example:

```
>> type = tl_get(gcb, 'output(2).type')
>> type = tl_get(gcb, 'param(2).type')
```

The problem is that the number of components or parameter interface variables, etc., is not known in all cases. The solution is to iterate over the components or the interface variables as long as tl_get succeeds without error:

```
SignalIdx = 1;
[Type, Error] = tl_get(hBusInport,...
     ['output(' int2str(SignalIdx) ').type']);
if ~Error
disp(sprintf('Output no. %d: %s', SignalIdx, Type));
end
while ~Error
SignalIdx = SignalIdx + 1;
[Type, Error] = tl_get(hBusInport,...
          ['output(' int2str(SignalIdx) ').type']);
   if ~Error
       disp(sprintf('Output no. %d: %s', SignalIdx, Type));
   end
end
```

Since TargetLink 3.1, the Custom Code block has an increased number of properties for getting the number of interface variables directly, for example:

```
NrOfParams = tl_get(hCustomCodeBlock, 'numparams');
for ParamIdx = 1:NrOfParams
Type =  tl_get(hCustomCodeBlock,...
 ['param(' int2str(ParamIdx) ').type']);
disp(sprintf('Parameter no. %d: %s', ParamIdx, Type));
end
```

Examples

You can download a zip file which contains example implementations for the solution described above:

faq736.zip

FAQ Overview

http://www.dspace.com/go/faq

Support

To request support, please use the form at http://www.dspace.com/go/supportrequest

Updates and Patches

Software updates and patches are available at http://www.dspace.com/go/patches. dSPACE strongly recommends to use the most recent patches for your dSPACE installation.

Important Notice