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PROJECT DETAILS

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%Introduction:
%Feature 1:We have built a automated script which can take user
 keyword
%and search for it and produce the countand list of occurances of the
 same
%in a excell sheet and export it.
%Feature 2:Simulating the model and printing the scope values in
 tables of xcell sheet
```

Initialising the program and geting the deatils

```
%This is the project name and can be changed as per user need.

user_input ='input1';

%This is for getting the subsystem block name the user wants to search
 for

test_str='OUT_Scope';

%opening the project

open_system(user_input);

sys_t = find_system(user_input);

%Removing the project name using regex as the searching will become
%difficult if the project name is also attached to it.

new_t = regexprep(sys_t,'input1/','','ignorecase');

%initialising count and a matrix

count=0;

final_str=[];
```

1st feature code

```
%Initialising a for loop and checking for the keyword

for i=1:length(new_t)

    if contains(new_t(i),test_str,'IgnoreCase',true)

        count = count+1;

        final_str=[new_t(i),final_str];

    end

end

%transposing the array elements

final_transposed = transpose(final_str);

%printing the count of the keyword

count_str = "The count of the keyword--> "+ test_str +" is: " + count;

%printing the final values into excel sheet

xlswrite("Out1.xlsx",cellstr(count_str));

xlswrite("Out1.xlsx",cellstr(final_transposed),'Names');
```

2nd Feature code

```
%simulating the model using the below command

sim(user_input,'returnWorkspaceOutputs','on')

%printing the scope output as table
%before running the scripting, scope settings to be changed are:
%Tick mark log data to work space and give the format as "structure
 with time"
% NOTE: Since there are 5 scopes in the model we created 5 table
% statements. If there is only 1 scope then 1 write table is needed.

a=table(ans.ScopeData1.time, ans.ScopeData1.signals.values);
b=table(ans.ScopeData2.time, ans.ScopeData2.signals.values);
T=table(ans.ScopeData3.time, ans.ScopeData3.signals.values);
c=table(ans.ScopeData4.time, ans.ScopeData4.signals.values);
d=table(ans.ScopeData5.time, ans.ScopeData5.signals.values);

%printitng the output in new excel sheet

writetable(T,'Out.xlsx')
```

```
writetable(a,'Out.xlsx')
writetable(b,'Out.xlsx')
writetable(c,'Out.xlsx')
writetable(d,'Out.xlsx')
```

```
Warning: Non integer control signal truncated in '<a
href="matlab:open_and_hilite_hyperlink
('input1/BCM_Controller_and_Plant/BCM_Wiper_Control_System/Multiport
 Switch for
input
conditions','error')">input1/BCM_Controller_and_Plant/
BCM_Wiper_Control_System/Multiport
Switch for input conditions</a>'

ans =

  Simulink.SimulationOutput:
            ScopeData1: [1x1 struct]
            ScopeData2: [1x1 struct]
            ScopeData3: [1x1 struct]
            ScopeData4: [1x1 struct]
            ScopeData5: [1x1 struct]
                  tout: [207x1 double]

     SimulationMetadata: [1x1 Simulink.SimulationMetadata]
           ErrorMessage: [0x0 char]
```

Published with MATLAB® R2020b