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# **Automated Passivity and Causality check for multiple S-parameters files**

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# Motivation

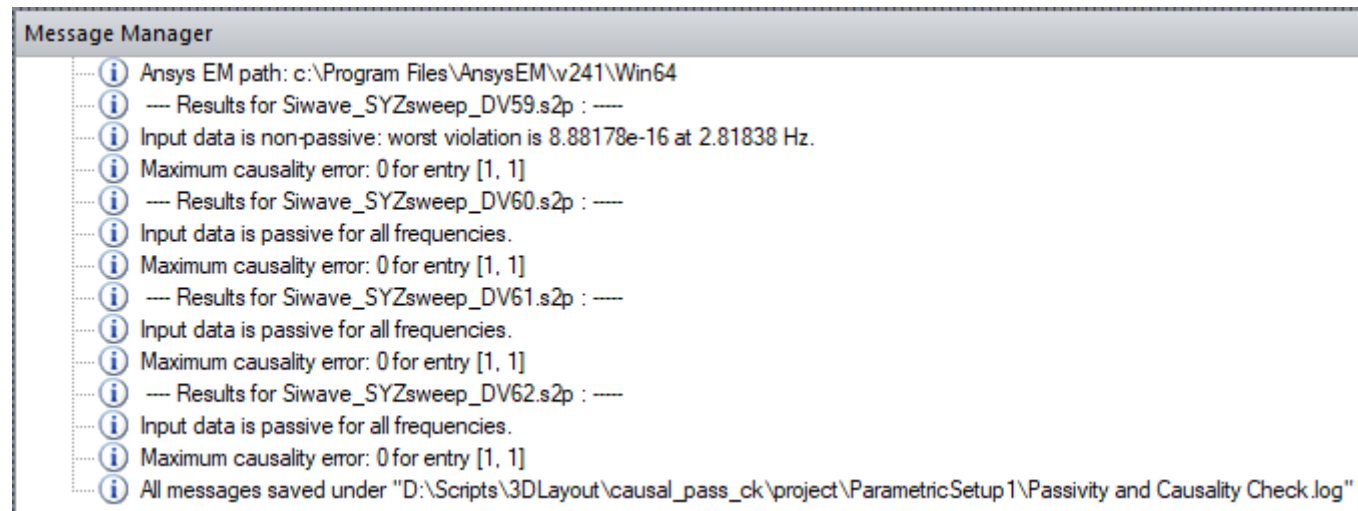
- When running parametric studies, the user can obtain a great number of S-parameters files that need to be verified to ensure passivity/causality
- This process can be done manually, one-by-one, using Network Data Explorer but for a big number of files, this becomes cumbersome
- The suggested approach in this presentation allows the user to place as many S-parameters files as wanted in a single folder and run passivity/causality check on all of them

# Steps to use the script

1. Open the CheckPassivityCausalityOfParametricAnalyses.py on a text editor, modify the first two lines and save the file:

```
1 SParamFolder = r"D:\Scripts\3DLayout\causal_pass_ck\project\ParametricSetup1"  
2 AnsysEMPath = r"c:\Program Files\AnsysEM\v241\Win64"          # Use "" to use one of the AnsysEM versions installed in your machine  
3  
4 # =====
```

2. Open Ansys Electronics Desktop, go to menu Tools > Run Script... and select the script. Output messages should appear on Message Manager:



The Ansys logo, featuring a stylized yellow and black 'A' followed by the word 'nsys' in black.

