

Using The Data Access Component (DAC) in Keysight ADS

A DAC Example...

Let's say you want to look at the S21 and the S11 responses of several series capacitors from Johanson. You have the S-parameters (.s2p files) from the Johanson site:

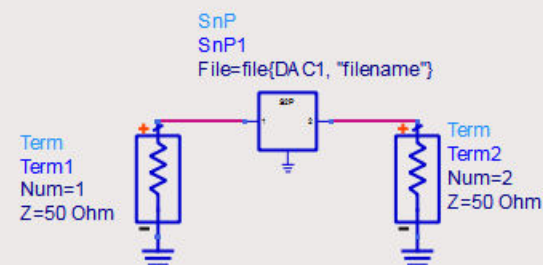
S-PARAMETERS

S_Param
SP1
Start=0.05 GHz
Stop=6 GHz
Step=0.1 GHz

PARAMETER SWEEP

ParamSweep
Sweep1
SweepVar="index1"
SimInstanceName[1]="SP1"
SimInstanceName[2]=
SimInstanceName[3]=
SimInstanceName[4]=
SimInstanceName[5]=
SimInstanceName[6]=
Start=1
Stop=7
Step=1

must be in quotes



DataAccessComponent
DAC1
File="C:\derbyshire\S_Parameters\series_caps_johanson.txt"
Type=Discrete
InterMode=Index Lookup
InterDom=Rectangular
ExtrapMode=Interpolation Mode
Ivar1=1
Ival1=index1-1

must be set to Index Lookup

There is an offset of 1 in the indexing since ADS is "0-based"

contents of simple .txt file created with notepad that point to the S-parameter files

```
BEGIN DSCRDATA
% index1 filename
1 c:\derbyshire\S_Parameters\Johanson_0201_R05L_10pF.s2p
2 c:\derbyshire\S_Parameters\Johanson_0201_R05L_12pF.s2p
3 c:\derbyshire\S_Parameters\Johanson_0201_R05L_15pF.s2p
4 c:\derbyshire\S_Parameters\Johanson_0201_R05L_18pF.s2p
5 c:\derbyshire\S_Parameters\Johanson_0201_R05L_22pF.s2p
6 c:\derbyshire\S_Parameters\Johanson_0201_R05L_27pF.s2p
7 c:\derbyshire\S_Parameters\Johanson_0201_R05L_33pF.s2p
END DSCRDATA
```

The file line "% index1 filename" associates "index1" with the left-most numeric column and the "filename" with the S-parameter filename string

