Hints, Tips and Solutions

Robin Jones Ph.D., Senior Applications and Support Engineer

The subject of how to use the EXTRACT statement in ***DeckBuild*** often arises. The EXTRACT statement is a very useful tool for analysing data and can be performed on both structure and log files.

As means of explanation let us consider an EXTRACT statement performed on a log file.

The EXTRACT statement by default will work on the current log file in a simulation.

Looking at a full EXTRACT syntax statement we have:

```
extract name="max. gate-source
cap. Vgs=0  " max(curve(frequency,
C."Gate""Source"))
```

The EXTRACT statement must first create its own curve to work on, in the above syntax we therefore have curve(frequency, C."Gate""Source"). This essentially goes to the current log file and creates a curve of frequency versus gate-source capacitance.

The keyword max is then used to pick the maximum value on the curve, this value then gets assigned to the variable "max. gate-source cap. Vgs=0 ".

It is often very useful for validation purposes for the user to output the curve created by the EXTRACT command. This is easily performed by adding an additional extract statement with an outfile command added to it, e.g. extract curve(frequency, C."Gate""Source") outfile="testa_extract.dat"

Figures 1(a) and (b) demonstrates this technique, Figure 1(a) shows the actual log file that the EXTRACT statement is working on, figure 1(b) shows the curve that the EXTRACT statement has produced.

Both EXTRACT statements would appear in the input deck as:

```
extract curve(frequency, C."Gate""Source")
outfile="testa_extract.dat"
extract name="max. gate-source cap. Vgs=0
" max(curve(frequency, C."Gate""Source"))
```

What if you want to perform an EXTRACT on a previous log file, can you do this?

In order to do this you just add another extract statement with the keyword init infile="", e.g.

```
extract init infile="hemtex06_ac.log"
```

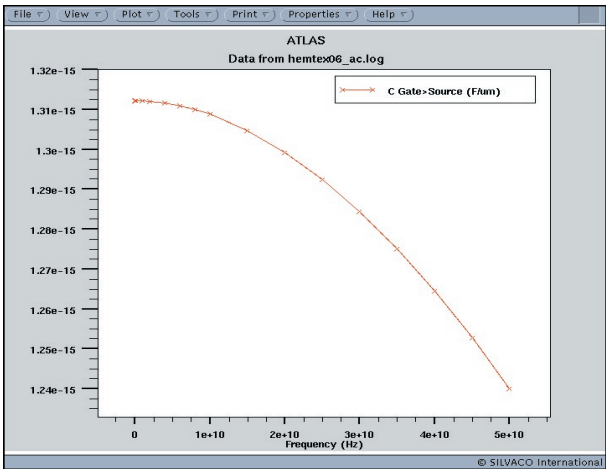

Figure 1a.

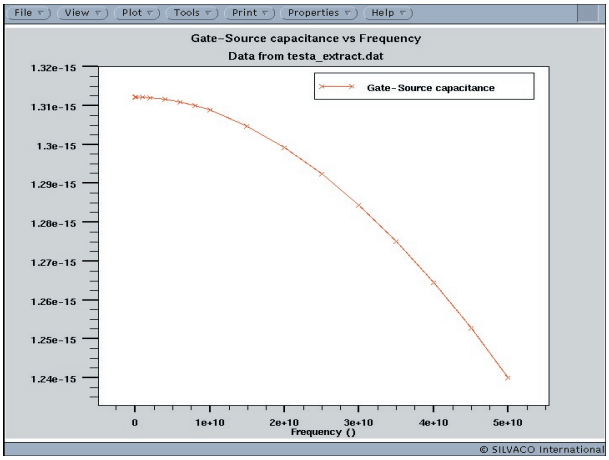

Figure 1b.

The three statement discussed above would appear as:

```
extract init infile="hemtex06_ac.log"
extract curve(frequency,
C."Gate""Source") outfile="testa_
extract.dat"
extract name="max. gate-source
cap. Vgs=0  " max(curve(frequency,
C."Gate""Source"))
```

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