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Cadence (R) Virtuoso (R) Spectre (R) Circuit Simulator
Version 15.1.0.345.isr2 64bit -- 4 Jan 2016
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Includes RSA BSAFE(R) Cryptographic or Security Protocol Software from RSA Security, Inc.

User: smdp   Host: binsu-smdp   HostID: 10AC4A01   PID: 67561
Memory  available: 991.5678 MB  physical: 3.9016 GB
Linux   : Red Hat Enterprise Linux Workstation release 6.8 (Santiago)
CPU Type: Intel(R) Xeon(R) CPU E5-1607 v3 @ 3.10GHz
        Socket: Processors [Frequency]
        0:       0 [3001.0],  1 [1200.0],  2 [1200.0],  3 [1200.0]

System load averages (1min, 5min, 15min) : 18.0 %, 15.0 %, 12.0 %


Simulating `input.scs' on binsu-smdp at 2:08:48 PM, Tue Aug 16, 2016 (process id: 67561).
Current working directory: /home/smdp/simulation/sec_ord/spectre/schematic/netlist
Command line:
    /home/cadence/cadence_tools/MMSIM151/tools.lnx86/bin/spectre -64  \
        input.scs +escchars +log ../psf/spectre.out +inter=mpsc  \
        +mpssession=spectre0_4791_22 -format psfxl -raw ../psf  \
        +lqtimeout 900 -maxw 5 -maxn 5
spectre pid = 67561

Loading /home/cadence/cadence_tools/MMSIM151/tools.lnx86/cmi/lib/64bit/5.0/libinfineon_sh.so ...
Loading /home/cadence/cadence_tools/MMSIM151/tools.lnx86/cmi/lib/64bit/5.0/libphilips_o_sh.so ...
Loading /home/cadence/cadence_tools/MMSIM151/tools.lnx86/cmi/lib/64bit/5.0/libphilips_sh.so ...
Loading /home/cadence/cadence_tools/MMSIM151/tools.lnx86/cmi/lib/64bit/5.0/libsparam_sh.so ...
Loading /home/cadence/cadence_tools/MMSIM151/tools.lnx86/cmi/lib/64bit/5.0/libstmodels_sh.so ...
Reading file:  /home/smdp/simulation/sec_ord/spectre/schematic/netlist/input.scs
Reading file:  /home/cadence/cadence_tools/MMSIM151/tools.lnx86/spectre/etc/configs/spectre.cfg
Reading file:  /home/cadence/cadence_tools/cadence_ms_labs_614/models/spectre/gpdk.scs
Reading file:  /home/cadence/cadence_tools/cadence_ms_labs_614/models/spectre/mos25gen.scs
Reading file:  /home/cadence/cadence_tools/cadence_ms_labs_614/models/spectre/nmos1.scs
Reading file:  /home/cadence/cadence_tools/cadence_ms_labs_614/models/spectre/pmos1.scs
Reading file:  /home/cadence/cadence_tools/cadence_ms_labs_614/models/spectre/resistor.scs
Reading file:  /home/cadence/cadence_tools/cadence_ms_labs_614/models/spectre/capacitor.scs
Reading file:  /home/cadence/cadence_tools/cadence_ms_labs_614/models/spectre/diode.scs
Reading file:  /home/cadence/cadence_tools/cadence_ms_labs_614/models/spectre/bipolar.scs
Reading file:  /home/cadence/cadence_tools/cadence_ms_labs_614/models/spectre/rfmos.scs
Reading file:  /home/cadence/cadence_tools/cadence_ms_labs_614/models/spectre/xjvar_nf36.scs
Reading file:  /home/cadence/cadence_tools/cadence_ms_labs_614/models/spectre/mcxjvar_w40.scs
Reading file:  /home/cadence/cadence_tools/cadence_ms_labs_614/models/spectre/snacapacitor.scs
Reading file:  /home/cadence/cadence_tools/cadence_ms_labs_614/models/spectre/cmodel.scs
Time for NDB Parsing: CPU = 70.99 ms, elapsed = 134.096 ms.
Time accumulated: CPU = 91.985 ms, elapsed = 134.1 ms.
Peak resident memory used = 37.6 Mbytes.


The CPU load for active processors is :
        Spectre  0 (69.2 %)      1 (35.7 %)      2 (66.7 %)      3 (26.7 %)
        Other
Reading link:  /home/cadence/cadence_tools/MMSIM151/tools.lnx86/spectre/etc/ahdl/discipline.h
Reading file:  /home/cadence/cadence_tools/MMSIM151/tools.lnx86/spectre/etc/ahdl/disciplines.vams
Reading link:  /home/cadence/cadence_tools/MMSIM151/tools.lnx86/spectre/etc/ahdl/constants.h
Reading file:  /home/cadence/cadence_tools/MMSIM151/tools.lnx86/spectre/etc/ahdl/constants.vams
Time for Elaboration: CPU = 16.998 ms, elapsed = 17.6601 ms.
Time accumulated: CPU = 108.983 ms, elapsed = 151.886 ms.
Peak resident memory used = 44.1 Mbytes.

Time for EDB Visiting: CPU = 1 ms, elapsed = 967.026 us.
Time accumulated: CPU = 109.983 ms, elapsed = 152.974 ms.
Peak resident memory used = 44.7 Mbytes.


Global user options:
             reltol = 0.001
            vabstol = 1e-06
            iabstol = 1e-12
               temp = 27
               tnom = 27
             scalem = 1
              scale = 1
               gmin = 1e-12
             rforce = 1
           maxnotes = 5
           maxwarns = 5
             digits = 5
               cols = 80
             pivrel = 0.001
          sensfile = ../psf/sens.output
     checklimitdest = psf
               save = allpub

Scoped user options:

Circuit inventory:
              nodes 38
            bsim3v3 48
          capacitor 8
            vsource 9

Analysis and control statement inventory:
               info 6
                pss 1

Output statements:
             .probe 0
           .measure 0
               save 0

Time for parsing: CPU = 1.999 ms, elapsed = 166.183 ms.
Time accumulated: CPU = 112.982 ms, elapsed = 319.28 ms.
Peak resident memory used = 45.9 Mbytes.

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Pre-Simulation Summary
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Entering remote command mode using MPSC service (spectre, ipi, v0.0, spectre0_4791_22, ).

Warning from spectre.
    WARNING (SPECTRE-16707): Only tran supports psfxl format, result of other analyses will be in psfbin format.


************************************************
Periodic Steady-State Analysis `pss': fund = 1 kHz
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Notice from spectre during IC analysis, during periodic steady state analysis `pss'.
    GminDC = 1 pS is large enough to noticeably affect the DC solution.
        dV(I2.PM3:int_s) = -2.96099 mV
        Use the `gmin_check' option to eliminate or expand this report.
    Bad pivoting is found during DC analysis. Option dc_pivot_check=yes is recommended for possible improvement of convergence.

DC simulation time: CPU = 8.999 ms, elapsed = 9.197 ms.

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`pss': time = (0 s -> 1.0051 ms)
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Important parameter values in tstab integration:
    start = 0 s
    outputstart = 0 s
    stop = 1.0051 ms
    period = 1 ms
    maxperiods = 20
    step = 1.0051 us
    maxstep = 40 us
    ic = all
    useprevic = no
    skipdc = no
    reltol = 1e-03
    abstol(V) = 1 uV
    abstol(I) = 1 pA
    temp = 27 C
    tnom = 27 C
    tempeffects = all
    method = traponly
    lteratio = 3.5
    relref = sigglobal
    cmin = 0 F
    gmin = 1 pS


Notice from spectre at time = 100 ns during periodic steady state analysis `pss'.
    Found trapezoidal ringing on node net6.
Notice from spectre at time = 8.11 us during periodic steady state analysis `pss'.
    Found trapezoidal ringing on node I32.NM3:int_s.
Notice from spectre at time = 10.2046 us during periodic steady state analysis `pss'.
    Found trapezoidal ringing on node net03.

    pss: time = 25.13 us     (2.5 %), step = 9.18 ns      (913 u%)

Notice from spectre at time = 30.319 us during periodic steady state analysis `pss'.
    Found trapezoidal ringing on node net03.
Notice from spectre at time = 34.6994 us during periodic steady state analysis `pss'.
    Found trapezoidal ringing on node I0.NM1:int_d.
        Further occurrences of this notice will be suppressed.

    pss: time = 75.43 us     (7.5 %), step = 101.9 ns    (10.1 m%)
    pss: time = 125.8 us    (12.5 %), step = 167.6 ns    (16.7 m%)
    pss: time = 175.9 us    (17.5 %), step = 197.4 ns    (19.6 m%)
    pss: time = 226.3 us    (22.5 %), step = 281.3 ns      (28 m%)
    pss: time = 276.5 us    (27.5 %), step = 318.6 ns    (31.7 m%)
    pss: time = 326.8 us    (32.5 %), step = 393.7 ns    (39.2 m%)
    pss: time = 377 us      (37.5 %), step = 448.4 ns    (44.6 m%)
    pss: time = 427.3 us    (42.5 %), step = 496.8 ns    (49.4 m%)
    pss: time = 477.6 us    (47.5 %), step = 453.7 ns    (45.1 m%)
    pss: time = 528 us      (52.5 %), step = 600.3 ns    (59.7 m%)
    pss: time = 578 us      (57.5 %), step = 561.6 ns    (55.9 m%)
    pss: time = 628.2 us    (62.5 %), step = 25.77 ns    (2.56 m%)
    pss: time = 678.5 us    (67.5 %), step = 58.73 ns    (5.84 m%)
    pss: time = 728.9 us    (72.5 %), step = 285.7 ns    (28.4 m%)
    pss: time = 779.2 us    (77.5 %), step = 284.4 ns    (28.3 m%)
    pss: time = 829.2 us    (82.5 %), step = 173.9 ns    (17.3 m%)
    pss: time = 879.7 us    (87.5 %), step = 327.7 ns    (32.6 m%)
    pss: time = 929.8 us    (92.5 %), step = 89.65 ns    (8.92 m%)
    pss: time = 980 us      (97.5 %), step = 62.08 ns    (6.18 m%)
Total time required for tstab analysis `pss': CPU = 10.8394 s, elapsed = 14.1976 s.
Time accumulated: CPU = 10.8394 s, elapsed = 14.1977 s.
Peak resident memory used = 48.2 Mbytes.

Conv norm = 123e+03, max dV(cb) = 900 mV, took 10.69 s.

Important parameter values in pss iteration:
    start = 5.1 us
    outputstart = 0 s
    stop = 1.0051 ms
    period = 1 ms
    maxperiods = 20
    steadyratio = 1e-03
    step = 1.0051 us
    maxstep = 20 us
    ic = all
    useprevic = no
    skipdc = no
    reltol = 1e-03
    abstol(V) = 1 uV
    abstol(I) = 1 pA
    temp = 27 C
    tnom = 27 C
    tempeffects = all
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    errpreset = liberal
    method = traponly
    lteratio = 3.5
    relref = sigglobal
    cmin = 0 F
    gmin = 1 pS


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`pss': time = (5.1 us -> 1.0051 ms)
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    pss: time = 30.1 us      (2.5 %), step = 556.7 ps    (55.7 u%)
    pss: time = 80.1 us      (7.5 %), step = 560.4 ps      (56 u%)
    pss: time = 130.1 us    (12.5 %), step = 606 ps      (60.6 u%)
    pss: time = 180.1 us    (17.5 %), step = 595.4 ps    (59.5 u%)
    pss: time = 230.1 us    (22.5 %), step = 539.5 ps    (53.9 u%)
    pss: time = 280.1 us    (27.5 %), step = 538.3 ps    (53.8 u%)
    pss: time = 330.1 us    (32.5 %), step = 532.1 ps    (53.2 u%)
    pss: time = 380.1 us    (37.5 %), step = 12.42 ns    (1.24 m%)
    pss: time = 430.1 us    (42.5 %), step = 15.17 ns    (1.52 m%)
    pss: time = 480.1 us    (47.5 %), step = 15.09 ns    (1.51 m%)
    pss: time = 530.1 us    (52.5 %), step = 539.6 ps      (54 u%)
    pss: time = 580.1 us    (57.5 %), step = 4.841 ns     (484 u%)
    pss: time = 630.1 us    (62.5 %), step = 176.2 ps    (17.6 u%)
    pss: time = 680.1 us    (67.5 %), step = 624 ps      (62.4 u%)
    pss: time = 730.1 us    (72.5 %), step = 17.74 ns    (1.77 m%)
    pss: time = 780.1 us    (77.5 %), step = 516.1 ps    (51.6 u%)
    pss: time = 830.1 us    (82.5 %), step = 19.61 ns    (1.96 m%)
    pss: time = 880.1 us    (87.5 %), step = 17.66 ns    (1.77 m%)
    pss: time = 930.1 us    (92.5 %), step = 4.826 ns     (483 u%)
    pss: time = 980.1 us    (97.5 %), step = 25.18 ns    (2.52 m%)
Conv norm = 1.81e+03, max dV(NM10:int_d) = 13.9445 mV, took 16.47 s.


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`pss': time = (5.1 us -> 1.0051 ms)
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    pss: time = 30.1 us      (2.5 %), step = 536.2 ps    (53.6 u%)
    pss: time = 80.1 us      (7.5 %), step = 565.7 ps    (56.6 u%)
    pss: time = 130.1 us    (12.5 %), step = 607.9 ps    (60.8 u%)
    pss: time = 180.1 us    (17.5 %), step = 597.8 ps    (59.8 u%)
    pss: time = 230.1 us    (22.5 %), step = 539.8 ps      (54 u%)
    pss: time = 280.1 us    (27.5 %), step = 538.4 ps    (53.8 u%)
    pss: time = 330.1 us    (32.5 %), step = 530.9 ps    (53.1 u%)
    pss: time = 380.1 us    (37.5 %), step = 12.42 ns    (1.24 m%)
    pss: time = 430.1 us    (42.5 %), step = 15.17 ns    (1.52 m%)
    pss: time = 480.1 us    (47.5 %), step = 15.1 ns     (1.51 m%)
    pss: time = 530.1 us    (52.5 %), step = 539.6 ps      (54 u%)
    pss: time = 580.1 us    (57.5 %), step = 4.843 ns     (484 u%)
    pss: time = 630.1 us    (62.5 %), step = 206.1 ps    (20.6 u%)
    pss: time = 680.1 us    (67.5 %), step = 624 ps      (62.4 u%)
    pss: time = 730.1 us    (72.5 %), step = 16.89 ns    (1.69 m%)
    pss: time = 780.1 us    (77.5 %), step = 516.2 ps    (51.6 u%)
    pss: time = 830.1 us    (82.5 %), step = 19.61 ns    (1.96 m%)
    pss: time = 880.1 us    (87.5 %), step = 17.66 ns    (1.77 m%)
    pss: time = 930.1 us    (92.5 %), step = 4.826 ns     (483 u%)
    pss: time = 980.1 us    (97.5 %), step = 25.18 ns    (2.52 m%)
Conv norm = 142e-06, max dV(I0.PM0:int_d) = 1.12668 nV, took 16.27 s.


Opening the PSF file ../psf/pss.td.pss ...

Opening the PSF file ../psf/pss.fd.pss ...
Number of accepted pss steps =             117660

Notice from spectre during periodic steady state analysis `pss'.
    Trapezoidal ringing is detected during pss analysis.
        Please use method=trap for better results and performance.

Initial condition solution time: CPU = 8.999 ms, elapsed = 9.269 ms.
pss: The steady-state solution was achieved in 3 iterations.
Number of accepted pss steps =             41378
Total time required for pss analysis `pss': CPU = 43.8453 s, elapsed = 43.9503 s.
Time accumulated: CPU = 43.9613 s, elapsed = 47.406 s.
Peak resident memory used = 684 Mbytes.


Notice from spectre.
    50 notices suppressed.

modelParameter: writing model parameter values to rawfile.

Opening the PSF file ../psf/modelParameter.info ...
element: writing instance parameter values to rawfile.

Opening the PSF file ../psf/element.info ...
outputParameter: writing output parameter values to rawfile.

Opening the PSF file ../psf/outputParameter.info ...
designParamVals: writing netlist parameters to rawfile.

Opening the PSFASCII file ../psf/designParamVals.info ...
primitives: writing primitives to rawfile.

Opening the PSFASCII file ../psf/primitives.info.primitives ...
subckts: writing subcircuits to rawfile.

Opening the PSFASCII file ../psf/subckts.info.subckts ...
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