

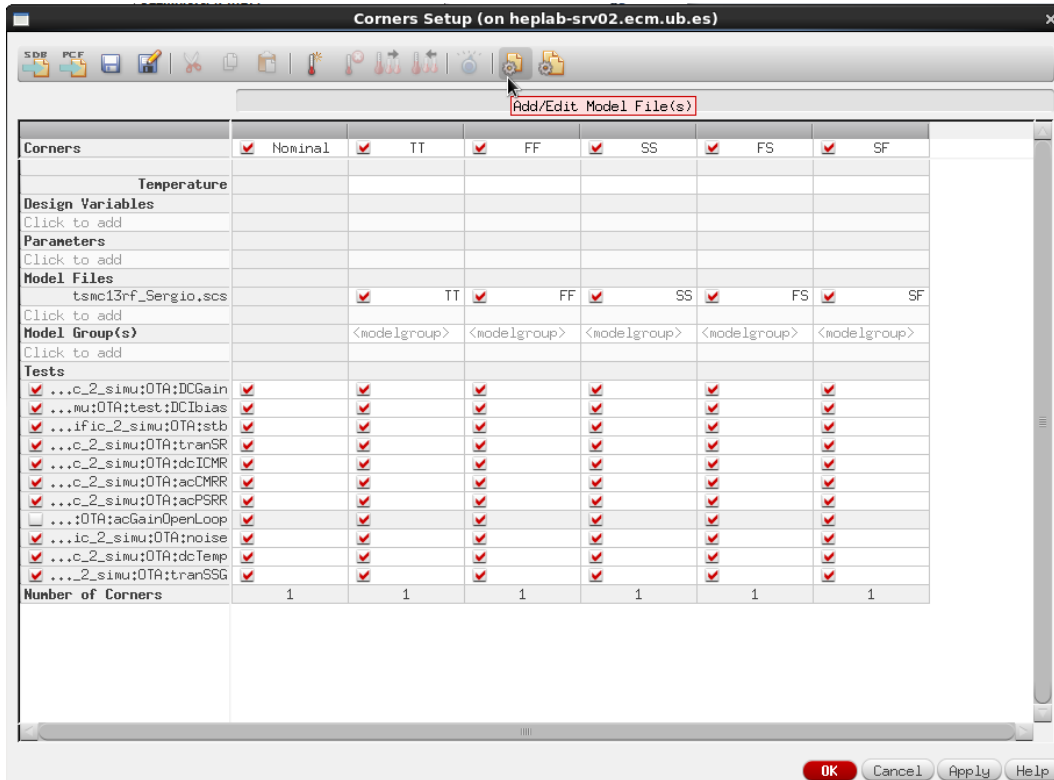
TSMC 130nm corner based simulation

1. TSMC corner models.

- The TSMC 130nm includes different corner specifications for the BSIM3 model. The transistor model and parameters are detailed in:
- `tsmc13_ms_PDK14C/models/spectre/cr013g_2d5_v1d4.scs`
- The kit contains a file "`tsmc13_ms_PDK14C/models/spectre/tsmc13rf.scs`" which includes the configuration of the nominal or typical corner. This configuration contains the specific parameters that must be employed to configure the devices in the typical corner.
- This file must be modified in order to include the different corners supported in this design kit.
- The kit contains information for the TT, FF, SS, SF and FS different corners.
- **Important:** Some devices are not specified for the SF and FS corners. In those cases, the other 3 corners can be considered. The TT corner seems to be the most reasonable option to analyze these two other corners.
- The updated file (`tsmc13rf_Corners.scs`) is provided in an annexed file in the twiki. The file can be configured in the Cadence environment to simulate any of the corners configured (as described in the next section).
- **Important:** The "`tsmc13rf_Corners.scs`" must be included in the same directory as the "`tsmc13_ms_PDK14C/models/spectre/cr013g_2d5_v1d4.scs`" is placed .

2. ADEXL Cadence corner simulation.

- Open the cadence ADEXL environment to perform a corner based simulation.
- Select the “Single Run, Sweeps and Corners” simulation.
- Go to the menu : Create -> Corner
- Add the model file created (tsmc13rf_Corners.scs).
- Configure the different corners as specified below.



- Save the corners configuration for future simulations.
- Run the simulation.

