

# New Features in Tanner EDA v15.11

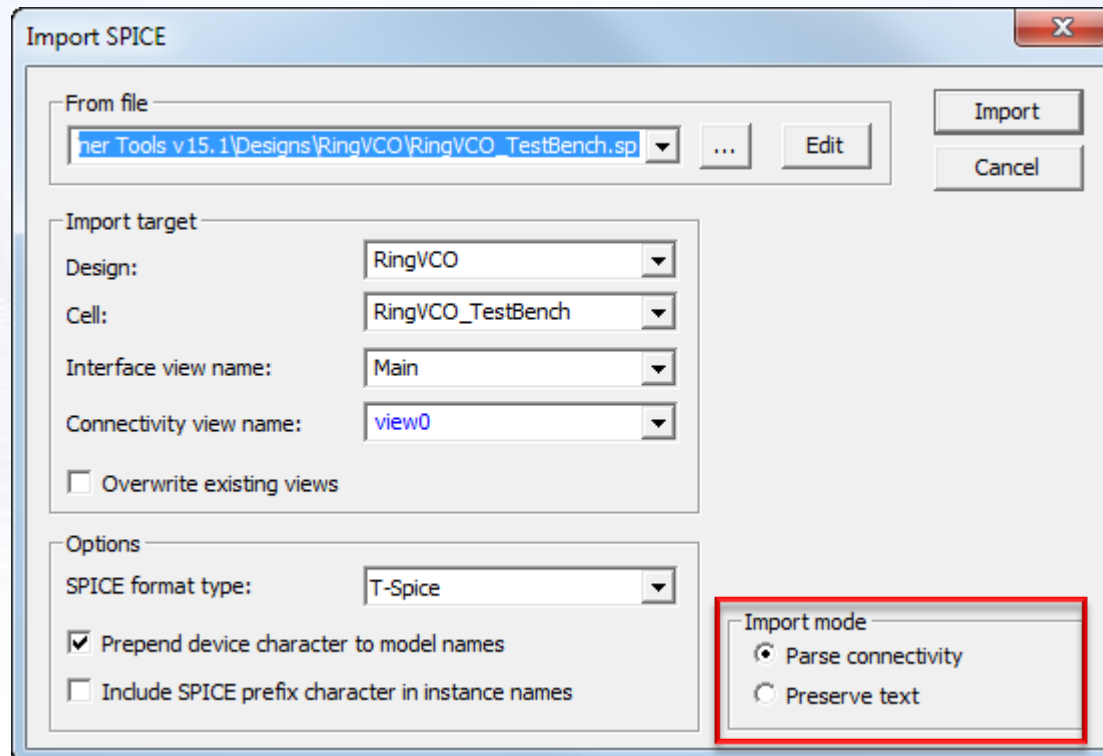
February 2011

# Tanner EDA v15.11 New Feature Summary

- S-Edit
  - Import Spice and Verilog added options
- W-Edit
  - Units can be specified in calc and trace define commands
- T-Spice
  - Improved Performance
  - Inline comments with \* allowed
  - Support for G element VCR voltage-controlled resistor
  - New option monteinfo for Monte Carlo analysis
- L-Edit
  - Improved Object Snapping to Wires
  - Paste to Cursor of Instances at Origin
  - UPI functions added for layer palette

# S-Edit: Import Spice and Verilog added options

- Import Spice has two new options
  - Parse Connectivity
  - Preserve Text



# S-Edit: Import Spice and Verilog added options

## ■ Parse Connectivity

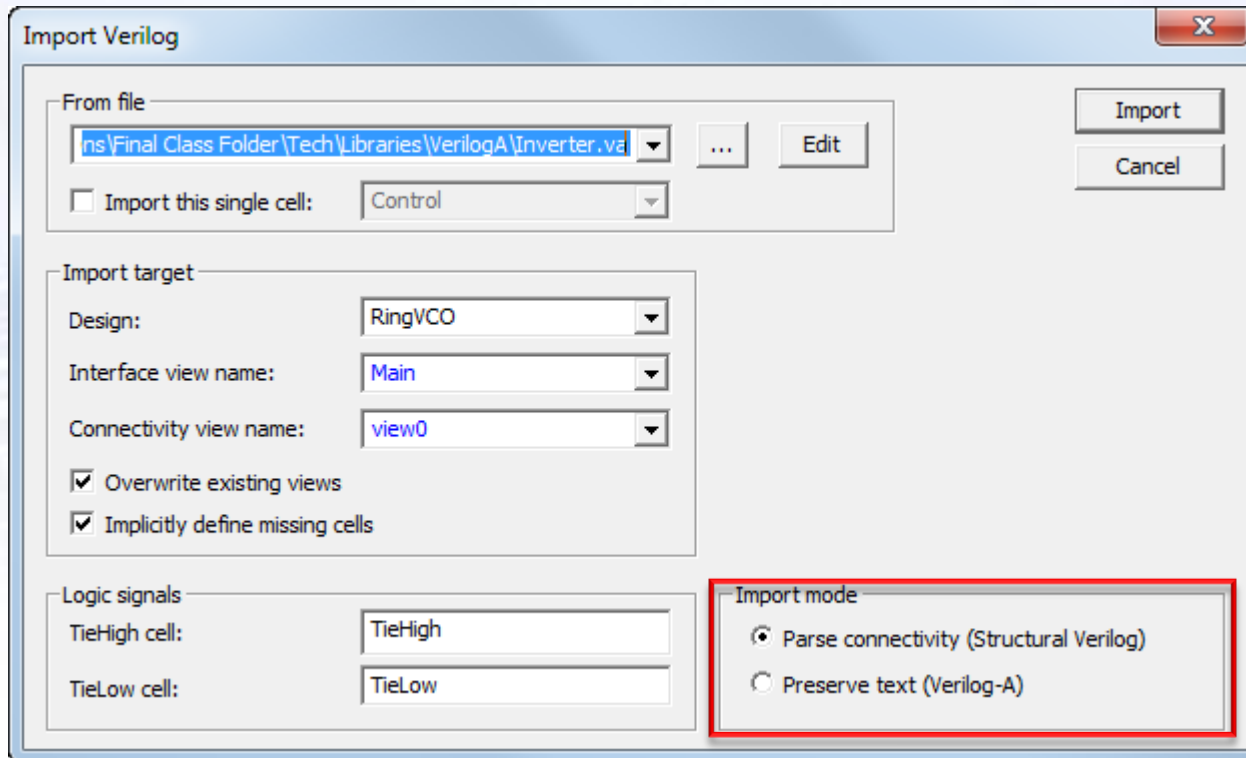
- Parses connectivity from netlist including files referenced by `.include` statements
- Spice views are then auto-generated from the connectivity views

## ■ Preserve Text

- Copies text verbatim for each subcircuit in the Spice file as well as toplevel into separate subcircuits
- Text inside `.include` files will not be inserted but a `.include` command will be referenced.

# S-Edit: Import Spice and Verilog added options

- Import Verilog has two new options
  - Parse Connectivity (Structural Verilog)
  - Preserve Text (Verilog-A)

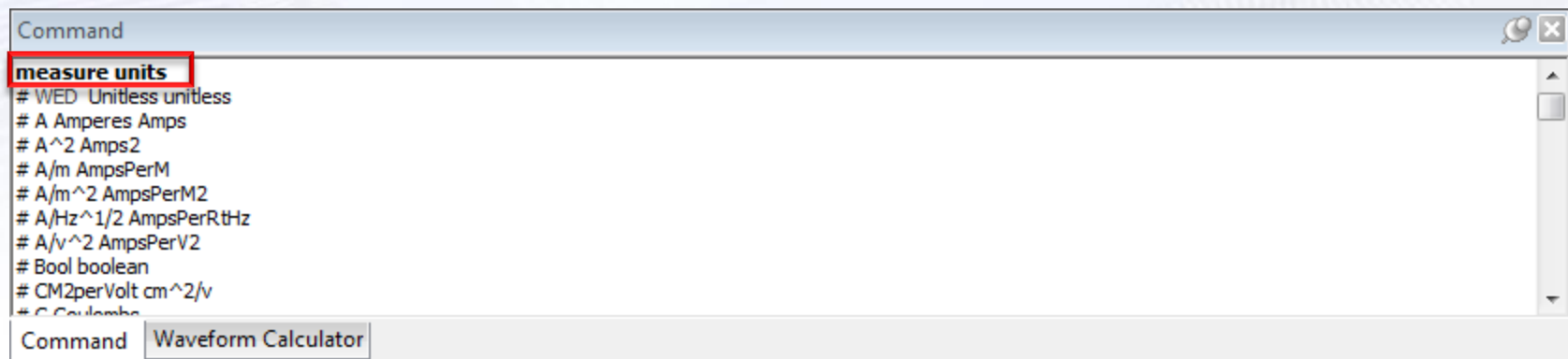


# S-Edit: Import Spice and Verilog added options

- **Parse Connectivity (Structural Verilog)**
  - Parses connectivity from Verilog netlist
  - Connectivity is then displayed as Spice views that are auto-generated from the connectivity views
- **Preserve Text (Verilog-A)**
  - Copies text verbatim for each subcircuit in the input Verilog file as well as toplevel into separate subcircuits
  - This is useful for importing a library of definitions that are all in one file.

# W-Edit: Units can be specified in calc and trace define commands

- Units can now be specified in the `calc` and `trace define` commands
  - `-units <units>` : units of result
  - `-xunits <x units>` : units of x-coordinates
  - `-yunits <y units>` : units of y-coordinates
- The list of units can be obtained by entering `measure units` on the command line



```
Command
measure units
# WED Unitless unitless
# A Amperes Amps
# A^2 Amps2
# A/m AmpsPerM
# A/m^2 AmpsPerM2
# A/Hz^1/2 AmpsPerRHz
# A/v^2 AmpsPerV2
# Bool boolean
# CM2perVolt cm^2/v
# C Coulombs
Command Waveform Calculator
```

# T-Spice: Performance improvements and additional support

- Performance is improved in cases where large amounts of text are written to the output window.
- Inline comments may now begin with an asterisk (\*) as well as the previously supported dollar sign (\$).
- Added support for g element VCR voltage-controlled resistor

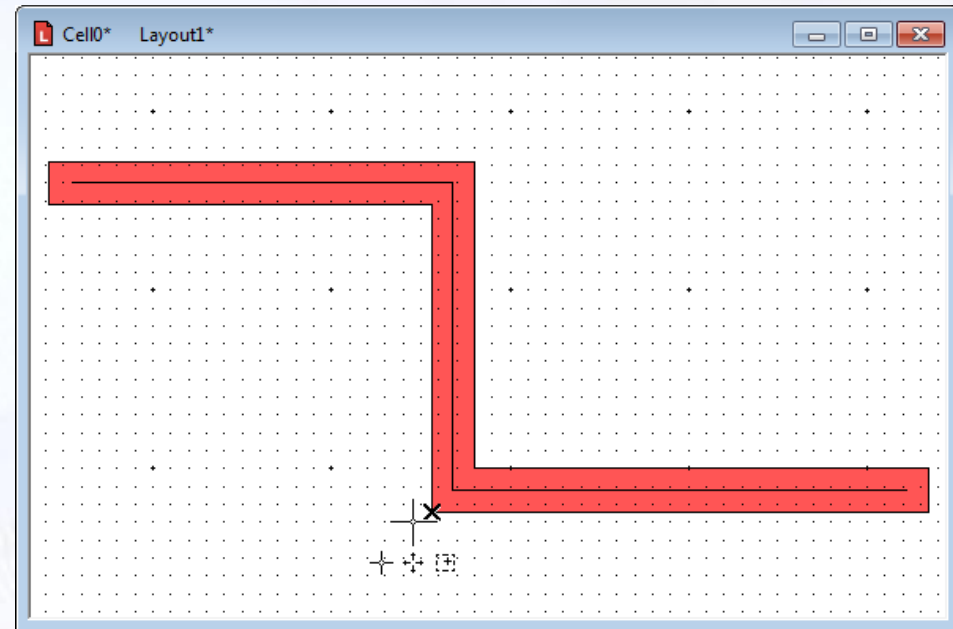
```
- Gxxx n+ n- VCR in+ in- transfactor <MAX=val>  
  <MIN=val> <SCALE=val> <M=val> <TC1=val>  
  <TC2=val> <IC=val>
```

# T-Spice: New option monteinfo for Monte Carlo analysis

- New `.option monteinfo={0 | 1 | 2}`
  - Controls what Monte Carlo results are written to the results files and thus are available to plot in W-Edit.
    - 0 Print final summary information.
    - 1 Print final summary information, measurements and random variable values for each step. This is default value.
    - 2 Print final summary information and print or probe results for each step.

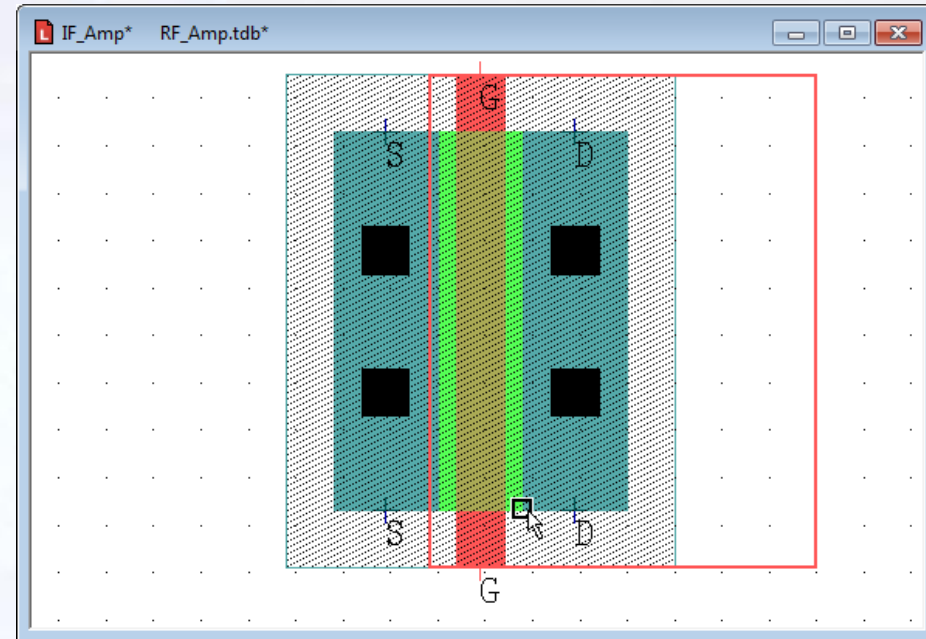
# L-Edit: Improved Object Snapping to Wires

- Object Snapping is now able to snap to the edge of wires
  - Edge snapping now snaps to wires edges
  - Center snapping snaps to circle and rectangle centers along with wire centerlines



# L-Edit: Paste to Cursor of Instances at Origin

- Paste to cursor of instances now places the cursor at the origin of the instance rather than the center of the instance
- If the origin of the instance is outside the instance boundary, the cursor is placed at the closest corner of the instance boundary to the origin.



# L-Edit: UPI functions added for layer palette

- New UPI functions were added:

## LFile\_GetCurrentLayerPalette

```
const char* LFile_GetCurrentLayerPalette( LFile pTDBFile );
```

### Description

Returns the name of the currently active layer palette.

Use this and the next three functions to run and add newly created layers to custom Layer Palette filters.

## LFile\_GetNextLayerPalette

```
const char* LFile_GetNextLayerPalette( LFile pTDBFile, const char  
*cssPalette );
```

### Description

Returns the name of the next layer palette. Pass NULL for cssPalette to get the first palette name; returns NULL after the last one.

## LFile\_DefineLayerPalette

```
LStatus LEDITAPI LFile_DefineLayerPalette( LFile pTDBFile, const char  
*cssPalette );
```

### Description

Creates or overwrites the palette with the given name, using the current layer settings.