

SimSmith.... What's New (in 17.2)

May '20

Two Kinds of Changes

Changes visible to most users

- Bugs being fixed
- Things that 'moved'
- Features that were added

Additions

- Things requested by users.
- Additions to underlying analysis
- Additions to access new information

Review of Release Notes

Release notes show two major areas:

Expanded (generalized) transmission line modeling

- Enhanced 'Copper Clad Steel' model to include twin lead (window line).
- Enhanced programmatic access to transmission line internals.

Expanded 'programmability'.

- Added new 'input' mechanisms
- Added asynchronous processes
- Added 'analysis' control (run, stop, abort, etc)

Important (but easily overlooked) changes

You can 'cut and paste' values in the parameter fields.

Unbelievably: it took me 10 years to get around to this!

A 'progress wheel' now appears in all 'long' analyses

Indicates progress to comfort the user

Visually cues user how long something is expected to take

(so the user can 'abort' an operation if desired)

Loading a circuit (or asking for a 'new circuit')

If you have modified the circuit in a 'meaningful' way,

SimSmith will ask if you want to save it before loading

loading a new one.

Two Most Visible...

Added 'analysis control' to the top level menu.

- Allows user to control automatic analysis
 - Tool bar 'running' menu
 - 'run', 'stop', 'once', 'abort'
- Controls ALL analysis
 - Before, a 'run away' analysis could not be stopped
 - Now the 'running' menu, 'abort' will stop things

Symbol Table Editor

- Examine (essentially) all internal data
- Provide 'copy to clipboard'

Showing Operation of 'running'.

Create a long running analysis

Demonstrate 'abort'

Switch to 'stop'

Show that 'single point' analysis still occurs

Use 'once' to analyze

Show trace selection doesn't cause new analysis

(Unless SimSmith gets lost... which it might)

Showing Operation of Symbol Table

Show how to invoke it ('?')

Show navigation (hovering)

Show what gets shown at leaves

Show what gets copied when you 'click'

Show automatic insertion into text dialog

- What gets copied gets inserted

Interesting info: 'equ' in RUSE Block

Where Was Work Done

17.2 did extensive work in two areas:

- Analysis
 - Now does allow interruption of any analysis
 - Now controls 'automatic' analysis
 - Provides visual cues that analysis make take a while
 - Removed many 'redundant' analyses, maybe too many.
- Parameter 'unification'
 - Added programmatic access to essentially all parameters
 - Unified Anvil internals and Circuit parameters
 - (means Anvil is no longer an 'overlay' of the circuit parameters)
 - Some programs may no longer work

What to Watch out for

There may be times an analysis doesn't take place which should.

(Please report these)

There may be times a 'paint' doesn't happen when it should.

(and these)

Subconscious activities may not act the same

(Extended sweeps act slightly different including 'abort')

Some programs that set variables may have unintended consequences

(Like the deletion of text in Daemon blocks, etc)

Wrap up

17.2

- Exposes much more of the SimSmith internals

- Provides tighter control over circuit analysis

- Provides more intuitive operation for things like
cut/paste of text in parameters

 - queries for 'save' when a circuit has been modified

- Improves responsiveness in long sweeps

Generally Improves SimSmith's Utility and User Experience