

SimSmith version 8.3 notes:

The entire calculation engine has been rewritten. There are most likely some internal bugs. Please be vigilant when using version 8.3

Here are the highlights and a few notes.

1. Writing of Touchstone s2p files. (file/write touchstone .s2p file). The operating Zo (from the Generator) is used as the 'reference' impedance in the Touchstone file. It used to be fixed at 50 ohms.
2. S block with hand provided parameters (file no longer mandatory).
3. There is now an unDo and reDo and 'timeline' slider. Look under the tune buttons. Control Z and Command Z are also unDo and Control Y and Command Y are also reDo. The keyboard command don't work when editing a parameter field. Undo depth is set at 50 for now.
4. The 'WARNING' box has moved. There were some subtle problems with proving a 'floating' window so I put the warnings over the element menu. I'm still working on this aspect of SimSmith.
5. more informative messages for L.file 'frequency out of range' errors.
6. save image(s) to file... replaces 'print'. The image is saved as a '.png' file. If the file name is of the form "name#" then you can have the '#' part autoincremented. See "file/preferences/autoIncrementImageNames"
7. save image(s) to clipboard. For all OSes, Java 6 seems to work fine. For Windows, Java 7 works. For OS-X, Java 7 does not work. I don't know about Linux. This feature must be added to the menu to enable it. See "file/preferences/includeCaptureMenu".
8. Chart units: the Smith chart units have been fixed (there was a sign error on conductance axis) AND you can now have actual impedances displayed rather than normalized. See 'file/preferences/chartScale' which can be 'unit' or 'Zo'.
9. Added 'Y' to the report.
10. Added Voltage and Current to the circuit display. I'm not happy with this yet but they are there.
11. Path/Sweep/Both You can now show both the 'path' taken at a given frequency AND the sweeps at the same time. Just keep clicking on the 'showing' button.
12. Added 'new Circuit' to the 'file' menu so you can clear the circuit quickly.
13. Added 'reset screen size' to the 'help' menu. Sometimes you get a circuit which is too large for your screen and you just want to reset the

- size. The size can be set by “file/preferences/resetScreenWidth” and “file/preferences/resetScreenHeight”.
14. Touchstone files no longer require 50 ohm reference impedances... any value is acceptable.
 15. The desktop background can be changed from the normal ‘grey’ to ‘white’. See “file/preferences/background”. This makes it easier to use screen capture to capture the Smith Chart. (Also, consider ‘screen captures’ from the main menu.)
 16. The relative size of the Smith chart can be reduced. Again, this is useful for screen capture... you can set the Smith chart smaller so that it is well away from the report and SWR buttons. See “file/preferences/chart Scale Factor”. A value of ’75 seems pretty about right.
 17. You can add the ‘date’ to the images and captures... or not. See “file/preferences/showDateOnImage”.
 18. You can display (or not) the ‘angle’ of the reflection and transmission coefficients on the Scattering Parameters.
 19. Power is reported in dBWatts.