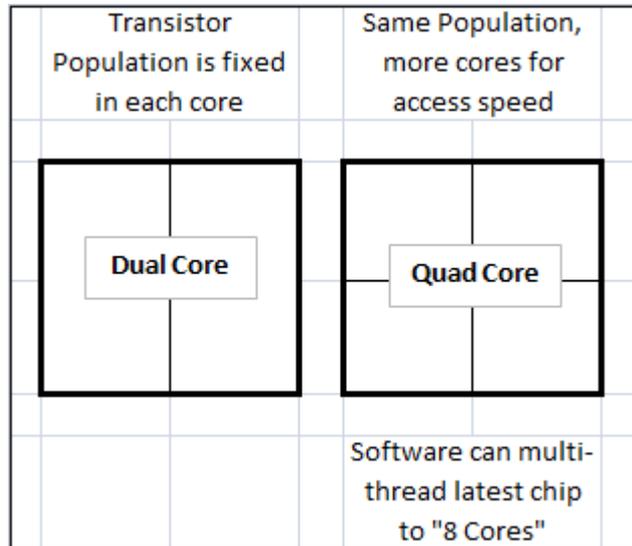


# Hardware/Software Integration



- All else being equal, a “Dual Core” chip has more transistors per core, thus more “room” in each core than a “Quad Core” chip
- NT7 is designed to ONLY use one core – it is a “serial program” – the program executes one line of code at the time sequentially before it displays the results
- As the NEW chips are designed, the cores are smaller because the new programs can run faster using several cores at once – These are “parallel programs” - new programs are designed to make many calculations, of program segments not related to each other in separate cores, thus increasing display speed.
- In a “quad core” chip, NT7 loads in one of the cores, thus has less “room” to do all the serial calculations. Several negatives happen because of this:
  - To get to the end, it spends lots of time swapping program code in and out of core before it displays anything. This gets worse during periods of high volatility
  - Constant swapping of the programs leads to other problems when the program “gets lost.” Problems where you have to restart the program to get it back.