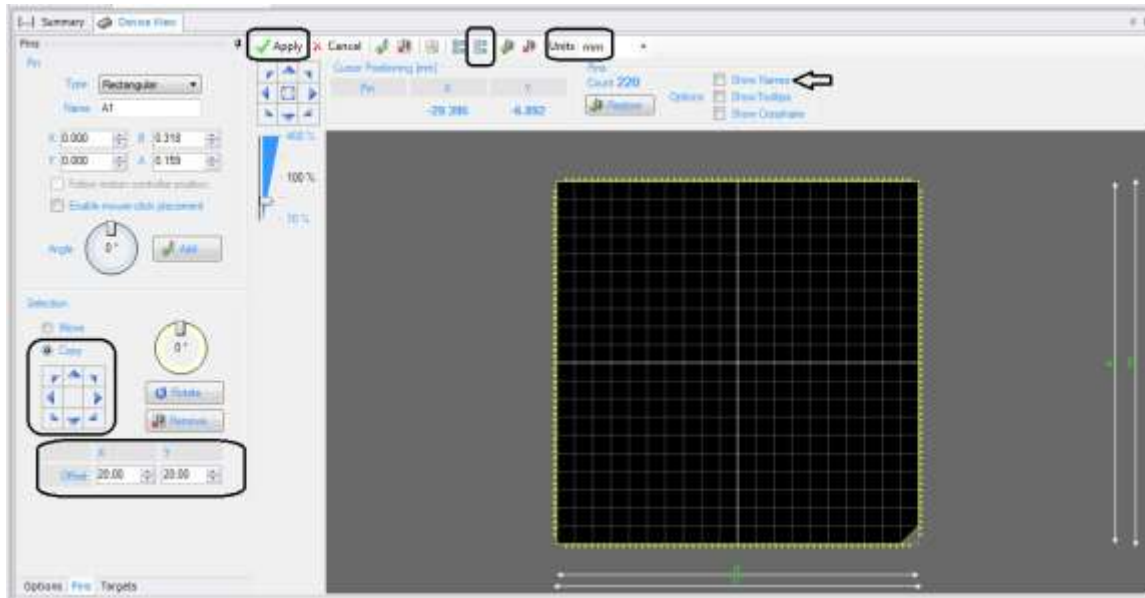June 19, 2016

Orion Scimitar Software Application Note

Adding an internal row to a Quad Package

Once a quad package has been created, inner rows can be added using the following steps
All programming will be done using the Device View / Pins window

If package was created and data sheet units are in 'mm', leave as 'mm' till the end of the programming, at which time change to 'mils' and select "Apply" before running a test

Note, the spacing for the inner row on this device was 0.775mm and the spacing between the pins was 0.0300mm. The numbers mentioned below reflect these values.

- Deselect the "Show Names" to make it easier to view Quad layout
- To add a row above the lower row of pins
  - select all the pins in the row, except the far left pin by holding down the ALT key and selecting the row (except most left pin) using the left mouse button, selecting from right to left
  - set the "x" Offset to 0.30
  - set the "y" Offset to 0.78
  - select the upper left arrow ⬜ and this will add the row
  - select the "Clear Pin Selection" button ⬜ to deselect the added row prior to adding the left row of pins

- To add a row to the right of the left row of pins
  - select all the pins in the row, except the top pin by holding down the ALT key and selecting the row (except most top pin) using the left mouse button, selecting from bottom to top
  - set the "x" Offset to 0.78
  - set the "y" Offset to 0.30
  - select the upper right arrow and this will add the row
  - select the "Clear Pin Selection" button to deselect the added row prior to adding the top row of pins
- To add a row below the upper row of pins
  - select all the pins in the row, except the far right pin by holding down the ALT key and selecting the row (except most right pin) using the left mouse button, selecting from left to right
  - set the "x" Offset to 0.30
  - set the "y" Offset to 0.78
  - select the upper left arrow and this will add the row
  - select the "Clear Pin Selection" button to deselect the added row prior to adding the left row of pins
- To add a row to the left of the right row of pins
  - select all the pins in the row, except the bottom pin by holding down the ALT key and selecting the row (except most bottom pin) using the left mouse button, selecting from top to bottom
  - set the "x" Offset to 0.78
  - set the "y" Offset to 0.30
  - select the lower left arrow and this will add the row
- select the "Clear Pin Selection" button to deselect the added row
- Select "Apply" to save all the new pins
- Select "Save As" to save the "new" device, proving a new name

Note, following the above sequence, will add pins sequentially, meaning the first new pin added in the bottom right will be the next number in the device sequence. In this example, the original device had 220 pins, so the first new number was 221 and total package now contains 436 pins.

If this numbering sequence is not desired, the pin numbering can be changed in the "Targets" window by selecting the pin to edit and changing its name