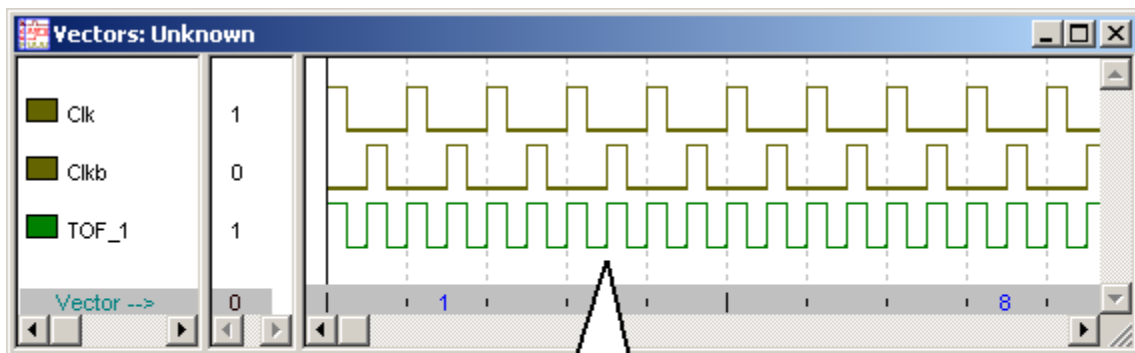


**Q: How can I make a pin pulse at twice the clock rate?**

## Timing On The Fly

Some devices are most effectively tested when a certain pin (usually a clock pin) is pulsed at twice rate of the other input pins. You can do this easily using your tester's Timing On The Fly feature (ToF).

To use ToF, two adjacent pins (that is, numerically sequential) are "OR'd" together by software within HiLevel's pin electronics ASIC on the PE board. Care must be taken in preparing the DUT board to use this feature; any pin pair you wish to use must begin with an odd number channel followed by the *next significant* even number pin. For example, pin one and two may be used, but not two and three. The "OR'd" data will be driven out on the odd-numbered channel. See example below:



Clk and Clkb are logically OR'd to form the double-clocking seen in green. TOF\_1 is the actual output data present on channel 1 for the DUT input pin. There are two pulses per vector, so with our test rate at 50MHz, this clock is 100MHz.

To learn the details of setting up this feature, see section 20 of the Symphony User manual.

Related QnApps:

**QnApp S17:** Stimulus Formats

**QnApp S25:** Drivers & Receivers