

## Multiplexing Application Note - Model 575 Digital Delay / Pulse Generator

A common request among Digital Delay and Pulse Generator users is the ability to sum outputs on a single channel to create even more diverse pulse trains. The model 575 successfully achieves this function with the Mux feature described below.

### Using the Output Multiplexer:

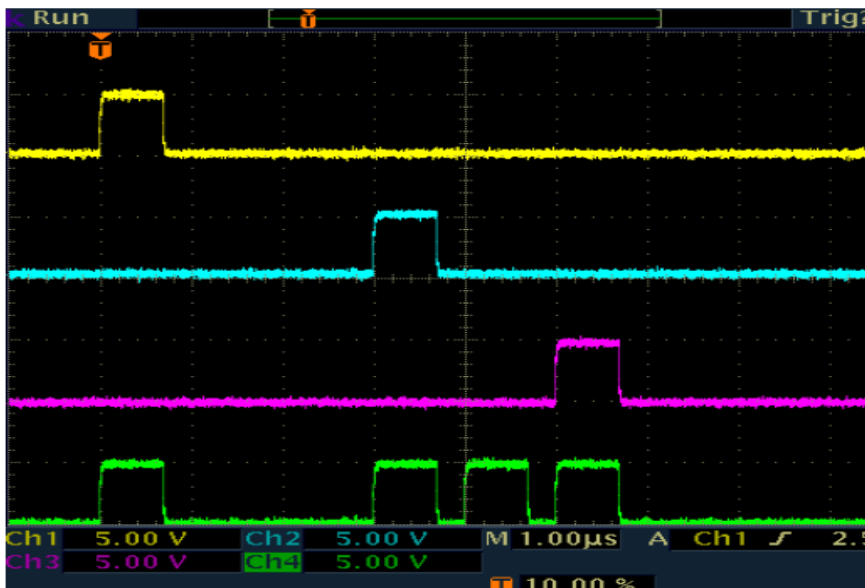
Each output channel includes a multiplexer which allows routing any or all of the timer outputs to the physical output. This allows double pulses and other complex pulse trains to be generated.

H G F E DC B A  
Mux: -0 0 0 0 1 1 1 1

The multiplexer is represented by a n bit binary number as shown above. n is the number of channels. Each bit represents a channel timer, which is enabled by setting the bit to one. In the above example, timers A , B , C are combined on the output D.

Multiplexing allows for the combination of any or all channel settings to be output to any of the outputs.

Channel multiplexing only combines timing events of the channels and not the actual output voltages or currents.



Channel A Timing

Channel B Timing

Channel C Timing

Channel D Timing