MATLAB

EFFECTS

Utilities - Anonymous functions

What Are Anonymous Functions?

An anonymous function is a function that is *not* stored in a program file, but is associated with a variable whose data type is `function_handle`. Anonymous functions can accept inputs and return outputs, just as standard functions do. However, they can contain only a single executable statement.

For example, create a handle to an anonymous function that finds the square of a number:

```
sqr = @(x) x.^2;
```

Variable `sqr` is a function handle. The `@` operator creates the handle, and the parentheses `()` immediately after the `@` operator include the function input arguments. This anonymous function accepts a single input `x`, and implicitly returns a single output, an array the same size as `x` that contains the squared values.

Find the square of a particular value (5) by passing the value to the function handle, just as you would pass an input argument to a standard function.

```
a = sqr(5)
```

```
a =
    25
```

Exercise 1 – Time-variant frac. delay line

- Load the given audio signal
- Plot it in the time domain
- Define the delay modulation function
  - Sinusoid at 10Hz
  - Average delay 0.1 s
  - Delay range plus/minus 0.5 ms
- Apply the modulated delay line to the audio signal
- Listen to the track