Matlab to Matlab

Open port to UART bridge

```
clear s % closes ports already open
s = serialport('COM4',9600) % Check COM#
```

```
s =
  Serialport with properties:

                Port: "COM4"
            BaudRate: 9600
    NumBytesAvailable: 0

  Show all properties, functions
```

```
configureTerminator(s,'CR') % end lines with \r
```

Use s.writeline() to send a message

```
s.writeline("Hello World"); % send message to serial port
```

Use s.readline() to read a message

```
data = s.readline() % read message from serial port
```

```
data =
"100,20,4"
```

Pico to Matlab

Open port to pico

```
clear s % closes ports already open
s = serialport('COM4',9600) % Check COM#
```

```
s =
  Serialport with properties:

                Port: "COM4"
            BaudRate: 9600
    NumBytesAvailable: 0

  Show all properties, functions
```

Use s.writeline() to send a message to pico

```
s.writeline("Hello I am a computer!"); % write message to Pico
```

Use s.readline() to read message from pico

```
data = s.readline() % read message from Pico
```

Use s.readline() to read message from pico and modify the message

```
rxmsg = s.readline() % read message from Pico
```

```
rxmsg =
    "100,20,4
     "
items = 3×1 string
"100"
"20"
"4"
```

```
items = split(rxmsg,',') % split message into array
values = arrayfun(@str2num,items) % apply function to each element in array
(convert string to a number)
```

```
values = 3×1
   100
    20
     4
```

Use s.readline() to read message from pico

```
rxmsg = s.readline() % read message from Pico
```

```
rxmsg =
    "100,20,4
     "
```

Create message with formatted print sprintf()

```
var1 = sqrt(3);
var2 = 5;
```

```
msgrx =
'1.732051,5'
```

```
msgrx = sprintf('%f,%d',var1,var2) % format data into string or character vector
s.writeline(msgrx) % write msgrx to Pico
```