

Hi all,

I'm looking for an elegant solution (i.e. one that does not involve nested FOR loops) for the following problem:

I have two independent data acquisition systems that sample data at different intervals and different start times. Let's say one samples in 10 second intervals, the other one in 5 second intervals. I now would like to apply a correction determined by one of the systems to the other. This means I need to match up the data points in the corresponding vectors. Let's assume s1 is system one, s2 is system 2 delivering the correction values. I have two vectors for each system, one containing the timestamps, the other containing the measured data.

For example:

```
s1_time = [ 0, 10, 20, 30, 40, 50 ]  
s1_data = [ 4, 5, 6, 7, 8, 9 ]
```

```
s2_time = [ 35, 40, 45, 50, 55, 60 ]  
s2_data = [ 1, 2, 3, 2, 1, 2 ]
```

This presumably is a rebinning exercise of sorts to first make s2 data match:

```
s2_time_rebinned = [ 30, 40, 50 ]  
s2_data_rebinned = [ 1, 2.5, 1.5 ]
```

Then adding the result to the s1 vectors:

```
res_time = [ 30, 40, 50 ]  
res_data = [ 8, 10.5, 10.5 ]
```

Does anyone have pointers/ideas how to best go about this in IDL?

Cheers

- Balt
