9/7/12 4D Panel

```
In [1]: import pandas, datetime
        from arb.datacube import apandas
        Panel = apandas.Panel
        FDPanel = apandas.FDPanel
In [2]: # these are your files
        from StringIO import StringIO
        data = []
        data.append("""\
        skip this row
        sample, A, B
        0,1.23,2.44
        1,1.24,2.55
        """)
        data.append("""\
        skip this row
        sample, A, B
        0,1.78,2.49
        1,1.53,2.69
        2,,2.70
        3,1.62,
        """)
        data
Out[2]: ['skip this row\nsample, A, B\n0, 1.23, 2.44\n1, 1.24, 2.55\n',
         'skip this row\nsample, A, B\n0, 1.78, 2.49\n1, 1.53, 2.69\n2, , 2.70\n3, 1.62, \n']
In [4]: # loop thru files and create a FDPanel
        def create panel(f):
             #read in a file as a frame
            df = pandas.read csv(StringIO(f), skiprows=1, index col=0)
             # turn this into a panel
             return Panel({ datetime.datetime(2012,9,5) : df }).swapaxes(axis1='items',axis2=
         fdp = FDPanel(dict([ ('label %s' % i,create panel(f)) for i, f in enumerate(data) ])
        fdp
        4
Out[4]: <class 'arb.datacube.fdpanel.FDPanel'>
        Dimensions: 2 (labels) x 4 (items) x 1 (major) x 2 (minor)
        Labels: label_0 to label_1
        Items: 0 to 3
        Major axis: 2012-09-05 00:00:00 to 2012-09-05 00:00:00
        Minor axis: A to B
In [6]: | # reogranize your fdp
        fdp1 = fdp.swapaxes(axis1='minor',axis2='labels')
        print fdp1, "\n"
         # now B even easier
        b = fdp1['B']
        print b
        <class 'arb.datacube.fdpanel.FDPanel'>
```

9/7/12 4D Panel

```
Dimensions: 2 (labels) x 4 (items) x 1 (major) x 2 (minor)
Labels: A to B
Items: 0 to 3
Major axis: 2012-09-05 00:00:00 to 2012-09-05 00:00:00
Minor axis: label_0 to label_1

<class 'pandas.core.panel.Panel'>
Dimensions: 4 (items) x 1 (major) x 2 (minor)
Items: 0 to 3
Major axis: 2012-09-05 00:00:00 to 2012-09-05 00:00:00
Minor axis: label_0 to label_1
```

In []: