

Read in a FITS file from disk

```
>>> from astropy.io import fits
>>> hdus = fits.open('sample.fits')
```

Access the header of the first HDU:

```
>>> hdus[0].header
SIMPLE      =              T
BITPIX      =             -32
NAXIS       =               3
NAXIS1      =             200
NAXIS2      =             200
NAXIS2      =              10
EXTEND      =              T
...
```

Access the shape of the data in the first HDU:

```
>>> hdus[0].data.shape
(10, 200, 200)
```

Update/add header keywords

```
>>> hdus[0].header['TELESCOP'] = 'Python'
>>> hdus[0].header['INSTRUME'] = 'Computer'
```

Multiply data by 1.2

```
>>> hdus[0].data *= 1.2
```

Write out to disk

```
>>> hdus.writeto('new_file.fits')
```