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Here is the description for the BLK2ASC conversion.

This should answer your questions.

BLK2ASC/ASC2BLK conversion:

The standard ASCII files have the following format (see page 3 for optional formats):

1) A block identifier line (must all be on one line):

```
Blockname          Blocktype          elements attribute
```

Any block identifier line which does not have 4 elements on it is ignored.

2) A data block (a space, tab, or return seperating each element).

for example:

```
Step              Short_Array_2D           1 0001
0
```

Data Array Format:

The Array_3D type has the following format for data :

```
xsize       ysize       elementsize
data[0][0] data[0][1] ...
```

for example: (BAD = a bad pixel)

```
RAW DATA          Array_3D                  1 0001
        256         240          2
  BAD    BAD    BAD    BAD    BAD    BAD    BAD    -2318  -2220  -2140
  -2045  -1932  -1834  -1739  -1660  -1581  -1487  -1398  -1301  -1204
```

If elementsize is 1 or 2, the data is integer. If elementsize is 4, the data is floating point. Floating point data is stored in waves. Multiply by the wavelength to convert to nm. Integer data is stored in waves * the mult value. Divide by mult to convert to waves, or multiply by the wavelength and divide by mult to convert to nm.

To convert a block file to an ASCII file type the following at the DOS command line and press enter:

BLK2ASC blockfile asciifile

where blockfile is a blockfile to convert, and asciifile is the destination ASCII file.

To convert an ASCII file to a block file type the following at the DOS command line and press enter:

ASC2BLK asciifile blockfile

where asciifile is the ASCII file to convert, and blockfile is the destination blockfile.

Fringe_Data format:

header followed by the data. Header is as follows - showing the example's values:

```
data_points     (294)          /* Array size */
element_size    (4)            /* Element type code (See below) */
fids[8]         (-1 .. .555)   /* fiducials x1,y1,x2... */
ap_type         (CIRCLE_AP)    /* ap type - CIRCLE_AP, SQUARE_AP, ELLIPSE_AP */
cent_obsc_ratio   (0.0)        /* ratio of central obscuration */
xsize             (85)         /* array size x dim to use */
ysize             (80)         /* array size y dim to use */
xcenter           (42.5)       /* center x point in pixels */
ycenter           (40.0)       /* center y point in pixels */
radius            (32.2)       /* radius in pixels */
```

Data is in the form X loc, Y loc, OPD value. Values should be sorted by OPD value then if horizontal fringes by X loc then Y loc, and if vertical fringes by Y loc the X loc. The block Horiz_fringes specifies the direction (0 is vertical and any other number is horizontal). The following example shows only part of the data.

```
Directory       Directory                40 FPFF
Fringes         Fringe_Data               1 0008
        298          4
         -1.000          0.000
          0.000         -0.555
          1.000          0.000
          0.000          0.555
  ELLIPSE_AP           0.000
         85          80
         42.500          40.000         33.200
         -0.954           0.076         1.000
         -0.938           0.038         1.000
         -0.842           0.152         2.000
         -0.829           0.114         2.000
          0.942           0.114        14.000
Date            Byte_Array_2D             8 0008
  04/29/91
Time            Byte_Array_2D             8 0008
  13:32:11
Aspect          Float_Array_2D            1 0008
   0.83
Wavelength      Float_Array_2D            1 0008
   632.8
F_number        Float_Array_2D            1 0008
   0
Pupil_diam      Float_Array_2D            1 0008
   1000
Wedge           Float_Array_2D            1 0008
   0.5
Mult            Short_Array_2D            1 0001
   1024
28 unused blocks.
```

BLK2ASC Optional Parameters:

The following optional parameters may be included on the command line to create a different format file. These files cannot be read with the asc2blk program however.

-f Writes the file in a X by Y format. Each line contains xsize data points, and there are ysize lines of data (this cannot be used with the -s option).
-s Writes the file in a single line format. Each line contains the x location, the y location and the height(z) value (this cannot be used with the -f option).
-3 Specifying this parameter will cause the blk2asc program to write only the Array3D data to the file.