



AHELP for CIAO 3.4

## pix\_fpc\_to\_gdp

Context: [pixlib](#)

*Jump to:* [Description](#) [Example](#) [Bugs](#) [See Also](#)

## Synopsis

Convert from the Focal Plane (FPC) to Grating Dispersion Plane (GDP) coordinate system.

## Syntax

```
Array_Type pix_fpc_to_gdp( Double_Type x, Double_Type y )
```

## Description

This routine converts a position in the Focal Plane coordinate (FPC) system to the matching position in the Grating Dispersion Plane (GDP) coordinate system, using the current settings of the pixlib module. The inputs (x,y) are the position in the FPC system. The return value is a two–element array which gives the GDP coordinates in pixels.

## Example

```
chips> require( "pixlib" )
chips> pix_init_pixlib
chips> pix_set_detector( "HRC-S" )
chips> gdp = pix_fpc_to_gdp( 42000, 17300 )
chips> print( gdp )
40545.9
169.415
```

Using the default settings of the pixlib module for the HRC–S detector (i.e. the aimpoint is on HRC–S2), we find that the FPC location (42000, 17300) corresponds to the GDP position (40545.9, 169.415).

## Bugs

See the [bugs page for the pixlib library](#) on the CIAO website for an up–to–date listing of known bugs.

## See Also

*modules*

[pixlib](#)

*pixlib*

[pix\\_chip to fpc](#), [pix\\_chip to gdp](#), [pix\\_chip to tdet](#), [pix\\_fpc to chip](#), [pix\\_fpc to msc](#), [pix\\_tdet to chip](#)

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URL:  
[http://cxc.harvard.edu/ciao3.4/pix\\_fpc\\_to\\_gdp.html](http://cxc.harvard.edu/ciao3.4/pix_fpc_to_gdp.html)  
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