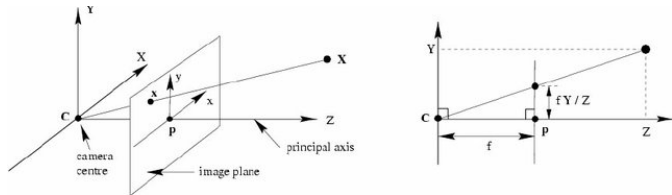
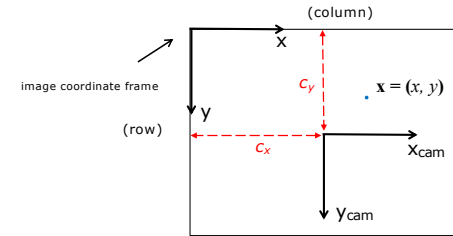


Recall that we defined camera coordinate frame



.. And Image coordinate frame

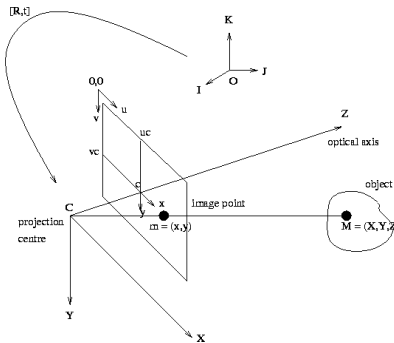
- Image coordinate frame is related to the camera coordinate frame by two translations c_x and c_y



- In addition, image point x is mm in the camera coordinate frame but in pixels in the image coordinate frame.

2

To be consistent, we have



To store an image in a matrix,

Matrix indices	Image Coordinate Frame
0/0---column--->	0/0---X--->
row	Y
v	v

I.e., camera $(X, Y) \rightarrow$ image $(u, v) \rightarrow$ matrix (column, row)