DPBS(PG) College, Anoopshahr

BCA IV Semester

Subject: Computer Graphics

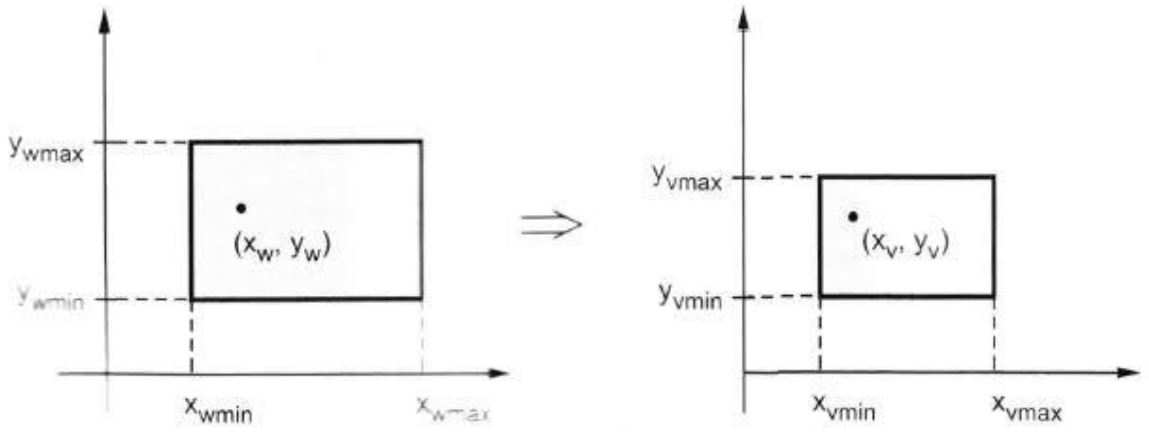
Paper Code: 401

Window and Viewport

Window	Viewport
• A real world-coordinate area selected for display is called a window. • In computer graphics, a window is a graphical control element. • It consists of a visual area containing some of the graphical user interface of the program it belongs to and is framed by a window decoration.	• An area on a display device to which a window is mapped is called a viewport. • A viewport is a polygon viewing region in computer graphics. The viewport is an area expressed in rendering-device-specific coordinates, e.g. pixels for screen coordinates, in which the objects of interest are going to be rendered. • A viewport defines in normalized coordinates a rectangular area on the display device where the image of the data appears.

Window to viewport transformation:

1. Window-to-Viewport transformation is the process of transforming a two-dimensional, world-coordinate scene to device coordinates.
2. In particular, objects inside the world or clipping window are mapped to the viewport. The viewport is displayed in the interface window on the screen.
3. In other words, the clipping window is used to select the part of the scene that is to be displayed. The viewport then positions the scene on the output device.



Window Viewport