

Learning Assignment 9

Starting-up procedures for a CAD/CAM system

Most computer systems use similar hardware for data storage, such as floppy discs and a hard disc, with printers and/or plotters for output of hard copy. They may, however, use different ways to input information and data, such as moving a tracker ball or a mouse, or simply typing commands using the keyboard. Various facilities may also be available for transferring CNC programs to machine tools, such as a punched tape/reader or a magnetic tape cassette.

For operating CAD/CAM software the computer may be a stand-alone PC, a workstation or a network between computers and/or a mainframe machine. In all these arrangements, access may be gained to the CAM system by using passwords and/or 'pull down' menus.

When starting up on a CAD/CAM system, the drawing parameters may have to be set according to the size of the component, the component datum point, the grid size if required and the directory in which the data has to be stored.

There are also various settings for drawing functions: these could include the text height, the line thickness, colour and type (for example, chain or dashed), and the angle of text.

All CAD/CAM systems allow you to work on 'layers'; you can draw an outline on one layer, dimensions and text on another, construction lines on another. Using layers is an efficient way of organising the drawing information since layers can be 'turned off' or made invisible, thus allowing you to work on an uncluttered drawing.

TASKS | Task 9.1 Starting on a CAD/CAM system

Start up your CAD/CAM system and note the default values for the screen size, units, grid size, text height, snap value and the line type.

Figure 7.7 (page 32) shows a guide plate. Set up the following to draw the guide plate:

drawing size	A3
units	mm
number of decimal places	1
scale	full size
grid size	5 mm
snap value	5 mm
co-ordinate origin	X0.000 Y0.000

Set up one layer for the solid lines, another for the centre lines and a third for the dimension lines and text.

When your drawing is completed, save it.

A POINT TO NOTE

Some CAD systems require you to give the filename (drawing name) as part of the initial start-up procedure. Other systems prompt you for the drawing name when you save it for the first time.