

Graphic communication

2D CAD Commands

Name: Class:..... Teacher:.....

Introduction

2D computer aided draughting (CAD) is the electronic equivalent of traditional drawing and be used to create a full range of production drawings.

Production drawings from 2D CAD can be printed or sent directly to manufacturing equipment to produce component parts.

2D CAD software is useful when generating accurate surface developments or true shapes of individual faces.

While 2D CAD often relies on a mouse as an input device, many new applications are using graphics tablets or touch screen technologies to make the drawing process easier and more natural for the designer.

2D CAD v's 3D Modelling

Knowing how to use 2D CAD is very important as all 3D modelling packages use a range of 2D drawing tools. These allow the designer to draw the flat shape or “profile” that they want to make into 3D.

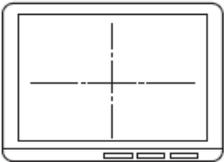
It is wrong to assume that 2D CAD has been replaced by 3D modelling. 3D modelling can appear more glamorous and exciting, but there are many types of production and architectural drawings that require the fine drawing skills and techniques only provided by 2D CAD.

2D CAD v's Traditional Drawing Techniques

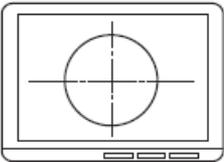
2D CAD has a number of advantages over traditional drawing techniques, such as allowing greater drawing accuracy with the use of grid and snap, providing CAD libraries of common parts and the ability to email drawing files instantly to anywhere in the world.

Common 2D CAD Commands

Circle

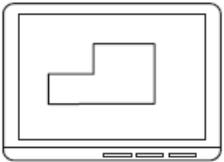


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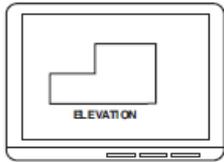


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Text



before

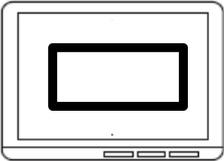


after

Box



before

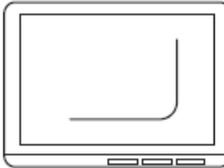


after

Fillet



before

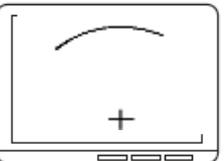


after

Arc



before

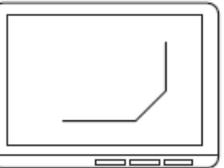


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Chamfer

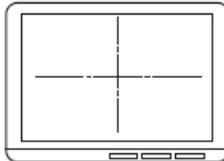


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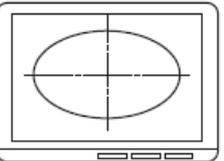


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Ellipse

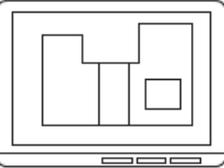


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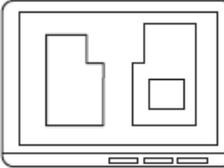


after

Trim/Break



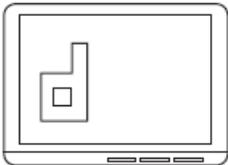
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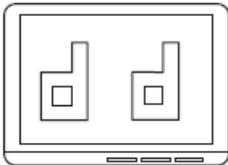
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Common 2D CAD Commands

Copy

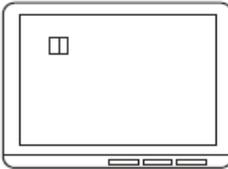


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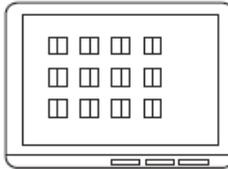


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Box Array

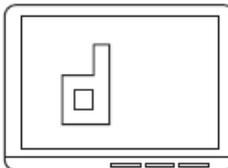


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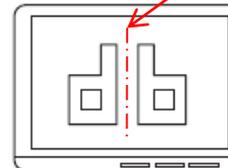


after

Mirror



before



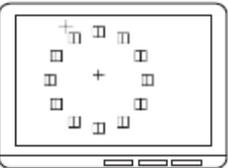
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axis

Radial Array

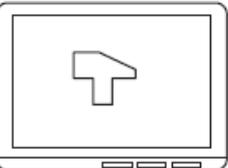


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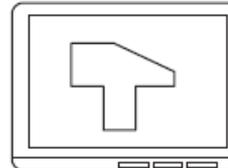


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Zoom/Scale

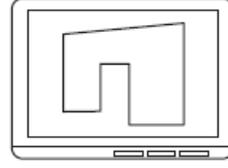


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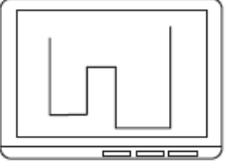


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Delete

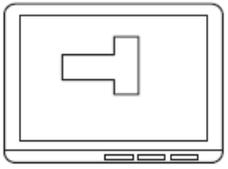


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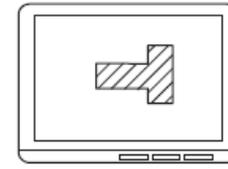


after

Hatch/Pattern Fill

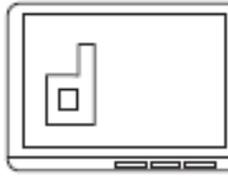


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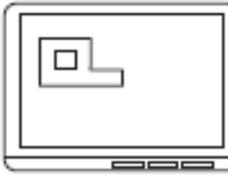


after

rotate



before



after