

Engineer

2D Pattern Engineering & Grading

Engineer is the international market-leading pattern engineering CAD software used by both worldwide brands and small manufacturers. Years of feedback and development make it the most comprehensive and powerful yet easy-to-use 2D pattern engineering solution.

With Engineer, you can draw patterns from scratch, import from sources such as AI and transform them to fit a forme, or digitise manually-created patterns. Once created, you can edit them faster, with greater precision than you could by hand, minimising the time and iterations for lasting and fit trials. Another major benefit of the digital approach is that it's easy to quickly grade and group-grade your patterns, so you no longer need to rely on a third party.

Together, these features give you total control over tooling costs and remove the need to make compromises in production so you get your designs to manufacture faster.

For many more ways Engineer can save you time and improve pattern quality, visit www.delcam-crispin.com/engineer

FAST AND ACCURATE PATTERN CREATION

Drag and drop edge-types onto a net boundary edge to create margins, markers and notches quickly

MODIFY YOUR DESIGN FASTER AND WITH PRECISION

Update associated pieces automatically

MAXIMISE PATTERN PIECE EFFICIENCY

Use Assessment to see how pattern parts interlock and modify parts to increase efficiency

CREATE DESIGN VARIATIONS RAPIDLY

Automatically adapt your pattern to fit a new last forme

CREATE PARTS INSTANTLY

Create boundaries with a single mouse click

REDUCE TIME CREATING PATTERNS

Open a model you have designed in ShoeMaker to create your 2D pattern automatically

ENSURE ACCURACY EASILY

Output to most cutting systems for prototypes

DID YOU KNOW?

You can use Engineer with a range of formats including DXF, IGES, AI and PDF

BUSINESS BENEFITS

▶ ACCURATE PATTERNS IN LESS TIME

Edit digital patterns with precision quickly so you do not have to make compromises in production

▶ REDUCE TIME TO MANUFACTURE

Fast creation of new patterns by simply editing the existing pattern

▶ SPEND LESS TIME GRADING

Accurately grade and group grade patterns to reduce reliance on third party services

▶ INCREASE PATTERN EFFICIENCY

Get an instant pattern efficiency rating so you achieve an appropriate manufacturing cost

▶ SHARE PATTERNS WITH COLLEAGUES

Download the free 2D viewer from our website and your colleagues or suppliers can add notes from anywhere in the world

TECHNICAL INFORMATION AND HARDWARE REQUIREMENTS

Save as the following formats

Extension	Description
.pdf	Portable Document Format
.dwg	AutoCAD 2D drawing
.dxf	AutoCAD drawing exchange format (2D)
.shoe	Delcam CRISPIN
.dgk	Delcam graphics kernel
.ddx	Delcam internal file format
.igs	Initial graphics exchange specification
.3dm	RhinoCAD 3D (Exports as 2D)

Import Formats

Extension	Description	Notes
.ai	Adobe Illustrator	Imports vectors only
.pdf	Portable Document Format	Imports vectors only
.dwg	AutoCAD 2D drawing	
.dxf	AutoCAD drawing exchange format (2D)	
.dpt	Binary pattern from eCAD 2D	
.dat	FDS binary pattern format	Imports almost all information excluding grading setup
.iges / igs	Initial graphics exchange specification	
.ds5 / .des	Procam pattern formats	Import almost all information excluding grading setup
.3dm	RhinoCAD 3D	Import any 2D elements

Delcam CRISPIN Application Outputs

Extension	Description
.cut	Delcam CRISPIN KnifeCut & ShoeCost 2
.pcut	Delcam CRISPIN PatternCut 2 & 3
.xgeom	Delcam CRISPIN PatternCut, TechPac & ShoeCost 3 (Engineer format)
.pat	Export to V2.0 format pattern file
.plt	SatraSumm
.pts & .doc	USM SamcoStream costing and cutter control (Two file types generated at the same time)

Other manufacturing hardware outputs

Extension	Description
.die & .shc	Aton cutting machine (Two file types generated at the same time)
.crp	Comelz cutting machine
.iso	Generic machine tool format often used with laser cutting systems
.hgl / .hpgl	Hewlett Packard
.csp	ISIN waterjet cutting machine
.sxf	Orisol sewing machine
.274	USM sewing machine direct transfer
.dig	USM sewing machine export to "burn" EPROM
.dvs	USM ultra cutting system

Trace patterns from these formats

Extension	Description
.bmp	Bitmap
.gif	Graphics Interchange Format
.jpg	Joint Pictures Group
.png	Portable Network Graphic

Other manufacturing hardware outputs

Extension	Description	Notes
.csv	Comma Separated Values	List format output from pattern assessment
.htm(l)	Hypertext mark-up language	Reports as webpages
.png	Portable network graphic	Pattern preview, part icons and saving snapshots
.svg	Scalar vector graphics	Reports, as a specific export and the basis of XGEOM formats

Compatible Digitisers

An open system, Delcam CRISPIN Engineer Pro is designed to work with any tablet that supports the 'Wintab' format. However, we recommend checking compatibility with the tablet manufacturer.

It is tested extensively on a range of Wacom tablets.

Recommended hardware Specification

Processor:	Any PC capable of running Windows 7 or above
RAM:	4GB
Graphics:	High performance graphics not required
Screen:	1920 x 1200
Operating System:	Windows XP to Windows 7