

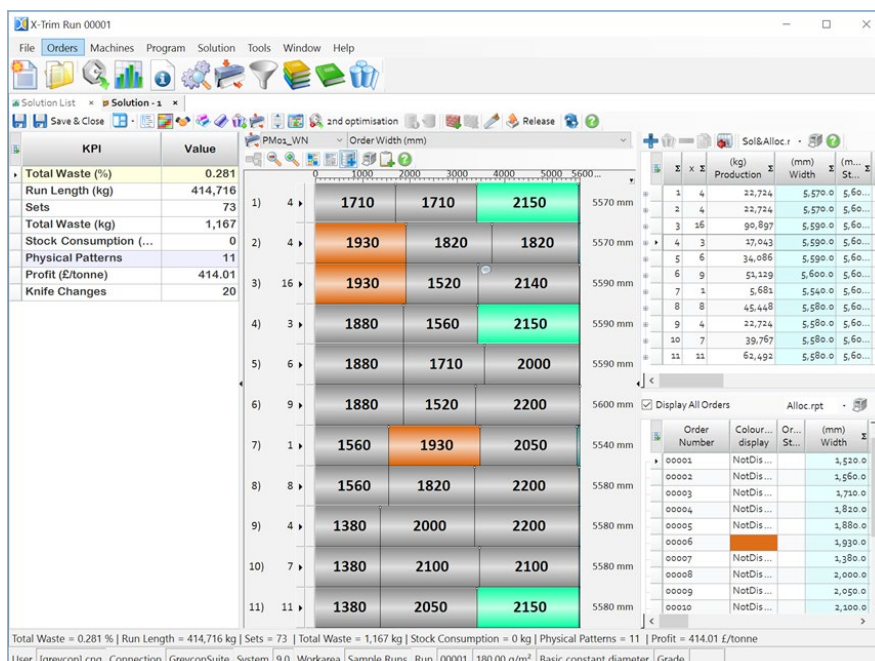
Advanced Trim Optimisation

X-Trim® is a world-class trim optimisation system created by a leading team of developers at Greycon, used for reel and sheet production in the Plastic Films, Metals, Nonwovens and Paper industries. X-Trim seamlessly integrates with SAP, JD Edwards and Microsoft Dynamics, optimising performance and reducing production waste.

The X-Trim system uses powerful, state-of-the-art multi-threaded algorithms to find the most efficient solution, to achieve the best possible result. X-Trim is easy to implement into your business, will save you money and provide a return on investment which can be measured in weeks.

There are currently 500+ sites in over 40+ countries in the Packaging, Film, Metals and Paper industries using X-Trim to optimise their production. X-Trim is fully internationalised, including metric & imperial units and compatible with Far Eastern character sets. No matter what part of the world you are in, X-Trim will meet your needs.

Greycon's consultants will take care of the whole process, working with you to optimise the systems from the initial testing phase through to implementation and aftercare. Greycon will provide the support you need whether it's remotely, or on-site in every corner of the world.



KPI	Value
Total Waste (%)	0.281
Run Length (kg)	414,716
Sets	73
Total Waste (kg)	1,167
Stock Consumption (...)	0
Physical Patterns	11
Profit (£/tonne)	414.01
Knife Changes	20

Order	Width (mm)	Quantity	Material	Color	Order	Width (mm)	Quantity	Material	Color
1)	1710	4	5570 mm	1710	1710	4	5570 mm	2150	2150
2)	1930	4	5570 mm	1820	1820	4	5570 mm	1820	1820
3)	1930	16	5590 mm	1520	2140	16	5590 mm	2140	2140
4)	1880	3	5590 mm	1560	2150	3	5590 mm	2150	2150
5)	1880	6	5590 mm	1710	2000	6	5590 mm	2000	2000
6)	1880	9	5600 mm	1520	2200	9	5600 mm	2200	2200
7)	1560	1	5540 mm	1930	2050	1	5540 mm	2050	2050
8)	1560	8	5580 mm	1820	2200	8	5580 mm	2200	2200
9)	1380	4	5580 mm	2000	2200	4	5580 mm	2200	2200
10)	1380	7	5580 mm	2100	2100	7	5580 mm	2100	2100
11)	1380	11	5580 mm	2050	2150	11	5580 mm	2150	2150

Key Features and Benefits

X-Trim addresses multiple objectives

- Waste
- Value / cost
- Knife changes & pattern count
- Order splitting and order spread
- Order spread minimisation
- Trimming around faults
- Trimming from stock
- Multi-site optimisation
- Core cutting optimisation
- Load planning optimisation

X-Trim addresses multiple Industries and equipment

- Film extrusion, Nonwoven, Corrugated, Metal Conversion, Paper
- Rewinders, Coaters, Cutters, Metallisers, Guillotines

Waste reduction	3%
Setup cost reduction	15%
Return on investment	2 weeks

Functionality

- Source material simultaneously from primary production, semi-finished and finished stock
- Support different diameter-type (constant, variable, and multi-constant) problems
- Optional & all-or-nothing orders
- Parameter sets for quick setting of optimisation parameters, with parallel processing on multi-core computers
- Optimise across multiple primary machines & multiple sites, while controlling the extent of any splitting
- Optimise around faults in primary machines and stock; utility orders can be placed on top of faults
- Waste or financial optimisation
- Bi- and quad-winders
- Minimise knife changes by pattern re-arrangement or grouping
- Secondary optimisation can minimise 1, 2 or 3 set patterns (and combinations)
- Graphical solution editor, with drag-and-drop; users can completely override any part of the solution display at physical or logical pattern level
- Minimise order spread considering shipping priorities
- Minimise open stacks
- Metals conversion, including return-to-stock logic, stock age factor and 1 & 2 pass guillotines
- Various types of multi-pack (bundling) constraints
- Multiple types of finishing equipment, cutters, guillotines, rewinders, extruders, metallisers, etc.
- Duplex and triplex corrugators; scoring constraints
- Allow each order to be met from production, finished or semi-finished stock; dedicated editor for consuming excess inventory via rewinding; option to maximise consumption of exact-match inventory ("roll application"). Ability to consume reel inventory by splicing together reels of arbitrary width and length
- Guillotining specifiable by order and/or automatically when sheet dimensions are too small for cutter
- Scheduling calculations, including non-linear cutter speed modelling & multi-site / multi-machine block schedules; order earliness / lateness indication
- Order position constraints in terms of the location on the web, also handles orders with a user-specified percentage "middle" constraint, soft quality constraint
- Grade and basis weight specific parameters, including machine parameters and standard sizes
- User-defined order, machine & run characteristics
- Extensions for film products, including cast width selection, bi-winders, trimming from stock, trimming around various defect types (normal / full width / hi-lo-hi), core extensions, soft quality constraints and multiple patterns per metalliser parent reel
- Comprehensive logic for off-line extruders, standard parent reel sizes, diameter rounding rules
- Inter-trim similar but different grades, whilst minimising the extent of "free" upgrades
- Comparison of multiple solutions
- Core-cutting module minimises core costs and integrates with core-cutters
- Fully integrated with Greycon's GreyconMill and opt-Studio
- Integration with SAP's SCM (APO), certified interface

Internationalisation

- Metric and imperial custom units of measure
- Multiple languages, including Far Eastern character sets
- Full support for Windows' Regional Settings

Reporting

- Programmable reports with Crystal Reports, exportable in various formats (Word, Excel, HTML, PDF, etc.)
- New generation reporting, including the ability to create new reports with no programming
- Import and export grids to/from Excel
- Printable Gantt Chart

User Interface

- User-customisable terminology & support for multiple languages
- Context-sensitive help (automatic updates from the Internet), with web links to video-based training aids
- 607 sample problems
- Video clips and infographics training aids

Platform

- Windows 8, 10, Windows Server 2012, 2016
- Windows Terminal Server & Citrix compatibility
- Microsoft SQL Server or Oracle database
- Unicode compatibility
- 64-bit application

User Management

- Windows based authentication
- Configurable user permissions controlling access to functionality



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Greycon Ltd
7 Calico House
Plantation Wharf
London, U. K.
SW11 3TN
Tel +44 20 7978 0700

Greycon Inc.
2539 John Hawkins Pkwy
Suite 101
Birmingham
AL 35244, USA
Tel +1 205 870 1310

Greycon Latin America
Javier de Viana 2384
Montevideo
CP 11200
Uruguay
Tel + 5982 411 18 51

Greycon Greece
Merlin 11 & Kanari,
Kolonaki
Athens, 106 71
Tel: +30 210 33 88 205

Greycon Shandong
Suite 905, Financial Center B, East Sheng Cheng rd
Shouguang City, Shandong
262700 China
山东省寿光市圣城东街全福元B座财富中心905
China
Tel +86 536 5268768