

GreyLetter

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Welcome to the 1st edition of the newly formatted Greycon newsletter; GreyLetter. Please feel free to get in touch - There are more changes to come. Also, let me know if you would like a copy in a particular language.

Editor: Mari Nisbet, Greycon Marketing Executive

Recyclable packaging materials demand set to grow by 2020

The global recyclable packaging materials market is forecast to grow annually at over 7% between 2016-2020, according to a new report.

US research company Technavio said the study segments the market on the basis of types of materials, end-users, and geography. The report also presents the vendor landscape and a corresponding detailed analysis of the top five vendors operating in the market.

Technavio transportation and logistics analysts highlight the following four factors that are contributing to the growth of the global recyclable packaging materials market: Standardized industry norms; increased demand from food and beverages industry; growth in organized retail sector; increased demand from APAC. Sharan Raj, lead analyst at Technavio for packaging research, said: "The global recyclable packaging materials market is witnessing the standardization of rules, regulations, and methods relating to the manufacture of sustainable green packaging."

Manufacturers of foods and beverages demand eco-efficient packaging materials that can preserve food and maintain its nutritional value.

Companies like Cadbury, Coca-Cola, ConAgra Foods,

Nestlé, and Pepsico use sustainable packaging materials, including plastic and metals, which gives them a competitive advantage over other market players.

"Improving economic conditions in many developed countries along with the rise in disposable income of consumers in developing countries such as China, India, and Saudi Arabia, has led to an increase in demand for packaged and processed foods, which augurs well for the market," added Sharan.

Source: Packaging News



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This issue's top feature:

KBP: A NEW PATTERN REDUCTION HEURISTIC

Greycon is happy to announce a significant breakthrough in the transformation heuristics, used inside X-Trim to reduce pattern count without affecting waste.

As outlined in the paper that can be **downloaded from here**, on a test bed of 120 problems, the new heuristic, called KBP, reduced the total number of patterns by 4.2% using (only) 0.24 seconds processing time per instance. The number of reductions in X-Trim will be a bit higher than this, thanks to synergistic effects with other heuristics. The savings are more noticeable on the larger problems, on the smaller ones the impact is not so big.

We had a small puzzle constructed to illustrate the new algorithm:



Greycon revolutionises production through modern optimisation at leading recycled cartonboard manufacturer

London, England. – August 8th 2016 -- In January 2016 Greycon implemented their world renowned system at MEL Paper, one of the largest manufacturers of recycled board in the food and general packaging industry.

MEL Paper is located near Thessaloniki and is the only manufacturer of recycled carton board in Greece. MEL Paper produces more than 100,000 tons of coated printing carton every year. These products are distributed to demanding markets across Western Europe, Africa and Asia.

"The implementation was carried out to the highest standard, it was completed on time with excellent communication throughout the flawless process. Greycon has changed the way we work, we have never been more efficient!" commented Eleni Parisi, Project Manager at MEL Paper.

MEL Paper is an environmentally conscientious company and one of the key aspects of the implementation was to reduce the amount of waste produced. MEL Paper required a comprehensive solution that eliminates time consuming manual data entry and can increase the production output. The Greycon system plans, schedules, trims and executes the production. Working seamlessly with SAP™ it effortlessly

transitions between the different modules. Since implementation the Greycon system has created significant cost savings for the company and optimised productivity.

Constantine Goulimis, CEO at Greycon says; *"We created this system for companies just like MEL Paper who are looking for a more efficient production process. Through modern optimisation and powerful scheduling algorithms, the Greycon system efficiently records, tracks production and significantly reduces waste."*

About MEL Paper

MEL Paper is part of Pack Group and the only company making cartonboard based in Greece. It produces more than 100,000 tons of coated printing carton each year for the general and food packaging industry. MEL Paper is an environmentally conscientious company using mainly recycled board as the raw material in its processes. www.MELpaper.com



Customer news

- We have recently won the first stage of a new major project in Greece with Diaxon.
- We have completed extra work at Toray with help from JP and Steve, and we are hopefully closing some add-on licenses at Westrock.
- Lots going on in the upgrade front with upgrades successfully completing at Kipaş, Arctic Paper and International Paper.
- And new upgrade projects at Paprinsa and SKICThailand.
- The Reno de Medici (Italy) project is moving along after a heavy series of site visits by Otto, Esa, Nicola and Giselle. The project is using the new wizard-based template, which is proving to be very good.
- The 8.9 release is on track for release mid-September; this will be the last release of X-Trim using VB6, so goodbye to an old friend and welcome to a whole new set of possibilities.

Greycon's employee corner

Abder Guezour VP Global Sales



Abder has an MSc in Industrial Engineering (from France) and MBA from Durham Business School (UK).

Abder started his career as a Project Manager with Alcatel in France in 1998

before joining Greycon in October 1999.

During his time at Greycon, Abder has worked as an Implementation Consultant, Project Manager, Professional Services Manager and EMEA Regional Manager, contributing to the successful delivery of a number of projects and building an excellent relationship with our customers. He was appointed as the Global Business Development Manager in August 2014.

How long have you worked at Greycon
For 18 years now, I started in 1999.

Family life
I am married, we have two children; 1 boy 9 years old, 1 girl 7 years old

Do you have any pets?
Not any that we chose, a fox visits our garden from time to time and a few squirrels.

Where do you live?
I live in London only 30 mins away from the office and close to Gatwick airport.

My record is 45 mins from the time the plane lands to reaching home... but this might change with Brexit... more queues at passport control!

Where were you born?

I was born and grew up in Morocco. I then went to High School and University in France.

What are your hobbies and interests?

I enjoy watching Football and I support Arsenal. I also enjoy playing board games with my family and during the long summer holidays we like to take a drive through Europe.

What do you enjoy doing in your spare time?

You can usually find me either in the garden or catching up with work.

Which is the most interesting country you have visited?

Japan is at the top of my list (I was there on a 3 month internship as an engineering student and stayed with a Japanese family. I have very good memories of the country and my experiences.

I also took a few trips to India in the last 2 years for business development and have enjoyed experiencing the local culture with some of our customers.

Greycon's excellent results impresses Fedrigoni, winning a multi-site implementation

London, England. – August 18th 2016 – Greycon first implemented its advanced scheduling tool (S-Plan) at Fedrigoni's Salto site in 2010. At the time the site was owned by international French group ArjoWiggins. The Brazilian subsidiary of ArjoWiggins was later acquired by Italian group Fedrigoni in 2015.

Greycon's S-Plan solution has successfully worked at the Salto site for more than 6 years now, with both ArjoWiggins and current owners Fedrigoni. S-Plan was developed in 1988 as one of Greycon's premier advanced scheduling solutions and with the release of Greycon suite v7.6 in November 2012, S-Plan was replaced by opt-Studio.

The implementation of S-Plan in 2010 was so successful, both in terms of reducing production costs and yielding excellent results spanning for more than 6 years that Fedrigoni have decided to extend Greycon's scope to their Jundiaí site.

The implementation at the Jundiaí site is due to be completed by the end of November 2016. It will include Greycon's world class trim optimisation system, opt-Studio, as well as Greycon's X-Trim solutions, integrating with ERP (Protheus). Working seamlessly together the Greycon solution will optimise Fedrigoni's trim and scheduling performance as well as increasing their production levels.

Greycon will also be upgrading the current S-Plan system at Fedrigoni's Salto site to the latest GreyconSuite GR8.8 by the end of August 2016. Testing has already been carried out at the site, on which Greycon received very positive feedback regarding the new 'tool' opt-Studio.

Abder Guezour, VP of Global Sales at Greycon states; "We are very pleased with the excellent results our solutions have produced for Fedrigoni. The upgrade at Fedrigoni's Salto site with further scope for work at the Jundiaí site is a testament to our continued efforts developing and improving our products to get the best results for our clients."

About Fedrigoni

Since its foundation in 1888, Fedrigoni has specialised in fine paper for printing, editing, labels, bookbinding, packaging and paper products.

Thanks to an advanced logistics system benefiting from 11 warehouse branches in Italy and seven abroad, Fedrigoni builds strong relationships with customers and provides them with highly tailored services, with very fast turnaround times.

Greycon's technical corner

Planning & Scheduling in Plastic Film & Flexible Packaging Industry

We see flexible packaging in every day life, in particular in food and liquids packaging but the products have a wide range of applications in every single industry. The market value is estimated at over \$80 billion with an annual growth rate of 5%. Greycon's presence in this industry has grown tremendously in the last 5 years, reaching the milestone of 50 sites worldwide. The common theme between these sites is supply chain excellence, production efficiency, waste reduction and quality & traceability. This is valid for the sites dedicated to film production as well as converters or both integrated. The film production encompasses primary film lines (extruders, cast lines, orienteers, stretching, blown film), primary slitting, metallization, coating, secondary slitting. The converting plants would add printing, lamination, slitting, cutting to size, pouching & bagging.

The primary film lines are typically scheduled using campaigns (also called blocks, runs or cycles). The opt-Studio solution designed by Greycon fulfils this scheduling need while offering additional value by optimising a number of conflicting objectives such as setups (due to resin, gauge or web width changes), production efficiency (pushing for longer runs), inventory levels (within the inventory policies of the business), customer service levels and quality (die cleaning).

For the finishing and converting stages, opt-Studio can generate a schedule in a few seconds. It can automatically distribute tasks among different machines to balance the

load and minimise setups, while taking into account due date targets and various attributes of each machine or constraints (e.g. downtime, materials availability, skills and requirements). If for instance you have many metallizers the system can assign tasks to each, scheduling urgent orders first but also building batches that apply the same type of metal layer. The system can then continuously adjust the assignments of the tasks if one machine goes down or based on the production progress.

opt-Studio integrates with X-Trim and GreyconMill. In X-Trim, you can create optimal slitting patterns for all the stages simultaneously. Some key X-Trim features include the ability to trim from existing stock, trim around several types of faults, pattern reduction, knife change optimisation and minimisation of parent reel sizes. GreyconMill provides production tracking and quality control functionality supporting the traceability requirements of this industry while providing the feedback loop to opt-Studio.

With this suite, you can control and optimise the schedule of all machines. Let the system do the calculations and re-arrangements while the planning team concentrates on generating and evaluating alternatives. Generate better plans faster. Integrate them to the rest of the organisation. Have full visibility of all your machine schedules at all times.



Thank you for reading, if you have any comments or questions regarding this current newsletter or future editions please do not hesitate to contact us.

Greycon Ltd, 7 Calico House, Plantation Wharf, York Road, SW11 3TN.
t: +44 (0)207 978 0700 | e: info@greycon.com | w: www.greycon.com