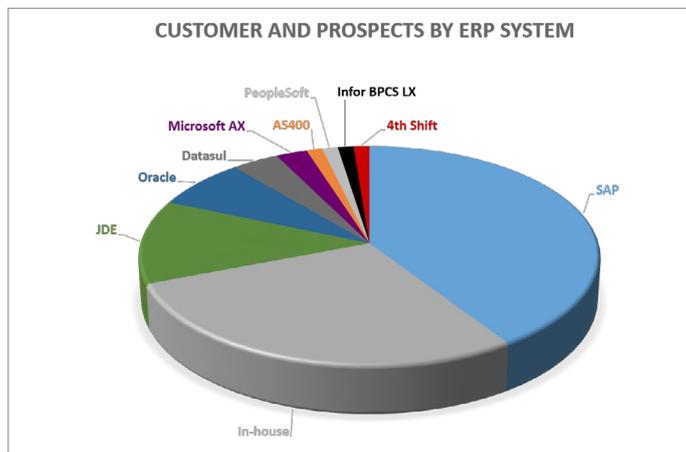GREYCON

GreyLetter

Welcome to the 4th issue of the Greycon newsletter; GreyLetter. Checkout the article below for an update on the most commonly used ERP Systems. Also, get in touch with me if you would like a copy in a particular language.

Editor: Mari Nisbet, Greycon Marketing Manager

What ERP systems are most commonly used by Greycon customers

Since the very beginning Greycon has always integrated with it's customers' ERP systems. Over the years Greycon has integrated with of the ERP systems used in the industry. As you can see in the table below the most common ERP system is SAP:

CUSTOMER AND PROSPECTS BY ERP SYSTEM

How does Greycon integrate with so many systems?

We have created Advanced Planning & Scheduling Connector (APSC) modules that provide bi-directional interface between opt-Studio, X-Trim and SAP.

APSC was first installed for a customer in 2004, supporting a basic paper machine with winder scenario. Since then, multiple new scenarios have been developed for new customers and these are available as standard and can greatly reduce the implementation costs (both from a technology point of view, and through experience of our consultants to advise on an appropriate SCM model).

APSC is a SAP certified solution for roll based industries. It was created for Greycon's customers using the SAP APO (Advanced Planning Optimisation) module.

Greycon also created a APSC variation for our customers who do not have APO, but, use core SAP for their plant (ECC module). Both of these Greycon modules connect seamlessly to SAP, exchanging information in both directions with minimal configuration needed from the SAP side.

For customers using a different ERP system than SAP Greycon also uses a Greycon tool called Integration Manager, which provides flexible interfaces.

Integration Manager can receive and send interface messages in various formats like MSMQ, HTTP, database tables, etc. This means that no middle-ware software is needed between Greycon and the ERP to communicate.

Greycon improve production throughput at Pyroll with their central planning solution

Pyroll Converting recently appointed Greycon to implement their central planning solution, opt-Studio, across four of Pyroll's converting locations in Europe. The implementation started at the beginning of February 2017 with a pilot plant in the Netherlands and is due to go live by the end of May 2017. Greycon will install opt-Studio at a further 3 plants by the end of 2017.

Pyroll Group is one of the leading paper, cardboard, paperboard, and plastic converters in the Nordic countries, with operations spanning fourteen locations. Pyroll converting provides sheeting and rewinding services handling over 300,000 tons of paper and paperboard annually.

Jarmo Sara, Production Director, at Pyroll Converting commented "*We are looking forward to completing the implementation of Greycon's solution and the improvements it will allow for our production. Pyroll looks forward to the already justified improvements in overall production efficiency and thus an increase in production capacity.*

The multi-site schedule optimisation capability allows Pyroll to utilise centralised production planning to support global customer service. Integrating Greycon's planning solution with our current ERP system will bring our planners and management the extra time needed for moving from reactive-based decision making to proactive-based instead."

Before the implementation Greycon and Pyroll executed a comparison in order to find out how the schedules created by opt-Studio would compare with the current system at Pyroll. Substantial savings were identified in this head to head comparison convincing Pyroll management to progress to solution implementation and further roll-outs.

Jari Kaukiainen, Business Development manager, EMEA, at Greycon says: "*The implementation of opt-Studio will bring multiple benefits to Pyroll. The optimised schedules will improve the production throughput and will allow Pyroll to accept extra sheeting capacity for the customers. Since the system will manage the scheduling of the orders automatically, the effort of the planners will go towards analysing and optimisation instead of the routine work to feed orders and sequence them into the ERP-system."*

Greycon Release Greycon Suite 9.0 – Future-proofing X-Trim for the next 15 years

Greycon are pleased to announce the release of Greycon Suite 9.0. This release marks the third iteration of X-Trim front-technology in 30 years (first Fortran in 1985, then VB6 in 1995, now .NET's C#) and now completes the migration of all Greycon products to .NET.

In addition to the front-end migration X-Trim now is also 15% faster on difficult-to-solve problems, thanks to advances in the underlying Gurobi mathematical programming libraries.

Further improvements to the pattern reduction algorithms show an increase of the reductions from 23.6% (version 8.9 as compared to 8.3) to 24.0% (version 9.0).

The opt-Studio product also contains significant changes in 9.0, including the valuable aspect most requested by clients: comparing the schedule against a baseline scenario, typically set a week earlier. This will show, at a glance, any changes to customer service.

Greycon's CEO Constantine Goulimis says: "*The X-Trim front-end migration was a long and important project. We wanted to avoid losing any functionality or introduce new bugs, so, we adopted a semi-automated translation approach. This allowed us to protect the functionality, as well as track the evolving code base, which went through 7 releases over that period. The changes will cement X-Trim's position as the leader in the manufacturing industry for next 15 years.*"

Greycon's Spotlight

How long have you been working for Greycon?
I have worked at Greycon for 1 month now and I find it very exciting.

What is your job role at Greycon?
I'm the Country Manager for Mexico and at the moment my main duty is to increase our customer base for Greycon here in Mexico.

Do you have any exciting upcoming projects at work?
Yes, there is project for opt-Studio that we are looking to close and there are several opportunities that we are actively pursuing at Queretaro and Mexico City.

Tell us a little bit about your home life - Are you married? Do you have any children or pets?
I'm married and have a 4 year old daughter that is our sunshine. We have 3 dogs one boxer and two Doberman. My wife loves animals so over the years we have had our share of rescued pets and wild animals.

Where do you live?
I live at Santiago, it is a 30 minute drive from Monterrey City.

Where are you originally from? Went to School/University?
I'm from Monterrey, we are called "Regios" here in Mexico although both of my parents are from Zacatecas. I went to the ITESM and studied Industrial Engineering, I also have an MBA degree and am currently studying a Master's Degree in Finance.

What are your Hobbies / interests?
I like to learn new things and at present most of my spare time goes towards my Master's, but I still find time to play with my daughter, go out with my wife and exercise. We love to invite our friends and have a grilling(BBQ), we call it "carne asada".

What is the most interesting country you have visited? And why?
I loved Peru, they have a great gastronomy I particularly liked the seafood and this a lot to say coming from a Mexican, as we have one of the most diverse cuisines.

Manuel Navarro
Business Development, Mexico

How long have you been working for Greycon?
I have been associated with Greycon since 2009.

What is your job role at Greycon?
I am a business partner responsible for business development in India. I also support implementations and post implementation customer care.

Do you have any exciting upcoming projects at work?
Yes, we are following many exciting leads at the moment

Tell us a little bit about your home life - Are you married? Do you have any children or pets?
Yes. I have been married for 27+ years now. I have one son and one daughter. No pets.

Where do you live?
I live in Delhi, India.

Where are you originally from? Went to School/University?
I have spent almost my entire life in Delhi. So schooling has also been in Delhi. For University I went to the southern part of India. I studied Chemical Engineering.

What are your Hobbies / interests?
My passion is golf. I play every weekend. I am a keen observer and private commentator on Indian politics. Expanding my network – my mission in life.

What is the most interesting country you have visited? And why?
India is the most interesting country that I have visited. Such a wide variety of cultures, food, landscapes. Add to that a rich history which competes with any known civilization in the world. Even a lifetime is too short to visit the entire country. Though I have seen a lot, it still continues to fascinate me.

Sharad Mittal
Business Partner, India

Greycon's Technical Corner

Summary

The industrial landscape is radically changing with the implementation of Internet of Things (IoT) technologies which will bring significant challenges to manufacturers and their vendors in terms of software and hardware. These technologies are immature whilst other vendors are fighting now to grab their space in the new landscape. However, there is no doubt that IoT is here to stay.

There are already many discussions and examples about preventative maintenance and how IoT may help manufacturers improve on the field. There is a shift from selling products or services towards selling measurable outcomes. People in the industry discuss about OEE more and more. Vendors of Manufacturing Execution Systems and Advanced Planning Systems need to embrace the new technologies and prepare for them or else, they risk ending up with obsolete systems. Designing software with modular architectures will allow for easier replacement of parts when better solutions materialise. Increasing interoperability with other systems will allow 'plug and play' to the new platforms and operating systems. This will extend reach outside their usual clientele who are cooperating with other software, which is stronger and has deeper specialisation in certain areas.

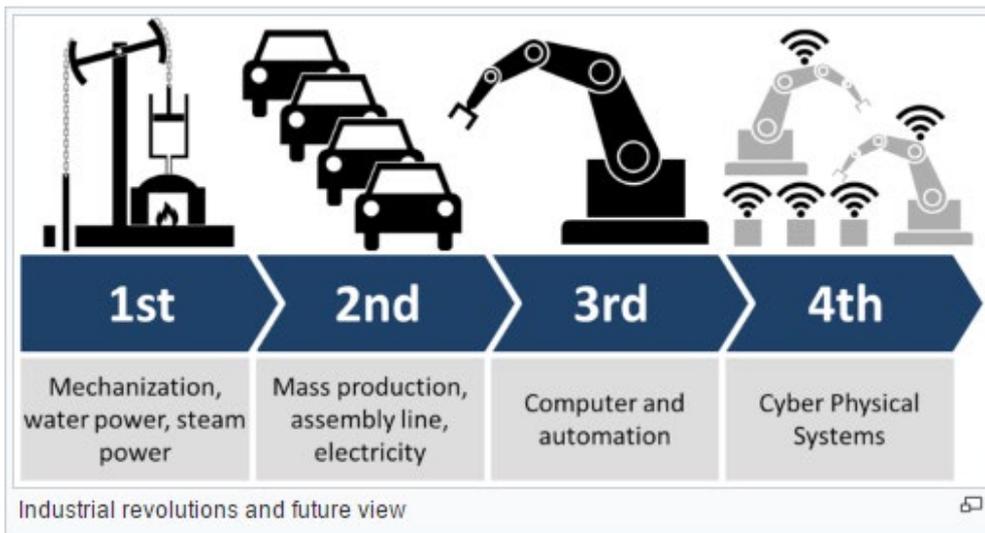## What is the IoT and why it is important?

There has been much discussion in journals and boards related to the IoT and how this new set of technologies will transform the manufacturing landscape. There have been dozens (hundreds?) of definitions for IoT in bibliography. This is just another fact which adds to the inevitability of deployment of these technologies.

We will attempt a definition for IoT with simple words:

IoT stands for the communication of anyTHING with another device via the Internet through a cloud based data storage provider for the purpose of sharing information without the optional requirement of any human intervention.

Ubiquitous computing and smart sensor technologies have advanced so much recently in combination with technologies like Cloud Computing and cyber-physical systems that the 1980s dream of a 'Smart Factory' has been resurrected.

Many manufacturing firms are already planning their strategy and investing to move towards Germany's "Industry 4.0" initiative otherwise known as the 4th Industrial Revolution. The 1st Industrial Revolution was the mechanisation of production using steam and water. The 2nd Industrial Revolution introduced mass production with the help of electricity and the 3rd was the digital revolution with the usage of electronics and IT to further automate production as shown in the picture below:

1st	2nd	3rd	4th
Mechanization, water power, steam power	Mass production, assembly line, electricity	Computer and automation	Cyber Physical Systems

Industrial revolutions and future view