

# the 4caster

The Quarterly 4R Systems Company Update



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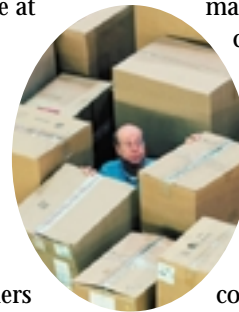
*4R Systems is a leading provider of software tools, analytical models and information services that allow retailers and manufacturers to increase the profitability of products by accurately matching supply with demand*

## Beyond Markdown Management: the Manufacturer's Perspective

In the last issue of the 4caster, we described how retailers could move beyond markdown management through a lifecycle-driven end-of-life solution. Through this approach, retailers actively manage inventories downward as a product nears end-of-life and then utilize alternatives such as markdown, consolidation and liquidation to maximize profits. As a result, the retailer minimizes reliance on markdown, protects brand franchises and bolsters margins.

As important as these issues are to retailers, they are at least as important to manufacturers. Suppliers find themselves caught between numerous contending pressures in supplying their retail partners. With a price competitive marketplace, retailers are looking for suppliers that can deliver product at a competitive price. To meet this demand, suppliers have increasingly looked

outside of the United States to manufacture products that can meet the price points required by the retail market. While offshore sourcing has done wonders for product cost, suppliers have found themselves coping with long supply chains and correspondingly long lead times. And all this with retail clients who are focused on keeping inventories lean and



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**CLIENT UPDATE:**

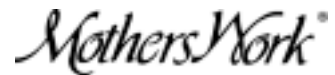
## Mothers Work, Inc. Selects 4R to Enhance Size Allocation Process

4R recently announced that it has been selected by Mothers Work, Inc. (Nasdaq: MWRK), the world's leading maternity apparel retailer, to further enhance size distribution to each of their stores.

"We are excited to embark on this project with 4R. We have an amazing Real Time Retailing® replenishment and supply chain manufacturing system. This is just one more way to satisfy our customers and continue to more effectively manage our

inventory productivity. Giving the customer what they want, when they want it is integral to our business," said President of Mothers Work, Rebecca Matthias.

By applying advanced analytics to historical sales and inventory data, 4R will work with Mothers Work to establish a baseline to optimize the effectiveness of current size allocation practices.



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## 4R Systems to Help Rodale, Inc. Profit Optimize Book Print Run Decisions



Rodale, the world's leading publisher of information on healthy, active lifestyles, has selected 4R to help profit optimize printing decisions for book titles that are marketed direct to consumer.

"Rodale has been outperforming the book and magazine industries growth percentages for the past two years. We attribute this positive growth to delivering the best editorial products possible to our customers," said Mike Sudik, Rodale's Vice President of Operations. "As a forward-thinking company open to looking at better, more cost effective ways of doing business, we sought out 4R for their knowledge of analytics and inventory management which will help us more profitably match supply with demand."

4R will work with Rodale to analyze book test mailing response data to help drive more intelligent print production decisions (vehicle, size of print run, etc.). Data will be analyzed through 4R's algorithms in order to estimate lost sales and improve forecast accuracy.

"In an effort for companies to increase profitability, many have recognized the need for sophisticated supply-chain optimization technology that enables them to deliver a superior experience to their customers," said Jiri Nechleba, President and CEO of 4R. "We are enormously pleased to be working with Rodale to drive customer satisfaction and sales, thereby improving gross margins and enhancing inventory productivity."

## 4R Introduces MaxOut™ – Solution Helps Retailers Optimize Their Product Exit Strategy

4R Systems recently introduced MaxOut; an exit strategy optimization tool developed to help retailers maximize revenue by aligning inventory levels with the product's lifecycle, identifying the most profitable end-of-life merchandising decision out of all possible options, and applying advanced analytics to execute against those options.

"Retailers that commit to seasonal inventory in advance of a selling season succeed or fail based on their ability to profitably manage inventory productivity over the selling life of their merchandise. Penalties for poor merchandising decisions are paid in missed sales due to under-stocked stores, or excessive markdowns," said Jiri Nechleba, CEO of 4R Systems. "MaxOut allows retailers

### 4R IN THE NEWS

#### The Price is Right, or Is It? Determining the Impact of Price on Sales

4R Co-founder Marshall Fisher's research was recently featured in an article on "Knowledge at Wharton," a website from the Wharton

School. The article was

picked up in the October



24th daily email issued by the National Retail Federation — the NRF SmartBrief. The article discussed the point that retailers often don't take advantage of the benefits of price testing.

Dr. Fisher states that retailers are so "action oriented" that they don't spend the time to research price elasticity and how consumers'

buying habits change with price. A price optimization test at Zany Brainy found that purchases of a certain walkie-talkie went up

as the price increased. The researchers said sometimes consumers equate price with quality for a product they are not familiar

with; wine purchasing follows this trend.

We invite you to read the article in its entirety at [www.4rsystems.com](http://www.4rsystems.com).

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## EXPERTS BUREAU

**4R CEO Featured Speaker at Retail Marketing Society**

An effective and efficient supply chain is an absolute essential for all retailers. It makes good retailers excellent and bad retailers better. Ernst & Young LLP recently released a global survey of more than 100 retailers worldwide on the newest trends in supply chain.

The Retail Marketing Society featured one of the first public presentations of this survey at their meeting in December at the Williams Club in New York. The presentation was followed by a panel discussion with several experts with special knowledge of the supply chain world.

Presenter/panelist Jiri Nechleba, CEO, 4R Systems was joined by Pamela Stubing, Retail Analyst, Ernst & Young LLP and Marvin Glass, President, Marvin Glass Ltd. as they discussed the topic "Supply Chain: Essential for Retail Survival."

**4R CEO Chosen to Present at INFORMS 2004 Conference**

The Institute for Operations Research and the Management Sciences (INFORMS) has invited 4R CEO Jiri Nechleba to present at the 2004 INFORMS Conference on *Applying Science to the Art of Business*, being held in Cambridge, Massachusetts April 25-27 in conjunction with the 50th anniversary of the MIT Operations Research Center.

This prestigious INFORMS conference has earned a reputation for high-quality, invited presentations directed to a "listener" audience of practitioners and academics. For more information go to: <http://www.informs.org/Conf/Practice04/>.

**Beyond Markdown Management: the Manufacturer's Perspective**

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expect their suppliers to quickly respond to their orders. With supply chains quicker and more responsive and, ultimately, tightly tied to consumer demand, suppliers are finding it necessary to keep "buffer" inventory to satisfy retail (& consumer) demand. With this buffer come a number of difficult, but very important, questions:

- How big should the buffer be?
- As the supplier ships product to customers, how much of it should be replenished?
- How does the supplier balance order size (and thereby unit cost) versus risk of obsolescence?

Lifecycle optimization provides suppliers with a framework for optimizing the answers to these questions and thereby maximizing profits. Lifecycle optimization is built around understanding the likelihood of different trajectories of demand for a particular product. By combining an estimate of the "expected" pattern of demand for a product, the likelihood of higher and lower sales and the economics

of surrounding a product, answers to the above questions can be determined, and dynamically managed, to optimize profits.

As retail information moves to the center of the supply chain, retailers and manufacturers are using that data to match short-term demand with speedy short-term supply. Against this backdrop, manufacturing horizons continue to grow as the pursuit of lower costs shifts manufacturing abroad and order size grows in order to capture lower unit costs. These forces are causing manufacturing to be a long-term proposition that requires manufacturers and retailers to understand long-term demand in order to effectively source product.

In the next issue of *the 4caster*, we'll talk about how this evolving understanding of product lifecycle provides manufacturers and retailers with the context to effectively align their interests and develop an effective collaboration framework.

## 4R to Exhibit at 2004 National Retail Federation Conference

### NRF Retail's BIG Show

is where retail executives, decision-makers, and

trendsetters go to see, learn, and network!

Leaders in retail come to benefit from

educational opportunities and meet vendors

supplying solutions for today's challenges.



**4R Systems will be exhibiting at Booth #940.**

Come see us!

## Welcome to the Team!

New hire Suzy Mullineaux has joined 4R as a Solution Quality Analyst and will be working on quality control analysis. Prior to 4R, Suzy worked at QVC and for 10 years at Zany Brainy as a merchandise planner (among other positions throughout her tenure there).

In her spare time, when she is not hosting parties selling her wonderful collection of purses and accessories, her husband and two children keep her nice and busy.

*Welcome Suzy!*

# 4R Introduces MaxOut – Solution Helps Retailers Optimize Their Product Exit Strategy

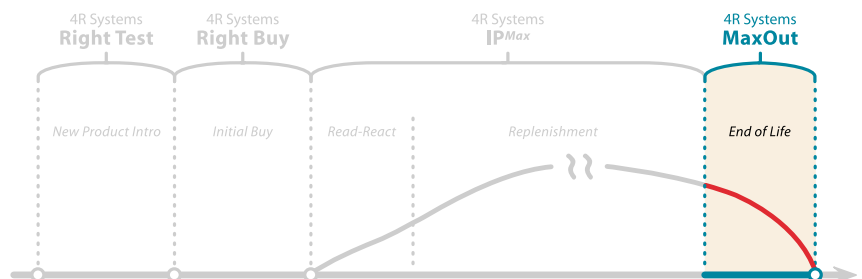
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to move beyond markdown management through our lifecycle driven end-of-life solution. Through this approach, retailers actively manage inventories downward as a product nears end-of-life and then utilize alternatives such as markdown, consolidation and liquidation to maximize profits. As a result, the retailer minimizes reliance on markdown, protects brand franchises and bolsters margins.”

Using sales and inventory data, 4R's MaxOut solution provides retailers with the combined ability to:

- integrate end-of-life decisions with replenishment; early detection of downward trends enable the retailer to turn off the re-buy process, thereby eliminating the need for extensive markdowns.
- identify the most profitable product retirement merchandising decision out of all the possible options and execute against the option.
- determine the optimal price trajectory to be applied to a discontinued SKU over the course of its exit horizon through MaxOut's price optimization engine.
- when liquidation of unsold inventory is an option, the price optimization engine determines the optimal balance of shelf-sales and liquidation sales thereby reducing revenue dilution.
- experiment with “what-if” scenarios in advance, enabling merchants to evaluate the financial impact of decisions before executing them.

### Optimization Throughout the Entire Product Lifecycle



## BEHIND THE SCENES AT 4R

### Betcha Didn't Know...

4R is home to our resident Zorro. Yefim Faktor, 4R Database Administrator and native of the Ukraine, spends his free time practicing the art of fencing. Yefim began fencing while in the second grade in his hometown of Slavuta, which means Glory River. Yefim and all his friends took up fencing mostly because it meant time off from school to attend all the competitions. Young Yefim's favorite movie was the French version of Zorro.



After stopping competition for fifteen years, Yefim has returned to the sport. He practices and competes with Csiszar's Fencer's Club in Paoli, PA. Yefim practices 1-2 times weekly. Also practicing at Csiszar's are

several of Yefim's school chums from Slavuta.

Yefim's weapon of choice is the saber. The saber is the modern version of the slashing cavalry sword. Yefim will next be seen lunging at the Mid-Atlantic Fencing competition.

For more information on the sport of fencing and/or the Csiszar's Fencer's Club:

[www.fencing.net](http://www.fencing.net)

[www.csiszar.com/csiszar/csiszar.nsf](http://www.csiszar.com/csiszar/csiszar.nsf)



## Over 50 West Coast Retailers Learn How Analytics Can Profit Optimize Their Inventory

KSA's Bryan Eshelman joined Dr. Marshall Fisher, The Wharton School and Dr. Ananth Raman, Harvard Business School, supply chain experts and authors of the highly acclaimed

*"I thought the presentations were extremely thought provoking and beneficial."*

– Ross Stores

Harvard Business Review article, "Rocket Science Retailing: Are you Ready?" as they discussed real-world examples and presented findings of pioneer companies that have "put the paper into practice." The morning event took place at the Hotel Nikko in San Francisco at the end of October.

The Harvard Business Review article highlights how sophisticated algorithms



are being applied to solve complex retail supply chain issues such as replenishment and inventory reduction. The event examined how retailers are successfully applying analytics to their retail supply chains therefore profit optimizing their inventory investment. The speakers discussed real-world examples of forward-thinking companies that have achieved measurable results using analytics.

We invite you to join us **Tuesday, March 9** in Philadelphia, for the next installment of this event. For more information on this event please contact Katie Jarvis at 212-508-8350 or [kmjarv@kurtsalmon.com](mailto:kmjarv@kurtsalmon.com).

## Mothers Work, Inc. Selects 4R to Enhance Size Allocation Process

(Continued from pg 1)

"Accurately allocating styles at the appropriate size continues to be critical for many retailers. We are honored to have this opportunity to partner with Mothers Work, the leader in maternity

apparel, as they work to deliver even higher levels of business performance and customer satisfaction," commented Jiri Nechleba, 4R Systems President and CEO.

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