



Industrial Press, Inc. | Newsletter

Focus On Global Planning: DDMRP and More!

A Word from Our Editor

Since 1883, Industrial Press, Inc., has been publishing essential resources for the machining community and related manufacturing industries. This newsletter focuses on “Demand Driven Material Requirements Planning,” or DDMRP, which is taking the global supply chain management world by storm. We have just released two top titles that address this cutting-edge methodology in very different yet highly engaging ways. Learn more about these and related topics from the “Q&As” with our international experts. We hope you enjoy this newsletter. And as always, we look forward to hearing your comments. —**Judy Bass, Editorial Director**



DDMRP Takes Off!

Conversations with Authors Carol Ptak and Chad Smith

IP: Both of you are leaders in the fields of quality improvement and supply chain management. Can you tell us how you started, and about your experiences in this field?



Smith: I got my start working for Eli Goldratt (author of the best-selling *The Goal*) at the Goldratt Institute in Connecticut in 1995. I learned a set of very powerful thinking processes that allowed me to look at companies and supply chains as systems. Over 20 years, we used these tools to develop the Demand Driven solutions featured in our new book.

When I left the Goldratt Institute, I started a consulting company called Constraints Management Group. I served as the managing partner from 1997 to 2015. We did a lot of pioneering work in the “Theory of Constraints” field in large, complex manufacturers. It led us to get into software planning, scheduling, and execution systems in 2003. Writing software specifications really forces you to understand and articulate desired inputs and outputs, as well as cause and effect.

In 2008, a meeting with Carol proved to be a watershed event. She got very excited, and when she explained why, I got very excited. We teamed up to do some writing and almost immediately there was a lot of interest in our message. We were afforded the opportunity to write the third edition of *Orlicky’s Material Requirements Planning (MRP)* that enabled us to define the pervasive planning problem throughout industry and the solution known as Demand Driven MRP.

In 2011, knowing that people who read the Orlicky book would want to know more, Carol and I founded the Demand Driven Institute. An education and certification organization, it has a global network of affiliates that educate people on and implement these practices. You can learn more at www.demanddriveninstitute.com.

Ptak: My start was very different. In college, I got my bachelor’s degree in biology with a specialty in genetics. I expected to be in the research lab for the rest of my career, but ended up in a company that manufactured biologicals for the medical market. It was there that I discovered that manufacturing was far more interesting than biology.

I stayed in operations and project management for almost 20 years—biotech, aerospace, machine shops. Fortunately for me, I had a mentor who urged me to join my professional society and get involved. That started my association with APICS for the next 40 years, and resulted in my serving as its president and CEO in 2000. (I was the first and still remain the only female to ever serve in that role.) I was hired by IBM in 1999 into executive sales and moved around the company, ending up in a position responsible for analyzing ERP companies and how IBM could support their offerings.



Moving to Washington, I took on a green field start-up in aerospace. In discussions with the CFO on how the MRP system should be set up, he often ended the conversation with, “You didn’t write the book on it.” So I did. My first book was *MRP and Beyond*.

In 1999, I published one of the first books ever on ERP with Eli Schragenheim. The subtitle was *Tools, Techniques, and Applications for Integrating the Supply Chain*. Further collaboration with Eli Goldratt resulted in the publication of *Necessary but not Sufficient* in 2000. And this new knowledge was incorporated into the second edition of the ERP book in 2002.

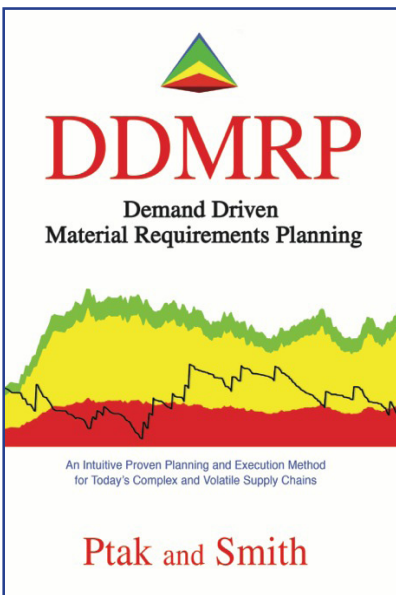
My next position was VP of Manufacturing, Distribution, and Retail Industries at IBM. There, the term “Demand Driven Manufacturing” was coined after PeopleSoft purchased the software assets from JCIT. I knew the direction manufacturing had to go but did not yet have a good idea how to get there. I also knew it had to do with leveraging Lean, TOC, Six Sigma, and MRP. I worked on the *Quantum Leap: the Next Generation* and co-authored with Harold Cavallaro *Theory H.O.W. — How Organizations Could Work*.

I was invited to be the Distinguished Executive in Residence at Pacific Lutheran University in Parkland Washington, where Chad came to visit to ask for feedback on some innovation that he and his team at Constraints Management Group had been doing. I was very excited, because I recognized their work as the missing piece to Demand Driven Manufacturing. Chad and I started to write together in 2007 and APICS published our first white paper, “Brilliant Vision.” It was at that point, we were confident that we were on the right path.

We worked closely with the APICS certification committees to provide them a certification resource in addition to the new breakthrough ideas of DDMRP. The 3rd edition of *Orlicky’s MRP* came out in 2011 and introduced the methodology to the world.

IP: DDMRP is a revolutionary new method in supply chain management, and your book is considered the definitive work on this hot topic. What is it all about?

Ptak and Smith: The world has changed dramatically since the invention of MRP in the early 1960s, yet MRP has not changed. Every day, companies are planning billions of dollars of supply chain and man-



ufacturing activity based on an antiquated, ineffective, and inappropriate set of rules.

The evidence is right in front of us: The proliferation of spreadsheet planning shows just how much planning personnel distrust what their planning systems are telling them. The answer is not simply, “just use the system.” They know that if they follow what the system says they won’t be around long.

The answer also is not to just “guess better.” Why? Volatility and complexity (much of it self-imposed) is expanding at a faster rate than we can compensate for it. A fundamental planning overhaul is required. Enter DDMRP.

DDMRP is an intuitive, practical and proven method to combat the demand signal distortion and supply continuity variability that constitute the bullwhip effect. It is the first step of a larger framework called a

Demand Driven Adaptive System that allows companies to chart a path of sustainability and growth in the complex and volatile supply chain circumstances that we see today. The foundation of DDMRP is based on George Plossl’s first law of manufacturing that states “all benefits are directly proportional to the speed of how of relevant information and materials.” DDMRP designs and implements a demand driven supply chain model with inventory positions and mechanisms that produce relevant information and materials in both the strategic and tactical relevant ranges for a business. This methodology is already being used by many Fortune Global 1000 companies.

IP: Can you provide an example of an organization that is using DDMRP and how it has improved that company’s productivity and profits?

Ptak and Smith: There are several household names that are implementing DDMRP. Some we can talk about, others we cannot. In the consumer products space, almost every home in the United States has at least one item that passed through a DDMRP implementation. Allergan, maker of Botox, just released results from an initial DDMRP implementation. In an incredibly volatile internal and external environment, the \$7B+ company reported that DDMRP delivered reductions in inventory of 30+%, lead time reductions to the distribution network in excess of 50%, with service levels at 99+%. Michelin is beginning a series of DDMRP implementations in North America and Europe. British Telecom is implementing DDMRP across its businesses. There will be many other large companies within the next year that will share their results and stories.

“This book is the ultimate reference for this new way of life across a dynamic adaptive supply chain.

With the development of DDMRP and now the writing of this book, Ptak and Smith have broken through common practice to bring common sense to supply chain management. If your company is facing variability and uncertainty across your supply chain and the future looks little like the past, then this book holds the answer.

DDMRP represents the future of planning in today’s complex and volatile supply chains. Inherent flaws in the traditional planning approaches are exposed and resolved for current-day adaptive supply chains. With the Demand Driven Adaptive Schema and the pivotal position of Demand Driven Sales and Operations Planning, this is not just a better way to plan; it is a better way to run an organization in today’s hypercompetitive environment. Operations and strategy can now easily and realistically be connected bi-directionally, allowing both to adapt to critical changes for the best return on shareholder equity.”

—Dick Ling, S&OP Consultant and Author of *Orchestrating Success*

IP: Is DDMRP as effective for smaller organizations? Is it better suited for some types of industries? Do you foresee it being adopted on a global scale?

Ptak and Smith: It depends on what you mean by “small.” In our experience, DDMRP begins to be very effective for companies that are grappling or beginning to grapple with supply order generation and management through their supply chain. They could have a modern or legacy planning system, could simply be outgrowing their spreadsheets, or both.

DDMRP is already being adopted on a global scale. There are major DDMRP implementations in Australia, Asia, Africa, Europe, and North and South America. This will only continue to grow as more and more software companies code to DDMRP specifications. The list of fully compliant companies is growing quickly as is the list of companies claiming compliance (we have not evaluated them).

IP: Is there a certification program that involves DDMRP? If so, what do managers need to know?

Ptak and Smith: There are two internationally accredited programs that train people on DDMRP principles. The Certified Demand Driven Planner (CDDP) Program is a partnership between the Demand Driven Institute and the International Supply Chain Education Alliance (ISCEA). We have forty endorsed instructors across the globe, including some embedded in larger companies. Those who go through the program can go back and make an immediate impact in their company. The CDDP is one of ten programs in Gartner’s Market Guide for Supply Chain Planning Certification Programs in 2015 and 2016.

The Certified Demand Driven Leader (CDDL) Program equips senior and mid-level operations, supply chain, sales, marketing, and financial managers with the ability to design, implement, and sustain a Demand Driven Operating Model (DDOM). The program spans Planning, Operations, Distribution, and Finance.

The CDDL Program is comprised of seven modules delivered in ten CONTACT hours over a two-day period. Testing is done through the ISCEA’s secure iProctor system after course completion via a scheduled testing session. Upon successful completion of the exam, participants receive a CDDL certificate and may use “CDDL” as their professional title. The CDDL Program is listed in the 2016 Gartner guide for supply chain certifications.

Demand Driven Material Requirements Planning (DDMRP)

By Carol Ptak and Chad Smith

Pages: 368, Hardcover

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Price: \$69.95

ISBN (ebook): 978-0-8311-9384-3

Price: \$55.95

Finding the Missing Links

Speaking with Author and International Supply Chain Expert Caroline Mondon



The Missing Links is a how-to supply chain management guide written as a mystery novel. In addition to making this a fun, engaging read, this approach provides a unique window into

effective supply chain management skills that empower companies to meet the swiftly changing needs of today's global market. Here's what author Caroline Mondon had to say about her bestselling new book:

IP: You have an impressively broad range of experience. What led you to focus on supply chain and business management?

Mondon: As an engineer, I started my career in manufacturing in the early 1980s. As I was applying the best practices of lean and total quality management over and over again, I realized that steps such as reducing waste and putting processes under control were useful locally, but not all that meaningful for the business as a whole. Then, I read *The Goal*, by Eliyahu Goldratt and Jeff Cox, and my life changed: I became a flow management addict.

The concept of supply chain management was not even known in France around 1990, when one of my first decisions as a plant director was to put the purchasing, scheduling, storing, and shipping departments in the same office and call them "logistics from suppliers to customers." This decision saved 150 jobs near the village that is the setting of my novel. Since then, I have focused on combining supply chain and business management, because they make so much sense together.

IP: The Missing Links is part detective novel and part a how-to guide about highly effective demand driven methodologies, total quality, lean, TPM, and flow management. What led you to take this approach in writing your unique book?

Mondon: As a Neuro Linguistic Programming practitioner trained to model human excellence, I was fascinated by the relevance and the success of management books written as novels. I collected them each time I traveled to the United States.

When I was offered the opportunity to write a management book, I answered that I would only do it if I could write a detective story, because heads of businesses don't often read management books, but they do read detective stories. It became my project for my degree as an NLP master practitioner,

with the challenge of writing a bestseller. I wanted to experiment with what Neuro Linguistic Programming claims: When you really want something, the universe conspires to give it to you.

IP: Is your book based on a real company or is it purely fiction? Without giving us a spoiler, might you share a few details of the key characters and the plot?

Mondon: Every line in the book is true, except the detective story ones ... but the detective is a real person I used to work with. I wanted to buy the company RAMI, which is next to my home in Touraine, and become the CEO. But it didn't work out, and today the company doesn't exist anymore. It was so frustrating that I decided to replicate exactly the context of what I would have done in this company to save twenty-five jobs and to expand internationally.

The financial results at the beginning of the book and the layout of the plant are based on reality. The team characters are based on real people. The grandmother is my grandmother: She read the first chapter before she died and couldn't believe I was going to publish a book with her as a main character in it.

IP: What are some of the most common industry standards that you highlight in the book? What are the "Missing Links?"

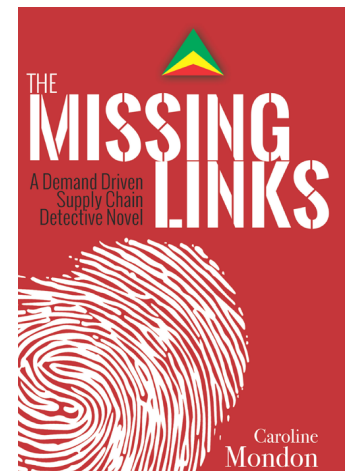
Mondon: More than describing the content of most common industry standards in operations management, I highlight the necessary interactions between them. The "missing links" are not the links themselves, but what is in between the links that makes them effective or not. The recipe of this magic glue is to be discovered in between the lines of the novel.

Standards of total quality, lean management, and total productive maintenance (which are among the clues readers can find in the appendixes to the book posted on the website themissinglinks.info) cannot succeed without a common purpose—that is, to protect the flows of product, information, and cash to make the company successful in responding to the demand. I became a Demand Driven Institute instructor because the DDMRP methodology allows soft and hard skills to make the best of both. You cannot understand what you cannot imagine. Until the imaginations of team members are aligned, common industry standards do not expand.

IP: Please tell us a bit about Fapics, the French Association of Supply Chain Management.

Mondon: I was very lucky to be president of Fapics when I discovered DDMRP. My board members were open to it when Carol Ptak was making her first world tour, sharing her knowledge that is changing the world of manufacturing. The French are among the leaders of DDMRP implementations. Every day, I deal with companies asking to become Fapics members to access the community and share questions and answers with others.

Fapics is like a shared R&D body for French companies and professionals in supply chain management standards and advanced methodologies. We are proud to be at the ISCEA conference this year. Next year, we will come back with more partners and company members to talk to the world about European demand driven success stories.



The Missing Links:

A Demand Driven Supply Chain Detective Novel

By Caroline Mondon

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The Key to Operational Excellence

Mike Sondalini on Achieving Optimal Wellness

IP: What is the basis of your concept of industrial and manufacturing wellness?

Sondalini: Something is wrong with the practice of enterprise asset, operational excellence, and quality engineering. These disciplines have matured over the last half century, but something vitally important is missing.

If you are a professional engineer or manager working in industrial operations that use plant and equipment to make products for profit, as I have been for most of my 40-year career, then finding and using better, more successful solutions is a way of life. Every production, maintenance, asset, and quality manager is tasked with the responsibility of driving productivity improvements in their operation. Once you work in those roles, you learn to see the many opportunities there are in your company to get far better results and performance from its operating assets. But knowing that things can be better, and actually making them better, requires new approaches.

Industrial and manufacturing wellness was created to give every company a sure way to get outstanding production plant and equipment reliability for the least life cycle costs. This enterprise asset management methodology is designed to take production plant and equipment to the best operational dependability and utmost operating profit. It is the “holy grail” of optimal operational success that every industrial and manufacturing business is trying to find

IP: According to your book, a state of wellness is an integrated state where a business is robust, reliable, and self-improving. What are some of the essential steps in achieving such results?

Sondalini: Start by questioning all that you think is true about production management, asset management, and maintenance management. From my years of observation, I estimate that only 1 or 2 in 1,000 sites could be classed as world-class performers. That leaves some 999 or 998 in a 1,000 operations underperforming. Take a close look at what these underachievers do, and you will see that they apply commonly accepted production, asset, and maintenance management practices. An operation can never be world class until it adopts world-class practices. My original concept, the Plant Wellness Way, was developed to give all companies a sure path to follow to get world-class plant and equipment reliability at every site.

The *Industrial and Manufacturing Wellness* book contains a methodology for getting any operating equipment to achieve world-class production performance. Users of the methodology are taken through a series of procedural steps, beginning with business risk assessment through to operating and maintenance strategy selection, and concluding with the implementation project plan to embed the right practices into the workplace so world-class results are the “new normal.”

IP: What are “reliability engineering principles?” And how can a company utilize these principles to achieve excellence?

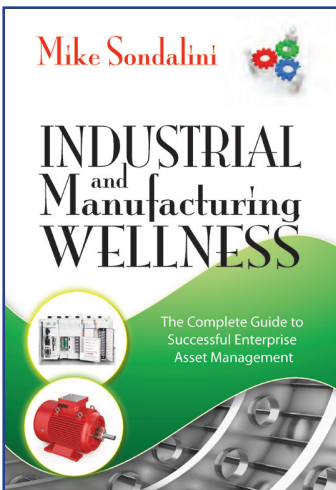
Sondalini: Reliability engineering is based on two basic principles: 1) improving the likely behavior when a configuration is in a series arrangement, and 2) improving the likely behavior when a configuration is in a parallel arrangement.

Industrial and Manufacturing Wellness uses the principles of reliability engineering to increase the chance of having highly successful production plant operation. Where you have series arrangements, you apply Wellness methods to either 1) make each item in the series incredibly reliable so the arrangement is highly robust and anti-fragile, or 2) you convert the items in the series to parallel configurations so you have a backup in place. By using Wellness principles, you create outstandingly reliable equipment, and consequentially, highly successful production operations.

IP: Who is your book written for? And how can it best be used?

Sondalini: The *Industrial and Manufacturing Wellness* book is for organizations that want to have world-class production asset performance from their plant and equipment. It contains new, powerful, “uncommon” solutions to get world-class equipment reliability. The contents of the book are of high value to every industrial, manufacturing, and process operation. The Wellness methodology is explained in detail so that companies can achieve and maintain high-profit asset management success.

Because the book describes the entire Wellness methodology and each of its steps, it is an ideal “user manual” for company executives, senior managers, and heads of departments. They can follow the steps in the book to arrive at sensible and effective plant reliability improvement strategies. It can be used to develop the plans and actions for their company to make high operating assets reliable, and consequently, achieve greater production success. This book also is a highly rated text for teachers and students in the field. For more information on the Plant Wellness Way, visit the website www.lifetime-reliability.com.



Industrial and Manufacturing Wellness: The Complete Guide to Successful Enterprise Asset Management

By Mike Sondalini

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ISBN (ebook): 978-0-8311-9402-4, Price: \$47.95

Valuable Bonus Materials

Throughout *Industrial Manufacturing and Wellness*, Mike Sondalini refers to additional online resources, including useful support documents and spreadsheet templates that can be used to supplement the book and enhance its value as a learning tool and long-term user manual. This material is provided as downloadable files.

Industrial Press, Inc., 32 Haviland Street, Suite 3, South Norwalk, CT 06854

Phone: 203-956-5593, Toll-Free in USA: 888-528-7852, Fax: 203-354-9391, Email: info@industrialpress.com.

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