

CM Trends

News and Perspectives for CM Professionals

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WHEN A CHANGE IS NOT A CHANGE

by Leo Clark

Too often the focus of configuration management is on “Changes” and the change process. In an effort to understand the process, management wants to collect measurements about changes. Some of the usual measurement suspects include “Changes per week” or “Changes per release”. There are certainly better things to measure to help understand the change process. But even these relatively simple measurements can be mishandled. Organizations need to take care when counting changes because sometimes a Change is not a Change.

Task Tickets

Organizations use the design of a configuration to measure conformance. When the design is stable they need to buy or make items that conform to the design. The mechanism to authorize achieving the design is called a task ticket.

Examples of task tickets include Purchase Orders, Modification Orders, Test Orders or, in some cases, job folders, routers or travelers. The task ticket should specify, at a minimum:

- ◇ Part Number
- ◇ Quantity
- ◇ Employee ID
- ◇ Equipment
- ◇ Start time
- ◇ Metrology

Design and Process Documents

In order to have the equipment correctly prepared, organizations would be wise to issue task tickets to bring the machines into conformance before the manufacture or testing of the item. The existence of a closed task ticket that proves a machine has been brought into conformance is essential for having confidence that the manufacture will occur correctly and without incident.

As far as our change process is concerned, design changes only occur once. That is, we will only release DWG 123 Rev C once. Task tickets that reference that drawing could be issued every day for a month. Change to design has one occurrence, realizing that design through procurement or manufacturing can happen many times.

So, as we can see, a series of task tickets authorizing spending corporate resources to create conforming items provides the audit trail of work accomplished correctly. It becomes a simple matter of bringing the equipment into conformance and then making conforming items by following the process.

Unfortunately, sometimes things don’t work out as we have planned.

Managing Non-Conformances

When the item that we manufacture does not conform to its design, we have a problem. The time, energy, capital, and capacity consumed making that bad part has been squandered. Instead of working efficiently we now have to spend additional resources to rework the item to make it conforming. In some cases the non-conforming item is beyond repair and we have to make a new one.

This waste and scrap drives up cost, reduces profit and hampers the organization’s throughput. This has a corrosive effect on an organization’s ability to

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compete, carrying unnecessary costs as a burden to the marketplace.

When a non-conformance occurs we need to authorize spending corporate resources to rework the item into a conforming state. The correct authorization for this expenditure is another Task Ticket, call it a Rework Order. The equipment setup might be different from the original manufacture, and the process steps will definitely be different. But what remains exactly the same is the intended design of the item and the subsequent measurement of conformance to that design.

The Design is the Same

Since the design remains the same there is no change to the design. The configuration remains exactly the same as before the non-conformance. No change to the design means just that; No Change.

Some organizations count their rework as a "Change". The Change Count can grow very high even though no documents have been released. Production is just churning out scrap at an alarming rate and management thinks that it is a reflection of the change process. Horrors!

Rework is not a "Change". Stop calling it a change and your measurements will begin to reflect the true nature of your change process.

Leo Clark is CMPIC's SCM Expert. Leo has over 15 years of CM and related QA experience and ten years with the Institute of Configuration Management. He has taught configuration management to thousands of students and consulted on CM, SCM and QA implementations for over 100 companies. Leo has consulted with PDM/PLM software tool providers to improve workflows and functionality, and taught and consulted extensively on SPC, CIM, DNC, MES, ERP, preventive maintenance. He is the author of numerous articles, papers and presentations on SCM, SPC and management methodologies. Leo is a graduate of Marquette University, CMPIC Certified, CMIIC, CM Lead Assessor Certification, U.S. Marine Corps, member ACDM, and ASQ.

PLM: THE HYPE AND THE HOPE OF “CM TOOLS”

by Steven Easterbrook

The Hype

Some of the sales literature coming from some Product Life Cycle Management (PLM) tool vendors (aka CM Tool Vendors) contain phrases like “Our software is the answer to all your configuration management needs”, “Our software does CM out of the box”, “Our software offers a never seen before solution to CM”, etc.

These statements may be a “plus” when selling to the uninformed, but more and more teams looking to purchase these systems are led by, or include, professional Configuration Management (CM) personnel. These CM professionals realize that PLM systems are a valuable and worthy tool that will aid them in daily CM activities, but the more knowledgeable CM professional is often turned off by the implication that these systems do “configuration management”.

I always ask PLM vendors that offer the “ultimate CM solution” two questions (1) what is the sales representative’s experience in configuration management? (2) does the PLM vendor have a CM process in place to manage its own product?

Question 1: In order for true two-way communication to take place the PLM Sales Rep needs to truly understand what the potential



customer’s needs are. I am told by some CM Managers (going through the buying process) that some sales reps who claim their PLM software tool as the “solution to CM”, don’t seem to know what CM really is.

It is likely that PLM vendors who have a sales force that understands the CM process and speaks the CM “language”, coupled with a product that delivers, will win out over the competition.

Question 2: If a PLM supplier does not have a documented internal CM process in place, it is evidence (to me) that the PLM vendor really does not know what CM is. As a result, there’s

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a reasonable chance that your PLM product may be delivered with a few hard to resolve surprises embedded in it.

The PLM system may then be difficult and time consuming to maintain (i.e. future options/fixes may take forever to implement and to debug).

The Hope

Some customers hope that by purchasing a PLM system (a CM Tool) all their problems will magically go away and CM will be what it should be. But this will never happen without a thorough evaluation of the strengths and weaknesses of the organization's current CM process (and subsequent corrections as needed).

It is true, PLM implementation can enhance and speed-up many of the CM activities such as document control, access to information, structure and linkages, change proposal, and associated workflows, but it cannot assure the documents, records, and data are any good. It cannot assure a proper technical review, business decision, and implementation plans are made in regards to changes. And in the absence of an effective and efficient CM plan and related CM procedures, a PLM implementation may never live up to its claimed benefits... no matter how good the PLM System actually is. In some instances it could even make matters worse.

The CM process should be understood and corrected as needed before investing in a PLM system. Ideally, companies would ask themselves if the current CM process is worth automating before investing in automation. If it is not worth automating, the first consideration would be to fix and enhance the CM process, then to pursue a PLM solution.



Conclusion

PLM tool vendors and prospective PLM purchasers could benefit from learning more about modern CM best practices. They need to understand what CM really is and talk the same language. The vendor and the customer would then be in a more informed, and comfortable position relative to the PLM decision.

The PLM system purchased will then "work" better. The relationship between the PLM vendor and the customer will strengthen as the PLM system interfaces smoothly within the CM process. This relationship will carry into the "post-sale" phase, when future enhancements will bring more functionality to the customer and, ultimately, more revenue to the PLM vendor.

Steve is President of the Configuration Management Process Improvement Center (CMPIC). Steve is also a former President of the Association of Configuration and Data Management (ACDM) and is currently on ACDM's Board of Governors. Steve has been working in configuration management for over 28 years. He has 12 years of experience as a Configuration Management manager in government and commercial organizations and another 16 years as a CM educator, lead assessor, and consultant. Steve has taught, lectured to, and/or consulted with thousands of individuals from hundreds of commercial and government organizations on the subject of CM process improvement.

What is a CMPIC Preferred Vendor?

Criteria for the CMPIC Preferred Vendor Designation

- 1) Vendor personnel understand CM requirements and guidelines of various industry approved CM Standards.
- (2) Vendor has CMPIC trained individuals active in defining and developing the software solution.
- (3) The software product has the capability to enable efficient identification, change management, and status accounting [recording and reporting information] in the environment(s) in which the tool was designed to be used.
- (4) The vendor is active in the CM Professional community, e.g. CM conferences, online CM discussion groups, membership in various CM and related associations, supports CM education providers, etc.

Congratulations, CMPIC Preferred Vendors:



More Preferred Vendors to be announced soon!

If you think your company has a PLM tool that meets the above criteria, send CMPIC an email at info@cmpic.com.

2010 Conference Highlights

“Once again, first class event!! This conference always has the cream of the crop of CM professionals from around the world.”

“Really liked the interactive group discussion!”



“Thank you for giving us the opportunity to learn from each other!!!”



“I really enjoyed the conference and learned a lot more about CM.”



“Outstanding conference! I will tell my team that is this a must attend.”



These comments, and more, are on file at the CMPIC office.



Upcoming Conference: CM Trends 2011



Join us in celebrating CMPIC's third annual conference, *CM Trends 2011*, in
ORLANDO, FL
SEPTEMBER 19-21, 2011

CM Professionals from various industries and all around the world attend this event to discuss and learn about the latest topics in configuration management. The CM Trends Conference encourages attendees to expand their CM knowledge through presentations, group discussions, networking, and Q&A sessions with panels of experts. This conference does not restrict itself to lecturing about one methodology, but instead focuses on applicable topics to facilitate continuous learning for all.

	Per Person Fee (USD)
Option 1: Conference Package	\$895
CM Trends Conference, 2.5 days, Monday - Wednesday	
Option 2: Conference + Course 6 or 7 Package	\$1,595
CM Trends Conference, 2.5 days, Monday - Wednesday + Course 6 or Course 7, 2.5 days, Wednesday - Friday	
Option 3: Course 6 or 7 Only	\$995
Course 6 or Course 7, 2.5 days, Wednesday - Friday	
*Note: Exhibitor fees are the same as above	

Register at: www.cmpic.com/registration.htm



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Post Conference Certification



CMPIC Course 6: ANSI/EIA-649 (NEW REV. B) Principles & Applications Certification

ANSI/EIA-649, National Consensus Standard for Configuration Management, is perhaps the most widely accepted Configuration Management (CM) standard in use today. The standard applies to commercial as well as government organizations. The standard offers valuable advice on requirements for achieving successful CM implementations. Its authors come from various commercial and government backgrounds and are experts in the field of CM. This course will explain the logic and meaning behind the various EIA-649 principles, and offer options for implementation approaches and how best to apply the standard in various environments.

**Note: Public Course commercial rate price for Course 6 is normally \$1,275*

CMPIC Course 7: Configuration Management Assessor Certification

This course is designed for Configuration Management (CM) professionals who are responsible for CM process improvement in their organization. The course will teach assessment techniques used to identify areas of improvement and uncover deficiencies in existing processes. The assessment criteria covers assessment of all the major elements of CM as defined by major industry standards and quality initiatives such as ANSI/EIA-649, CMMI, ITIL, MIL-HDBK-61 and more. Students completing this certification will be well prepared to produce assessment reports and plans for improvement that will enable them to move forward with CM process improvements.

Prerequisites required. Attendees should be familiar with Configuration Management practices as this course is not intended to teach basic CM principles and implementation practices. Attendees must have a certification in CM or Project Management prior to taking this course or at least 2 years experience in CM, QA or Project Management.

**Note: Public Course commercial rate price for Course 7 is normally \$1,275*

All courses taught by CMPIC and Sponsored by The University of Houston.
Learn more about these courses at www.cmpic.com

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CM Trends 2011 Agenda



MONDAY SEPT. 19, 2011

- 7:30 - 8:30 Registration & Continental Breakfast
- 8:30 - 11:45 Presentations & Q&A with the Experts
- 11:45 - 1:00 Lunch Break
- 1:00 - 4:00 Presentations & Q&A with the Experts
- 4:00 - 5:00 Exhibitor Showcase

TUESDAY SEPT. 20, 2011

- 7:30 - 8:30 Continental Breakfast
- 8:30 - 11:45 Presentations & Q&A with the Experts
- 11:45 - 1:00 Lunch Break
- 1:00 - 4:00 Presentations & Q&A with the Experts
- 4:00 - 5:00 Exhibitor Showcase

WEDNESDAY SEPT. 21, 2011

- 7:30 - 8:30 Continental Breakfast
- 8:30 - 11:45 Presentations & Q&A with the Experts
- 11:45 - 1:00 End Conference / Lunch Break
- 1:00 - 5:00* ANSI/EIA-649B CERTIFICATION COURSE *or*
CM ASSESSOR CERTIFICATION COURSE

THURSDAY SEPT. 22, 2011

- 8:00 - 5:00 ANSI/EIA-649B CERTIFICATION COURSE *or*
CM ASSESSOR CERTIFICATION COURSE

FRIDAY SEPT. 23, 2011

- 8:00 - 5:00 ANSI/EIA-649B CERTIFICATION COURSE *or*
CM ASSESSOR CERTIFICATION COURSE

To register for this event please visit: www.cmpic.com/registration.htm
or contact Kathy at (434) 525 8648, kathy@cmpic.com.

*See pg.8 for course fee.

Detailed Schedule to be Announced.



CM Trends 2011 Venue



The Rosen Plaza Hotel

9700 International Drive
Orlando, FL 32819

Join us in this award-winning, luxurious hotel located across the street from some of Orlando's best restaurants and shops.

sleeping rooms: \$105 per night single/double. No resort fees!
Government per diem rate: \$90 per night, credentials required at check-in.

group rate dates: September 18 - 23, 2011.

reservations: To receive the group rate, call (800) 627-8258 with the code "Configuration Management Process Improvement Center". Group discount ends Friday, August 19, 2011.

Learn more about this hotel at www.rosenplaza.com



Understanding Information

CM, Your Valentine and Chocolate

By Rick St. Germain

As I write this, it's early February and the big buzz is all about Valentines Day. An article in yesterday's paper caught my eye: entitled "What Women Really Want", it was written by a guy for guys – sort of a male version of Ann Landers for the clueless. Of course, male analyticals dictated a top-ten countdown, running up from "getting into last year's jeans" through "catered in-home dinner" and "housekeeping service", right to the ultimate prize: "Three words: Solid. Dark. Chocolate."

Now, for us guys, this is valuable intel, but hardly news. The beauty, though, is that it works: offering chocolate to a pretty girl can lead to interesting consequences. But it's not the simple cause-effect most guys think it is. While chocolate is an essential ingredient in the gift exchange, what the lady truly values is the meaning of the gift, and by implication, the intent of the giver. For her, it's all about meaning.

Ditto for information. Without meaning, information isn't – it's just noise. But I'm getting ahead of myself. Let me start at the beginning.

CM Manages Information

There's usually one point in every CM professional's life – a defining moment – when something profound crystallizes in a flash of light. I had one of those moments as a young systems manager, struggling with database integrity issues. One morning, it struck me that if CM could manage the configuration of a software product under development, why couldn't it manage the configuration of data in a database. I called my grizzled mentor and asked him if CM could be used to manage information. There was a long pause at the other end. His answer floored me: he said, "CM is all about managing information".

Now, before you dismiss this exchange as "sage reveals the blindingly obvious to the novice", let me add some context in my defense. Although we used the same terms, we were talking about two different concepts – two meanings for "information". My poorly worded question was based on my understanding of "information" as the contents of a database, while his answer was based on the more general concept. Nevertheless, that answer marked me and got me thinking about what information really is and the remarkable path we take to get it. And that, Dear Reader, is what I want to share with you here.

Data from Noise

It all begins with noise. We're awash in a sea of it – it's all around us, all the time. Fortunately for our mental



health, our senses can only detect a tiny fraction of the noise bandwidth, and our brains ignore most of that. But millennia of natural selection have given us the ability to detect certain patterns that are important to our survival. We're born with shape recognition skills that allow us to recognize our mother who we trust will be taking care of us. We can distinguish moving objects that might eat us. More recently, we even developed chocolate-detection genes. I'll get to that one in a moment. Detection and recognition are the key words here. When we match a pattern of noise in our environment to a pattern we've learned, we get data.

Data are patterns of noise that map to learned patterns – we associate these with symbols.

Now, most organisms on the planet can match noise to a learned pattern. What sets us humans apart is the ability to assign that pattern to a symbol that may not have anything to do with the pattern. Words are a great example. Having intimately learned the pattern for that solid, dark, mouth-watering square assaulting her senses, our Valentine lady quickly assigns the word-symbol "chocolate" to it. This is uniquely human – no other species on earth can do this. Data is created by the association of noise patterns to symbols like words, numbers, diagrams, or images. But it's what happens next that is truly remarkable. Don't blink – you might miss it.

Information

In less time that it takes our Valentine to bat her baby blues, an amazingly complex thing happens: Meaning. In an instant, her brain links the data to a vast stored array of related information that allows her to evaluate it in a particular context. Context is the key here. Interpreting data in context makes it useful for a purpose – gives it meaning. By adding context to data we get information that is useful for making decisions and taking action.

Information is data interpreted in context to give it meaning.

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There are two points worth noting here. First, meaning is specific to the context. Chocolate as a cooking ingredient has an entirely different meaning than chocolate as a symbol of courtship. To understand the meaning, you need to know its context. Second, and most important, the context is in the mind of the individual: the unique learned patterns of their experience. Of course, some of those learning experiences are common with others who share our culture, but nevertheless, context (and therefore meaning) is unique to the individual. To her, chocolate has a very specific (and very complicated) meaning. Just ask any would-be suitor.

But all is not lost: a short cerebral hop away is yet another level of understanding that makes it all work.

Knowledge

As necessary as information is for describing our data and making it useful, we eventually want to do something with it. While information is in a form that is useful for decision making and action, knowledge links in values, experience, rules and other related skills and capabilities that let us apply the information to do something.

Knowledge is information with action context that gives it purpose.

While information is about meaning, knowledge is about purpose – how to use that information. It adds the how-to context. The same two caveats apply: the purpose is specific to the [action] context, and is unique to the individual and their experience. So, with knowledge, all us guys can line up with our box of chocolates, in the confidence that its purpose will resonate with our Valentines', right? Not so fast. There's something else you should know.

Meaning Is Not Transferable

At least not directly. As we've seen, the data-information-knowledge evolution depends on contexts – linkages to information and knowledge that are in our heads. The challenge is in getting meaning from one head to another. And, since the contexts are not directly transferable, we're reduced to using symbols to communicate: data. That means that our young lad's poem of undying love for his sweetie is really nothing more than black squiggles on a piece of wood pulp. That's the bad news – get over it.

Meanings don't reside in words, they reside in people. But there is hope. The good news is that there's a really clever work-around. While symbols such as words and pictures don't carry meaning by themselves, they do represent concepts that stimulate meaning in the reader. So a clever author, by carefully selecting and arranging symbols (a configuration, by the way), can pass his intended meaning indirectly to the reader. But there's a catch: this only works if the two share the same meaning for the symbols. Shared meaning is based on shared experience and has been the basis for

human communication since our ancestors first started grunting and pointing.

Shared meaning is based on shared experience.

That's why we spend so much time discussing, collaborating, training and team building. We each store shared experience that makes it easier to understand the symbols we use to communicate. Chocolate is a symbol of your undying love for your sweetie, as is the poem that makes her swoon – even better using spoken symbols with a little body language thrown in. After all, guys, compared to the volumes of information women can exchange in a single glance, a poem should be a piece of cake – chocolate, of course.

Now, all of this has some important implications for us as we return to our CM desk on February 15th.

Lessons in Managing Information

Understanding information and how it works is a vital skill for every CM professional. After all, we are in the information management business – just ask my grizzled guru. So, like a typical guy, I've compiled my top five hit list. Remember these, and you'll be successful:

5. *Automate data capture as much as possible.* Don't make people enter information that's already available in the system. Automate. Data/information entry by humans should add value. Make it easy to do.
4. *Documentation is a means to communicate, not an end.* Remember that documents, especially those containing natural language, are sets of symbols whose configuration is designed to stimulate meaning in the reader's mind. Content is the valuable part, not the container.
3. *Meaning is in people, not in documents.* An author configures symbols in his document to get his intended meaning across. Those symbols stimulate meaning in the reader. Meaning is based on shared experience, and that's not in the document at all – it's in people's heads.
2. *Understand your audience.* Knowing the readers' shared experiences and culture lets the author select symbols that best stimulate the intended meaning in the reader. Use the best medium at your disposal.
1. *Solid. Dark. Chocolate.* Uhhmmmm... it speaks volumes.

Rick St. Germain is a CM researcher, consultant, trainer, and coach with over 25 years experience in implementing military and commercial CM processes for both hardware and software. He is President and Managing Director of Nouvella Consulting Services based in Ottawa, Canada, and is Chief of Canadian Operations for CMPIC Canada. He can be reached at rstgermain@rogers.com

WHAT IS A “BASELINE”

by Steven Easterbrook

“Baseline” is a real word not invented specifically for CM. “Baseline” represents an agreed to starting point for further activities. If I first measured my height on my birthday, at 8 years old, with the intention of measuring on each following birthday to track my height over time, then that first measurement is my “baseline”, my starting point for future measurements.

The baseline word, first used by the DOD in CM, represented an agreed upon set of information that the government directed the contractor to work to. The contractor could not deviate from/change that government “baselined” information without getting the government’s permission.

Obviously, what the contractor was building for the government did change over time, but the baseline was still the agreed to starting point.

Baselines per ISO 10007

“Configuration baselines, plus approved changes to those baselines, represent the current approved configuration.

Configuration baselines should be established whenever it is necessary in the product life cycle to define a reference for further activities.”

However, as with the term “CI”, the word baseline started to take on other meanings.

Baselines per CMMI (4 types of Baselines)

(1) “Release of a baseline constitutes retrieval of source code files (configuration items) from the configuration management system and generating the executable files. A baseline that is delivered to a customer is typically called a “release” whereas a baseline for an internal use is typically called a “build.”

(2) “A baseline is a set of specifications or work products that has been formally reviewed and agreed upon, that thereafter serves as the basis for further development, and that can be changed only through change control procedures.”

(3) “A set of requirements, design, source code files and the associated



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executable code, build files, and user documentation (associated entities) that have been assigned a unique identifier can be considered to be a baseline.”

(4) “Functional baseline” = system-level requirements. “Allocated baseline” = system-element-level design requirements. “Product baseline” = product definition at the end of development/beginning of production”

Baselines per “DOT CM for Transportation Systems Handbook”

“We need to define “baselines” for our products and continue to maintain them. A baseline consists of all documentation on items that are under change control, the items themselves, and all approved changes that are being made to the system. The importance of establishing baselines cannot be emphasized enough when discussing configuration identification.”

The above DOT definition is a “moving/rolling baseline”. But again, according to the MIL-STDs and ISO, the baseline is simply the starting point for future activities, which included government change control. Yes, we can make changes to the baseline but that is called the current approved configuration. Well, that is what it is supposed to be called.

The Bottom Line

The word “baseline” has changed, just like “CI”. You need to define what these terms mean for your environment. The key is to understand that various CM words mean different things to different people/organizations.

Finally, keep in mind, when the “Baseline/CI” terminology was established by the DOD (US Government), these terms had very specific meanings associated with the government/contractor relationship for military procurement.

When others tried to apply these definitions to other environments the true meaning did not quite fit, so the definitions were modified. That is why we have so many interpretations of these words.

Steve is President of the Configuration Management Process Improvement Center (CMPIC). Steve is also a former President of the Association of Configuration and Data Management (ACDM) and is currently on ACDM’s Board of Governors. Steve has been working in configuration management for over 28 years. He has 12 years of experience as a Configuration Management manager in government and commercial organizations and another 16 years as a CM educator, lead assessor, and consultant. Steve has taught, lectured to, and/or consulted with thousands of individuals from hundreds of commercial and government organizations on the subject of CM process improvement.

Join this discussion, and more, on CMPIC’s Configuration Management Trends LinkedIn group.

Search: “CMPIC Configuration Management Trends” on LinkedIn.

Do you have a CM story you would like published in this newsletter? Share it with us. Send your article to Kerri at: kerri@cmpic.com.

The Value of Operational Business Process Modeling

By A. Larry Gurule

Are you familiar with any of the following statements?

- "A business enterprise must strive to organize around its core processes: the processes used to deliver value to customers."
- "Continuous improvement of process will result in continuous improvement of products."
- "Process first, technology follows."
- "Automating bad processes is like painting your living room as your house is burning."

For years industry experts, as well as product and service vendors, have attempted to communicate to us the value of understanding the processes that define and control organizations. Entire markets and initiatives have been created to refine and improve organizational processes. Products aimed at improving how the company operates such as PLM, ERP, MRP, CRM, and initiatives like TQM, LEAN, Six Sigma, have all experienced tremendous popularity and growth. Despite attempting one or all of these activities, many businesses are still struggling with getting their arms around the operational processes that define their business (let alone executing against what they do have captured).

Anyone who's been involved with business improvement activities where processes are being investigated such as ISO documentation, blue-printing for PLM, CRM and/or ERP/MRP implementations, workflow discussions or Kaizen sessions, understands the difficulty of capturing and cataloging even a single process. Now try to imagine capturing and cataloging the multitude that comprises your business end to end.

Before we address why the task of capturing processes accurately and effectively is so difficult, let's first talk about why it is so important to concentrate on process and why you need to start with operational process modeling in order to realize your company goals.

Businesses are made up of three primary components: Physical assets, Data, and Processes

- Physical assets consist of anything you can touch include buildings, equipment and yes, people too.
- Data consists of physical documents and files and/or electronic information used to support and operate the business.
- Processes consist of (but are not limited to): processes to develop and manufacture products, processes to provide service, processes to operate and administrate a business, etc...

In the past, most companies improvement efforts were concentrated in the areas of physical assets and data improvement. Company reorganizations and "Lean manufacturing" initiatives are examples of businesses attempting to lower costs in these areas often overlooking the effect inefficient operational execution (process). As important as process is to a business and its success, it is often difficult to quantify processes. Putting your finger on process knowledge can be daunting as well since the locations where processes are stored range from ISO documents to white boards with sticky notes connected by lines and arrows to MS Office files to "Tribal Knowledge" held by your employees and/or suppliers. Very few companies have business processes properly defined, captured and under control, and the results can be devastating to a company's bottom line. These deficiencies and short comings often show up as failed software implementations, bottlenecks in operation, high product costs, long employee startup, failed offshore attempts and most importantly missed customer requirements.

My Vendor Says He Can Rescue Me

Despite what they tell you, no single vendor can supply you with an application that will meet all of your companies end-to-end needs and if you are foolish enough to believe them just keep your check book open or worse start planning for bankruptcy now. Vendors sell their solutions and applied processes hoping that there will be a close resemblance to your business (How many times have you heard " were 80 to 90% of what you are asking for) and relying on customization for the rest (Why is my software application costing me 3 to 4 times initial software costs to implement?). Often, requirements for these projects

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are communicated by individuals with their own “wish lists” supported by whatever process related information is available with little or no regard for overall company objectives. An effective set of requirements for any project should contain a robust operational business process model quantifying the intended use, participants and information needs of the intended environment. If you can’t quantify your requirements how will you know when they are met? Companies need to “Write down the music they want others to play to”. By taking the time to effectively and accurately capture your processes from an operational view or perspective, as opposed to a systems or technical view (i.e. your ISO documentation), companies will be in a better position to demonstrate, communicate and manage requirements, development, planning and execution for all aspects of their business. Additionally an organization will be able to audit and gage the effectiveness of any and all initiatives.

Understanding the Chess Board

If you can't find it, you can't fix it. If you can't measure it how do you know if you're making it better or worse?

Operational Process View vs. Systems/Technical Process View

One of the lessons learned over the past few years is the importance of taking an operational approach to process capture and modeling. An operational process view allows the business executives, directors, managers, solution architects and the employees the opportunity to implement capabilities the business truly needs to impact their business. Too often, in a rush to deliver, companies default to a systems/technical approach to process and product implementation. This approach is technically-based and focuses on the physical and electronic infrastructure, as well as the high level systems/technical processes that link components and aspects of the organization. The driver for this approach is the consolidation of disparate systems and data, ISO and or Sarbanes-Oxley requirements, “LEAN” initiatives and/or new software implementation with no regard to operational process. Systems/Technical approach is much easier to deliver and with compressed delivery schedules, it is often embraced just to get something defined and/or in production. It does not however, usually meet the needs of the community to which the solution was/is intended. The key is too recognized as early as possible in a project that this path is being taken and act quickly and accordingly to refocus the solution being defined, back to the operational needs of the company. By jointly

recognizing the value an operational process view brings to the company, management and employees can guide their business to be truly transforming and successful.

It's Your Business; Shouldn't You Know How it Works?

In order to achieve the operational process control needed to support a company's planned growth and any global activities, the existing processes that enable the company to produce its products and/or service its customers, need to be better understood and managed. The trick is to find a way to capture current operational business processes quickly and easily.

Operational Process Business Modeling: Valuable, Quantifiable, Deliverable

Operational Process Business Modeling (OPBM) can be done by accurately capturing and cataloging process information along with process related detail in context to the processes being modeled. Process information consists of core and subordinate processes, as well as process flow. Process related detail is comprised of process Inputs and Outputs (i.e. documents, material, objects, parts), Control information (i.e. assumptions, issues, templates, start/stop events) and Resident information (i.e. equipment, roles, systems, tools). Additional strategic value can be gained by performing OPBM in a single environment that can be easily maintained (validated, released and revised), investigated (queried and reported against), and bi-directionally communicated with simply (transport of data to and from via a standard protocol such as xml).

By capturing operational process related information in this fashion, companies are better suited to make smarter decisions regarding their direction and goals. The business will also be better equipped to audit and gage the effectiveness of all their business related activities. An Operational Business Process Model can help companies predict the impact of, as well as aid in, the execution of proposed changes and business reengineering while realizing their impact through higher customer satisfaction and increased profitability.

Many excellent examples of the viability of this methodology can be found as well as examples of companies who have chosen not to take this approach. However, the ones who have chosen to ignore the benefits of Operational Process Business Modeling are struggling with and/or disappearing quickly from today's global economy.

A. Larry Gurule is a Principal with Computer Sciences Corporation's Federal Consulting Practice, as well as a CMPIC Associate. Mr. Gurule has over 30 years experience with manufacturing, enterprise data management, engineering system design and implementation. Larry has also owned and/or held a senior level position in manufacturing based businesses, as well as lectured to, and/or consulted with, hundreds of individuals from Fortune 500 companies on process improvement and IT implementation initiatives. Larry holds a Mechanical Engineering degree from the University of Colorado and is a CMPIC and CMII Certified Professional.

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What should the consequences be for not following the CM process? What is a baseline? Why can't we agree on a definition for a Configuration Item? Is that standard really coming back? How will it affect me?



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What's on Your Mind?

What would you like to see in the next CM Trends newsletter? Do you have an article or story that you would like published? If so, share it with us! Email Kerri at Kerri@CMPIC.com to find out more.

CMPIC: Still Growing

What changes the new year brings

2011 is a year filled with change for CMPIC. Already, we've expanded into two other continents and plan to speak at various CM conferences. Our schedule is filling up fast and it's all thanks to you!

International Partners

CMPIC will begin offering courses throughout Africa and Germany thanks to our recent partnership with David Pretorius, Detlef Haesner and Sylvia Vogel.

Conferences

Steven Easterbrook, CMPIC, will be speaking at the

international NATO conference in Brussels this February and, again, at the ACDM conference in Reno this March. If you're attending one of these events, stop by and say hello. We'd love to talk to you.

Booking Onsite Classes

Our schedule is filling up fast! If you or your company is interested in booking an onsite course with CMPIC, schedule now. To register, or receive a quote, contact Kathy at Kathy@cmpic.com, (434) 525 - 8648.



CM Resource Guide

Need help finding reliable information on Configuration Management? Check out the CM Resource Guide online!

In it you will find articles, white papers, and books relating to Configuration Management, along with links to CM tool vendors, CM standards (organized by industry), CM organizations, and various CM conferences.

www.cmpic.com/cmresourceguide.htm

Certification In Under 2 Weeks!

CMPIC Certification, Courses 1-4, in Las Vegas & Orlando

You asked for it and we listened. Get your Configuration Management Principles and Implementation certification in just under two consecutive weeks in either Las Vegas, NV or Orlando, FL. These courses run Tuesday to Friday of the first week and Monday to Thursday of the second week.



The four courses that make up the CMPIC certification program have been developed to provide a solid foundation in Configuration Management to all those who need a thorough understanding of configuration management principles, processes, tools, and workflows; and how to achieve integration to provide an effective and efficient enterprise solution.

SEND 4, SAVE MORE!

Effective 2011, CMPIC will offer the discounted onsite rates to any company that sends four or more employees to any CMPIC public class. To qualify, employees must attend the same class(es) and be invoiced together. For schedule and pricing information see www.cmpic.com or call us at (434) 525 8648.



Upcoming CM Certification Courses

- **CMPIC Certification Series Courses 1 - 4**

Upcoming Series:

Houston/Seabrook area starting March 28, 2011

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Certification in Less than 2 Weeks! Las Vegas, NV

June 21 - 30, 2011

Certification in Less than 2 Weeks! Orlando, FL

August 2 - 11, 2011

San Diego, CA starting December 12, 2011

- **Software CM Certification Course 5**

Orlando, FL May 2 - 5, 2011

Andover, MA August 1 - 4, 2011

San Diego, CA November 14 - 17, 2011

- **ANSI/EIA-649 Principles & Applications Certification Course 6**

Stafford, VA May 2 - 4, 2011

Orlando, FL September 21 - 23, 2011 (to be held in association with annual conference)

- **CM Assessor Certification Course 7**

Orlando, FL April 4 - 6, 2011

Stafford, VA July 18 - 20, 2011

Orlando, FL September 21 - 23, 2011 (to be held in association with annual conference)

San Diego, CA December 5 - 7, 2011

Visit www.CMPIC.com for more information about these courses.

To register, visit www.CMPIC.com/registration.htm or contact Kathy at kathy@cmpic.com, (434) 525 8648.

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