



# CM Trends

News and Perspectives for CM Professionals

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# A Matter of Perspective: Information as Product

by Rick St. Germain, CMPIC Canada

## The Box

My good friend Leo Clark tells a wonderful story about a young couple with a three year old boy. He tells it much better than I can, but here's the gist.

A doting father, in his enthusiasm for sharing the magic of Christmas with his young son, has bought him a Lego kit for an "R2D2 Robot with a Positronic Brain".

His wife is aghast. "What on earth were you thinking?" she exclaims, "He's only three years old!"

Sheepishly, the husband admits that he's always wanted one of those kits and he'll certainly help the boy build it. But deep inside he knows he's in deep yogurt.

On Christmas morning, the young lad squeals with delight as he rushes downstairs and sees the big box.

Tearing open the wrappings, he exclaims, "Oh boy! An R2D2 Robot with a Positronic Brain!"

The Dad seems suddenly absorbed with a particular ornament on the tree, avoiding the icy glare from his wife. Meanwhile, the young lad tears open the box and dumps out the contents: plastic bags with Lego blocks of various sizes and colors, a variety of



cogs and motors, some spherical object and a CD.

Without a moment's hesitation, the boy seizes the CD and pops it into the slot in the computer, just like daddy does. Immediately, a clown animation pops up on the screen and exclaims, "Let's build an R2D2 Robot! Hit the space bar."

"Yeah!" shouts the boy, hitting the space bar.

A half hour later, an R2D2 Robot with a Positronic Brain is deftly driving around the living room floor, much to the delight of the small boy, and his stunned parents.

An hour later, the robot is all but forgotten -- the boy is totally absorbed playing with the box.

## Lessons

Leo deftly uses this story to show us that there are other ways to transfer information that may be richer in meaning than just text. In this story, the video effectively demonstrated how to orient Lego pieces -- so much so that even a child could do it!

But there's an even more fundamental lesson here that relates to the information itself, and it's this: What people value most is information content; the medium is just a container for getting it to them.

Think sodas. While we pay a dollar or more for a can of soda with refreshing pictures printed on the side, but what we truly find refreshing is the soda inside -- when it's empty, we throw that can away.

In the same way, what makes our product attractive to consumers is directly related to the information we put

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into it: Information about what it was supposed to do (requirements), what it was made to do (design), what it does (functionality), how to build it (manufacturing), how to support it (MRO), and a myriad of other details. The information we embed in our product is what distinguishes our product from our competition in the eyes of our customers.

This leads to a stunning realization: if the real value of the product we sell is in the information used to produce it, then our true product is the information itself. It's our company's primary corporate asset. The small-p "product" we sell is the container, or by-product, of that information. And what's truly mind-boggling is that many companies don't effectively manage this primary corporate asset....at all.

**CM's True Role**

This "information-as-product" view offers a powerful perspective on the true role of CM. Like Neo in the movie *The Matrix*, we develop the ability to see things in the context of information -- as information.

After all, a Configuration is a structure of information that evolves over time. CM's true role is to manage

this evolving structure, not just to keep it accurate and complete but, more importantly, to effectively communicate its content to the people who need it, when and where they need it, in a form that makes sense to them.

Our primary challenge is two-fold: (1) getting this information out of dispersed data stores, most of them walking around on two legs, into a form that can be easily transported, and (2) communicating that information over space and time in a format that will make sense to the intended recipient. Not one or the other, but BOTH.

So next time you encounter someone who asks "Why do we need CM?", formulate your answer in terms of communicating information to people. CM is all about getting accurate, timely and complete information to the people who need it ... including that difficult person asking the question.

As Leo's story illustrates, it's what's in the box that has the value. Playing around with the box itself, while entertaining, adds little further value -- it's just a convenient way for moving information around.

Learn to think outside that box. See things in terms of information. It's a matter of perspective.



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 Novella Consulting Services based in Ottawa, Canada, and is Chief of Canadian Operations for CMPIC Canada. He can be reached at [rstgermain@rogers.com](mailto:rstgermain@rogers.com)

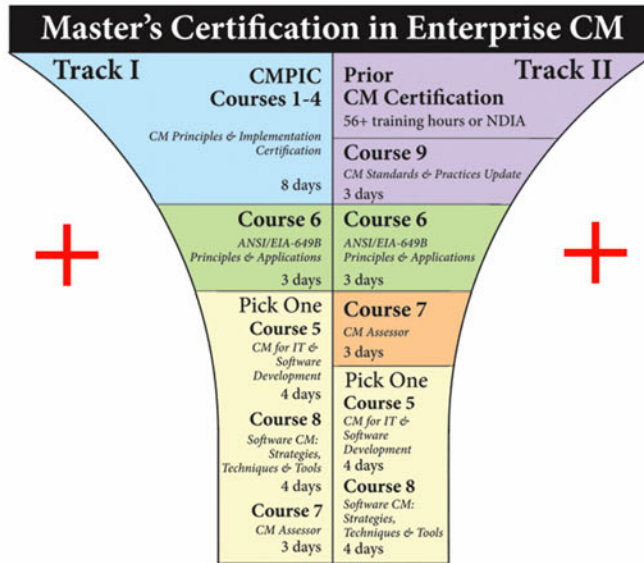


# CMSME Program

## CM Subject Matter Expert



**5 years CM job experience**



**Complete one:**

- Attend a CM Trends conference.
- or
- Course 9: CM Standards & Practices Update.
- or
- Any CMPIC Class not previously taken.

Successful completion of the “CMSME” program signifies that you have met the program requirements of learning the many Configuration Management (CM) principles and techniques required to implement CM in various functional areas within an organization. Becoming an active member in this program demonstrates your commitment to remaining current in all aspects of Configuration Management and an advanced achievement in continuous CM education.

**ANNOUNCING:** A new program is now available to configuration management and related professionals who have worked directly with configuration management for 5 or more years.

CMPIC is now accepting students into the CMSME Program who apply and meet the following requirements:

1. Currently hold a CMPIC Master's Certification, *and*
2. Have five (5) years experience in configuration management or a related

field working with CM processes, *and*

3. Have completed one or more of the below **Maintenance Requirements:**

- Successfully complete CMPIC Course 9, Configuration Management Standards & Practices Update, *or*
- Successfully complete an additional CMPIC course not previously taken (standards courses like ANSI/EIA-649A changing to ANSI/EIA649B count as different courses) , *or*

- Attend a CM Trends Conference.

To Remain in the CMSME program, one or more Maintenance Requirements must be completed once every three years.

**If you qualify and wish to enroll in this program, please apply online at: [http://cmpic.com/CMSME\\_application.htm](http://cmpic.com/CMSME_application.htm)**

**Learn more: <http://cmpic.com/CMSME>**

# FAA's CM Automation

## by Win Battle, FAA

The FAA's Enterprise Configuration Management & Information Data Services (AJW-261) is successfully working towards the new agency wide Configuration Management (CM) solution. This solution, Configuration Management Automation, will replace the current legacy applications, WebCM and RepCON and serve the next generation of CM for the Agency as a solution that is capable of supporting the CM requirements for both the National Airspace System (NAS) and Non NAS Information Technology (IT) assets.

CMA is expected to take advantage of current technology and facilitate information sharing amongst system, while at the same time conforming to FAA Order 1800.66, and provide full lifecycle CM capability. CMA will enable the Agency's programs the compliance required under the FAA Acquisition Management System (AMS).

FAA Acquisition Management System (AMS) guidance identifies the following areas for CM:

- **Mission Analysis** – consisting of Service-Gap Analysis, Concept and Requirement Definition

- **Investment Analysis** – conducting technical analysis, and developing a business case to provide an economic justification for the implementation of the proposed solution.
- **Solution Implementation** – launching the implementation of the proposed solution and all related activities.
- **In-Service Management** – consisting of systems, programs, and assets sustainment and support, e.g., change proposal and adjudication, document control, etc.
- **Research** – conducting research for service analysis to assess potential enhancement opportunities and new service needs.
- **Disposal** – Consisting of systems, programs, and assets retirement, disconnect and disposal of obsolete assets.

The CMA program is now at the Joint Resources Council (JRC) Initial Investment Decision (IID) point, which is scheduled for September 2012. CMA is expected to go to Initial Operating Capability (IOC) in October 2015.

For more information on CMA, please read the following CMA Smartsheet.



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## NEAR-TERM MILESTONES :

The Initial Investment Decision (IID) is scheduled for September 2012.

Final Investment Decision (FID) is scheduled for May 2013.

## Points Of Contacts:

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## Configuration Management Automation (CMA)

The FAA's Enterprise Configuration Management and Information Data Services Team, AJW-261, is responsible for implementing and monitoring the Agency's configuration management (CM) at an enterprise level. This includes the automation of tools and processes used to establish and maintain CM data for both National Airspace Systems (NAS) and Non-NAS Information Technology (IT) systems, programs and assets.

Configuration Management Automation (CMA), the new CM generation, is a new approach to the application of CM at an enterprise level. CMA will provide an integrated, effective and cost-efficient CM solution to the Agency. The CMA infrastructure will support CM Planning and Management, Configuration Identification, Configuration Control, Configuration Status Accounting, Configuration Verification and Audit, and Information Data Management.

CMA will exclusively support the current Agency's CM needs and enable a true lifecycle management capability—as defined in the FAA Acquisition Management System (AMS), enabling full lifecycle traceability. This capability will facilitate the identification of systems, programs, and assets' status, risks and opportunities. The CMA program will define the business process required to establish and maintain configuration management of baselined NAS and Non-NAS IT assets, in accordance with the FAA Order 1800.66.

## INTENDED CAPABILITIES

By providing an enterprise-wide CM solution that delivers to the Agency a closed-loop environment, with full lifecycle traceability, reportable business transactions based on complete and accurate data, timely decision-making, and process improvement opportunities, CMA will be a vital component to manage the complexity of today's FAA physical and virtualized IT environments.

- ◆ Apply CM to NAS and Non-NAS IT assets as prescribed in FAA Order 1800.66.
- ◆ Support systems, programs and assets full lifecycle as defined in AMS.
- ◆ Align with Destination 2025 to support the Agency to integrate and automate processes and tools.
- ◆ Interface with various CM tools, processes and program support libraries currently in use across the Agency; thus, provide CM users with accurate, real-time CM data and status.
- ◆ Enable establishment of a systematic operational approach to facilitate process improvement initiatives and industry best practices such as the IT Infrastructure Library (ITIL).
- ◆ Automate manual operations and improve currently automated operations, e.g., workflow processes, ad-hoc reports, etc.

## KEY SYSTEM INTERFACES:

CAEG ProjectWise, SCM Workbench, TechNet, NASDOCS, NAS/Non-NAS EA Portal, FSEP, SRMTS, and various Program Support Libraries.



## CMA Proposed Alternatives

The Initial Investment Decision (IID) is scheduled for September 2012 when the JRC will select an alternative to meet the CMA program requirements.

The CMA Investment Analysis (IA) Team has identified three alternatives for the JRC:

### Alternative 1: Modified COTS

Customization of the ATO Safety tool Stature.

### Alternative 2: CM COTS

Procurement of a CM COTS tool.

### Alternative 3: Hybrid

Expansion of the existing Documentum and the Savvion systems, plus incorporating additional functionality from a third CM COTS tool.

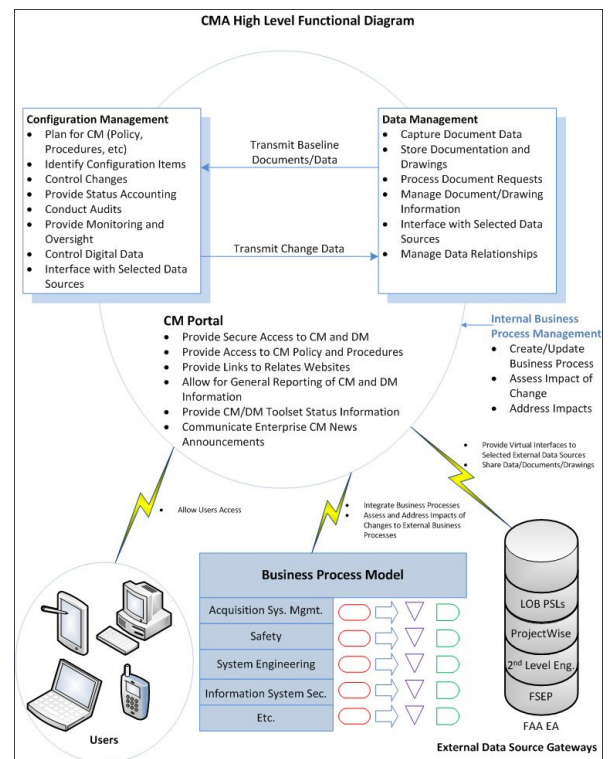
## CMA Phases

### Phase I

During this phase CMA will replace the current functionality provided by WebCM and RepCON. This phase will include replicating the current interface with RepCON and the Facility, Service, and Equipment Profile (FSEP) system and the change management capabilities of WebCM. This phase will also include integration with the FAA Lightweight Directory Access Protocol (LDAP) system for single sign-on capability. Phase I will include implementation of Aviation Safety Service Asset and Configuration Management (SACM) requirements.

### Phase II

Phase II will interface and/or integrate with existing FAA Program Support Libraries, such as the NAS Documents Site (NASDOCS) and Software Change Manager (SCM) Workbench, Acquisition organizations and other CM-related systems, such as the Safety Risk Management Tracking System (SRMTS), ProjectWise Electronic Drawing Management System (EDMS) and the Technicians Network (TechNet), and to import all legacy data from outdated CM systems, such as CM-Online. Phase II will also include the interfaces to additional FAA enterprise-level systems, such as Dynamic Object-Oriented Requirements System (DOORS), Delphi and Simplified Program Information Reporting & Evaluation Tool (SPIRE), to enable effective full lifecycle management for FAA NAS and Non-NAS IT systems. Additional Non-NAS IT capabilities are also planned.



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# CMTrends

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2012 Conference

San Diego, CA

August 13-15

## Summary of Event

**114 ATTENDEES**

**11 COUNTRIES**

**71 COMPANIES**

This event included CM professionals from around the world in discussions about topics and trends in configuration management. Attendees were able to network, listen to CM experts, ask questions of the speakers, and visit with PLM tool vendors. CM Trends 2012 was THE educational and networking event of the year for Configuration Management and related professionals.

Join us next year at CM Trends 2013 to experience the full spectrum of CM all over again.

**Learn more at:** <http://cmpic.com/configuration-management-conference.htm>



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# CMTrends

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## 2012 Conference

### Testimonials

“Best conference to date!! CM is constantly changing and it’s nice to come and learn from other CM Professionals”

“This was the best and most informative CM conference I have ever attended.”

“Excellent opportunity. I learned a lot!”

“Good conference. Lots of information. I hope to attend future conferences.”

“Great job! Tina was fantastic as MC. Lots of great speakers.”

“Great conference. Lots of variety of passion and many valuable stories”

“Excellent conference format, as it is great to listen to the [variety of] presentations. Outstanding emcee!”

“Thank you for putting on such a wonderful conference. I found it to be very insightful and it added so much to my CM Knowledge. I am now back at work and excited to start implementing some of the things I learned.”

“CM Topics [and] presentations were very beneficial. Great job.”

*\*All testimonials on file at the CMPIC office.*



# CMTrends

## 2012 Conference

**Question:** Did you learn something new at this event that you will be able to use in your workplace?

Please list subjects:

**Responses:**

- *“Absolutely! Global Enterprise Alignment / Integrated Requirements”*
- *“Yes, the “one size fits all” model and how its not a panacea was very insightful.”*
- *“Yes, new military standards to be released.”*
- *“Got good procedural ideas.”*
- *“Tracking/Controlling the amount of changes during product development. Putting Product requirements documents under CM control.”*
- *“Data Management”*
- *“Best Practices”*
- *“Requirements management, hardware/software trends, CM in mergers”*
- *“Techniques for facilitating organizational change”*
- *“That training can be broken down into bite-sized pieces by using short videos”*
- *“The escalating amount of electronics and software in our products needs to be accommodated in our CM system”*
- *“Learned about other companies’ products. Got ideas for improvement. Inspired to do things better.”*
- *“Value for communication and simplification of training”*
- *“Process and procedure importance, management support, tools after process”*
- *“[The] need to increase Software CM without compromising hardware CM.”*
- *“Foundations of a successful configuration manager”*
- *“Yes, how important proper CM is and how I can sell it to others.”*



# CMTrends

## 2012 Conference

### Companies & Countries

AAA Insurance Exchange - USA  
ACDM\* - USA  
Air Warfare Destroyer Systems Center\* - Australia  
Airbus Operations SAS - France  
ARAS Corporation\* - USA  
ARC - USA  
ASRC Research and Technology Solutions\* - USA  
ATA - USA  
BAE Systems - Australia  
BAE Systems - USA  
Bentley Systems, Inc.\* - USA  
Biometrics Identity Management Agency - USA  
Boeing - USA  
Boeing Commercial Airplanes - USA  
Boeing Defense Space & Security - USA  
Booz Allen Hamilton - USA  
Bureau of Land Management - USA  
Camber Corporation - USA  
CGI Federal\* - USA  
CIMData\* - USA  
CMPIC\* - USA  
CMstat\* - USA  
Compendium Federal Technology, LLC (CFT) - USA  
Concurrent Technologies Corporation - USA  
DEKA Research & Development Corp - USA  
Department of Defense - USA  
Department of Homeland Security - USA  
DRS-C3 & Aviation - USA  
EBD Advisors, LLC\* - USA  
Elbit Systems of America - Israel  
Environmental Protection Agency - USA  
Federal Aviation Administration\* - USA  
GE Energy\* - USA  
GE Oil & Gas - USA  
General Atomics\* - USA  
General Dynamics: AIS - USA  
General Dynamics Ordnance & Tactical Systems - USA  
GoToMarket LLC - USA  
Harris Corporation\* - USA  
Honeywell SMT - USA  
i-Infusion/Imagine Technology, Inc.\* - USA  
InDyne Inc.\* - USA  
L-3 Communications\* - USA  
L-3 WESCAM - Canada  
Lockheed Martin\* - USA  
Mectron Engenharia Indústria e Comércio S.A.\* - Brasil  
MRI Technologies\* - USA  
NASA - Johnson Space Center - USA  
NASA Goddard Space Flight Center - USA  
National Security Technologies - USA  
NATO AEW&C Programme Management Agency - USA  
Nexteer Automotive\* - USA  
Northrop Grumman Corporation - USA  
Norwegian Defence Logistic Organization (NDLO) - Norway  
Nouvella Consulting Services, Ltd - Canada  
PSA - USA  
Public Safety Canada - Canada  
QinetiQ North America\* - USA  
Rolls-Royce PLC - England  
Rudolph Technologies, Inc. - USA  
Saab Aeronautics - Sweden  
Sleeves Recruiting - USA  
SPAWAR - USA  
TeleCommunication Systems, Inc. (TCS) - USA  
Turkish Aerospace Industry, TAI - Turkey  
University of Houston\* - USA  
US Air Force - USA  
US Army\* - USA  
US Coast Guard - USA  
US Navy\* - USA  
usb Management Consulting and System Development GmbH - Germany

\* presented at CM Trends 2012







# CMTrends

## 2013 Conference

**SAVE THE  
DATE**

**August 5 - 7, 2013**

**ORLANDO, FL**

**Rosen Plaza Hotel**

You are invited to attend!

Experience the Full  
Spectrum of CM.



More Info: <http://cmpic.com/configuration-management-conference.htm>



# CM & PLM in the Service Industry

by A. Larry Gurule, CMPIC



As service industries continue to mature, the complexity of their products, as well as the number of portfolios they offer, are continuing to increase. In an effort to serve new and growing markets many service-offering organizations (this includes service offering components of an organization) are trying to figure out how to introduce new products to the market in a way that is much more efficient. Services are products and as we have learned products are best realized and managed over their lifecycle if the appropriate effort has been taken to understand and baseline them as they mature over their “concept to grave” lifecycle. This

understanding extends to all aspects of the product (requirements, the product itself, and all information supporting it), over the entire enterprise, and for its entire life. The need to capture, organize, and manage product information over a product’s lifecycle for benefit is the vision of Product Lifecycle Management (PLM) and is best realized when the principals of Configuration Management are understood and used.

The assumption is that service industry products do have a lifecycle. Insurance is an example of an industry embracing the vision of PLM using CM as a guide. The insurance industry is bound by government regulations and laws. As regulation changes are passed, a company’s products may become outmoded and/or out dated. Or perhaps new legislation is passed that promotes new opportunities for new insurance products. These new products might be compelling enough for customers to switch from one company to another. Being able to adapt rapidly and respond quickly to market events seems to be an increasingly persuasive driver for insurance companies and is at the root of their consideration of adopting and embracing PLM.

Managing service-products over their lifecycle, while guided by effective and efficient Configuration Management (CM) principals, offers an organization a means by which to enforce a discipline that is becoming increasingly important to insurance products. A discipline predicated on defining service products in a modular fashion. This makes it much easier to quilt in new features and options resulting in new products, as well as reuse/repackaging of existing service-products. If we expand this concept, it forces us to think about the taxonomy of service-products and how we can identify and structure those products modularly so their various features can be mixed and matched, removed, replaced, etc. That modularity helps with adapting and responding to evolving market needs.

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Another trend being seen is that companies is moving from selling products to selling services. As an example, Boeing, Airbus, and other aircraft manufactures are, instead of selling a plane, exploring the option of guaranteeing an output and it operates the equipment; selling flight hours rather than the tool to produce it. This begs the question; how will the service industry evolve? Organizations, and functional areas comprising those organizations, will have to think more about the capabilities/functions provided rather than the product providing them and how that interconnects with the environment it is being utilized in. The services rendered, the processes that comprise those services, and the technology enabling those services have to be quantified and quilted/integrated together in new and more flexible configurations to provide the value desired by the market. The key will be to define these services and enabling components in terms of a structure complete with relationships, hierarchies, and baselines allowing us to add much more discipline to industry practices in the service sector.

When looking to innovate, a service company needs to look at the advantages of managing their products over its lifecycle. By truly understanding the nature and makeup of their products and by understanding its structure as a quilt of capabilities, the challenge becomes interfacing these capabilities in a harmonious and orchestrated fashion across various service functions. Service business will discover that it will become much easier, much faster, and much less expensive to introduce new products to the market. This is analogous to what is being done in the electronics, software, and fast food industry. It would be naive of us to think that this way of approaching product development will not bring value to service products.

Where is all of this going and how should companies be taking advantage of CM, the vision of PLM, and the technologies it supports like PLM, ERP, PPM, SCM, etc? Service companies and/or service components of companies should be examining their product

portfolios and measuring how much it cost them to introduce new products and/or respond to market demands. Then they should be taking a look at how much redundancy and rework, as well as how many intervention resources are used in the realization of their existing products and how much these profit eroding activities are costing them. Not forgetting the cost of delays in terms of missing out on new windows of opportunity. If they find that this is substantial, then they should absolutely be learning about and understanding CM, as well as investigating PLM.



A. Larry Gurule is a Principal with Computer Sciences Corporation, as well as a CMPIC Associate. Mr. Gurule has over 25 years of hands-on and leadership experience for a successful list of clients he has helped become more operational efficient and effective. Larry has also owned and/or held senior level positions in manufacturing, software and service based businesses, as well as lectured to and/or consulted with hundreds of individuals from Fortune 500 companies on process improvement and enterprise IT implementation initiatives. Larry holds a Mechanical Engineering degree from the University of Colorado and is a CMPIC and CMII Certified Professional.



# CM Certification Courses

- **CM Principles & Implementation Certification Series, Courses 1 - 4**

Upcoming Series:

Seattle area / Bellevue, WA starting Sept. 24, 2012

Minneapolis, MN starting Oct. 9, 2012

San Diego, CA starting Dec. 10, 2012

Washington, DC area starting Feb. 25, 2013

- **CM for IT & Software Development Certification, Course 5**

Washington, DC area June 24 - 27, 2013

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

Orlando, FL April 10 - 12, 2013

Washington, DC area June 10 - 12, 2013

Orlando, FL Aug. 7 - 9, 2013

- **CM Assessor Certification, Course 7**

Washington, DC area April 29 - May 1, 2013

Orlando, FL Aug. 7 - 9, 2013

- **SCM: Strategies, Techniques and Tools Certification, Course 8**

San Diego, CA Oct. 22 - 25, 2012

Orlando, FL May 20 - 23, 2013

Ottawa, ON June 17 - 20, 2013

- **CM Standards & Practices Update, Course 9**

Washington, DC area April 15 - 17, 2013

Orlando, FL Aug. 7 - 9, 2013

View CMPIC's full course schedule at: <http://cmpic.com/configuration-management-training-schedule.htm>

## CMPIC On-Site Certification

Did you know that CMPIC offers onsite certification and training for as few as five attendees? This is a great way to train your staff and eliminate the need for a large travel expenditure. Call us to find out more, or visit [www.cmpic.com](http://www.cmpic.com).

## Submit Articles For This Newsletter

Do you have a CM story to tell? Would you like your CM article published in this newsletter? Send us an email and we'll provide details on how to get your article published. Please email: [kerri@cmpic.com](mailto:kerri@cmpic.com).

## Contact Us

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## 2013 Course Schedule Available!

To register, please visit:

[www.cmpic.com/registration.htm](http://www.cmpic.com/registration.htm)

or contact the CMPIC office at:

[info@cmpic.com](mailto:info@cmpic.com), (434) 525-8648.



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