After spending the better part of a year in the Office of Environmental Management (EM) it is great to be back, full time, in the project management business, with the Office of Project Management (PM). That said, my time in EM was invaluable and provided me great perspective, a Program perspective. It allowed me an opportunity to work with some great people at Headquarters and at our sites. Suffice to say, there was never a dull moment, and I learned a lot.

I am also thrilled that summer is in full swing in our Nation’s capital. I love the heat and humidity. I also keep a close eye out for and monitor the potential for pop-up thunderstorms, which are the norm, this time of year. Similar to taking steps to cope with Mother Nature’s unpredictability, a good project management team is constantly managing risk – planning for risk, assessing (identifying and analyzing) risks, developing risk handling strategies, and monitoring risks to determine how they have changed. Risk management is a continuous process running throughout the project’s life.

If it looks like it’s going to rain, I avoid the risk (I don’t go outside), I mitigate the risk (I carry an umbrella), or I pay the price and get wet and have funded contingency (a change of clothes readily available) without missing a milestone (or meeting!).

Managing a project’s cost estimate is another process that should be maintained throughout the life of a project. Managing the estimate involves continually updating the estimate with actual data as it becomes available, revising the estimate to reflect changes, and analyzing differences between estimated and actual costs. Updating the cost estimate serves multiple purposes, including validating its accuracy, and archiving cost and technical data for use in future estimates. This is not only a best practice, but is also a requirement outlined in OMB’s Capital Programming Guide: Supplement to Circular A-11, Planning, Budgeting, and Acquisition of Capital Assets.

This month’s newsletter includes articles on the U.S. Army Corps of Engineers MII cost estimating system and updates on PARS with Empower.

Keep charging!

Paul Bosco
MII Cost Estimating System – What is MII?
Mike Fenn, Office of Project Assessment PM-20

You may have run into the acronym MII or “M two” and MCACES in your independent cost review (ICR) and independent cost estimate (ICE) reports prepared by the Office of Project Management. So what is MII and why is PM referring to this software in the ICE report?

When PM develops an ICE or conducts an ICR, PM often relies on cost estimating subject matter experts (SMEs) to assist and complete specific portions of the estimate or review. Many of our cost estimating SMEs utilize the MII software to prepare their estimates and when the software is used, it is documented in the report as the tool used for preparing the estimate.

MII is a cost estimating tool designed and developed by cost engineers for cost engineers. When the first generation of the U.S. Army Corps of Engineers (USACE) cost estimating software needed an upgrade, instead of selecting a software development contractor to take the lead on the project, USACE contracted with a cost engineering firm, Project Time & Cost, Inc. (PT&C), which has expertise in both cost estimating and software, to develop the application.

PT&C engineers worked closely with a team of USACE cost engineers to design and develop a state-of-the-art, detailed cost estimating application to meet the needs and requirements of the USACE military and civil works cost engineering community.

MII is the second generation of the Micro-Computer Aided Cost Estimating System (MCACES) that is PC-based software application used by the Army Corps of Engineers and architect-engineer (A-E) firms providing support to USACE for the preparation of detailed construction cost estimates. MII provides an integrated cost estimating system (software and databases) that meets the USACE requirements for preparing cost estimates. The software is used by many of the USACE districts, and it will soon be a requirement for all USACE districts to use MII, as well as all architect-engineering (A-E) firms performing design work for the USACE.

MII is being used for military, civil works, and environmental projects by USACE and its contractors, but its use is not limited to DOD. It also has been used by other federal agencies, such as the Environmental Protection Agency and U.S. Department of Energy.

MII is a Windows application and allows complete flexibility to perform any work breakdown structure to create a project, cost items, crews, labor and equipment and any type of desired markup. The software is flexible to create site-specific unit prices, modification of equipment costs for project specific circumstances, and adjust crew for overtime and shift differential.

The MII software offers estimators and engineers greater insight into the costs that make up their estimates. Features include:

- Estimates organized in a flexible, user defined logical tree structure
- Customizable, user defined work breakdown structure (WBS)
- Unlimited number of WBS levels
- Multiple views of an estimate, including:
  - project items
  - contractors
  - Construction Specifications Institute (CSI) tasks
  - assemblies
  - crews
  - labor
  - equipment

The software is also used for the preparation of programming estimates, current working estimates, independent government cost estimates, and change order modification estimates. MII also offers the ability to easily access, update, and archive cost estimates, as well as the ability for multiple cost engineers to work on the same estimate.

PM’s use of MII is often to prepare a bottom up estimate for specific elements of a cost estimate or to perform a detailed review of a bottom up cost estimate in cases of an ICR. We have a number of PM analysts trained on the use of MII and we are looking to expand our capability. In addition, some of the Program Office cost teams, like Office of Environmental Management’s Consolidated Business Center (EMCBC), have internal DOE estimators trained on use of MII.
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PARS with Empower Update – It is about the Data!
Matthew (Zac) West, Office of Project Controls (PM-30)

The enhanced PARS application with the analytical tool Empower from Encore Analytics was successfully completed on June 3, 2019. With its deployment, users are getting a better understanding of their contractor’s project performance using the Empower analytics. Some of the issues that have been identified using the Empower tools include:

- Data structure issues provide difficulty ensuring accurate data
- System issues make it difficult to ensure accurate data
- Adjustments to improve the reporting and information are needed

Over 30% of DOE projects have data structure issues that impede reporting accurate project performance. While the BIRST tool would overlook these issues, Empower identifies and flags them so that the necessary modifications can be made.

To illustrate, consistent with earned value management best practices, Empower looks for a single level-one element in both the work breakdown structure (WBS) and organizational breakdown structure (OBS). In some cases, project uploads included multiple level-one elements in the WBS and/or OBS. The most prevalent fault noted in the uploaded data structures in Empower are work package (WP) or control account (CA) elements without the parent element identified or included. To get an accurate reporting of the performance management baseline, the hierarchical structure of the elements, for both cost and schedule, must be correct.

Another area observed is changes to the WBS element names in the schedule, but not in the cost processor, as the project progresses.

In some cases, these changes were made to help gain visibility in the schedule, but the team did not make the update in the cost tool and cost/schedule integration was broken. PARS with Empower checks for this and helps the contractor and Federal team see the structure gaps.

For some projects, the structure provides a good WBS and OBS or the project team resolves the structure issues identified and system gaps are revealed to the user. In one example, resources were misaligned with procurements under materials and resources under ODC’s.

Reporting by Element of Cost helps to see these issues in the system. As the structure issues in DOE projects are improved, it is likely that systems issues will be identified where an integrated project team will need to review the procedures or the system to make sure it provides an accurate representation to all users.

After structure and system issues are addressed, the project teams should get to the point where minor adjustments are made to further improve reporting for all users, be it to the FPD, program or DOE headquarters. These issues and improvements will likely take a few months to identify and fix and to make sure users at all levels are getting the knowledge to make the best decisions for the project.

Training continues with 194 current PARS users having taken the training to date. The transition training for current PARS users will wrap up in September. The last course in September is online for two and a quarter hours with sessions each day starting September 23rd through 26th. This course will start the shift to a PARS user course, which does not require a prior knowledge of the tool. The course is expected to be available in the December timeframe via desktop delivery.

For those interested in one of the 20 seats remaining in September, please contact matthew.west@hq.doe.gov.

Also, as always, the current PARS schedule for uploads and assessments due dates is located at: (https://community.max.gov/x/m4lIY).
Learning Nucleus Training Video for All Users – Training Requests

Linda Ott, Director, Professional Development Division

The DOE Chief Learning Officer is pleased to announce the initiation of an enhancement to the Department’s learning management system, Learning Nucleus (LN). This enhancement migrated the Training Request (TR) business processes from Corporate Human Resource Information System (CHRIS) Training to LN, making it easier for employees to register for training and for supervisors to track, monitor, approve, and report on their employees’ training and developmental activities. It is with this in mind that the Office of Learning and Workforce Development is providing a 10-minute video and supporting job aids on how to request training within LN.

Training Content
Content will be delivered through a self-paced training tutorial and job aids. The training includes the following topics:

- Submitting internal training requests
- Submitting external training requests
- Viewing, editing, and canceling training requests
- Accessing your training record
- Checking the status of a training request
- Setting default training request approvers

How to Access Training
The video and job aids are accessible 24/7 on the Job Aids page in LN. You are now able to apply the steps of submitting a training request within LN. To view the video and job aids, you will need to login to Learning Nucleus directly or through ESS.

Who to Contact
Unsure of what training you need to take or have a general question? Please contact the Training Integrated Project Team Leads: Ken Hogan at Kenneth.Hogan@hq.doe.gov, or Butch Brant at Butch.Brant@hq.doe.gov.

PMCDP is pleased to support the Federal Acquisition Institute (FAI)/Skillsoft partnership and the creation of newly categorized courses housed within the Learning Nucleus. These courses have been verified and approved to meet Continuous Learning Point (CLP) requirements for FPD certification maintenance. More than 85 Skillsoft courses are currently available and aligned with Federal Project Management core competencies and each course description list the number of CLPs awarded for completion. Take charge of your learning and take advantage of these dynamic, and self-directed continuous learning opportunities!

Upon logging into ESS and accessing the Learning Nucleus via the access Training menu option or logging into Learning Nucleus directly, simply paste the link below onto your browser address bar to access the complete course listing:


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### PMCDP FY19 Training Schedule

The training schedule is posted on PM MAX. Save the direct link to the PMCDP Training Schedule to your favorites: [https://community.max.gov/x/BgZcQw](https://community.max.gov/x/BgZcQw)

<table>
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<th>Quarter (FY/Q)</th>
<th>Course Title</th>
<th>PMCDP IN Code</th>
<th>Length</th>
<th>CLPs</th>
<th>Planned Delivery Timeframe</th>
<th>Delivery Mode</th>
<th>Location/Platform</th>
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<td>FY19/Q1</td>
<td>Cost and Schedule Estimation</td>
<td>D01044</td>
<td>5 Days</td>
<td>40</td>
<td>September 9-13</td>
<td>Classroom</td>
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<td>September 24-October 12</td>
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<td>October 22-November 19</td>
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Project Management Career Development Program (PMCDP) requests your input for FY2020 PMCDP training course deliveries. Work through your site's training manager to bring PMCDP classes to your site.

The FY20Q1 training schedule will be in the next edition of Project Management News. The training plan for FY2020 will be posted on PM-MAX.

Please submit your PMCDP training requirements to Ruby Giles at ruby.giles@hq.doe.gov

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**Course Catalog, Course Materials, Interactive Curriculum Map and Online Course Troubleshooting**

All PMCDP Course Descriptions and Course Materials can be found in the Course Catalog on PM MAX! Save the direct link to your favorites: [https://community.max.gov/display/DOEExternal/PM+PMCDP+Course+Catalog](https://community.max.gov/display/DOEExternal/PM+PMCDP+Course+Catalog)

or download the Interactive Curriculum Map: [https://community.max.gov/download/attachments/1131743153/PMCDP%20Interactive%20Map.pdf?version=1&modificationDate=1512482483778&api=v2](https://community.max.gov/download/attachments/1131743153/PMCDP%20Interactive%20Map.pdf?version=1&modificationDate=1512482483778&api=v2)

Have a question, found a bug or glitch in a PMCDP online course, or want to provide feedback? Submit your questions through PMCDPOnlineCourseSupport@hq.doe.gov

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Contact Us!

The Office of Project Management welcomes your comments on the Department’s policies related to DOE Order 413.3B. Please send citations of errors, omissions, ambiguities, and contradictions to PMpolicy@hq.doe.gov. Propose improvements to policies at https://hq.ideascale.com.

If you have technical questions about PARS, such as how to reset your password, please contact the PARS Help Desk at PARS_Support@Hq.Doe.Gov. And as always, PARS documentation, Frequently Asked Questions (FAQs) and other helpful information can be found at https://pars2oa.doe.gov/support/Shared%20Documents/Forms/AllItems.aspx

The current PARS reporting schedule is located in PM-MAX at the following link https://community.max.gov/x/m4LIY.

Can’t find the Word templates to prepare to apply for FPD certification? The Certification and Equivalency Guidelines (CEG) isn’t where you last found it and you are not sure where to look? Use the PMCDP.Administration@hq.doe.gov mailbox.

Can’t put your finger on a document or information you were told is available on PM-MAX? Looking for information on DOE Project Management? Submit your questions and queries to PMWebmaster@doe.gov. Check out the links below for information related to FPD Certification and Certification and Equivalency Guidelines.

FPD Certification Application Templates
https://community.max.gov/x/uAd1Qw

Certification and Equivalency Guidelines
https://community.max.gov/download/attachments/1131743160/June_2015_CEG_FINAL.pdf?version=1&modificationDate=1472838487652&api=v2

To reach the Professional Development Division team:

Linda Ott —Division Director for Professional Development, PMCDP Program Manager, FPD Certifications Manager, PM Newsletter Editor, Linda.Ott@hq.doe.gov, 202-287-5310

Sigmond Ceaser —Alternate Delivery Platforms, PMCDP Review Recommendations Lead, PMCDP Curriculum Manager, Sigmond.Ceaser@hq.doe.gov

Ruby Giles —PMCDP Budget Manager, PMCDP Training Coordinator and Training Delivery Manager, Course Audit Program, Ruby.Giles@hq.doe.gov

If you would like to contribute an article to the Newsletter or have feedback, contact the Editor at Linda.Ott@hq.doe.gov.

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