Data Management Professional Certification Overview

Loretta Mahon Smith
President, DAMA-NCR
DAMA International, Board of Directors
AVP, T Rowe Price
CDMP Program Overview

The DAMA Guide to the Data Management Body of Knowledge (DAMA-DMBOK) changes in Certification

Q&A
T. Rowe Price
- 1983-Present

Professional Memberships: DAMA, IIBA, MPO, AIIM

Industry Offices:
- President, DAMA National Capitol Region.
- Board of Directors, DAMA International, VP Communications
- ICCP Certification Council Member.

Presentations:
- Information Quality Conference: 2001
- DebTECH: 2003, 2004

Publications:
- The Data Administration Newsletter [http://www.tdan.com](http://www.tdan.com)

Master Level Certifications:
- Certified Data Management Professional (DAMA CDMP – Global)
- Certified Business Intelligence Professional (TDWI CBIP – Global)
- Certified Computing Professional (ICCP CCP – Global)
Presentation Goals

- Provide an overview for the CDMP certification
- Describe with the certification/recertification process.
- Provide Examples of Exam Questions
- Introduce changes resulting from the introduction of the DAMA Guide to the Data Management Body of Knowledge
Institute for Certification of Computing Professionals (ICCP) is

- Independent certification organization
- A Consortium of Professional Associations
- Administers the DAMA International certification examinations and ensures that the certifications are:
  - Measurable Validity
  - Legally Defensible
  - Job Related

What does ICCP Do?

- Establishes recognized professional standards within the information systems and information technology industry
- Tests knowledge of stringent industry fundamentals, not product-specific awareness

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1993
DAMA / ICCP team created the Data Resource Mgmt exam

1994
DAMA became an ICCP affiliate

2002
DAMA became ICCP constituent member

2004
Three new data exams: DM, DW and DBA, CDMP Program Introduced

2007
Business Intelligence & Analytics Exam

2008
Data/Quality and Zachman Enterprise Framework Exams

2009
DAMA DMBOK Launched, Begin Realignment of Exams

Courtesy of Eva Smith
What ICCP Certification is NOT:

- An event
- A class
- An end-of-course exam
- Subjective

“Certification, in itself, is not a goal, but Professionalism is.”
Dr. Paul M. Pair, ICCP Fellow, 1982
ICCP the Consortium of Professional Societies (ACM, AITP, AWC, CIPS, CPCI, DAMA, ICCA)

Position Paper – where does ICCP fit into your plans?

CREDENTIALS HIERARCHY

1. Academic
   - Ph.D., Master’s graduate and postgraduate programs

2. Professional
   - Certification providing automatic entry into Master’s and Ph.D. programs (Medical Doctor, Accountant, Professional Engineer, ICCP Computing Professional – CCP, CDMP, CBIP, I.S.P.*, Canadian Information Processing Society; BCS – British Computing Society; ACS – Australian Computing Society)

3. Undergraduate
   - BSC, BA, DCOMM, etc.

4. Vendor High Level

5. Vocational
   - Electrician, Plumber, Gas and Pipeline Fitter, Welder, Mechanic, Licensed Practical Nurse, etc.

6. Vendor Entry Level
   - MCP*, MCSE*, CNE*, A+*, ICDL*, etc.

* Trademarks are owned by their registered holders.

ICCP Professional Certification

- Provides rigorous objective assessment criteria (formal standardized testing) – quality externally validated
- Provides a Detailed and Personalized Skills Gap Analysis – for Continuing Professional Education
- Certificate holder must be a Signatory to the ICCP Code of Ethics (Professional Credential can be removed by committee of peers if unethical behavior is reported and proven).
  - Signatory to Code of Conduct
  - Signatory to Code of Professional Practice
- Recertification and maintenance of currency of knowledge (removal of professional credential for failure to remain current) – not certify work if not current – for example same rigor as an engineer should not sign off on a bridge if he is not current or practicing engineer.

Sponsors and Supporters

To discuss how to sponsor an ICCP Examination call: Cindy Blasea, Director of Finance & Administration.
Free Phone: 800-543-8227, Phone: 547-289-8227, Email: office@iccp.org, Website: http://www.iccp.org
How can I get a CDMP?

- Fill out application ([www.dama.org](http://www.dama.org) or [www.iccp.org](http://www.iccp.org))
- Take / pass 3 exams
- Meet the Experience & Education qualifications
- Sign the ICCP Code of Ethics
90 minutes, 110 multiple choice questions each

Exam content

- 100 experience based randomized multiple choice questions (scored)
- Plus 10 beta multiple choice randomized questions (not scored)

Pass Exams at 70% or better for Mastery Level

50%-69% for Practitioner Level
- 201 CDMP Exams sold in 2009
- 68 CDMP certificates awarded in 2009
  - 40 were Practitioner
  - 28 Masters
- 494 Total CDMP Holders To Date

At Enterprise Data World 2010, more than 40 professionals signed up for the study session and test seatings. 110 exams were given and 32 attendees achieved the CDMP credential.
Experience & Education
- 48 months experience for Mastery
- 24 months for Practitioner level
- Substitute up to 24 months of the experience requirement with appropriate undergraduate or graduate degree

Three-year recertification cycle
Current ICCP Exams include:

- Data Management
- Data Warehousing
- Database Administration
- Business Intelligence & Analytics
- Data & Information Quality
- Systems Development
- Systems Security
- Zachman Framework²
- BPM
Examples include:

<table>
<thead>
<tr>
<th>Certified Insurance Data Manager (CIDM)</th>
<th>IBM Certified Database Administrator</th>
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<tbody>
<tr>
<td>IBM Certified Advanced DBA</td>
<td>IBM Certified Solutions Expert</td>
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<tr>
<td>Microsoft Certified Master-SQL Server 2008 (replaces Microsoft Certified Database Administrator)</td>
<td>Teradata Certified Professional</td>
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<tr>
<td>Oracle Certified Professional</td>
<td>Oracle Database Administrator</td>
</tr>
</tbody>
</table>

These programs are pre-qualified to substitute for one specialty exam. Others may qualify.

Substitute certificates are acceptable as long as the certificate is current, i.e. has not expired.
Goals
- Maintain professional competence
- Update existing knowledge and skills
- Attain new or additional knowledge and skills

Requirements
- 3 year cycle
- Earn 120 approved contact hours of continuing education
- Pay $75 per year maintenance fee to ICCP
- Receive Annual Transcript from ICCP
### Ways to Earn Professional Development/Recertification Credits

<table>
<thead>
<tr>
<th>Activity</th>
<th>Professional Development / Recertification</th>
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<tbody>
<tr>
<td>Formal educational institutions</td>
<td>1 Quarter Hour = 8 credits</td>
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<tr>
<td></td>
<td>1 Semester Hour = 12 credits</td>
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<tr>
<td></td>
<td>1 Continuing Education Unit (CEU) = 10</td>
</tr>
<tr>
<td>Independent organized programs</td>
<td>Count time of education program content</td>
</tr>
<tr>
<td>Professional society meetings, seminars, conferences</td>
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</tr>
<tr>
<td>Teaching, lecturing, presenting</td>
<td>For each activity category, credit limited to 60 recertification credits / 3 year period</td>
</tr>
<tr>
<td>Self-study programs</td>
<td></td>
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<tr>
<td>Published article, book</td>
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<tr>
<td>Sit for other ICCP examinations</td>
<td>Depends on exam score:</td>
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<tr>
<td></td>
<td>- 70% or higher = 60 credits</td>
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<tr>
<td></td>
<td>- 60 - 69% = 30 credits</td>
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<td></td>
<td>- 50 - 59% = 20 credits</td>
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<tr>
<td></td>
<td>- Less than 50% = 0 credits</td>
</tr>
<tr>
<td>Hold an executive or administrative role in a professional society</td>
<td>For each activity category, credit limited to 60 recertification credits / 3 year period</td>
</tr>
<tr>
<td>Serve on the ICCP Certification Council / committee</td>
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<tr>
<td>Serve a leadership role in a Business / Computing industry society</td>
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</tbody>
</table>
Reasons for Seeking Certification

Source: Prometric (Dataquest Study)

- Advancement in Profession 41.7%
- Advancement in Current Job 17.2%
- Other 3.6%
- Attain Access to Vendor Support 1.8%
- Increase Compensation 2.4%
- Assess Current Expertise 3.1%
- Improve Job Security 4.8%
- Job Requirement 8.0%
- Secure Employment 8.1%
- Prepare for New Job 9.4%
- Other 3.6%

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Why CDMP?

Reasons

- Professional Growth, 45.3
- Credential, 37.3
- Company Requirement, 0.4
- Self-Evaluation, 5.1
- Financial Reward, 0.4
- Other, 11.4

Results

- More Credibility with Customers, 24
- More Credibility with Organization, 24
- Solve Problems Quicker, 19
- Decrease in Salary, 11
- Greater Self-Esteem, 22

Data from ICCP CDMP Presentation EDW 2009.
Many consulting firms pay bonuses averaging $5,000 for those who achieve professional certifications.

Large corporations typically reimburse employees for review course, testing, etc. and many provide bonuses from $100 to $1,000+.

Government agencies pay for training, exams, provide bonuses, and some give permanent salary increases (up to 15%).

Surveys consistently show that certified individuals:
- earn more than their counterparts and
- hold more advanced positions.
1. A list of the open accounts in a ledger showing their debit and credit balances is known as
   A) a trial balance
   B) a PL statement
   C) a closing journal
   D) an account analysis

2. What management function is concerned with the grouping of activities to be performed and the establishment of institutional structures to carry them out?
   A) Planning
   B) Organizing
   C) Controlling
   D) Coordinating

3. What type of representation depicts the duration of tasks against the progression of time?
   A) Linear programming model
   B) Network analysis (PERT/CPM)
   C) Multiple regression analysis
   D) Gantt chart
1. A word such as CUSTOMER in a column name should
   A) be abbreviated in every column name the same way.
   B) not be abbreviated.
   C) be abbreviated but a different abbreviation may be used in different columns
      depending upon the additional characters allowed-e.g.-CUST in some
      columns, CST in others where additional space needs to be saved.
   D) be abbreviated only when necessary.

2. A subject area model describes
   A) business subjects and the data contained within them.
   B) data entities and the subjects that they contain.
   C) data subjects mapped to legacy systems.
   D) business subjects and the relationships among them.

3. A data model in the first normal form has no
   A) keys or identifiers.
   B) relationships.
   C) repeating groups.
   D) data redundancy.
1. A star-schema is composed of
   A) a universe of data warehousing subjects.
   B) a fact table surrounded by dimension tables.
   C) a base table surrounded by satellite tables.
   D) event data surrounded by reference data.

2. Business drivers, goals, and strategies provide __________ for data warehousing activity programs.
   A) requirements
   B) success measures
   C) context
   D) architecture

3. The two most common data integration architectures are
   A) bus and hub-and-spoke.
   B) normalized and dimensional.
   C) data flow and data structure.
   D) star-schema and snowflake-schema.
1. Which of the following is NOT a property of the ACID test for transaction processing systems?
   A) Atomicity
   B) Consistency
   C) Isolation
   D) Disposability

2. A backward database recovery is useful in
   A) quickly restoring the systems.
   B) rebuilding the database in an unstable environment.
   C) preserving the structure of the data.
   D) restoring the database to a state known to be correct after some failure.

3. A composite key is
   A) a primary key that is made of several attributes.
   B) required before a two-phase commit can be completed.
   C) a group of measures.
   D) a combination of a personal and system administrator password.
What does the CDMP cost?

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
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<tbody>
<tr>
<td>IS Core</td>
<td>$285</td>
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<tr>
<td>First Data Specialty</td>
<td>$285</td>
</tr>
<tr>
<td>Second Specialty</td>
<td>$285</td>
</tr>
<tr>
<td>Total</td>
<td>USD $855</td>
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</table>

Beta Exams are Free. You must fill out an application. If you pass the exam and want to apply it towards the DAMA Certified Data Management Professional (CDMP) designation, there will be a conversion charge of $195.

Second Specialty Exams may be fulfilled by using one of the Accepted Vendor/Training Certifications listed on the www.DAMA.org website.

All fees are non-refundable.
Candidates may re-schedule within 48 hours of an exam date.

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CDMP Specialty Exams Mapped to DAMA-DMBOK
CHANGES IN 2010: 4 New Beta exams that align to the DAMA-DMBOK.

- Data Management Core new mandatory test to CDMP instead of first specialty.
- Data Development
- Data Operations and Security
- Data Warehousing

- DAMA members may take beta exams for free until June 30, 2010. Exam taker

Information regarding the new beta exams:

- If you pass the exam and want to apply it towards the Certified Data Management Professional (CDMP) designation, there will be a conversion charge of $195 USD (the regular exam price is $285 USD) payable to the ICCP.
- The beta test is FREE. You will have to fill out an application, but no payment is expected unless you are taking other exams, applying this exam towards the CDMP, or applying this exam towards recertification credit.

- The scores have to be reviewed and adjusted by the DAMA / ICCP team after all the results have been received. Scores may be adjusted upwards, but will NOT be adjusted downwards on review of the performance of questions.

- Unadjusted scores are immediately available after the exam has been completed. Official scores will be available after the DAMA / ICCP team meets again – which is sometime after the beta exam period ends on June 30, 2010.
ICCP offers Sponsored Review Courses through chapters or companies.

Study materials and exam review course available through ICCP office (office@iccp.org)

- DAMA study materials are part of Data Management and Data Warehousing self-study packages sold by ICCP
  - DAMA Data Management Exam Study Guide
  - DAMA Data Warehousing Exam Study Guide
- Sample exams are available at http://www.iccp.org/iccpnew/sampletests.html
- Exam outlines at http://www.iccp.org/iccpnew/outlines.html

DAMA-DMBOK
Questions?

For CDMP Program Information:
Patricia Cupoli, ICCP Liaison@dama.org or
Eva Smith, ICCP Director@dama.org
The DAMA website is www.dama.org

For ICCP Exam Administration:
ICCP office at: office@iccp.org
The ICCP website is www.iccp.org

CDMP Social Networking:
Certify-Able Data Professional Blog
http://cdmpcommunity.blogspot.com/
DAMA CDMP Group
http://www.linkedin.com/e/gis/7744437

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Presentation Goals

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<th>IS Core Outline #</th>
<th>DM/ DIQ#</th>
<th>DM/ DIQ Answers</th>
<th>DM/ DIQ Outline #</th>
<th>DW/ BIA #</th>
<th>DW/ BIA Answers</th>
<th>DW/ BIA Outline #</th>
<th>DBA/ SYS/ SEC#</th>
<th>DBA/ SYS/ SEC Answers</th>
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<td>D</td>
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