



Whitemarsh

Information Systems Corporation

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Website Announcement

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Announcement Topics

January has been very busy. First we had to respond to the much larger than usual response to our January Announcement of the Data Management Materials. We got very positive feedback from both Government and industry. Thanks. We completed work on the initial implementation of the CMM Generator. We also made three presentations and participated in a proposal effort. We are also preparing for an ANSI H2 standards meeting in St. Petersburg, FL. Details for all this follows. Finally, we completed three business proposals regarding the Data Interoperability Workshop: for Value Added Resellers, Corporations, and for DAMA Chapters.

SQL 200n

The next H2 meeting will be in St. Petersburg, FL during the first week of February. So, it will be reported on the March website update. We expect that there will be new SQL documents posted to the Whitemarsh website by early February. Last year we had many thousands of download from the Website about SQL. In fact, the www.wiscorp.com is referenced by almost a thousand different sites. Thank you all for that.

AFCEA-West

During January we delivered two talks to AFCEA-West (Armed Forces Communications and Electronics Association (www.afcea.org)). We were honored to be asked by the Office of the CIO of the United States Navy. We delivered two presentations:

- Data_Management_Program_-_Understanding_Based_Data_Interoperability
- Data_Management_Program_-_Quality_Assessments_Presentation

These are two of the data management program materials we just released, and are posted to the Whitemarsh website for members. We got very good feed back. Attendees are keenly interested in learning how they can assess the quality of their data management programs. We address that in a section below. The second presentation went into the data management policy (AR 25-1, and DA PAM 25-1-1) that we authored while associated with the CIO of the Army during 2004. These strategies are now U.S. Army policy. In lengthy discussions after the talk it was clear that the attendees felt that the policies are well engineered, but is there the will?



We then heard what the U.S. Navy, under the able leadership of Robert Greene, is doing in regards to reducing IT systems and enabling an infrastructure to support data interoperability. The Navy is clearly on the right road. They're not just talking and talking and talking about getting on the right road, but are squarely on the road. The Navy has a very robust portfolio management environment coupled with a very active IT system reduction effort. With respect to an effort like the Whitemarsh metabase, the Navy has implemented a kind of data element (not ISO 11179) and a physical database layer. The U.S. Navy has also created an XML naming strategy. Whitemarsh hopes to be working with the U.S. Navy in their data management efforts and to hopefully enable them to extend their metadata repository effort to all five data abstraction layers.

DAMA Philadelphia

On January 18th we presented our data interoperability approach to the Philadelphia DAMA organization. What we were most pleased with was the level of consensus and agreement. Clearly this approach, based on 40+ years of data management experience, about a million dollars of private R&D, and about \$750K of Government funds that detailed, refined, and proved its validity, comprehensiveness, and effectiveness is independent from being a Federal approach, or a DoD approach, or an industry approach. It's just a best-practices approach. Thank you all for your continuous review and input over the years. We look forward to continuing with new clients in the Delaware Valley region.

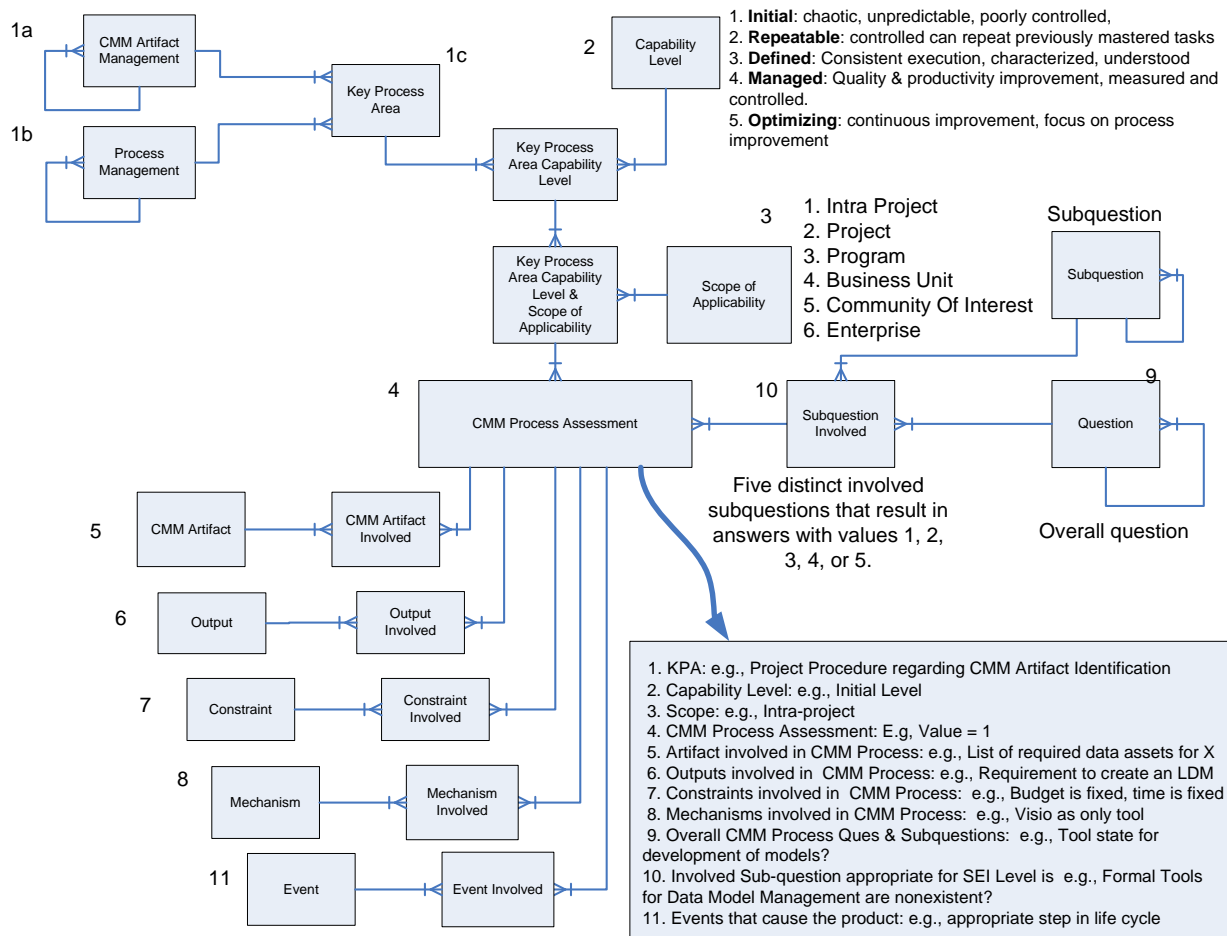
Capability Maturity Model Generator

During the Data Management Program Quality Assessments presentation at AFCEA-West, there was keen interest in how to determine if a data management program is valid and repeatable. We have just about concluded the development of a Data Management assessment questionnaire. We want this questionnaire to be both valid and repeatable. To determine this, we have created a CMM (Capability Maturity Model) generator system. This system doesn't generate questions. That would be magic. So, we have created a data model that enables the entry of all the relevant factors that would lead to the establishment of questions. The data model is depicted below.

What the software system does is generate the "fact table." That is, the CMM Process Assessment table. It does this by creating every possible combination of data from the outside in. The "association tables" that are built are:



- Key Process Areas
- Key Process Area Capability Level
- Key Process Area Capability Level Scope
- Subquestion Involved
- CMM Process Assessment
- CMM Artifact Involved
- Output Involved
- Constraint Involved
- Mechanism Involved
- Event Involved



Capability Maturity Model Data Model
 January 10, 2006

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Key of course are the “dimension” tables which are:

- CMM Artifact Management
- Process Management
- Capability Level
- Scope of Applicability
- Question
- SubQuestion
- CMM Artifact
- Output
- Constraint
- Mechanism
- Event

In addition to a process that mass-produces the CMM Process Assessment records, we have created processes that perform cascade-delete for any existing “dimension table” row, and a cascade-build whenever a new row is created in any “dimension table.”

Finally, there is a process that presents the CMM Process Assessment row, along with a list of all the dimension table factors. The “human” question builder then builds the question around all these dimensions. Ultimately there will be a set of questions that are to be answered Yes for each level. Thereafter scoring is quite easy.

Now, the key characteristics that must be answered about any CMM questionnaire are:

- Is the set of questions valid?
- Are the set of questions repeatable?
- Are all the questions discriminating?

This is how we intend to find out. As to validity, we know about 50 data management consultants (or employees of companies). We intend to provide them the questionnaire and ask them to assess the questionnaire for comprehensiveness. Are there questions that need not be asked? Are there any questions missing? If you knew every answer to every question about a company or a client, would you know what you need to declare their data management quality.

As to repeatability, we then intend to ask these same 50 or so data management consultants to administer the questionnaire to between 3 and 6 individual companies that they know intimately. We are hoping that they can find two that are high, two that are middle, and two that are low. We



will then receive the responses and perform a number of statistical analyses against predictions to determine if there's reliability.

Finally, as to discrimination, we will search for questions that are answered Yes across all levels. Those questions will be deleted. This will reduce the questionnaire to just those questions that produce discriminating results.

CMM Assessments

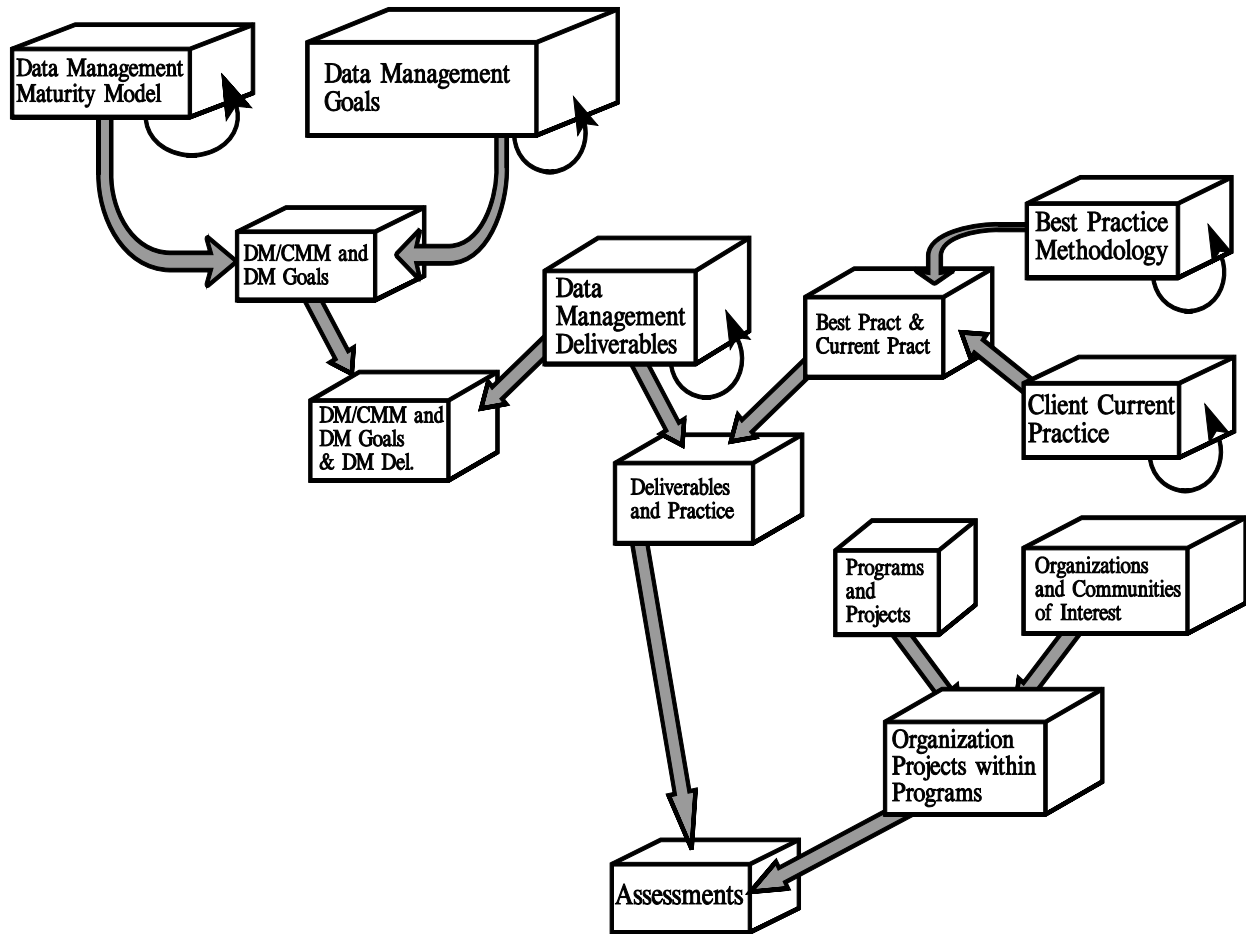
The CMM Generator is to support the creation of quality CMM assessment questionnaires. Two are in development. The Data Management CMM is underdevelopment by Whitemarsh, and the LCIM (Levels of Conceptual Interoperability Model) is under development by Andreas Tolk of Old Dominion University. We are honored to be participating with him in its development.

Just having a questionnaire however does not guarantee anything other than knowing your CMM levels. It's sort of like going to the doctor and for \$5,000 he tells you that you are dying. The natural and I would presume first reaction would be, "Of what and what can I do about it?" The real value is then knowing what to do to improve your "state." Below is a high level diagram of a Whitemarsh data model that supports the Data Management CMM. We will likely generalize that data model so that it supports all classes of CMM assessments. For now, it's a DM/CMM.

The DM/CMM questionnaire is at the upper left. The results are set against your organization's data management goals. Over on the right side of the diagram are both data management best practices and also client current practice. At the bottom right are client programs and projects that exist within organizations and communities of interest. As the diagram depicts, the client current practice is mapped against best practice. That mapping result is then identified within data management deliverables, which, in turn, are identified within DM/CMM assessment results and your data management goals. Finally, the data management deliverables are set within your organization's projects and programs. It is within these contexts that the assessments take on a life.

This then enables you to know not just that you are "dying, " but also of what and what to do about it. What part of the best practices are not being accomplished. What has to be improved and/or implemented to move from one CMM level to the next.





Well, we are on our way in the development of the database system that enables you to accomplish your own assessments, to know your “state of dying,” and what to do about it. We expect to have much more to report on our progress in the March Website announcement.

The DM/CMM and the LCIM/CMM are two very important maturity models. They both enable you to know where you are on the road of understandability-based data interoperability. Otherwise you may just be flying blind and burning money. Either is bad, and both are a disaster.



Website Updates

Two books are a year or more old. These are:

- The Whitemarsh Metabase Data Modeler Architecture and Concept of Operations
- Reverse and Forward Engineering Guide

Data Modeler Architecture and Concept of Operations

The Whitemarsh Metabase Data Modeler Architecture and Concept of Operations book sets out the “business problem” that is solved with the data modeler component of the Whitemarsh metabase. The book details the strategies taken and the benefits achieved. It’s a must read to get the full benefit of data standardization in general and the metabase in particular.

If the strategy set out in this document had been employed by the U.S. Department of Defense in the 1990s, then the U.S. DoD would have had a successful data standardization process; they would have saved hundreds of millions of dollars; and they would have largely succeeded in achieving data interoperability. So, the choice is simple. Spend tens-of-thousands, or waste hundreds-of-millions.

Reverse and Forward Engineering Guide

The Reverse and Forward Engineering Guide presents a complete and detailed example of importing a data model into the operational data model component, building the upper levels of metadata, and then using that metadata to build a data warehouse version of the reverse-engineered data model. The Reverse and Forward Engineering strategy is at the heart of dramatically increasing the value of metadata in the enterprise.

The process that is illustrated in this guide is the essential process that must exist for all communities of interest as they proceed from acres of semantic stove pipes to databases that exhibit understanding-based data interoperability.



Data Interoperability Workshops

You emailed and we listened. Seems that travel budgets are being severely cut back and so, we have decided to “come to you.” We have created three different Data Interoperability Workshop business proposals. One for Value Added Resellers (VARs), another for Data Management Association Chapters, and a third for corporate clients.

Each business proposal involves a one-day Data Interoperability Strategy seminar and then a week-long workshop.

We have already sent out the DAMA Chapter business proposal and we are quite pleased with the early feedback. If you are a member of DAMA and do not know about our proposal, please email us at Whitemarsh@Wiscorp.com. We will send one out to you immediately.

We are going to send out the Corporate business proposal to our email list by the middle of the month. If you do not get one then please email us and we will immediately send you one.

Finally, we are going to be sending invitations to data management consultants who are on our “special list.” Again, if you have not gotten yours, it’s probably our oversight. Send us an email and we’ll send one out to you.

