



Whitemarsh

Information Systems Corporation

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Website Announcement

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Announcement Topics

January has been very busy. First, Whitemarsh was pleased to contend with the much larger than usual response to our January Announcement of the Data Management Materials. Very positive feedback was received from both government and industry.

Also this month:

- Whitemarsh completed work on the initial implementation of the CMM (Capability Maturity Model) Generator.
- Whitemarsh delivered three presentations, and participated in a proposal effort.
- Whitemarsh prepared for an ANSI H2 standard meeting in St. Petersburg, FL.
- Whitemarsh completed three business proposals regarding the Data Interoperability Workshop. Opportunities now are available 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. There will be new SQL documents posted to the Whitemarsh website by early February. Last year there were thousands of downloads from the Website about SQL. In fact, the www.wiscorp.com is referenced by almost a thousand different sites and about 400 Universities. Thank you all for that.

AFCEA-West

During January two presentations were delivered at the AFCEA-West (Armed Forces Communications and Electronics Association (www.afcea.org)). Delivering this talk was particularly an honor as the invitation came from the Office of the CIO of the United States Navy. The two presentations delivered were:



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- Data Management Program - Understanding Based Data Interoperability
- Data Management Program - Quality Assessments Presentation

Both of these are included in the data management program materials that were released in January, and are posted to the Whitemarsh website for members. Good feedback was received from the attendees and they were keenly interested in learning how they can assess the quality of their data management programs. That is addressed that in a section below.

The second presentation described the data management policy (AR 25-1, and DA PAM 25-1-1) that Whitemarsh 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 pondered “Is there the will?”

Also of interest was the presentation given by the U.S. Navy, under the able leadership of Robert Greene, and what they are 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 a 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 the Whitemarsh approach to data interoperability was presented to the Philadelphia DAMA organization. The level of consensus on the approach is most gratifying. 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 the best-practices approach. Thank you all for your continuous review and input over the years.



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 has quality, validity and repeatability. The development of a Data Management Assessment Questionnaire is just about complete. But, is this questionnaire both valid and repeatable? To determine this, a CMM (Capability Maturity Model) generator system has been created. This system doesn't generate the valid questions. That would be magic. Instead, the CMM generator system enables the entry of all the relevant factors leading to the establishment of valid questions, and then generates a set of CMM assessment records that supports the creation of the questions.

In addition to a process that mass-produces the CMM Process Assessment records, processes have been created 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 this a set of valid questions?
- Is this a set of repeatable questions?
- Are all the questions discriminating?

In an effort to answer these questions Whitemarsh has a plan. Regarding validity, Whitemarsh intends to provide about 50 data management consultants with a copy of the questionnaire asking them to assess the questionnaire for comprehensiveness. Are there any questions missing? Are there questions that need not be asked? If one discerned the answer to every question about a company or a client, would this person then know what was necessary to declare the state of the company's data management quality?

As to repeatability, these same 50 or so data management consultants will be asked to administer the questionnaire to between three and six individual companies that they know intimately. The goal is to find two companies that would likely be ranked as high, two that are middle, and two that are low. Then, the responses will be statistically analyzed to determine the level of reliability.



Finally, regarding discrimination, questions that are answered Yes across all levels will be eliminated. 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.

Just having a questionnaire however does not guarantee anything other than knowing your CMM levels. The real value is then knowing what to do to improve your “state.” The data model associated with that CMM Assessment System sets the assessment categories against an organization’s data management goals. It further relates them to best practices and also client current practice and sets these squarely within common program and project deliverables. These are all then set within the context of client programs and projects that exist within organizations and communities of interest. It is within these contexts that the assessments are computed.

These computed results then enable the organization to know not just what their levels are but what they have to do to increase the levels from chaotic to mature and self-improving. 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. Whitemarsh expects to have much more progress to report in the March Website announcement.

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 Software System. The book details strategies taken and benefits achieved. It's a must read to get the full benefit of the Metabase, and data standardization in general.

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 a successful data standardization process; having saved hundreds of millions of dollars and largely succeeded in achieving data interoperability.

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 of the Metabase Software System. Afterwards what is shown is how to build the upper levels of metadata, and then using this metadata how 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 semantic stove pipes to databases that exhibit understanding-based data interoperability.

Data Interoperability Workshops

Whitemarsh has received email about the data interoperability workshop. It indicated that travel budgets are being severely cut back. The Whitemarsh strategy has thus changed to delivering workshops in your city. To facilitate this, Whitemarsh has created and emailed to each DAMA Chapter a business proposal. Each business proposal involves a one-day Data Interoperability Strategy seminar followed by a week-long workshop.

The DAMA Chapter business proposal feed back has been gratifying. One Chapter has already scheduled a Data Interoperability Seminar for the end of March. If you are a member of DAMA and do not know about our proposal, please email us at Whitemarsh@Wiscorp.com. A DAMA business proposal will be sent to you immediately. You can then forward it to your chapter for consideration.

If you are a corporation or government agency please email us at email us at Whitemarsh@Wiscorp.com. An analogous data interoperability business proposal will be sent to you immediately.

