

ODBMS.ORG User Report No. 15/08

Editor Roberto V. Zicari- ODBMS.ORG www.odbms.org

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User Name: Michael Blaha,

Title: Principal

Organization: OMT Associates Inc., US

Michael Blaha is an alumnus of GE Global Research in Schenectady, NY and has been an independent software consultant for the past fifteen years. He has authored six US patents, four books, and many papers.

Q1. Please explain briefly what are your application domains and your role in the enterprise.

Michael Blaha: Many and various application domains.

I am a consultant and have worked for many industries -- such as banking, financial, health care, engineering, entertainment, transport, and real estate.

My work focuses on various aspects of databases – conceptual modeling (application and enterprise), software architecture, database design, data warehouses, reverse engineering, and data conversion.

Q2. When the data models used to persistently store data (whether file systems or database management systems) and the data models used to write programs against the data (C++, Smalltalk, Visual Basic, Java, C#) are different, this is referred to as the "impedance mismatch" problem. Do you have an "impedance mismatch" problem?

Michael Blaha: I use UML models for databases.

It is straightforward to map a UML model to a relational database design. Industry has problems with bridging OO and relational database technologies.

Q3. What solution(s) do you use for storing and managing persistence objects? What experience do you have in using the various options available for persistence for new projects? What are the lessons learned in using such solution(s)?

Michael Blaha: I use a variety of solutions, depending on the project -- localized database access in stored procedures that implement methods, meta-driven architectures, layers, etc. The primary lesson is not to become enamored with a single approach of coupling relational databases to programming code and to consider all options.

Q4. Do you believe that Object Database systems are a suitable solution to the "object persistence" problem? If yes why? If not, why?

Michael Blaha: For specialty situations, yes. For general purpose, no. For better or worse, the fact is that OODBMSs have not reached the commercial mainstream. Therefore they are clearly not suitable for widespread use. Most corporations reject them out of hand. However, if there is a critical application with severe requirements -- need for low-level database access, difficult concurrency situation, demanding performance -- then I consider an OODBMS.

Q5. What would you wish as new research/development in the Area of Object Persistence in the next 12-24 months?

Michael Blaha: Relational DBMSs need to provide better support for OO models. There is no reason why they cannot. Specifically, there should be two-way referential integrity and support for the partitioning of single inheritance.