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Category: **Industry**
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Hiroshi Miyazaki is a software architect at Fujitsu. His main interest lies in the field of UML and its applications, especially, UML profile. He is also working on research for software specification technologies.

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

Hiroshi Miyazaki: I work for Fujitsu, and am engaged in software development methodology. And, I'm also involved in global standardization processes, such as OMG (Object Management Group) and ISO (International Standardization.
In OMG standardization, I participated in UML2, SPEM ½ (Software Process Engineering Metamodel) etc.
In ISO standardization, I participated in RM-ODP/"Use of UML for ODP". Besides, I submitted articles, which are related to Use of UML for ODP, to IEEE/EDOC workshop, WODPEC 2007 and 2008.

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?

Hiroshi Miyazaki: Generally speaking, for business application, Entity-Relational modeling is prevalent.
On the other hand, it is usual to use object-oriented programming language, such as Java. In this case, we use JDBC functionality. Considering the circumstance, it is not necessary to adapt data-model to programming model. The impedance mismatch is not critical.

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)?

Hiroshi Miyazaki: Fujitsu provides an Object Database Management system so-called Jasmine in alliance with Computer Associate International Inc. Jasmine is an ODBMS which equips data definition language and data manipulation language. Jasmine is not an ODBMS to keep programming language persistence. This ODB mainly stores multimedia data, such as images, pictures, and animations. For this type of ODBMS, it is not difficult to learn its functionality, because it is similar to a RDBMS language.

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

Hiroshi Miyazaki: Partially yes. It is desirable to represent data-model and programming-model in same manner. However, pragmatically, from my perspective, it seems there are some performance concerns. There is no reason to use ODB storage, because RDB is sufficient for the business applications.

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

Hiroshi Miyazaki: Nothing comes up to me. However, there will be some research to improve performance of ODBMS.