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Category: **Industry**
Domain: **Aerospace**
User Name: **Stephan Kiemle**
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Stephan Kiemle is Chief software engineer at the German Aerospace Center DLR, German Remote Sensing Data Center DFD. He studied Computer Science at TU München, Germany. His role at DFD is Software Engineer; Project Manager; with focus on AOI: digital libraries, distributed systems, OR-mapping.

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

Stephan Kiemle: Development of Data and Information Management Services for large scale digital data and long-term preservation, application data: earth observation from space and all its handling from data processing to delivery; project manager.

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?

Stephan Kiemle: No. We use ODBMS only for business objects that are defined in CORBA/IDL and that are Java objects by nature.

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)?

Stephan Kiemle: We use ObjectStore/PSE*PRO. We are persuaded that different situations call for different solutions. There is no "one best persistence solution", and ODBMS have their specific reason to be as other solutions have. In our case, its integrity/security for each single service (running the DB single user mode) and integration simplicity.

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

Stephan Kiemle: It can be, but it is hard to answer without further analysis. Our experience is very good with a service making its status and business objects persistent in its own single-user ODBMS to be secure at any time. We don't have experience with ODBMS-based and server-based multi-user applications.

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

Stephan Kiemle: A consequent support for a standard object query language OQL, supported by tools for OLAP and reporting on data.