

# Re: OO Design, Physical Implementation, DAOs

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Hi,

- > 1. *On a high level is creating data access component classes made up*
- > *of DataAdapter objects, Command objects, and sql statements which are*
- > *mapped to datasets and talk directly to my SQL Server 2000 database*
- > *the proper way to construct a DAL? If not where can I find*
- > *instruction/examples on the proper way to construct the DAL?*
- >

In my projects I created a set of Data Access Objects and the DAL served as a factory of them (when SELECTing) and a persistence mechanism when inserting, updating and deleting. The Data Objects pretty much map to tables, and I have other constructs to implement JOINS. The big advantage (OO or not) is that I can change the DAL so (for example) it gets data from different data sources – in .NET is very easy to get locked into a particular database if you're not careful.

- > 2. *What is the role of data access objects in OO design? Are these*
- > *purely DAL components? Or if I have a domain class which potentially*
- > *has a collection of records as an attribute is it alright to create*
- > *this collection as a DataTable or an array of DataRow?*
- >

Data Access Objects are in a way an annoyance. They exist because of a technological limitation: once you turn the computer off, data is gone. And currently most of the persistence mechanisms are relational databases, so Relational-OO mapping will happen one way or the other. I'd rather have an object model that is useful for the application and that can be produced and consumed by the DAL. BTW, I don't try to support OO concepts when it comes to persisting data.

- > 3. *I'm probably completely off on #2, where can I find*
- > *instruction/examples on the physical implementaion of OO model? I'm*
- > *not understanding how I'm going to physically get data out of the DAL*
- > *into my objects and then get that data out of my objects and presented*
- > *to the GUI.*
- >

Martin Fowler's "Patterns of Enterprise Application Architecture" is a good start, IMHO.

- > 4. Currently, DataSet objects are instantiated in the aspx code behind
- > pages and datatables, within the dataSet, are bound to controls like
- > datagrids and datalists which works very nicely. How is this done when
- > working with objects and collections of objects?

If you're careful about naming conventions you can use the ArrayLists of data access objects produced by the DAL to directly bind to datagrids.

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- > Sorry about the longwinded post, but I need someone to check my
- > understanding before I go any further.
- >
- > Any information is appreciated.
- >
- > oj

HTH

Otavio