



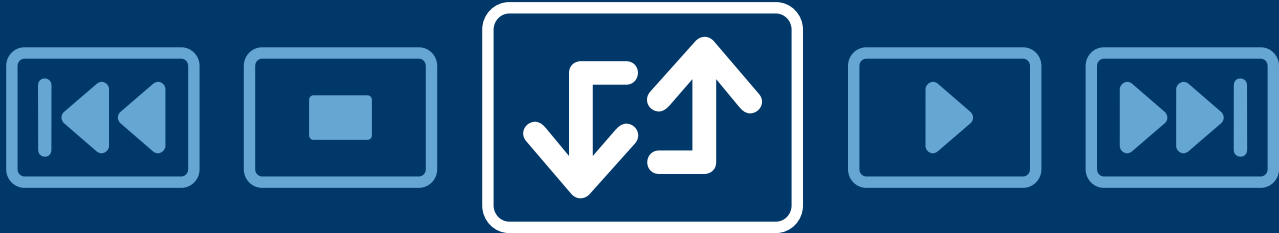
VANATEC

Object-relational Mapping for .NET

It has never been easier to access relational data.

Stop Hacking. Start Mapping.

**Free O/R Mapping:
Vanatec OpenAccess Express**
OpenAccess Express provides free mapping for free databases. Get it at: www.vanatec.com/express



Get Vanatec OpenAccess. Boost Productivity.

The usual DataSet in .NET apps creates problems for developers who want to use the full power of object-oriented programming to solve their business problems. Using business objects to organize the behavior they are calling on a proven and powerful approach. However this architectural approach is difficult to reconcile with DataSet's rigid row and column structure. Instead of DataSet, use Vanatec's powerful object-relational mapping to transparently map between classes and relational tables. With Vanatec OpenAccess, you will find all of the O/R mapping essentials built right in: easy & transparent data access, database independence, reverse mapping, disconnected data support, LINQ support and high-performance through sophisticated Level II cache and FetchPlans.

Easy & Transparent Data Access

Vanatec OpenAccess is an object-relational mapping persistence framework that offers transparent persistence through post-compilation code enhancement. As such, adding persistence functionality is non-intrusive to the object model. Custom attributes are used to assign attributes to classes. With custom attributes classes can be declared as persistent, and for example indexes can be defined for class fields. With Vanatec OpenAccess, classes do not have to inherit from a specific base class or implement a specific interface to be persistent. Vanatec OpenAccess does not put any restrictions on the object model and supports inheritance, interfaces and .NET Framework collections.

Database Flexibility & Database Independence

You don't live in a vacuum, and neither will your .NET application. Using Vanatec OpenAccess, your application easily runs with various database branches, various table layouts, or even various database products. Only one single file needs to be edited. And vice versa. Can life be easier?

Reverse Mapping with Legacy Databases

Vanatec OpenAccess detects your existing legacy data model the moment you connect it, creates object models, and even let you edit the object model exactly how you want it. Meet Vanatec's Reverse Mapping wizard, your legacy database's new best friend.

Features

- Easy & transparent data access
- Forward, reverse and round-trip mapping
- Visual Studio integration
- Detach/reattach object graphs
- Persistent class binding to UI elements
- Per developer licensing, no runtime costs

Compatibility

- **Databases**
Microsoft SQL Server, Oracle, MySQL, Firebird, Advantage Database Server, Sybase SQL Anywhere. More upon request.
- **Languages**
C#, VB.NET, J#, or any IL-compatible language
- **Development Environment**
Visual Studio, .NET Framework
- **Development Platform**
Microsoft .NET

.NET 2 & 3 Feature Support

- Generics
- Nullables Targets
- MS Build Integration
- Observable Collection





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Disconnected Data Support

No matter whether you're thinking of mobile devices, web applications, or replication - you need disconnected data management you can count on. Anywhere, anytime. In these cases, it isn't possible to maintain a database connection for the duration of a transaction. For this situation, Vanatec OpenAccess offers ObjectContainer. It frees objects from databases and uses optimistic transactions. It tracks which objects have been changed or are new.

LINQ Support

You like the new Microsoft approach of writing queries against the object model, with complete IntelliSense support? OpenAccess supports the next C# and VB.NET language versions.

Fetch Plan and Parallel Queries

You feel O/R Mapping tools cannot produce SQL that is optimal for your use case? Too many Client/Server calls? Not with OpenAccess! Have a look at our Fetch Plans – together with Parallel Fetches you are able to optimize your use case and you get highly optimized SQL. Define the exact object graph including fields that should be fetched together. We will minimize the amount of queries and Client/Server calls.

Tight Integration with Microsoft Visual Studio

Using Vanatec OpenAccess is easy in part because you can continue using the same application you already know - Microsoft Visual Studio. And when it comes to data access, simply choose OpenAccess in the Visual Studio menu. Fully integrated into Visual Studio, Vanatec OpenAccess takes action on the data access and it gives you the programming productivity you need to develop sophisticated applications in no time.

O/R Mapping Features

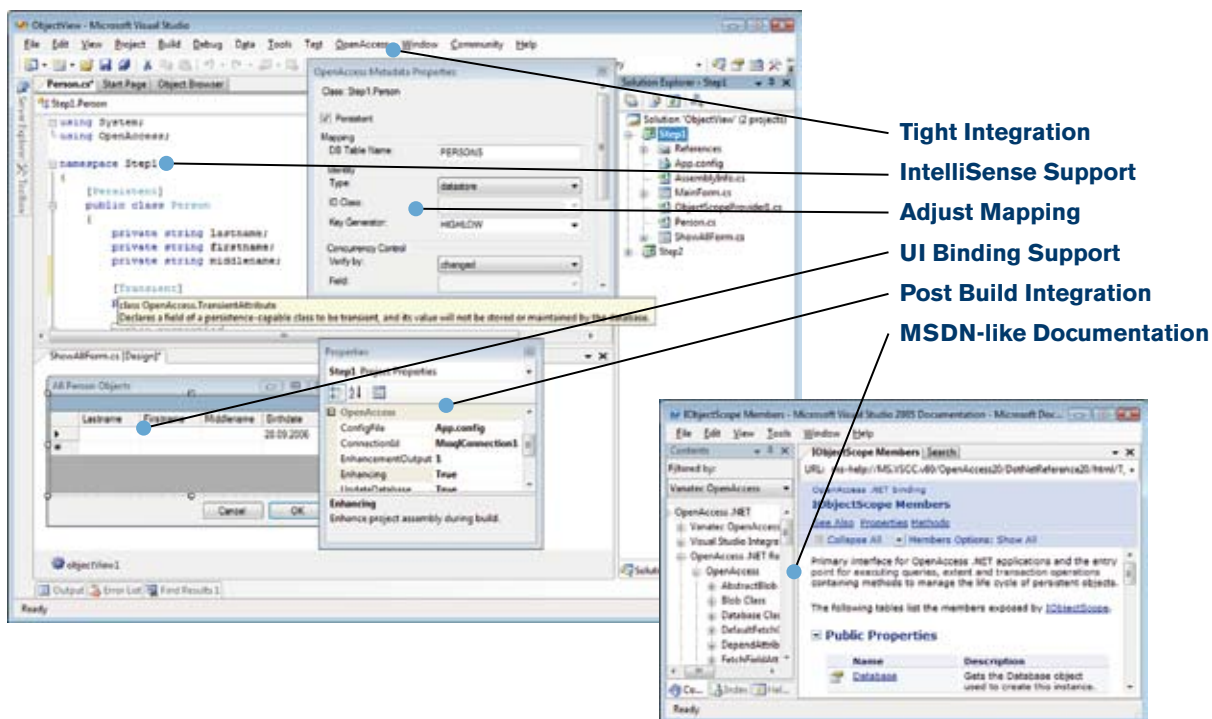
- Round-trip mapping (existing classes, existing schema)
- Generate .NET source files from database tables
- Generate database referential integrity constraints
- Various PK generators
- Optimistic locking by checks via changed fields, time stamp or version counter
- Collections of any persistable type
- Flag references as dependent for cascading deletes

Transactional Features

- System.Transactions support
- Optimistic and pessimistic transactions
- Code enhancement of .NET assemblies
- Precise control via class attributes

Performance Features

- All database connections and object scopes share a common back-end cache.
- Use fetch plans to fetch whole slices of your model in one go.
- Only required data is fetched and only transactional modified fields are updated.
- Level 2 Cache Synchronization using MSMQ



- Tight Integration
- IntelliSense Support
- Adjust Mapping
- UI Binding Support
- Post Build Integration
- MSDN-like Documentation