



DelphiLive!

The Delphi Developer Conference

Leonel Tognioli | Embarcadero Technologies

Datasnap 2009

**Beyond the Basics of DataSnap
Server Methods**

Content

- Deconstructing the Basic Example
- Working with more interesting data types
- Built-in Server Methods
- Exploring the metadata
- What is coming in the future?
- Q&A

“Hello World”

- Why does it work?

Not just value types

- Readers/DataSets
- Streams
- TParams
- TDbxConnection to return connections
- TDbx*Value for nullable types
- And the Kitchen Sink (aka OleVariant)

- Noticed a pattern in the examples so far?
- **No database required!**
- (Although it works great with one too)

Lifetime of Parameter Instances

- Who frees input parameters? The instances returned?
- Short answer:
 - DataSnap automatically frees the instances when appropriate unless they have a non-nil Owner.
- Long answer:
 - <http://edn.embarcadero.com/article/38685>

Built-in Server Methods

- DSAdmin
 - GetServerClasses
 - GetServerMethods
 - GetServerMethodParameters
 - (and more)
- DSMetadata
 - GetProcedures
 - GetProcedureParameters
 - GetDatabase

Exploring the Metadata

- All metadata is available for the client:
 - Server Classes
 - Server Methods
 - Parameters
- Clients can discover methods and call them dynamically.

What's coming in the future

- Invocation through REST

- `http://www.xyz.com/datasnap/rest/<class>/<method>/<parameters(s)>`

calls

- `<class>.[prefix]<method>(<parameters(s)>)`

where prefix is an action based on PUT, POST, GET, DELETE http methods.

What's coming in the future

- JSON datatypes

- Pass an object (or a tree of objects) through its JSON notation

```
{  
  "firstName": "John",  
  "lastName": "Smith",  
  "address": {  
    "streetAddress": "21 2nd  
Street",  
    "city": "New York"  
  },  
}
```

And past the future...

- Improved RTTI and attributes will allow us to support more data types, method types, with much more flexibility

Q&A