

Intro to Client-Server Using VFP and MySQL

Whil Hentzen



About moi

- 5'7-1/2", 135 lbs, grey hair, blue eyes
- B.S.M.E. Rose-Hulman Inst. Of Tech.
- 22,000 billable hours since 1990
- Multi-year VFP MVP, 1st Lifetime Ach.
- Written 8 books, 70+ sessions
- Publ. 40 books on VFP, Open Source
- Enjoy long walks on the beach
- Faves: Neil, Ted, Aerosmith, AC/DC



Agenda

- A Client-Server State of Mind
- Devel/Deploy Scenarios
- Configuring MySQL
- 2 Darn Handy MySQL Tools
- Connecting to MySQL Interactively
- Client-Server User Interfaces

Client Server State of Mind

- The way we were – thank you, Richard Grossman
- The way we will be – the first thing you need to take away today – you always get just a subset of records
- Multi-user questions

Development Scenarios: Components

- Visual FoxPro IDE
- ODBC Driver
- MySQL Engine
- MySQL GUI Tools (MA, MQB)

Development Scenarios: Locations

- VFP/ODBC on local dev box (running Windows)
- MySQL server on local dev box or another box (Linux? Mac? Gasp!)
- GUI tools on local dev box, connect to MySQL server regardless of the server's location

Deployment Scenarios: Components

- MySQL Server
- VFP Application (EXE, VFP runtimes)
- ODBC Driver

Deployment Scenarios: Location

- Server: MySQL Server
- Workstations: VFP Application (EXE, VFP runtimes) + ODBC Driver

Configuring MySQL: Concepts

- MySQL is a service running on a box, waiting for requests
- Something (VFP) connects to the service from a host, using a un/pw
- MySQL authenticates vs a database of permitted un/pw/host combos
- These combos have various permissions (can select, can't delete)

Configuring MySQL: Implementation

- MySQL Monitor
- mysql.user database
- Setting passwords
- Appropriate users
- Tricks for hosts

2 Darn Handy MySQL Tools

- MySQL Administrator
- MySQL Query Browser
- Not Darn Handy: Migration Toolkit

Connecting Interactively: Via DSNs

- Installing the ODBC Driver
- DSNs: File, User, System
- Control Panel | ODBC Administrator
- Errors
- Inside VFP:
m.liH = sqlconnect("dsnname")
- DSNs: Ugh

Connecting Interactively: Via Connection Strings

- Key-Value pairs

- Syntax

```
"DRIVER={MySQL ODBC 3.51 Driver};  
SERVER=localhost;  
UID=bob;  
PWD=secret;  
DATABASE=customers;  
OPTION=1"
```

Connecting Interactively: Via Connection Strings

- Your first connection string:

```
m.liH = sqlconnect("dsnname")
```

```
_cliptext = sqlgetprop(m.liH,  
"ConnectionString")
```

Connecting Interactively: Via Connection Strings

- Inside VFP:

```
m.liH = sqlstringconnect(  
"DRIVER={MySQL ODBC 3.51....  
....secret;DATABASE=customer"  
)
```

Connecting Interactively: Executing Commands

- SQL SELECT:

```
m.liResult= sqlexec(  
    m.liH,  
    "select * from customer",  
    "csrAllCust"  
)
```


Connecting Interactively: Executing Commands

- SQL INSERT:

```
m.liResult= sqlexec(  
    m.liH,  
    "insert into cust (cname, crep)  
    values ('Bike World', 'Alice')"  
)
```

Connecting Interactively: Errors. Dreaded Errors.

- `m.liR = sqlexec(m.liH, "sele * from x")`

`dime aOops[1]`

`? aerror(aOops)`

Client-Server UIs: Querying – Logical Comp.

- Filter component
- Results component

Client-Server UIs: Querying – Physical Comp.

- Separate 'filter' and 'results/details' forms
- Page frame with 'filter', 'results', and 'details' pages

Client-Server UIs: Simple Add

- User Interface
- Internal Design

Client-Server UIs: Simple Edit

- User Interface
- Internal Design

Client-Server UIs: Simple Delete

- User Interface
- Internal Design

Client-Server UIs: All-In-One

- User Interface
- Internal Design

Key Concepts

- 1. VFP + MySQL is the most inexpensive and powerful combination for C/S development on the planet
- 2. Configuring MySQL permissions
- 3. Only working with a subset of the backend at any one time

Thank-you-good-night

Remember to fill out your evaluation.
Session slides, white paper, and code
samples will not be updated.