Squill: Not Another ORM

Jevgeni Kabanov
Lead Rebel
ZeroTurnaround
Squill co-founder
http://squill.dev.java.net
What is Squill?

1. An embedded Java DSL for expressing SQL queries

2. Typesafe: no strings are used anywhere, everything is generic

3. Schema-driven: database metadata used to generate classes describing the tables and matching data objects

4. Transparent: Selection and joins are explicit, no hidden queries ever generated

5. Lightweight ORM: CRUD, selecting whole data objects and relations are easy

6. Specific: SQL/database extensions are supported
What Squill is Not

1. Not an ORM replacement
2. Data objects cannot be used for rich domain design
3. Field mapping is not supported (data objects are one-to-one with the database)
4. Relationship navigation after the query is not supported
5. Object-with-relations selection is not supported
6. Caching, versioning and advanced entity management has to be done externally
7. Not portable by default (but you can choose to be)
Why Squill?

1. **To replace usual SQL**
   - Every bigger project has a ton of SQL written to improve/guarantee performance
   - Squill has same expressivity, but is shorter and typesafe

2. **To use if ORM is too heavy for you**
   - ORM abstracts from the database, which sometimes can compromise performance (selection, joins, hidden queries)
   - Squill can be more productive thanks to type safety and autocompletion
StringBuffer sql = new StringBuffer();
sql.append("SELECT o.sum,(SELECT first_name,last_name";
sql.append(" FROM person p");
sql.append(" WHERE o.person_id=p.id) AS client");
sql.append(" FROM order o");
sql.append("WHERE o.id = "+orderId);
sql.append(" AND o.status_code IN (?,?)");
PreparedStatement stmt =
conn.prepareStatement(sql.toString());
stmt.setString(1, "PAID");

//...
Squill Example

```java
PersonTable p = new PersonTable();
List<Tuple3<String, Integer, Date>> rows = squill
    .from(p)
    .where(gt(p.height, 170))
    .selectList(p.name, p.height, p.birthday)

for (Tuple3<String, Integer, Date> row : rows) {
    String name = row.v1;
    Integer height = row.v2;
    Date birthday = row.v3;
    System.out.println(
        name + " " + height + " " + birthday);
}
```
Let’s port Spring PetClinic to Squill
Thanks for your attention!

http://squill.dev.java.net

Come see “Zero Turnaround in Java” on Thursday at 17:50 in Room 7 or visit the ZeroTurnaround booth