



## SIMSSQL Practical Uses

SIMS 2006 User Conference  
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## What is SQL?

- SQL is an acronym for “Structured Query Language”.
- What if in order to buy a can of peas at one grocery store you had to ask for “type=vegetable, container=canned, size=small, shape=round, color=green” but at another grocery store you had to ask “Those small round green vegetable that are canned”. Obviously if you always shopped at one store and then tried to buy peas at other grocery store, it wouldn't be obvious that you needed to ask for.
- There are lots of databases all over the world for similar things. SQL provides a common way of dealing with a database, regardless of the data in the database, or the application accessing it.

## So SQL is a database type?

- No, SQL does not relate to the way the data is STORED at all. It only relates to the way that the database is accessed. The database engine that actually stores the data could be Microsoft SQL( also called SSQL or See-Qual Server), Oracle, MySql, Btrieve, Postgriv or others.

## Is Microsoft Access a Database ?

- No, Microsoft Access is an application that allows you to access SQL functions easily. Common people associate .MDB files as Access databases, but they are actually Microsoft Jet Database files – they are just ones that are commonly used for Access.

## So Why do we want SQL ?

- The SIMSII database is a flat-file, externally indexed database. This is great for performance, but not very good for other applications trying to access our data, since it's not in an industry standard format. Bringing the SIMSSql product into the picture, it will convert the proprietary SIMS II database engines which are SQL compatible.

## Note:

- The SIMS II database is considered an, isotopic database. In other words, there is no direct correlation between various files at the database level. Zones don't point directly to subscribers and so forth, a program must manually follow the indexes and perform that linking. SQL compatible databases are relational databases. This means that each record in the database. By the database following these relationships, a complete picture of one "record" can be created without any external program performing work.

## Viewing the Database

- In Access, you can get a full view of the data in a sequential format. Just pick the table you wish to view and then click the View button.
- There are many different tables that relate to different files in the SIMS II database.
- Everything is related – that's why they call it a relational database.

## So What can be done with this?

- In the simplest form, you can use Microsoft Access to create reports, we don't give you or do complex search and replace type things. Want to replace every E in the subscriber name if it's second character, but only for accounts that have a time zone offset of +1 and only if they have a contact on their contact list with the name of John Smith? You can now.
- The level of complexity is possible only limited by your knowledge of SQL.



## So What can be done with this?

- Create Report: The list of all contacts by account .
- The query will look in the AccountMainTbl, MailingName field and if the word “zone” is found in the field, will include the record. The second column tells it to include the Account Number field from the AccountMainTbl as well, but sort them in the Descending order.

## So What can be done with this?

- How about a list of every account with “Hollywood Fire” in the global phone number list?

## So Where is the SQL?

- So far everything we've done is strictly using the “wizards” from Microsoft Access. If we wanted to do this from inside a program, or if we have needs that can't be accomplished through the wizard then we have to use actual SQL statements. The search we did for all the global phone numbers that contain Hollywood Fire would need the following SQL commands:

## So Where is the SQL?

```
SELECT GlobalPhoneNumberTbl.Name AS  
GlobalPhoneNumberTbl_Name,  
AccountContactTbl.AccountNumber,  
AccountMainTbl.PremiseName  
From AccountMainTbl INNER JOIN AccountContactTbl ON  
GlobalPhoneNumberTbl.Name = AccountContactTbl.Name) ON  
AccountMainTbl.AccountNumber =  
AccountContactTbl.AccountNumber  
Where((((GlobalPhoneNumberTbl.Name)Like "Hollywood Fire*")));
```

## Wouldn't you rather use the wizard?

- The important thing to note about the SQL statements, is no matter what SQL database engine is being used, whether it's the Jet database engine that Access uses, or Microsoft SQL or Oracle or pervasive SQL/Btrieve, it's always the same. Lets break it apart into sections...

## Wouldn't you rather use the wizard?

```
SELECT GlobalPhoneNumberTbl.Name AS GlobalPhoneNumberTbl_Name,  
AccountContactTbl.AccountNumber, AccountMainTbl.PremiseName
```

The SELECT statement tells SQL what fields we want to include in our query. In this case it pulls the Name field from the GlobalPhoneNumberTbl table first. The AS statements gives it an alias for later, in this case it calls that field GlobalPhoneNumberTbl\_Name. Then it pulls the AccountNumber field from the AccountContactTbl Table and the PremiseName from the AccountMainTbl table. So, right here we are accessing three different tables to get the information we need. That's why it's so important that the relationships between the fields is setup properly to begin with

## Wouldn't you rather use the wizard?

```
WHERE (((GlobalPhoneNumberTbl.Name) Like "Hollywood Fire*"));
```

And finally the WHERE statement determines what fields we look into and what we are looking for. In this case we look for anything Like "Hollywood Fire\*"

## So Now What?

- Now you should understand how SQL fits in and why it's important.
- Questions?