

Relationships

Now that you know how to import the data and query this data, it's time to learn the power of a relational database. Excuse me while I throw some theory at you, but this is relevant in database usage, whether it is for the horses or for any other information you may be tracking in a database. The larger the table, and the larger the number of fields in that table, the more apt that the data going into those cells is prone to mistakes and errors (garbage in-garbage out syndrome). Would the information be more accurate if we could split it into 2 or 3 smaller tables, each containing 20 fields, or would we have less problems using a large table where we are attempting to enter 60-80 fields of information for each record (horse)? Obviously, if we could give each of those smaller tables to a different person, then we should see the integrity of that data very high. But the problem we create is that we now have 2 or 3 or 4 tables of fragmented data for each record (horse). Imagine if one table held just the race information, one table contained the class information, one table held just the running lines, and one table held just the velocity calculations. The problem is that we need a couple pieces of information from each table to compliment our handicapping style. In a database we need to find a way to "link" these 3 or 4 tables together in order to query just what we need or want to see. We will examine what are called Relationships.

Relationships are a way for us to link multiple tables together, without the bother of having to maintain one large table. But once linked through a relationship, these smaller tables will act within the program just as if they were actually one large table. This gives the user many great benefits. The smaller tables are easier to enter data into. The smaller tables are easier to "clean up". You can create tables of personal observations and then link them to your tables of HTR data and query as if that personal info were actually in the HTR tables.

Example: I have the ability to track owners at our local track. Every night I enter the winning owners into a table manually. When I have to make a decision to split 2 horses that are ultimately tied in ratings, I can query the owner data right with the HTR numbers. Maybe I am looking at one horse whose owner has no wins this year, whereas a chap who is winning at a 30% rate owns the other contender. Which would you bet, all other things being equal?

Relationships can be kind of tricky at times (just like in REAL life, if you have one!), but I will give you a process that will make it quick and easy and hopefully pain free.

If you are using the Impact program, you are probably importing both HTR4MSA tables and Impact tables into your database. We want these two tables to act as one. Here is the process:

1. Open the database that holds both the Impact and the MSA tables. On the Menu Bar, click on Tools. Choose Relationships. A window opens that at first glance looks like your Query Design View. The Show Table dialog box opens. Here you will select the 2 tables you wish to link together into a relationship. Highlight the first table you

wish to add and click the Open button. Highlight the second table you wish to add and again, click the Open Button. Now that your 2 tables are out in the grid area, close the Show Table box.

2. In order for you to create a relationship between these two tables, you MUST have in each table at least one field that is equal in BOTH tables. These two fields must also contain the same data types (text-to-text, number-to-number, etc.). The fields I link together for my everyday handicapping is the tHORSE fields. It will make a quick link where you will not have duplicates of that same information within the same table, provided there is limited data within your tables. It is usually a good idea to have one of your 2 fields in one of the tables to be a primary key field for that table. Remember that the primary key keeps you from duplicating data in a table. It is the field that identifies each record as an individual record in and of itself. Be careful in using this field as a linking field in large tables, because if that same horse comes back in 10 or 14 days and happens to draw the same post number then you will have 2 records in the same table for the horse labeled "1 Brownhorse". You will then receive multiple entries for this same horse when you query.
3. Now that you have your two tables present on the screen, enlarge their boxes so you can see the tHORSE field names in both tables. To link these two tables together, put your cursor over tHORSE in your 1st table and click and HOLD your left mouse button. While holding your mouse button down, drag this field name over to and on top of the tHORSE field in the 2nd table. As you hover over the 2nd table tHORSE field, let go of the mouse button. You will see a box appear that wants you to define the type of "Join" you are creating. There are 3 different Joins you may select. Click on the Join Type button in this box to view them. The default join (#1) is called an equi-join. It basically will match up the records from each table anywhere the tHORSE fields are identical. Kind of a 1-for-1 relationship. The other 2 joins are if you have multiple records on either table that you may want to "marry" up to single records of the other table. Such as if you tracked owners and their horses. One table may contain just the owners names and trainers, while you want to join with a table that contains all the horses running on the grounds along with their owners names. Your relationship to join these 2 tables could be based on the owner's names, and you could query which horses belong to which owners, going on a step further to see if the owner gives all the good horses to one trainer and all his "bad" horses to a second trainer. For now just click OK to go back to the Relationships dialog box, and in that box, choose Create. You will notice that a line now connects these 2 tables. This shows the tables are now in a relationship and now can be queried as if they were one table.
4. Click on your Save button to save this relationship permanently. Now when you enter your Query grid and you open both these tables using your Open Table box, click both tables and you will notice that the join line is now present. This reminds you that there is an established relationship between these two tables. They can now be queried as if they are one table.

5. Go to your Query screen, click on New. And choose Design View. Click and open both tables (MSA and Impact) and note the join line. Now choose the info you want to query simply by double clicking on the data found in both tables.
6. If you save this query, you may build a report built on this query.

Reports will be the next process we will cover! If you have any questions or problems, feel free to email me at nadermann@home.com.

Good Luck at the Races!

From Rick:

If you are going to join large tables where you will probably have duplicates in the nHORSE field you will need to do a relationship like Mike Dee suggested in his message on the discussion group as copied below.

Donnie - you don't need any help.

You the Man!!!!

Antonio- you need to link 4 fields to join msa and impact they are

tdate with tdate
ttrack with ttrack (ttrk)
nrace with nrace
nppo (post pos order) with nppo

these fields create the unique relationship you need to pull data from either table I'm sure Donnie's chapter will explain it all very well, but if you still have any questions, email one of us and we can talk you through it.