

Open a Portal, Mr. Spock

Portals have been around, in FileMaker™, for as long as I can remember and they are an ubiquitous part of the program. (Just in case you don't know what a portal is, an easy way of explaining is to imagine that you are outside of a house, looking in a window through a gap in the curtain. The part of the room that you can see is the portal in FileMaker™; the rest of the room is hidden from view and, to see it, you have to go into the room itself; in other words, the portal is a quick snapshot of the information from a related table).

Portals are both a good and a bad thing. They are a great thing when you simply want to see some key related information without leaving the screen you are on; they are a bad thing when the related table has lots of records and, especially, is being sorted. (As a general rule of thumb, if you have more than a couple of hundred records in the related table, don't use a portal as all those records have to be loaded each time). This statement is much less true in FileMaker™ 11 which introduced **filtered portals**, a great improvement and which have many different applications. For example, you could create one relationship between two table occurrences and then use that relationship in multiple portals, each of which is filtered by a different value, say, for example, a category. Visually this helps break up a screen nicely, so it is very useful functionality.

CHECKED IN		PATIENT			APPOINTMENT		PROCESS	
IN LOBBY								
Date	Time	First Name	Last Name	Patient	App't	Reason	Status	Checked Out
May 27, 2011	2:32 PM	Kurt	Knippel	Killer	4:00 PM	Castration	In Lobby	
May 24, 2011	10:43 AM	merja					In Lobby	
May 13, 2011	7:18 PM	Martin	Dickens	Bowser	2:30 PM	Cleaning	In Lobby	
IN TREATMENT ROOM								
Date	Time	First Name	Last Name	Patient	App't	Reason	Status	Checked Out
May 12, 2011	3:00 PM	Kurt	Knippel	Libby	12:00 PM	general checkup with Dr Spencer	In treatment Room	
May 12, 2011	2:29 PM	Jules	Williams	Sebastian	10:30 AM	Dental	In treatment Room	
WAITING								
Date	Time	First Name	Last Name	Patient	App't	Reason	Status	Checked Out
May 12, 2011	2:26 PM	Merja	Reynolds	Calicio	2:30 PM	Vaccination	Waiting for Pickup	
May 12, 2011	9:26 AM	kurt	knippel	libby	12:30 PM	checkup	Waiting for doctor	
May 12, 2011	2:00 PM	Jennifer	Hunt	Raven	11:30 AM	Dentist	Waiting for lab results	
May 12, 2011	1:13 PM	Randy	Spencer	Sparky	11:30 AM	Hiccups	Waiting for Checkout	
May 12, 2011	10:11 AM	Kurt	Knippel	Libby	11:00 AM	shots	Waiting for doctor	
HOSPITALIZED								
Date	Time	First Name	Last Name	Patient	App't	Reason	Status	Checked Out
May 12, 2011	2:29 PM	Ralph	Williams	Pogo	2:30 PM		Hospitalized	

But, for my purposes, filtered portals come into their own when you are entering some criteria into a field and using that criteria to display matching records.

So let's take a look at an example:

Items to be Added | Search | Notes & Pictures

Products | Subassemblies | Components | Extras

Category: Bracket Click here and start typing

	Conv. Price	Part Price
40-7205 Bracket Assy, Adjustable Guide Rail,	\$13.41	\$13.41
40-7206 Bracket Assy, Adjustable Guide Rail,	\$14.67	\$14.67
30-0031 Bracket Set, 1" Flap Stop Extension,	\$57.00	\$57.00
30-0032 Bracket Set, 2" Flap Stop Extension,	\$59.74	\$59.74
30-0033 Bracket Set, 3" Flap Stop Extension,	\$62.93	\$62.93
40-7212 Bracket, Adjustable Guide Rail, 1/4"	\$25.13	\$25.13
40-7213 Bracket, Adjustable Guide Rail, 1/4"	\$26.95	\$26.95
40-7214 Bracket, Adjustable Guide Rail, 1/4"	\$28.32	\$28.32
40-7254 Bracket, Adjustable Guide Rail, 10"	\$36.90	\$36.90
40-7251 Bracket, Adjustable Guide Rail, 4" Dual	\$30.59	\$30.59
40-7252 Bracket, Adjustable Guide Rail, 6" Dual	\$32.87	\$32.87
40-7253 Bracket, Adjustable Guide Rail, 8" Dual	\$34.63	\$34.63
30-7013		
30-0112 Bracket, Mounting Assy., Horizontal	\$8.85	\$8.85
30-7093 Bracket, Mounting, LP, 45 deg.Swivel,	\$52.44	\$52.44
30-7094 Bracket, Mounting, LP, 45 deg.Swivel,	\$52.44	\$52.44
30-7092 Bracket, Mounting, Short LP, 45 deg.	\$56.72	\$56.72
30-7091 Bracket, Mounting, Universal Swivel,	\$67.46	\$67.46
30-7090 Bracket, Mounting, Universal, 45 deg.	\$56.72	\$56.72
30-7245 Bracket, Mounting, Vari-Speed	\$19.42	\$19.42
30-7244 Bracket, Vari-Speed Enclosure, LP T-	\$19.42	\$19.42

Red text = Discontinued; Orange background = Needs Pricing

In this example, the relationship is based on the **category** field so, when nothing is selected in the pop-up menu, no records show. In this example, we've selected **Bracket** as the category and are displaying about 20 matching records. (Because there only ever going to be a couple of dozen records showing, this portal is sorted, but normally, I would leave it unsorted since sorting increases the overhead, (which slows things down), and unless it is absolutely essential, I don't use it. {If it is essential, I have the way I want to look at them, exports the sorted set, deletes the originals and then reimports them}).

Now I am going to type **guide** into the filter field (next to the pop-up menu)

Items to be Added | Search | Notes & Pictures

Products | Subassemblies | Components | Extras

Category: Bracket guide

	Conv. Price	Part Price
40-7205 Bracket Assy, Adjustable Guide Rail,	\$13.41	\$13.41
40-7206 Bracket Assy, Adjustable Guide Rail,	\$14.67	\$14.67
40-7212 Bracket, Adjustable Guide Rail, 1/4"	\$25.13	\$25.13
40-7213 Bracket, Adjustable Guide Rail, 1/4"	\$26.95	\$26.95
40-7214 Bracket, Adjustable Guide Rail, 1/4"	\$28.32	\$28.32
40-7254 Bracket, Adjustable Guide Rail, 10"	\$36.90	\$36.90
40-7251 Bracket, Adjustable Guide Rail, 4" Dual	\$30.59	\$30.59
40-7252 Bracket, Adjustable Guide Rail, 6" Dual	\$32.87	\$32.87
40-7253 Bracket, Adjustable Guide Rail, 8" Dual	\$34.63	\$34.63

As I type, the list of records is filtered down to what has been typed. In this example, I typed **guide** and that is what it has found which is an exact match

but what if I just wanted to type **uid**? Would it find the same records?

Yes, it would. In fact, it will find any occurrence of that string, using the **patterncount** function, which makes this technique incredibly versatile for searching purposes.

So, how does it all work? Let's look at the portal filter criteria first:

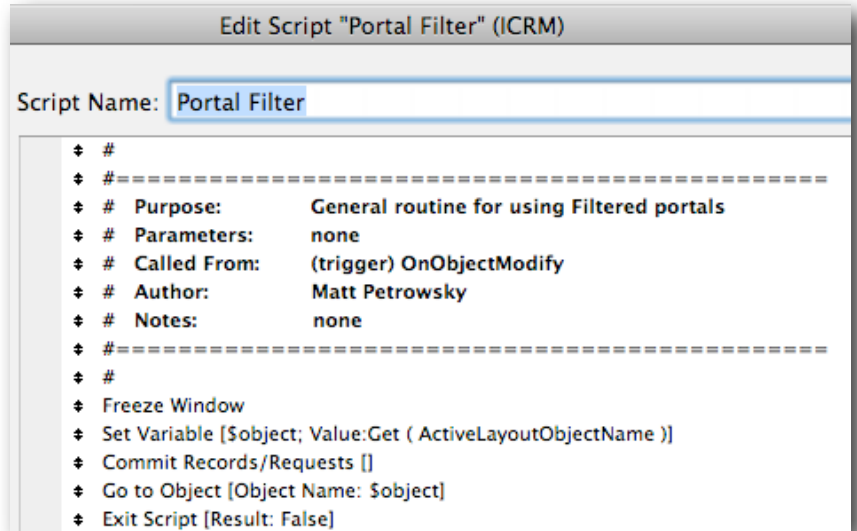
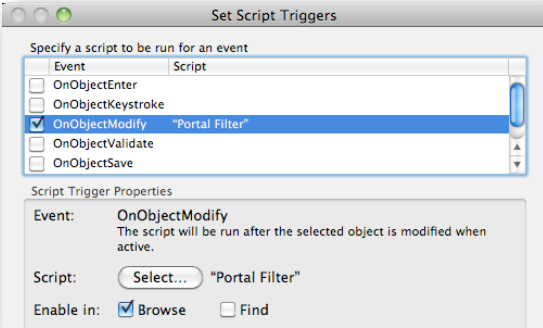
The field in which we type the value we want to filter on is called FilterProduct and the name of the relationship is Products_SJ4Cat so this will display any records where what is typed in the filter field is included in the PDTName field in our related table. Very simple but there is a little bit of magic necessary for it all to work. Firstly we have to set a script trigger on the filter field:

Each portal record will be visible when:

```
Let (
  filterField = Products::FilterProduct
);

( PatternCount ( Products_SJ4Cat::PDTName;filterfield ) > 0 ) and not IsEmpty
( filterField )
or
IsEmpty ( filterField )
)
```

And the script that this runs is this:



So this is all very simple and straightforward and, in this example, works extremely well as I know that I've only ever got a small subset of records that will be displayed and it will make little or no difference to the overhead. But what if I want to use a filtered portal with thousands of records which is going to cause a performance hit, especially over a network?

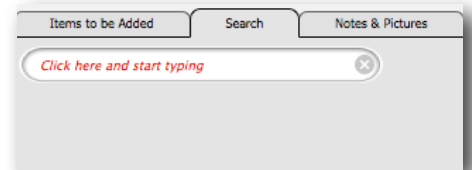
Again, the solution is very simple and that is to modify the portal filter criteria so the default state is to show **no records** and records only appear as something is typed in the filter field.

Each portal record will be visible when:

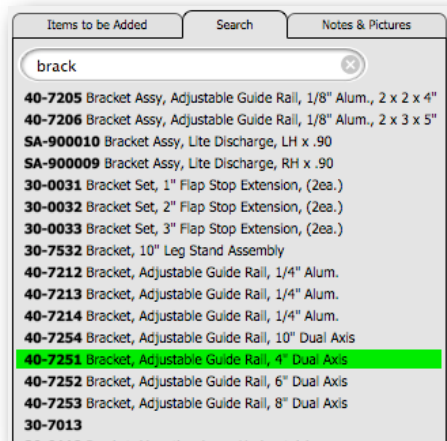
```
Let (
  filterField = Products::FilterName
);

( PatternCount ( Filter_Products::PDTName;filterfield ) > 0 ) /*and not IsEmpty
( filterField )
or
IsEmpty ( filterField )*/
)
```

(All I've done is comment out the part about leaving the filter field empty so when nothing has been typed in the filter field, no records show at all).



And now we'll type **brack** in the filter field.



Clicking on any item will load that record and the record that has the green highlight, is telling me that I am currently in that record.

While conventional wisdom might indicate that I should be displaying all of the records and filtering down, it is, in my opinion, much more useful to show nothing and filter up; that way, I don't have to waste any time scanning for something that may or may not be there.

In conclusion, filtered portals are an incredible tool that will really help your interface sizzle and your users will love them.

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