Vertical Resultset to Horizontal Resultset

Basically I have a resultset similar to this  
  
FacilityName   OnOff  
  
Fac1               X  
Fac2               NULL  
Fac3               X  
Fac4               X  
Fac5               NULL  
  
  
I need just this  
  
X NULL X X NULL  
  
Can anyone help me produce this resultset? There could be many many facilities.  
  
Thanks in advance,  
Bruce

2004-02-05 at 04:20:49ID20874243

Tags

[horizontal](http://www.experts-exchange.com/searchResults.jsp?searchTag=horizontal)

,

[vertical](http://www.experts-exchange.com/searchResults.jsp?searchTag=vertical)

,

[resultset](http://www.experts-exchange.com/searchResults.jsp?searchTag=resultset)

Topic

[MS SQL Server](http://www.experts-exchange.com/Microsoft/Development/MS-SQL-Server/)

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Answers

**EXPERT COMMENT**

by: [Hilaire](http://www.experts-exchange.com/M_471660.html)Posted on 2004-02-05 at 04:27:32[ID: 10279793](http://www.experts-exchange.com/Microsoft/Development/MS-SQL-Server/Q_20874243.html#a10279793)

This should do the trick  
  
select   
max(Fac1\_OnOff) as Fac1\_OnOff,  
max(Fac2\_OnOff) as Fac2\_OnOff,  
max(Fac3\_OnOff) as Fac3\_OnOff,  
max(Fac4\_OnOff) as Fac4\_OnOff,  
max(Fac5\_OnOff) as Fac5\_OnOff  
from (  
select   
case facilityname when 'Fac1' then OnOff end as Fac1\_OnOff,  
case facilityname when 'Fac2' then OnOff end as Fac2\_OnOff,  
case facilityname when 'Fac3' then OnOff end as Fac3\_OnOff,  
case facilityname when 'Fac4' then OnOff end as Fac4\_OnOff,  
case facilityname when 'Fac5' then OnOff end as Fac5\_OnOff  
from <YourTable>  
) a

**AUTHOR COMMENT**

by: [brucemaginnis](http://www.experts-exchange.com/M_513379.html)Posted on 2004-02-05 at 04:32:41[ID: 10279823](http://www.experts-exchange.com/Microsoft/Development/MS-SQL-Server/Q_20874243.html#a10279823)

I was kinda hoping to make it more dynamic, you know so that if I add more Facilities etc, I won't have to hardcode more case's etc etc

**ACCEPTED SOLUTION**

by: [Hilaire](http://www.experts-exchange.com/M_471660.html)Posted on 2004-02-05 at 04:35:50[ID: 10279845](http://www.experts-exchange.com/Microsoft/Development/MS-SQL-Server/Q_20874243.html#a10279845)

To make it more dynamic you'll have to use a stored procedure that will generate the SQL on-the-fly.  
IMHO Dynamic SQL should be avoided whenever it's possible, because of know  
security issues  
and  
bad performance

**63**

**excellent**

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**EXPERT COMMENT**

by: [vc01778](http://www.experts-exchange.com/M_1195271.html)Posted on 2004-02-05 at 05:55:00[ID: 10280348](http://www.experts-exchange.com/Microsoft/Development/MS-SQL-Server/Q_20874243.html#a10280348)

Here's what I posted a while ago to a similar question:  
  
============================  
You will have to build both the target table and the SQL dynamically:  
  
Assuming  
  
create table t1(id int, name1 varchar(30), name2 varchar(30));  
insert into t1 values(1,'ab','xy');  
insert into t1 values(2,'ab','xy');  
insert into t1 values(3,'ab','xy');  
insert into t1 values(6,'acd','xy');  
insert into t1 values(4,'ac','xy');  
insert into t1 values(5,'ac','xy');  
  
The stored procedure p1 to build the table t2 would look like this:  
  
create procedure p1 as  
  declare @sql varchar(1000), @count int, @i int  
    
  set @count = (select max(cnt) from (select count(\*) cnt from t1 group by name1,name2) x)  
    
  set @i = 1  
  set @sql = 'create table t2(name1 varchar(30), name2 varchar(30)'  
  while (@i <= @count) begin  
   set @sql = @sql + ',id' + cast(@i as varchar(3)) + ' int null'  
   set @i = @i + 1  
  end  
  select @sql = @SQL + ')'  
  exec (@sql)  
    
  set @i = 1  
  set @sql = 'insert into t2 select name1, name2'  
  while (@i <= @count) begin  
    set @sql = @sql + ',max(case when cnt = ' + cast(@i as varchar(3)) + ' then id end)'  
    set @i = @i + 1  
  end  
  set @sql = @sql + ' from (  
   select a.name1, a.name2, a.id, count(\*) cnt  
   from t1 a join t1 b on a.name1=b.name1 and a.name2=b.name2 and a.id >= b.id  
   group by a.name1, a.name2, a.id  
   ) x group by name1, name2'  
  exec (@sql)  
  select \* from t2  
  
  
... and the result:  
  
=========  
drop table t2  
p1  
=========  
  
name1    name2     id1             id2           id3  
ab     xy     1     2     3  
ac     xy     4     5     NULL  
acd     xy     6     NULL     NULL  
  
The steps are:  
  
1.  '(select max(cnt) from (select count(\*) cnt from t1 group by name1,name2) x)'  gets the max number of ids.  
2. the sql to create t2 is built  
3. the t2 table is created  
4. the sql to generate the result set is created  
5.  the resultset is inserted into t2  
6. t2 is displayed  
  
Step 4 sql is built according to this pattern:  
  
select name1,   
       name2,  
       max(case when cnt = 1 then id end) id1,  
       max(case when cnt = 2 then id end) id2,  
.........................................  
       max(case when cnt = n then id end) idn  
from (  
  select a.name1, a.name2, a.id, count(\*) cnt  
  from t1 a join t1 b on a.name1=b.name1 and a.name2=b.name2 and a.id >= b.id  
  group by a.name1, a.name2, a.id  
) group by name1, name2  
  
  
================================  
  
VC

**ASSISTED SOLUTION**

by: [vc01778](http://www.experts-exchange.com/M_1195271.html)Posted on 2004-02-05 at 06:01:56[ID: 10280392](http://www.experts-exchange.com/Microsoft/Development/MS-SQL-Server/Q_20874243.html#a10280392)

I just found the reference to the question I provided the above response:  
  
<http://www.experts-exchange.com/Databases/Microsoft_SQL_Server/Q_20824351.html?query=from+t1+a+join+t1+b+on+a.name1%3Db.name1+&searchType=topic>  
  
Naturally,  you do not need table t2 unless you want to save the pivot result.  
  
VC

**62**

**excellent**

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**EXPERT COMMENT**

by: [ScottPletcher](http://www.experts-exchange.com/M_664986.html)Posted on 2004-02-06 at 11:59:57[ID: 10293008](http://www.experts-exchange.com/Microsoft/Development/MS-SQL-Server/Q_20874243.html#a10293008)

If you just want a list with all the on/off values, you can do this:  
  
DECLARE @OnOffValues VARCHAR(8000)  
SET @OnOffValues = ''  
  
SELECT @OnOffValues = @OnOffValues + ISNULL(OnOff, 'NULL') + ' '  
FROM facilities  
ORDER BY FacilityName  -- this is optional  
  
PRINT @OnOffValues  
  
  
As long as all the OnOff values will fit in 8000 bytes, it won't matter how many facilities there are.

**ADMINISTRATIVE COMMENT**

by: [TheLearnedOne](http://www.experts-exchange.com/M_38421.html)Posted on 2004-07-11 at 08:03:09[ID: 11523418](http://www.experts-exchange.com/Microsoft/Development/MS-SQL-Server/Q_20874243.html#a11523418)