

Re: and / or function

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<http://www.tech-archive.net/Archive/Excel/microsoft.public.excel.worksheet.functions/2007-03/msg00064.html>

- *From:* "vezerid" <vezerid@xxxxxxx>
 - *Date:* 1 Mar 2007 09:33:14 -0800
-

Rob,

glad it worked (as much as it did...). In answering your question:

1. Your original formula was indeed leaving it blank when nothing was found. This is the philosophy:

```
=IF(ISERROR(something),"",INDEX(something))
```

The `_something_` was where we intervened. Part of the `_something_` is the conditions with AND/OR. Thus the formula tests if `_something_` exists; if it does not it returns `""`. Is it not doing this now?

2. The idea of `>0` is the following: We replace AND/OR with Multiplication/Addition. Inside an IF's first argument, where Excel expects a logical value, if we instead supply a numeric expression, it will be converted to True/False as follows:

0 \rightarrow False, Anything \langle 0 \rightarrow True.

If a and b are logical expressions then the following two are equivalent:

```
=IF(OR(a, b), xxx, yyy)
```

```
=IF(a+b, xxx, yyy)
```

In this context simple addition is enough b/c we don't care if both conditions are true and produce 2 as a result. It is \langle 0, hence true.

Thus, in your context the `>0` was not really necessary b/c the operations were made in a logical context and all we cared about was that it is nonzero anyway. The `>0` is necessary when we have formulas with the IF philosophy but without IF. Example:

A2 contains points collected. B2 contains victories in a tournament.

Bonus is `INT(A2/100)+B2`. But to get the bonus I must either have more than 1000 points or more than 3 victories. Without an IF:

```
=(INT(A2/100)+B2)*((A2>1000)+(B2>3)>0)
```

If I don't use the `>0` then, if both conditions hold, I will get double the bonus. The `>0` basically equates all non-zero values to TRUE, which is then converted to 1 when multiplied.

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HTH

Kostis Vezerides

On Feb 28, 11:40 pm, robl <r...@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote:

Vezerid

That finally fixed it. I deleted the date restriction because I really want all current period accruals + old unpaid accruals. Now I have two small questions....1. How can I have the formula show blank when there is no result? 2. why did you put >0 the revised formula? I tried with them out and I didn't see a difference.

--

Thanks

Rob

"vezerid" wrote:

OK, your logic is correctly referred to in the formula (provided both B2 and the values in A:A are of the same data type, so that you don't get a bug on the equality).

Thus, I believe you must consider the equivalent that I suggested instead of OR in teh array formula.

HTH

Kostis

On Feb 28, 7:21 pm, robl <r...@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote:

The logic is.... if A:A value = B2 and the paid date is less than F1 (F1 = end of current GL period) then these invoices are accrued in the current period. OR.... if A:A value < B2 and the paid date is blank then these invoices are re-accrued in the current period.

--

Thanks

Rob

"vezerid" wrote:

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The key, I believe is in this:

`OR((Sheet1!A4:A1004=B2)*(Sheet1!I4:I1004<F1),(Sheet1!A4:A1004<B2)*(Sheet1!I4:I1004=""))`

You are including a record if its A:A value is equal to B2 (what is in B2?) and the paid date is less than F1 OR if its A:A value is less than B2 and the paid date is blank. I don't know the exact logic behind this, but I can tell you there is a problem with using OR.

Logical functions do not work well in array formulas. You are partly handling this by using multiplication but you still have trouble with OR. If you want to use OR-functionality in an array formula, what would be `OR(x,y)` where x and y are logical expressions returning T/F, now should become `(x+y)>0`
Hence, instead of your present OR construct:

`(Sheet1!A4:A1004=B2)*(Sheet1!I4:I1004<F1)+(Sheet1!A4:A1004<B2)*(Sheet1!I4:I1004="")>0`

The entire formula now being:

`=IF(ISERR(SMALL(IF((Sheet1!A4:A1004=B2)*(Sheet1!I4:I1004<F1)+(Sheet1!A4:A1004<B2)*(Sheet1!I4:I1004="")>0,ROW(INDIRECT("1:"&ROWS(Sheet1!A4:A1004))),ROWS($1:1))),"",INDEX(Sheet1!$A$4:$A$1004,SMALL(IF((Sheet1!$A$4:$A$1004=$B$2)*(Sheet1!$I$4:$I$1004<$F$1)+(Sheet1!$A$4:$A$1004<$B$2)*(Sheet1!$I$4:$I$1004="")>0,ROW(INDIRECT("1:"&ROWS(Sheet1!A4:A1004))),ROWS($1:1))))`

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If this still does not work maybe we need to reexamine the logic of your formulas.

HTH
Kostis Vezerides

On Feb 28, 5:57 pm, robl
<r...@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>
wrote:

The or function does not return accruals no paid date. (eg. blank date in col I) FYI I do commit the formula with "cse"

--

Thanks
Rob

"vezerid" wrote:

On Feb 28,
4:23 pm,
robl
<r...@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>
wrote:

I
have
an
input
sheet
to
track
all
monthly
accruals
for
invoices.
I
want
to

Re: and / or function

be
able
to
list
them
on
monthly
sheets
in
the
same
workbook
to
track
unpaid
invoices
until
they
are
paid.
Unpaid
invoices
need
to
re-accrue
on
the
following
month
(months)
sheet.
Here
is
the
formula
that
has
me
stumped.

=IF(ISERR(SMALL(IF(OR((Sheet1!\$A\$4:\$A\$1004=\$B\$2)*

This
formula
is
in
cell

Re: and / or function

A4
on
sheet
2
The
range
on
sheet
1
is
A4:A1004
and
I
am
listing
the
info
from
col
A
-
col
H
in
each
row
returned.
Col
I
contains
the
paid
deta
for
each
invoice.
I
am
concatinating
cols
E
&
F
into
col
E
on
sheet
2
but
that

Re: and / or function

function
is
not
in
this
formula.

What
I
have
learned
about
these
functions
has
come
from
trial
and
error
using
posts
from
this
community.

--
Thanks
Rob

And what
exactly is
the
problem?