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JDEtips • On Reporting / World Writer

World Writer Tips

By Jeff Babcock

W Editor's Note: Looking for some tricks that are really treats this Halloween? JDEtips newcomer Jeff Babcock has reached into his World Writer goody-bag and scared up some great tips to make your reporting experiences less spooky. Whether you're afraid of the dreaded "divide by zero", always jump when you have to calculate days between dates, or totally frightened by using non-JDE® reports in World Writer—Jeff takes the fear and frustration out of these and other common reporting problems (so you'll be less likely to want to TP someone's house the next time you get handed a *last minute report request!)*

Reports—they drive our business, tell us when we are making money or losing it and are sometimes a real pain when they don't work right. Over years of using JD Edwards® World Writer, I have discovered a few tips and solutions to some common reporting problems. Here are a few of my favorites that will save you some time and let you do some things you may have thought not possible, like sorting on data within fields and joining files on fields with different data types. The examples I use in this article are from World A7.3, service pack 7.

How to Avoid the Dreaded Divide by Zero

This is a common error that stops many reports from running. For example, say you created an output field to calculate the direct cost ratio of a sale by dividing the Cost field by the Sales field. Everything may work great until the day that one of the records on which you are reporting contains a zero in the Sales field. There are a couple of ways around

this:

- 1. Do not allow transactions with zeroes in the Sales
- 2. Have the report filter out any records with zero in the Sales field.
- 3. Modify the output field calculation to add a small number to the divisor. This will eliminate 0 as

a possibility and not sway the results enough to be noticed when used as follows:

DCR = Cost / (Sales + 0.00001) * (Sales / (Sales +0.00001)

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This simple modification to your formula will prevent the divide by zero error. If your output field is using only 2 decimal places, then you need not worry about adding .00001 to the divisor. The actual formula used in the World Writer is shown in Figure 1. The Cost is stored in field SDECST, the Sales is in SDAEXP. Be advised, you really need to enter 0.00001, not just .00001, because World Writer has no sense of humor when it comes to syntax.

This formula is a little complex, however there is a good reason for it. Now, if you are content to just use it and move on to the next topic, please do. If you are the type of person who wants to know why, follow me down this mathematical rabbit hole and I will show you.

Query Result Field Definition	
	Size
Result DCR <u>Direct Cost Percentage</u>	<u>9</u> 2
Expression:	
SDECST / (SDREXP + 0.00001) * (SDREXP / (SDREXP + 0.	00001))
F12=Previous F24=More Keys	

Figure 1 — Preventing Divide by Zero Error

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There were several problems I needed to fix. One was the protection against the divide by zero error. The other was making sure the output on the report displayed zero when appropriate. I needed to expand the formula to accommodate this. For example, say you sold an item for \$100 and it cost \$75 to make. The Direct Cost Ratio is 75 / 100 or .75 percent. If your sale amount was 0 and you added .00001 to it, the

Query Result Field Definition Size Result . . DAYS1 Start to Quote 6 0 Expression: (decimal(((watrdj-100000)*0.001),6,0)*365+(watrdj-(100000+(decimal(((watrdj-100000)*0.001),6,0)*1000)))) -(decimal(((wastrt-100000)*0.001),6,0)*365+(wastrt-(100000+(decimal(((wastrt-100000)*0.001),6,0)*1000)))) F12=Previous F24=More Keys

Figure 2 — Finding the Number of Days Between Two Julian Dates

DCR would be 7500000. In order to make the DCR appear to be zero when appropriate, I multiplied the result of cost / sales by either a 1 if the sales amount > 0 or by 0 if it is. The tricky bit was deciding to multiply by 1 or 0. If the Sales amount was not zero, then a number divided by itself is 1 and the resulting multiplication by 1 does nothing to our DCR calculation. If the Sales amount was 0, then 0 divided by 0 + .00001works out to 0 and that times our DCR calculation or any other number by 0 is 0. I know some of the calculations don't equal exactly 0, but if you are using 2 digit precision, this shouldn't have a big impact.

How to Calculate the Number of Days Between Two Dates.

World Writer can subtract one JDE date field from another with relative ease. The trouble comes in when one of those dates crosses a year boundary or if you need to exclude weekends from your calculations. The following formula shown in Figure 2 offers a quick way to calculate the number of days between two Julian dates. The older date is stored in WASTRT and the most recent is in WATRDJ. The formula for arriving at the results (before being translated into World Writer speak) is:

Number of days from 2000 to start of year for Date2 + Number of days into year of Date2 (-)

Number of days from 2000 to start of year for Date1 + Number of days into year of Date1

For example, say Date2 has a Julian date of 107003.

1. Start by removing the century (all calculations are based on dates more recent then 2000)

```
107003 - 100000 = 7003
```

2. Multiply the above results by .001 to isolate the number of years.

 $7003 \times .001 = 7.003$

3. Multiply the Integer of the above by 365 to find total days up to the start of the year of Date2.

INT
$$(7.003)$$
 x $365 = 2555$

4. Next, find the number of days into the year of Date2.

5. Add the total days up to the start of the year of Date2 to the days into the year of Date2.

$$2555 + 3 = 2558$$

6. The calculations in steps 1 - 5 would be done for Date1 and then finally subtracting Date2 from Date1 for the days difference.

World Writer can subtract one JDE date field from another with relative ease.

If you wanted to exclude weekends, you could use another output field formula like the one shown in Figure 3. This formula calculates the number of weeks by dividing the total days by 7 and multiplying the



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