Handling Excel's "IFERROR"

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If you've ever presented a spreadsheet that you thought was perfect but were surprised with a "#DIV/0!" error or an "#N/A" error message like the spreadsheet in Figure 1, this article is for you. Excel has an "IFERROR" function that can automatically replace error messages with a message of your choice. When used properly, IFERROR makes spreadsheets look more professional and calculations more accurate. When misused, IFERROR can hide problems and make spreadsheets much less accurate. Here are some hints on how to use and how not to misuse IFERROR.

The IFERROR Syntax

Figure 2 shows the "Insert Function" window configured for IFERROR. If you are not familiar with the Insert Function window, please see my article in the May-June 2015 issue of *Billing*. Notice that there are two parameters or components of the IFERROR function. As the Insert Function window shows, the first parameter, value, is any value or expression or reference. When I use IFERROR, the first parameter is typically a formula. The second parameter, value_if_error, is what you want Excel to do if value, the first parameter, results in an error. Value_if_error can be a number, a formula, a reference to another cell, or it can be text if the text is contained in quotes.

That means you can put a formula or an expression in the first part of the IFERROR function and Excel will show the result of that formula unless the formula results in an error. If the formula results in an error, Excel will follow the instructions in the second half of the IFERROR formula.

Here are some examples of IFERROR formulas:

=IFERROR(C30/D30, "NO PATIENTS THAT DAY")

If Excel can successfully evaluate C30/D30, it will display the result of C30/D30. If D30 evaluates to zero, Excel would normally display a #DIV/0! message, but the IFERROR function will recognize the error and instead of displaying the error message will display the text "No patients that day."

=IFERROR(C30/D30, 7)

If Excel finds an error in the C30/D30 expression, this formula instructs Excel to substitute the number seven instead.

=IFERROR(C30/D30, "")

If Excel finds an error in the C30/D30 expression, this formula instructs Excel to leave the cell blank instead.

=IFERROR(C30/D30, C31/D31)

If Excel finds an error in the C30/D30 expression, this formula instructs Excel to substitute the result of C31/D31 instead. If C31/D31 results in an error, Excel will display the error message related to C31/D31.

=IFERROR(E16/F16,IFERROR(E17/F17,"2 ERRORS"))

You can nest, or put IFERROR functions inside other IFERROR functions. In this example, Excel first evaluates E16/F16. If that results in an error, Excel evaluates E17/F17. If both E16/F16 and E17/F17 result in errors, Excel displays the message "2 errors."

Two Warnings

IFERROR is a great way to replace Excel-generated error messages with explanations, additional information, or simply leave the cell blank. With that power comes two caveats. First, Excel is catching error messages like dividing by zero or issues with formulas like "VLOOKUP" not being able to find a matching value. Excel cannot detect logic issues. If your formula accidentally calculates net income by *adding* expenses to revenues instead of *subtracting* expenses from revenues, Excel won't detect that error and will display the results of the faulty expressions.

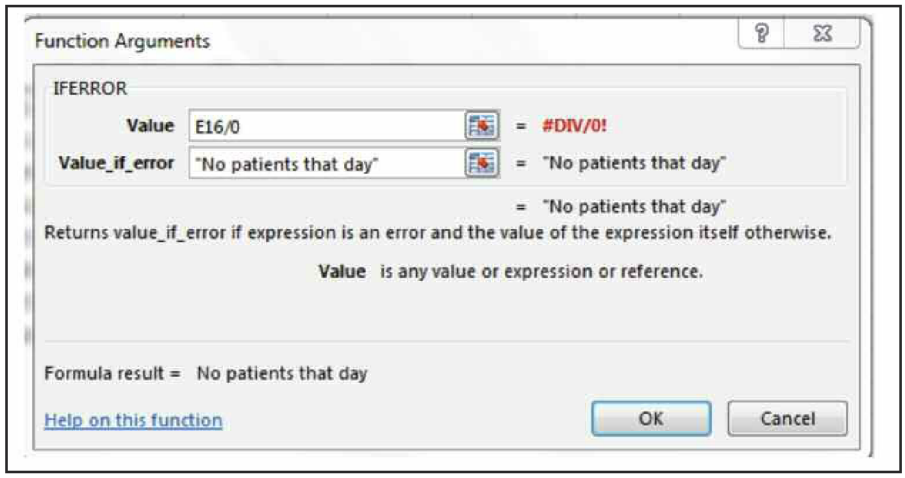
The second issue is a bigger concern in my experience. Because Excel replaces *all* error messages with the second parameter in the IFERROR formula, you can easily hide error messages that you need to see in order to make your spreadsheet more accurate. For example, if the reason your VLOOKUP formula is returning an error is because there is an error in the formula, I want to see and correct those types of errors before I add IFERROR to the formula.

When you develop spreadsheets, always create the formulas

FIGURE 1

	A	B	C	D	E	F
1	2015 LABS PER PROVIDER PER DAY					
2						
3		Monday	Tuesday	Wednesday	Thursday	Friday
4	Dr. Stripling	140	181	111	174	151
5	Dr. Lynn	184	152	178	164	#N/A
6	Dr. Enriquez	161	109	123	193	125
7	Dr. Kier	104	132	#DIV/0!	127	113
8	Dr. Coleman	110	172	154	186	180
9	Dr. Speaks	170	160	139	184	167
10	Dr. Poole	133	172	183	176	191
11	Dr. Gerrish	109	116	115	181	182

FIGURE 2



first, test to make sure the formulas are valid and the spreadsheet is accurate, and then add IFERROR to the existing formulas as a last step. Be careful not to use IFERROR too early in the spreadsheet development process or you may hide helpful error information. If the formulas or the logic of the spreadsheet changes, consider removing IFERROR from the related formulas until you have validated the spreadsheet for accuracy.

If used with these cautions, IFERROR is a powerful tool to create better looking spreadsheets by controlling error messages with appropriate messages. As you become more familiar with IFERROR, you'll discover more and more applications to make your life easier. I hope you find the feature helpful. ■

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