Weekly Challenge

Solve the challenge, share your solution and summit the ranks of our Community!

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IDEAS WANTED

We're actively looking for ideas on how to improve Weekly Challenges and would love to hear what you think!

SUBMIT FEEDBACK

Weekly Challenge

Challenge #14: Warehouse Distribution

GeneR
Alteryx Alumni (Retired)

Here is a new challenge for this week, it is a two part challenge so next week's challenge will be a continuation. The link to the solution for last week's challenge is HERE.

This week we are looking at a retail distribution analysis. We need to allocate products from the warehouse to stores based on priority. I have seen this challenge solved both with and without the use of an iterative macro.

The use case:
A retail chain has 25 stores carrying variety of items. Not every store carries the same items and each has its own level of prioritization within the chain and different required stock levels. There is a central warehouse that contains all of the available items.

The objective is to distribute items from the warehouse to each store, filling the available stock at each store in order of the store's priority.

Good luck, I look forward to hearing your feedback. Thank you for playing along.

UPDATE 2/29/2016
It's leap day! Two solutions have been uploaded.

- challenge_14_start_file.yxmd
- challenge_14_solution_1.yxmd
- challenge_11_solution_2.yxzp

Intermediate | Join | Macros | Preparation | Transform

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TaraM
Alteryx

Two solutions for this one.
@GeneR says : The first is a solution without a macro and is in my opinion a more straight forward approach to solving the problem. I included the second macro approach because it is an excellent example of how to utilize an iterative macro.
Thanks!!

Tara McCoy

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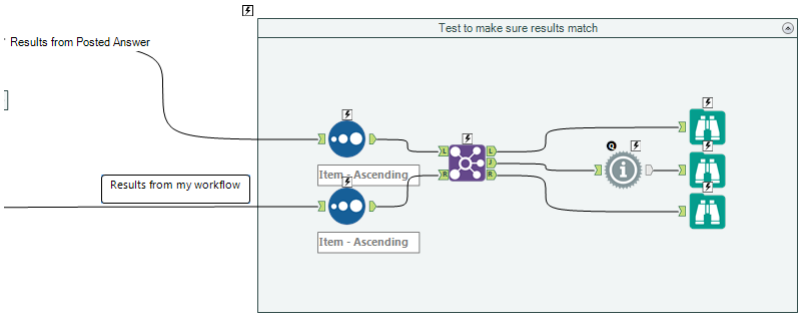
alex
11 - Bolide

I selected the iterator method and I also went back and put my old CFO hat on for this one. I had a bit of extra time so I went ahead and added branches to the workflow to calculate other stats that I would need to know if I ran the warehouse.
But first, since there were 215 rows to compare, I added a branch that automated the process to let me know if there was a row in my results that didn't match the answer that was posted.
Then, I created

1. a warehouse report that provides detail by product (Total Assigned, # Store Receiving Product, Total Remaining Product, etc.)
2. a store report that provides data on total orders filled (what is going on in Houston?)
3. an item report that provides data on the items that were left unfulfilled
4. an expanded answer that includes columns for unfulfilled request amount, % assigned, etc.

The warehouse is totally out of 4 products and item 3 has the most stock remaining. Was too much of item 3 ordered or does it have a long lag time to receive product? The largest deficit was with items 6 and 9. Items 9, 1 and 3 were requested by the fewest stores while items 2 and 7 were requested by all but 1 location for each item.
All the extra data was created using just a few sort, join, filter, formula and summarize tools and goes a long way to provided value to the data.



Item	Total Assigned Units	Store Count that Received	Store Count that Requested	Total Required	Total Available	Total Remaining	Percent Assigned	Percent Remaining based on Total Assigned	Requested but not fulfilled
1	751	18	18	751	824	73	91	10	0
2	857	25	25	857	1145	288	75	34	0
3	692	18	18	692	1354	662	51	96	0
4	757	24	24	757	916	159	83	21	0
5	1010	23	23	1010	1120	110	90	11	0
6	635	21	22	708	635	0	100	0	73
7	1056	25	25	1114	1056	0	100	0	58
8	824	21	22	839	824	0	100	0	15
9	616	15	17	696	616	0	100	0	80
10	676	21	21	676	679	3	100	0	0

Store	City	Priority	Total Assigned	Total Required	Percent % Fulfilled
H	Fayetteville	1	318	318	100
F	Chicago	2	411	411	100
D	Detroit	3	225	225	100
B	Birmingham	4	231	231	100
E	Nashville	5	297	297	100
L	Los Angeles	6	368	368	100
N	Tucson	7	101	101	100
O	Dallas	8	313	313	100
Q	Tulsa	9	295	295	100
S	Baltimore	10	281	281	100
U	Philadelphia	11	239	239	100
V	Boston	12	284	284	100
W	Helena	13	373	373	100
X	Denver	14	314	314	100
T	Portland	15	424	424	100
R	New York	16	322	322	100
Z	Las Vegas	17	317	317	100
Y	Milwaukee	18	258	258	100
P	Austin	19	347	347	100
M	Sacramento	20	293	293	100
K	Charleston	21	361	361	100
J	Tampa	22	330	364	91
I	Miami	23	282	298	95
G	Lansing	24	375	405	93
C	Seattle	25	305	319	96
A	Houston	26	210	342	61

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Wadim
5 - Atom

Yea nice challenge, but you uploaded a completly wrong file, "challenge_11_solution_2.yxzp 26535 KB" is a solution for a complete different challenge.

Don't get me wrong, I like those challenges but there is no challenge without misstakes.
This is really grinding my gears, I would like to see a iterative solution.

Cheers.

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ankit_mandal
6 - Meteoroid

Sharing my solution here. :)

challenge_14_start_file.yxmd

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mceleavey
17 - Castor

I didn't use the macro approach, instead using the running total and multi-row formula approach:

▷ Spoiler

challenge_14_solution.yxmd

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SeanAdams
17 - Castor

Thank you for the challenge.
@GeneR, @TaraM - would you mind taking a look at the macro solution provided - seems to be the solution to weekly challenge 11?

My solution attached - slightly different approach to the others:

▷ Spoiler

challenge_14_SeanSolution.yxmd

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estherb47
15 - Aurora

challenge_14_EHB_solution.yxmd

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Laurap1228
11 - Bolide

I solved this with an Iterative Macro! I know it was possible to solve this challenge without a macro, but I wanted to practice my macro building skills.

▷ Spoiler

challenge_14_LP.yxzp

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NicoleJohnson
15 - Aurora

Second iterative macro = WAY better than the first! Although still feel a little like I'm throwing darts it. With a blindfold. :)
My solution attached, seems pretty similar to @Laurap1228's solution.

▷ Spoiler

challenge_14_NicoleJohnson.yxmc

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La