Why we are here

A COVID STORY

R I S E

DATA WRANGLING

- Defined –

  Any process where you are taking information from one source, typically designed for some other purpose, and repurposing that information to accomplish some other tasks

A BRIEF HISTORY OF DATA WRANGLING IN EXCEL

- For QuickBooks users…
  - Export to Excel introduced prior to 1998
    - Opens Excel using COM automation and puts data in workbook cell by cell
    - Export to CSV

- Microsoft Query – first introduced in 1970_
  - Allows importing ODBC source data into Excel
  - Based on a 32 bit architecture

IT IS TIME FOR A CHANGE

- Many of the ways we have been wrangling QuickBooks data rely on an architecture that may not be around much longer

- Many of the places that we have data now (the cloud) are not accessible with the older tools

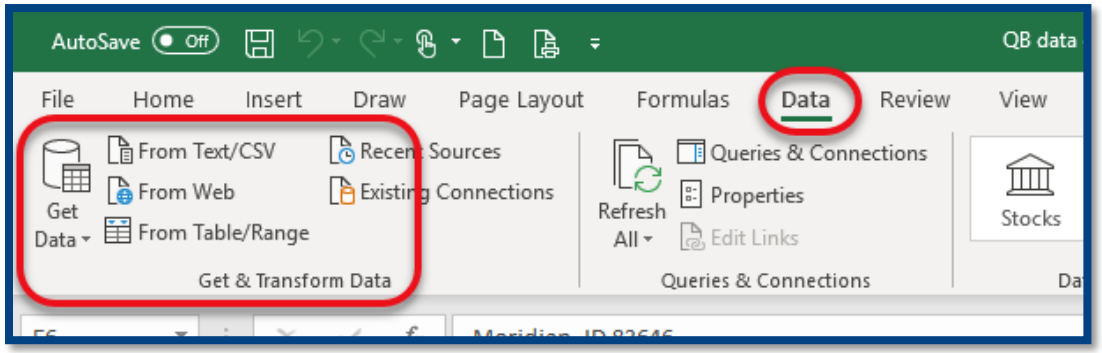
EXAMPLES OF REAL WORLD PROBLEMS

- Exporting a QB report to Excel, adding a few columns, or reformatting it and perhaps merging with other data to produce a report
- Starting with a vendor's product catalog and reformatting it into file that can be imported into QuickBooks

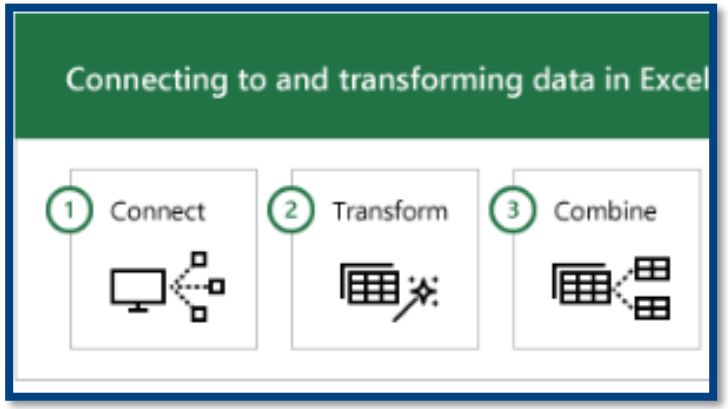
  **May also include starting with RAW database information
- Managing QB Budget info
- Taking the monthly detailed sales report from POS and creating an artist commission checks and reports.
  - Instantly takes a JE in a single column to Dr and CR columns.

INTRODUCING POWER QUERY

- aka Get and Transform, it is already included in Excel in the Data tab

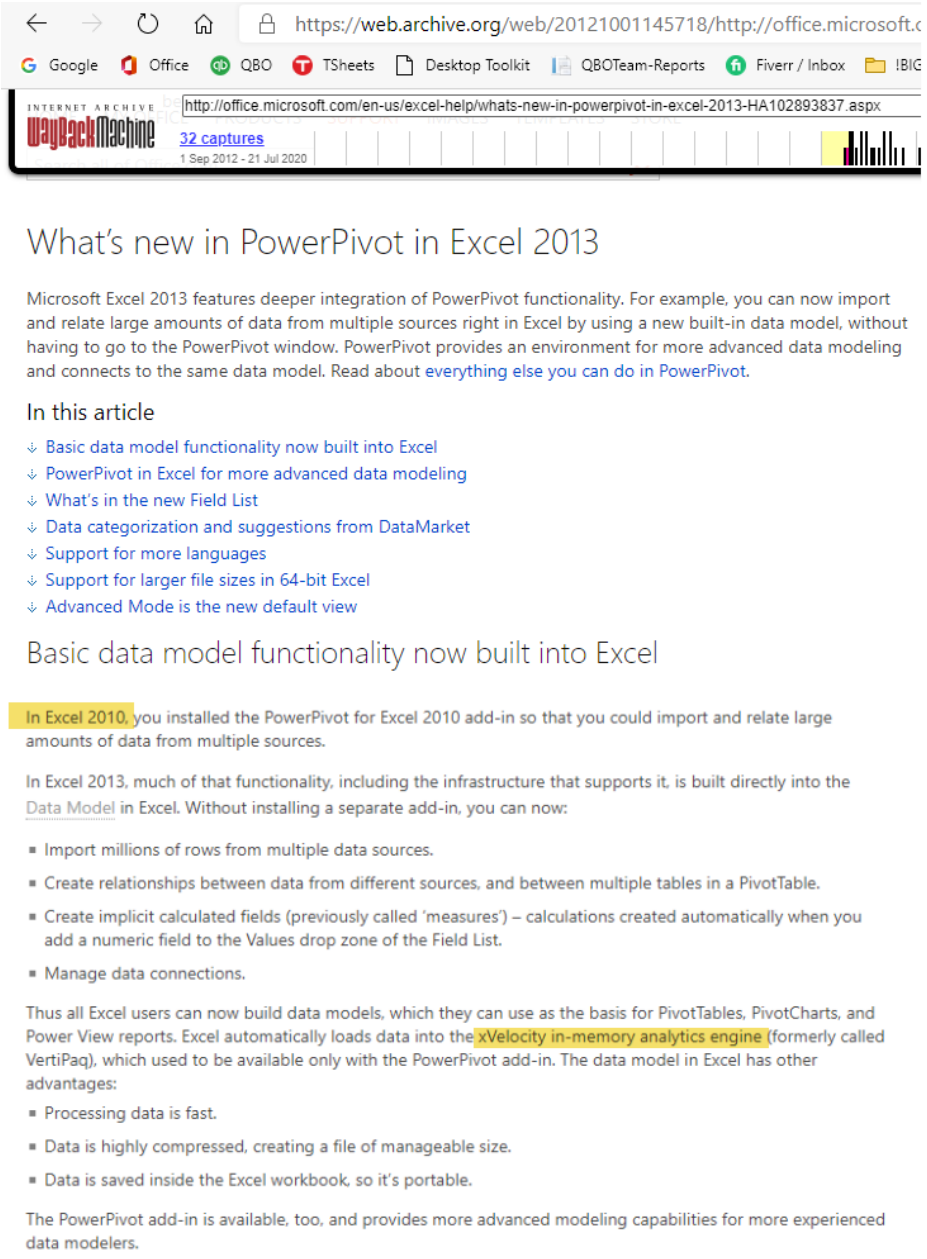


- Can be used to reformat and/or merge:
  - CSV files
  - IIF files
  - Database queries
  - QBO and other web services



IT'S NOT REALLY NEW

- Released more than a decade ago
- Many updates since then



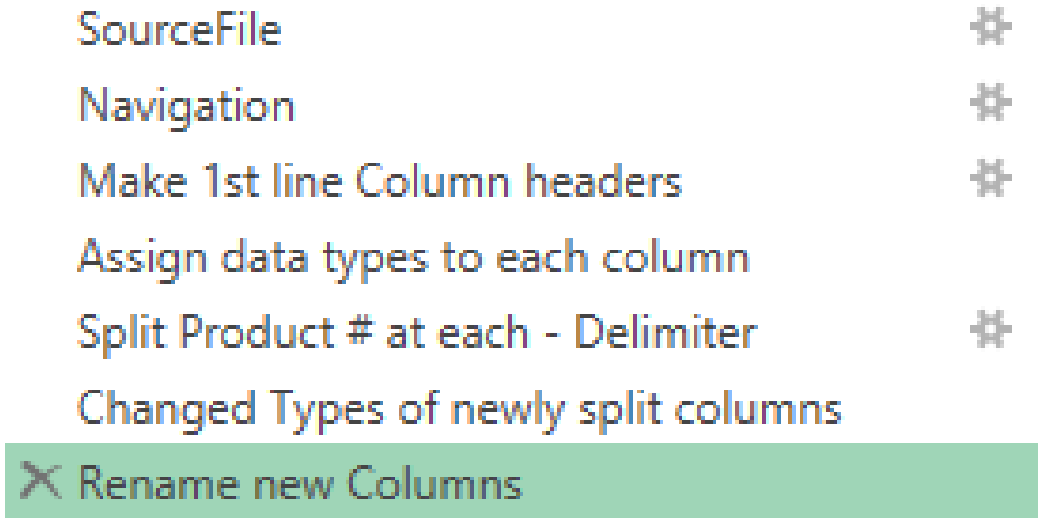
A SIMPLE EXAMPLE . . .

- Excel Function

```
=SUBSTITUTE(MID(
C2,SEARCH("-",C2,
8), 3), "-", "")
```

Product Number
VE-C304-S-BE
VE-C304-M-BE
VE-C304-L-BE
SH-W890-S-BK
SH-W890-M-BK
SH-W890-L-BK

- Power Query

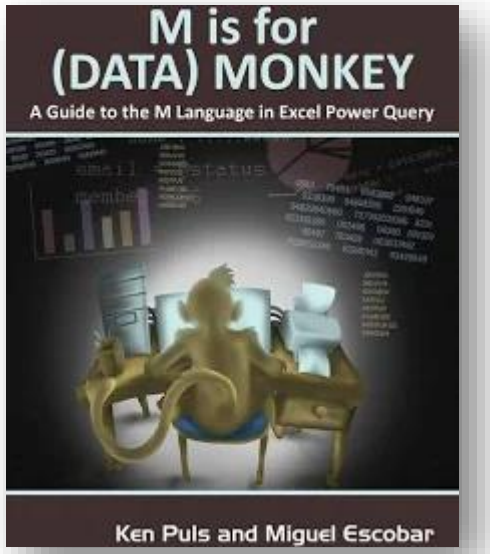


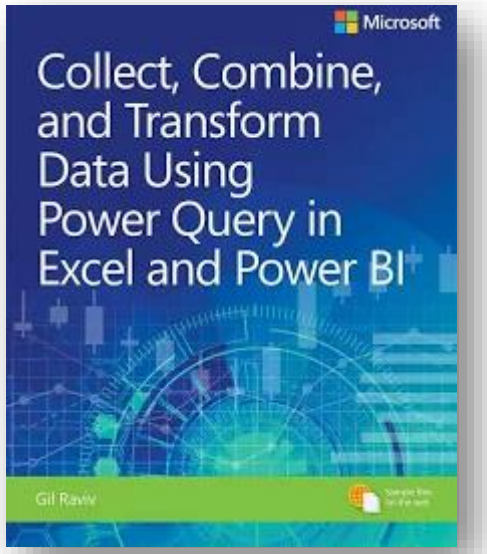
KEY ADVANTAGES OF POWER QUERY…

- Allows you to build a repeatable process for preparing your data for migration or whatever
- Does NOT change source data, creates new files
- Lots of support available for it - Thousands of articles available and many, many books available to help with unique situations

REFERENCES THAT CAN HELP…

Some of my favorite Books on the topic





https://www.betterideagroup.com/bookshelf.html

WHAT IT IS NOT

Not a tool to build pretty reports

(although it’s pretty useful for getting the data in the right format)

Raspberry

1ST CPE KEYWORD

RISE

KEY FUNCTIONS

- String manipulation
  - Taking part of a field with Left, right, etc functions
  - Merging 2 fields together (custom column)

- Joining data together from more than one source
  - From Vlookup / Xlookup to Merge

START SIMPLE

- Use an existing range in Excel , you can make updates and replace the data in a new tab
  - Definitively handle the old nagging “not a number” drama
  - Use to replace a vlookup with a better alternative

SAMPLE 1 - EXPORTING AND IMPORTING - LISTS

IIF (Intuit Interchange Format) - QuickBooks enables us to export and import lists in special format files called ".iif" files.

An IIF file will contain ALL data columns available for a list

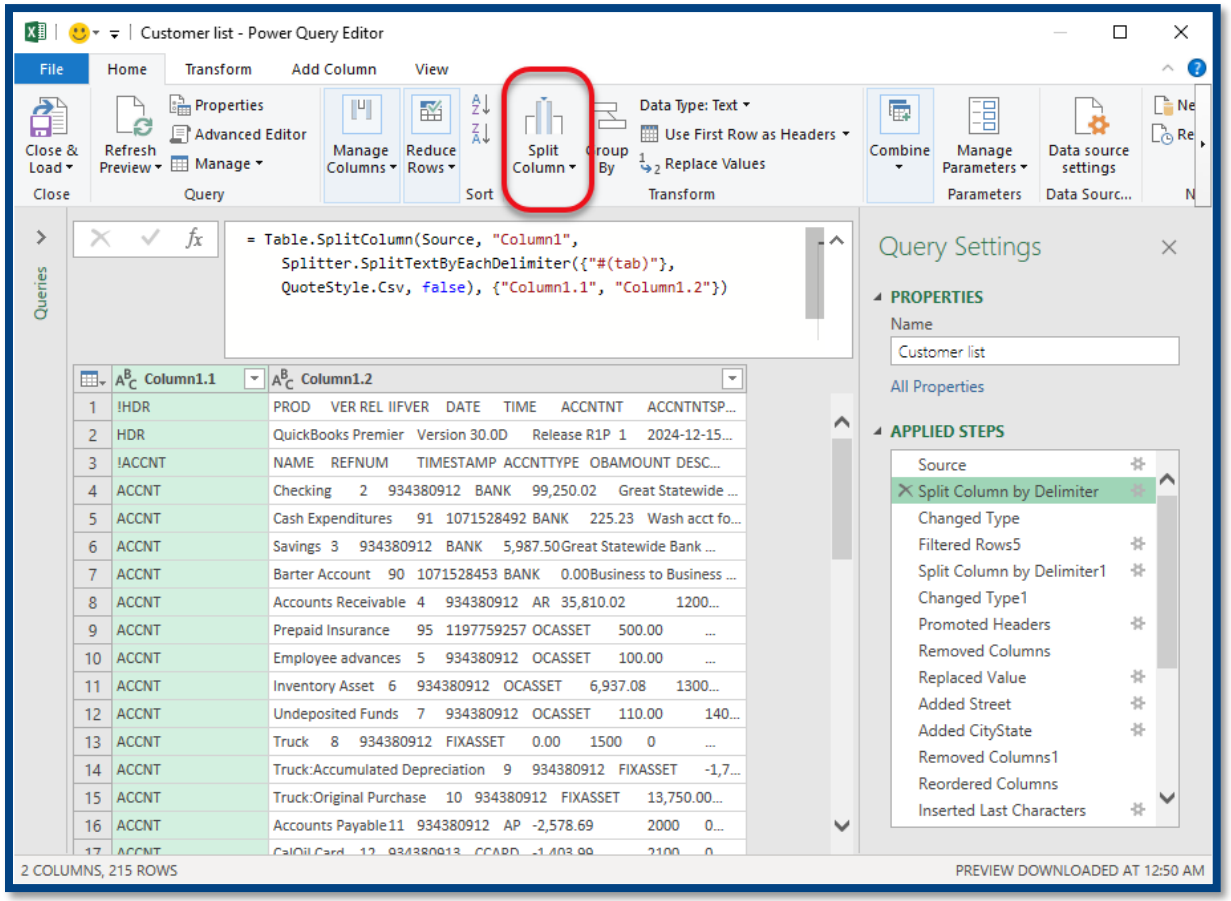
CONVERTING IIF TO CSV

	Column1
1	!HDR PROD VER REL IIFVER DATE TIME ACCNTNT AC...
2	HDRQuickBooks Premier Version 30.0D Release R1P 1 2024-12...
3	!ACCNT NAME REFNUM TIMESTAMP ACCNTTYPE OBAMOUNT...
4	ACCNT Checking 2 934380912 BANK "99,250.02" Great St...
5	ACCNT Cash Expenditures 91 1071528492 BANK 225.23 Wa...
6	ACCNT Savings 3 934380912 BANK "5,987.50" Great State...
7	ACCNT Barter Account 90 1071528453 BANK 0.00Business to ...
8	ACCNT Accounts Receivable 4 934380912 AR "35,810.02" ...
9	ACCNT Prepaid Insurance 95 1197759257 OCASSET 500.00...
10	ACCNT Employee advances 5 934380912 OCASSET 100.00...
11	ACCNT Inventory Asset 6 934380912 OCASSET "6,937.08"...
12	ACCNT Undeposited Funds 7 934380912 OCASSET 110.00...
13	ACCNT Truck 8 934380912 FIXASSET 0.00 1500 0...
14	ACCNT Truck:Accumulated Depreciation 9 934380912 FIXASSE...
15	ACCNT Truck:Original Purchase 10 934380912 FIXASSET "13...
16	ACCNT Accounts Payable 11 934380912 AP "-2,578.69" 200...
17	ACCNT CalOil Card 12 934380913 CCARD "-1,403.99" 210...
18	ACCNT QuickBooks Credit Card 92 1071515211 CCARD 0.00Plat...
19	ACCNT QuickBooks Credit Card:QBCC Field Office 107 1071515360...
20	ACCNT QuickBooks Credit Card:QBCC Home Office 98 1071515299...
21	ACCNT QuickBooks Credit Card:QBCC Sales Dept 106 1071515400...
22	ACCNT Payroll Liabilities 94 1197759595 OCLIAB "-5,520.47" ...
23	ACCNT Direct Deposit Liabilities 13 934380913 OCLIAB 0.00...

	NAME	Street	City	S...	Z...	BADDR1	
1	Adam's Candy Shop	1528 Kitty Bang Bang St.	Fudge	CA	94555	Adam's Candy Shop	Ada
2	Andres, Cristina	4242 Cypress Hill Rd	Bayshore	CA	94326	Cristina Andres	424
3	Balak, Mike	1800 Appleseed Ct	Bayshore	CA	94326	Mike Balak	180
4	Balak, Mike:330 Main St	1800 Appleseed Ct	Bayshore	CA	94326	Mike Balak	180
5	Balak, Mike:Residential	1800 Appleseed Ct	Bayshore	CA	94326	Mike Balak	180
6	Blackwell, Edward	431 Hampshire Blvd	Bayshore	CA	94326	Wild Garden Restaurant	Edv
7	Chapman, Natalie	429 Silverbell Ave	East Bayshore	CA	94327	Natalie Chapman	429
8	Cheknis, Benjamin	431 Wyatt Ave	East Bayshore	CA	98727	E. Benjamin Cheknis	431
9	Corcoran, Carol	7521 W. Vista Del Mar	Middlefield	CA	98727	Carol Corcoran	752
10	Crenshaw, Bob	345 Cherry Lane	Middlefield	CA	94482	Bob Crenshaw	345
11	Crider, Craig	300 Main Street	Bayshore	CA	94326	Crider's Critters	300
12	DJ's Computers	101 Bayshore Blvd.	Bayshore	CA	94326	Computer Services by DJ	101
13	Ecker Design	109 N. Elm Street	Middlefield	CA	94482	Ecker Design	109
14	Golliday Sporting Goods	370 Easy Steet	Middlefield	CA	94482	Golliday Sporting Goods	370
15	Golliday Sporting Goods:155 Wi...	370 Easy Steet	Middlefield	CA	94482	Golliday Sporting Goods	370
16	Golliday Sporting Goods:75 Sun...	370 Easy Steet	Middlefield	CA	94482	Sporting Goods	370
17	Gregory, Dru	529 Main St	Bayshore	CA	94326	Dru's Pharmacy	Dru
18	Heldt, Bob	459 Saxon Ave	East Bayshore	CA	94327	Bob Heldt	459
19	Hermann, Jennifer	7221 W. Sun Valley Rd	Bayshore	CA	94482	Jennifer Hermann	722
20	Hermann, Jennifer:Residential ...	7221 W. Sun Valley Rd	Bayshore	CA	94482	Jennifer Hermann	722
21	Hughes, David	95 Amber Street	Bayshore	CA	94326	David Hughes	95
22	Jasmine Park	421 Jasmine Parkway	East Bayshore	CA	94327	Jasmine Park	Cris
23	Jim's Family Store	5647 Cypress Hill Rd	Bayshore	CA	94326	Jim's Family Store	564
24							

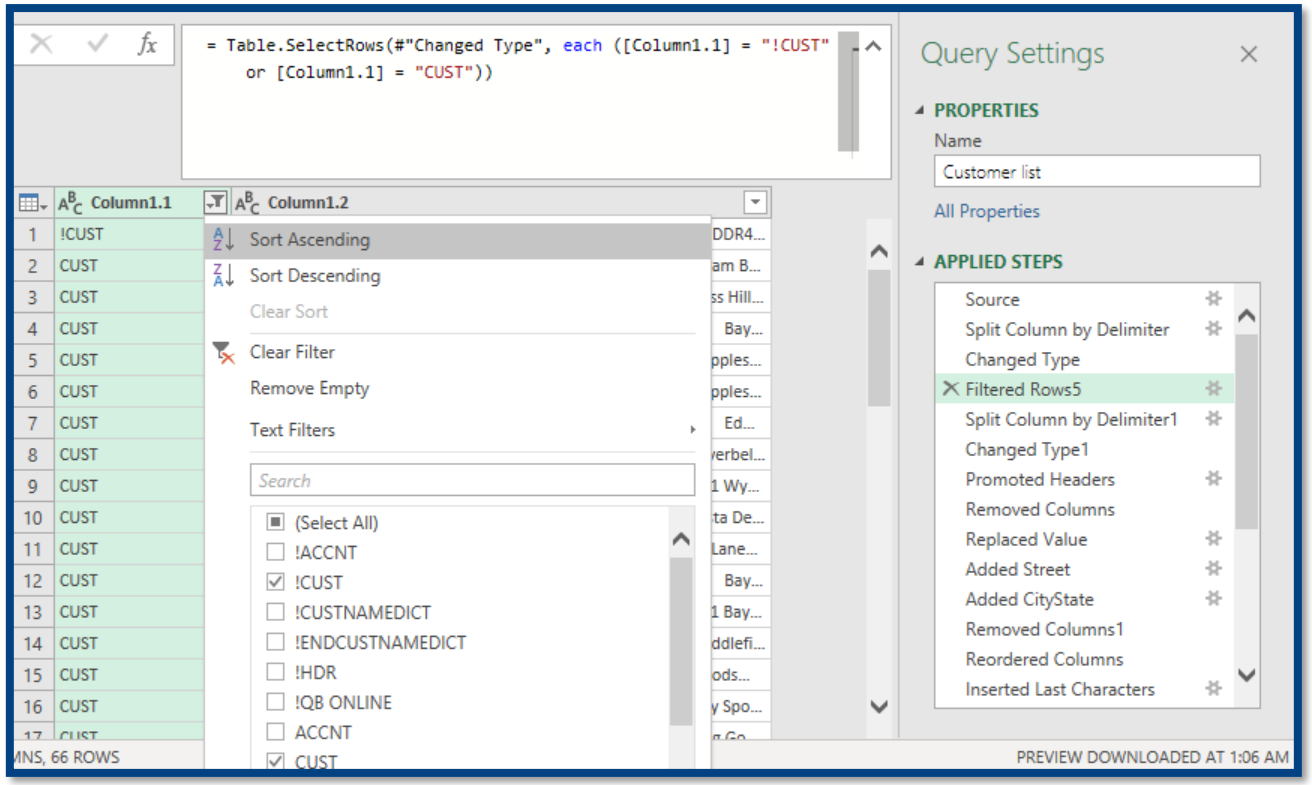
KEY FUNCTIONS – SPLIT COLUMN

- The fields in an IIF are split by a TAB character.
- Using the Split function will separate field data into separate columns



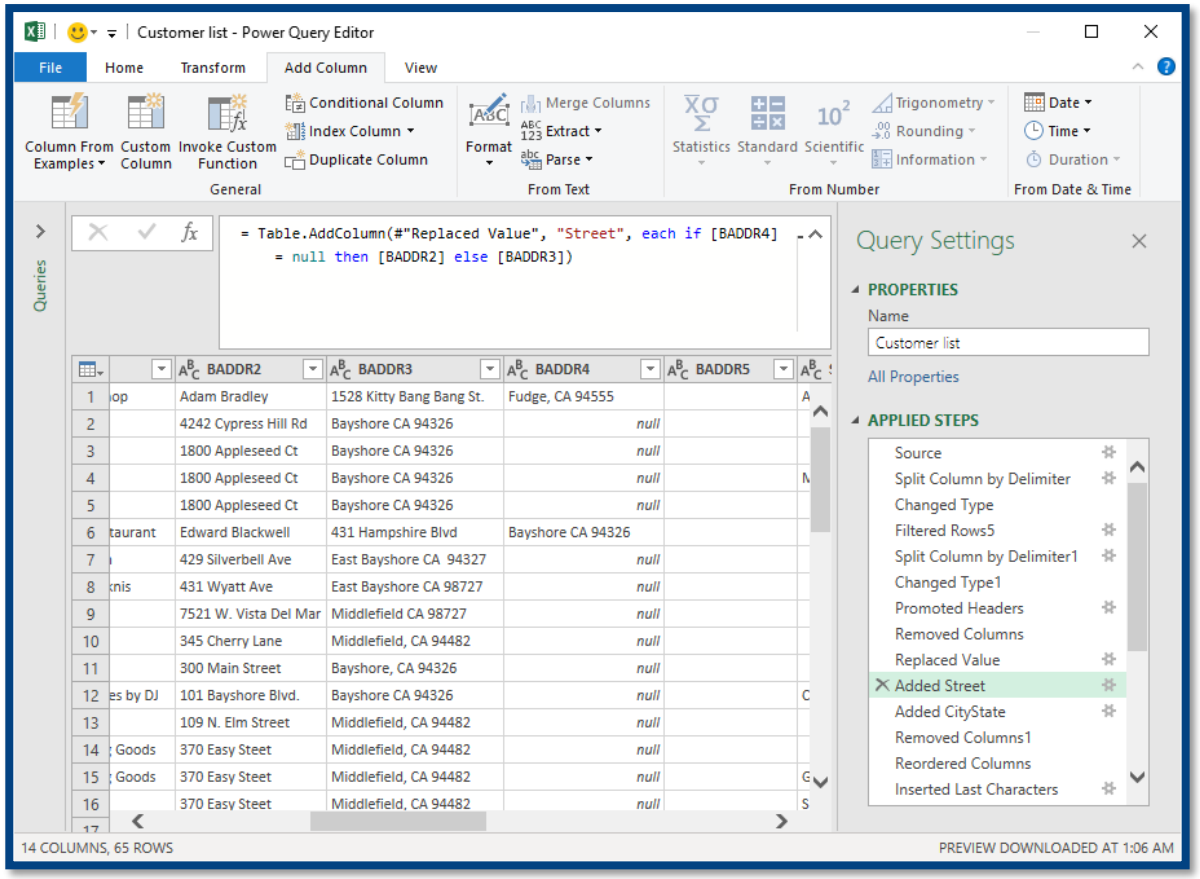
KEY FUNCTIONS – FILTER

- IIF file has a distinct way of showing data. E.g. Customer data identifier has:
- !CUST to identify the column names
- CUST for each customer record



KEY FUNCTIONS – CUSTOM COLUMN

- Address fields are a unique challenge, street can be in more than 1 field
- Using an old fashioned IF statement we can create a field for street
  or
- If we needed to we could combine fields

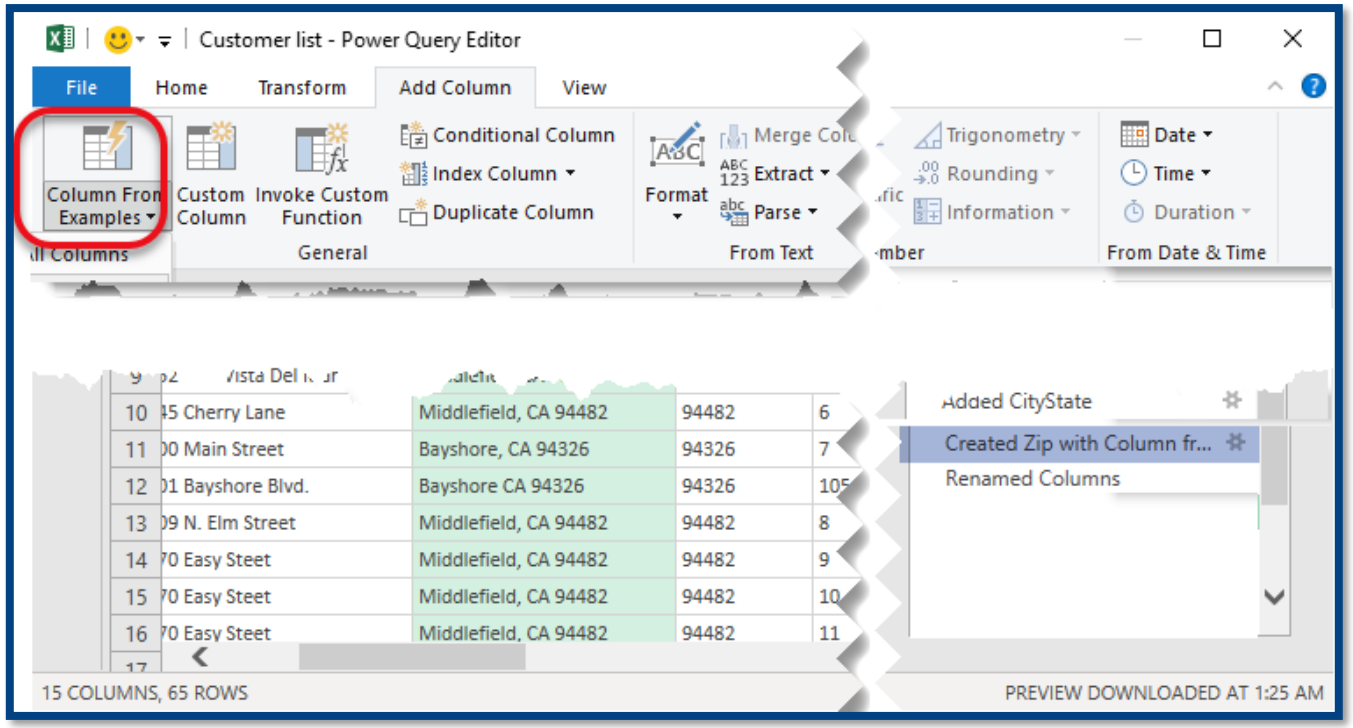


Power-query-m-function-reference

KEY FUNCTIONS – COLUMN FROM EXAMPLE

- Use this function to discover commands that will help you split a field that may not be delimited consistently
- Created Zip with "Last Characters",

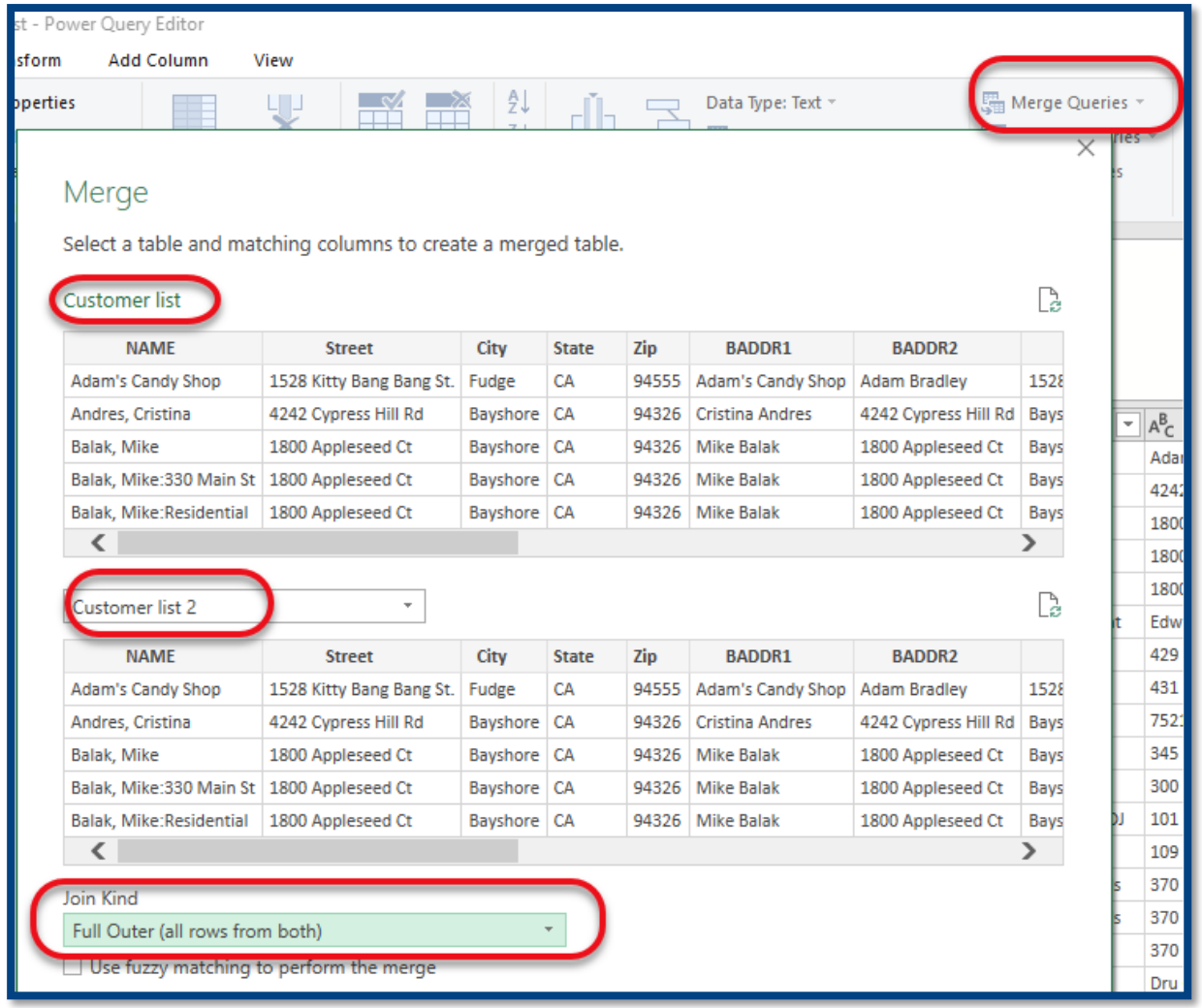
  each Text.End([CityState], 5), type text)



KEY FUNCTIONS – MERGE

- Merge will allow you to take multiple companies similar list items and merge them into a single list

- Be sure that you have the column names exactly the same



Strawberry

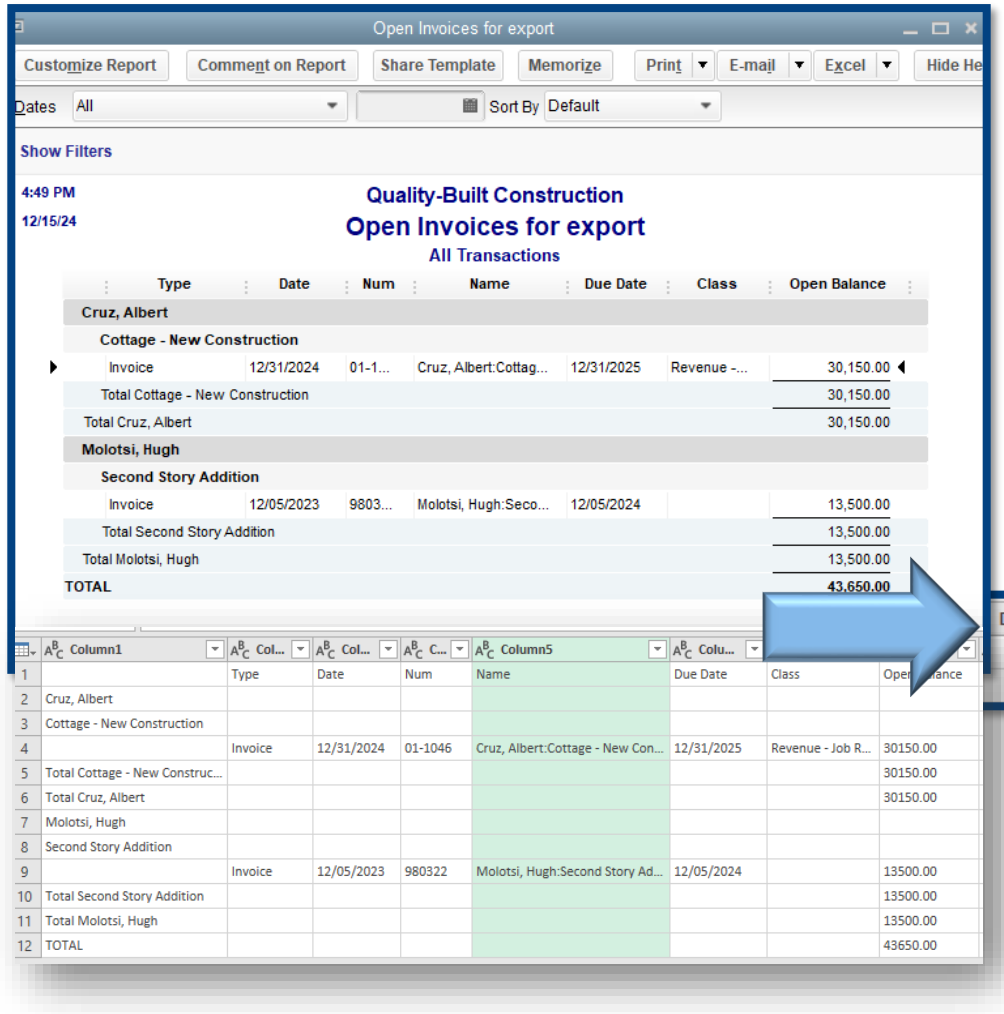
2ND CPE KEYWORD

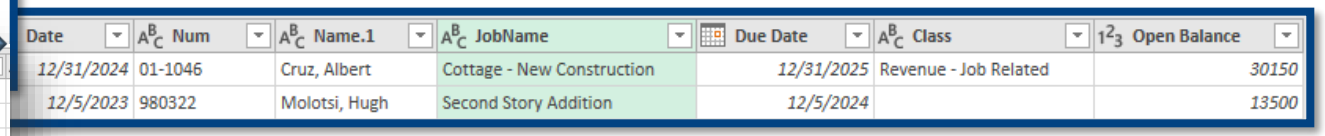
RISE

Importing Balances and Open Items

RISE

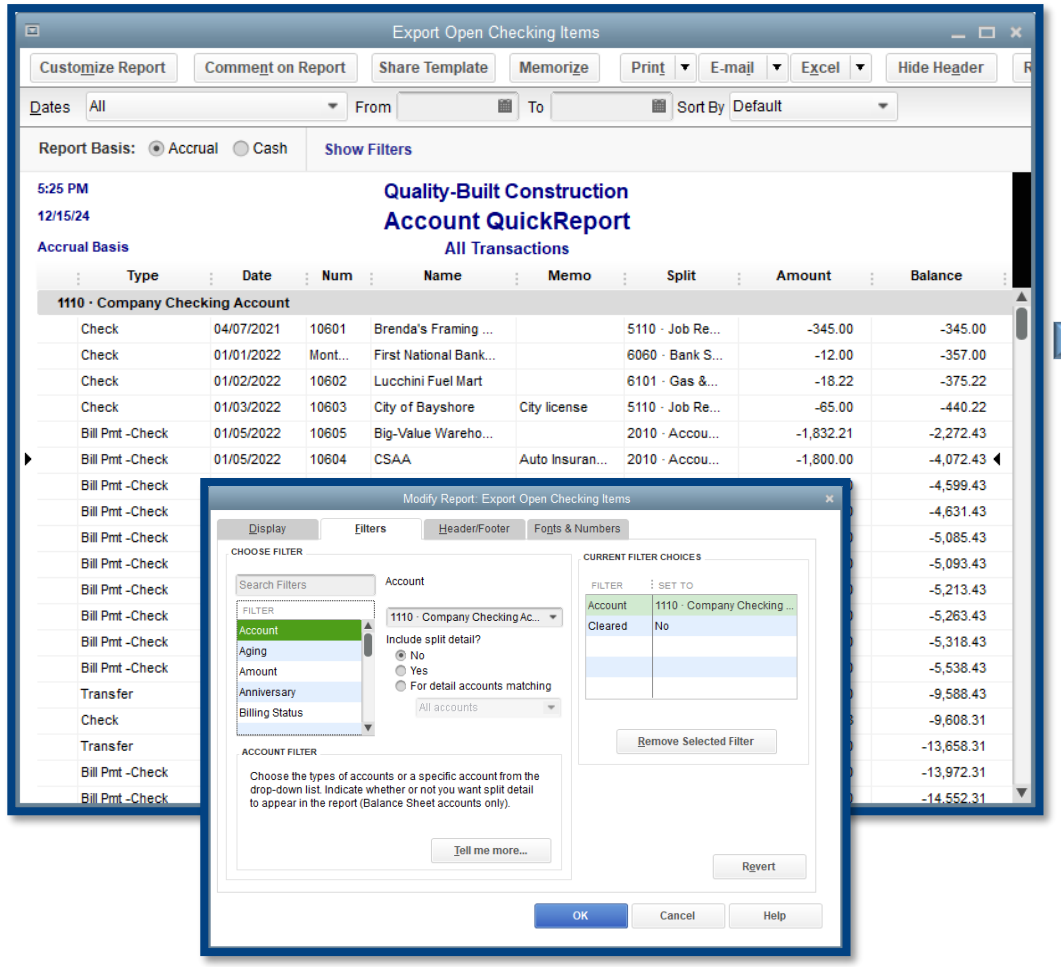
BEYOND THE IIF, GETTING OPEN ITEMS





- Build and save a custom report to export out all open items
- Leverage Power Query to reformat file

UNCLEARED BANK ACCOUNT ITEMS



	T...	D...	Nu...	Account	Name	Memo	Amount
1	Check	1/2/2024	11081	Clearing Account	Nguyen Fuel		-21.22
2	Check	1/5/2024	11082	Clearing Account	All Star Truck Sales	Replace breaks, CV Boots	-887
3	Check	1/5/2024	11083	Clearing Account	Laurel's Cabinets		-32532
4	Check	1/5/2024	11084	Clearing Account	Big-Value Warehouse Store		-144
5	Check	1/5/2024	11085	Clearing Account	CSAA	Auto Insurance	-1025
6	Check	1/5/2024	11086	Clearing Account	Franchise Tax Board		-227
7	Check	1/5/2024	11087	Clearing Account	Supply Depot		-4990.36
8	Check	1/5/2024	11088	Clearing Account	Legal Group	legal fees	-1402
9	Check	1/5/2024	11089	Clearing Account	Office Mart		-227
10	Check	1/5/2024	11090	Clearing Account	Western Telephone Company	yellow page ad	-50
11	Check	1/5/2024	11091	Clearing Account	Green Gas and Electric		-125
12	Check	1/5/2024	11092	Clearing Account	Miller Properties	office rent	-1180
13	Check	1/5/2024	11093	Clearing Account	Ruff Postage Machines	Postage for Stamp Machine	-90
14	Check	1/5/2024	11094	Clearing Account	Lipps' Landscaping		-8196
15	Check	1/5/2024	11095	Clearing Account	ValueTrust Insurance Compa...	General Liability Insurance	-225
16	Check	1/5/2024	11096	Clearing Account	Smith & Co. Stores	tools	-356.25
17	Check	1/5/2024	11097	Clearing Account	Amber's Power Equipment	Power equipment rental	-1230
18	Check	1/5/2024	11098	Clearing Account	Chidester Marble & Tile	granite for kitchen counter tops and ...	-24986
19	Check	1/5/2024	11099	Clearing Account	First National Bank of Baysho...	Bank Service Charge	-16
20	Transfer	1/13/2024		Clearing Account		Funds Transfer	-4050
21	Check	1/15/2024	10734	Clearing Account	National Medical Insurance, I...		-300

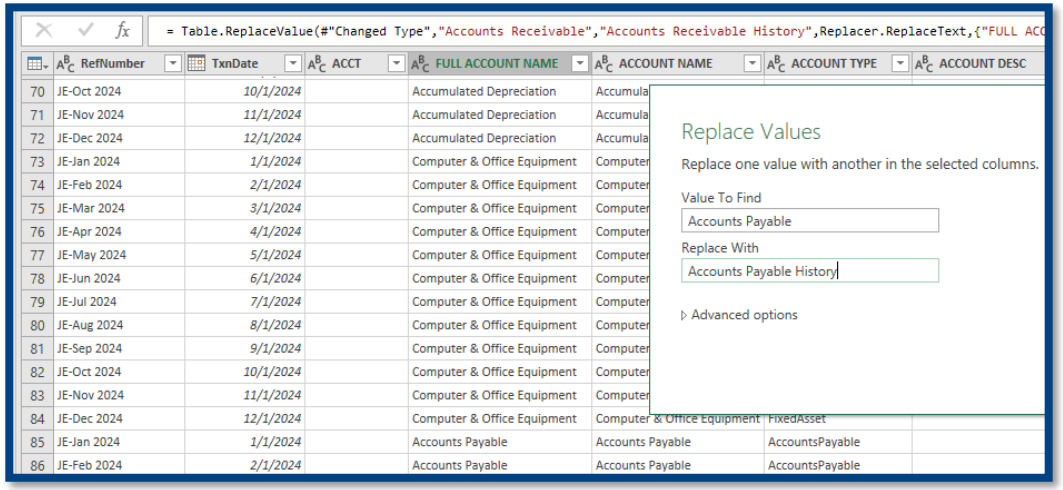
RISE

GETTING THE BALANCES IN YOUR NEW SYSTEM

	A	B	C	D	E	F
1	RefNumber	TxnDate	ACCT	ACCOUNT NAME	CLASS CODE	Total Amount
2	JE-Jan 2024	1/1/2024	1000	Company Checking Account		-7975.55
3	JE-Feb 2024	2/1/2024	1000	Company Checking Account		-3389.2
4	JE-Mar 2024	3/1/2024	1000	Company Checking Account		3837.33
5	JE-Apr 2024	4/1/2024	1000	Company Checking Account		1487.81
6	JE-May 2024	5/1/2024	1000	Company Checking Account		-1456.91
7	JE-Jun 2024	6/1/2024	1000	Company Checking Account		-1537.4
8	JE-Jul 2024	7/1/2024	1000	Company Checking Account		8310.86
9	JE-Aug 2024	8/1/2024	1000	Company Checking Account		-12545.23
10	JE-Sep 2024	9/1/2024	1000	Company Checking Account		5622.99
11	JE-Oct 2024	10/1/2024	1000	Company Checking Account		-11684.84
12	JE-Nov 2024	11/1/2024	1000	Company Checking Account		15823.27
13	JE-Dec 2024	12/1/2024	1000	Company Checking Account		-14063.66
14	JE-Jan 2024	1/1/2024	1001	Petty Cash Account		500
15	JE-Feb 2024	2/1/2024	1001	Petty Cash Account		0
16	JE-Mar 2024	3/1/2024	1001	Petty Cash Account		0
17	JE-Apr 2024	4/1/2024	1001	Petty Cash Account		0
18	JE-May 2024	5/1/2024	1001	Petty Cash Account		0
19	JE-Jun 2024	6/1/2024	1001	Petty Cash Account		0
20	JE-Jul 2024	7/1/2024	1001	Petty Cash Account		0
21	JE-Aug 2024	8/1/2024	1001	Petty Cash Account		0
22	JE-Sep 2024	9/1/2024	1001	Petty Cash Account		0

Previously we generated journal entries for all the periods BUT before we import all that history…

SPECIAL GL ACCOUNT ISSUES



Value to Find	Replace with
Accounts Receivable	Accounts Receivable History
Accounts Payable	Accounts Payable History

Continue to Leverage Power Query for the new accounts by using the

“REPLACE VALUES” function

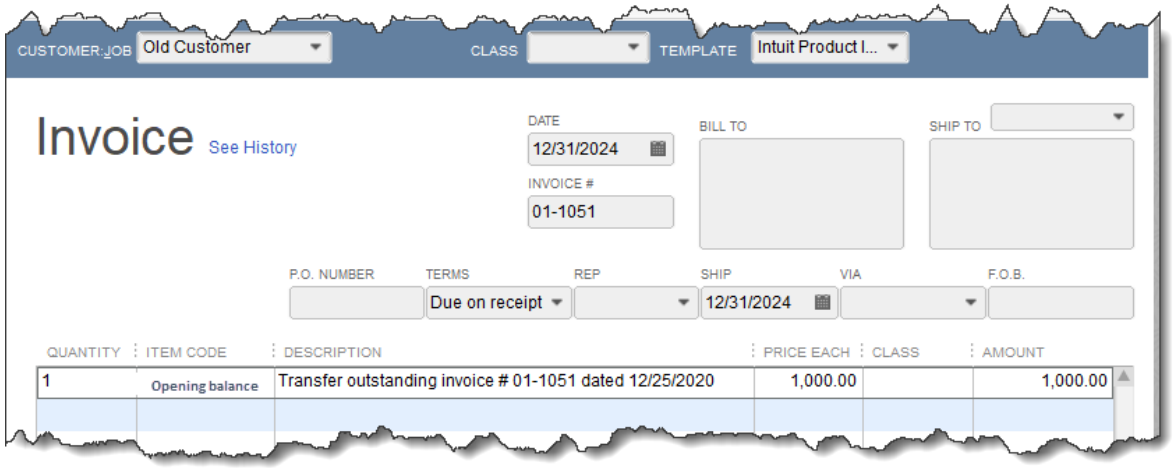
Replace A/R and A/P account names with a similar name but history at the end (temporary)

Once you Import the final month’s trial balance, you will need to enter the open items as transactions to clear the balances in the temporary accounts.

HANDLING OPEN RECEIVABLES / PAYABLES

Using the Open Items we exported, we are posting them in the new file using a new item name called “Opening balance” that points to the Accounts Receivable History account.

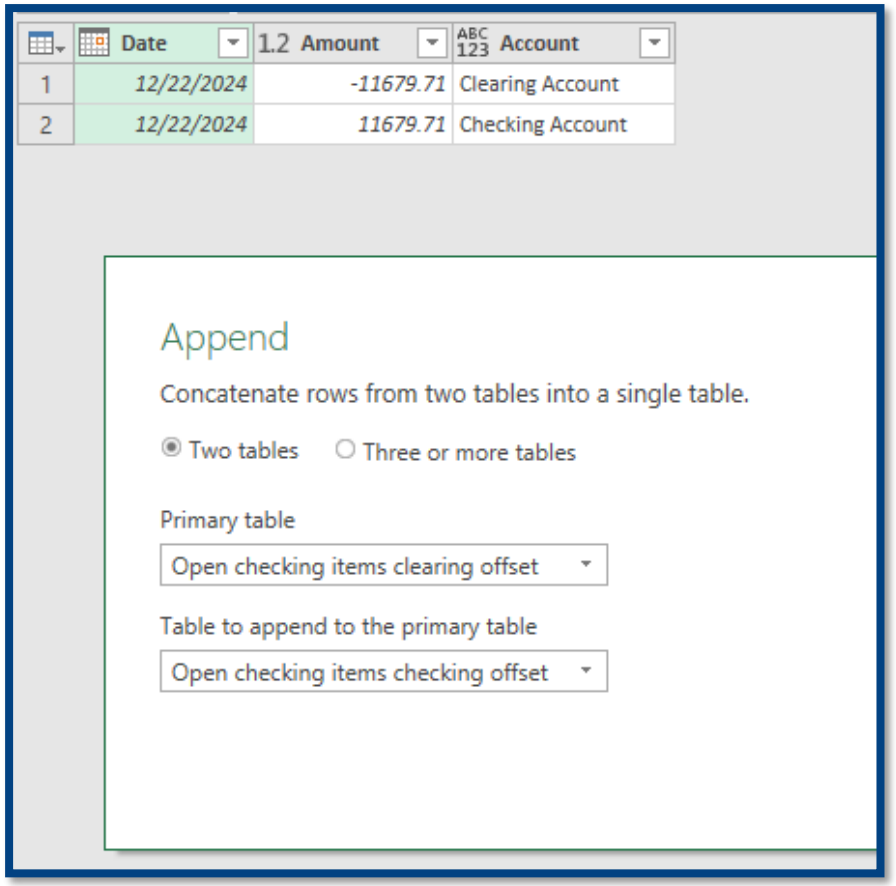
Note: We are posting opening balances only, not revenue or sales tax



HANDLING OPEN ITEMS IN THE BANK ACCOUNTS

- The journal entry we created earlier will have the total book balance of the bank accounts.

- After we bring in the uncleared transactions, we will need to calculate the total of those transactions to post an offsetting Journal to replace the value taken from the account



ADDITIONAL USE CASES….

BUDGET Example - In this next example we

1. EXPORT an IIF from QuickBooks, import it into Excel using Power Query

2. Update an Excel workbook with the latest budget information FROM the IIF

3. Export the updated range into a new IIF

4. Import the modified IIF into QuickBooks

ADDITIONAL USE CASES . . .

- Import demographic data to study
- My own commission calculator