



## FIFO – AGGREGATOR OF CAPITAL GAINS AND LOSSES



## CONCEPT



**FIFO Figure 1 - Concept**

Hmm... An Excel spreadsheet orderly way of tracking capital gains and losses whereby accurate and regulatory-compliant details of the acquisitions and dispositions of cryptocurrencies using first-in first-out method of assigning cost to assets, are extracted from comma-separated values files and,

what if extracted capital gains and losses are presented at the beginning of the book to promptly sharpen the readers' interest in learning new skills while preserving absolute privacy.



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## DEDICATION

To the investors all over the world in need of  
aggregating capital gains and losses arising from the acquisitions  
and dispositions of capital assets particularly cryptocurrencies, by way of a  
do-it-yourself system that ensures that their filings are kept  
absolutely private and under their control,

and to my family of 15 members, all residing  
in the United States.





## ACKNOWLEDGMENTS

Special thank you to  
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crypto industry, and to Bittrex, Inc., Gate.io, Robinhood Securities, and Binance.USA,  
for limited but crypto-informative contacts, and

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in the preparation of the book, and

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their screen capture software, and



a special thank you also to  
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a skill she developed as a school principal in the Department of Education,  
Philippines, as a scholar at the University of the Philippines, and as a scholar  
at Asian Institute of Management.



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## FIFO Special Features - Innovative Use of Memorandum Notes



**FIFO Figure 2 - FIFO Special Features, Innovative Use of Memorandum Notes**

With FIFO's distinctive features and having photographs on even-numbered pages followed by descriptions on odd-numbered pages, the small book size does not limit the clarity with which stories are told. This arrangement allows the longer side of a photograph to be laid out along the vertical side of the page, which is longer than the horizontal side, fitting the normally wide Excel worksheets. The insertion of a memorandum note forces a photograph to flow to the even-numbered page.

The only slight drawback of having the longer side of a photograph laid out along the vertical side of a page is the slight angle a reader's head needs to be positioned to view the photograph.

An added benefit derived from the use of memorandum notes is the prospect of taking notes while learning FIFO – Aggregator of Capital Gains and Losses. Subjects that are unclear during the first few readings of the book may be made note of in the memorandum page for clarification later.



## DISCLAIMER

This book is not intended to provide financial advice to its readers. It only demonstrates the author's ways of extracting capital gains and losses from CSV (comma-separated values) files, based on actual experience with cryptocurrencies.



Adoption of the methods shown in the book is at the readers' discretion and shall not impute the author's ways for resulting in financial and legal accountability. For financial and legal advice, the author advises the readers to consult a certified public accountant, a certified financial advisor, or a lawyer.

Further, the steps followed in the book are not absolute on account of the fast-changing advances in technology particularly in the cryptocurrency industry and shall not negatively impact the readers' methods should those methods differ from what are shown in the book.

FIFO Figure 3 - Disclaimer





## The Goal

### Presentation of Capital Gains and Losses Extracted from CSV Files



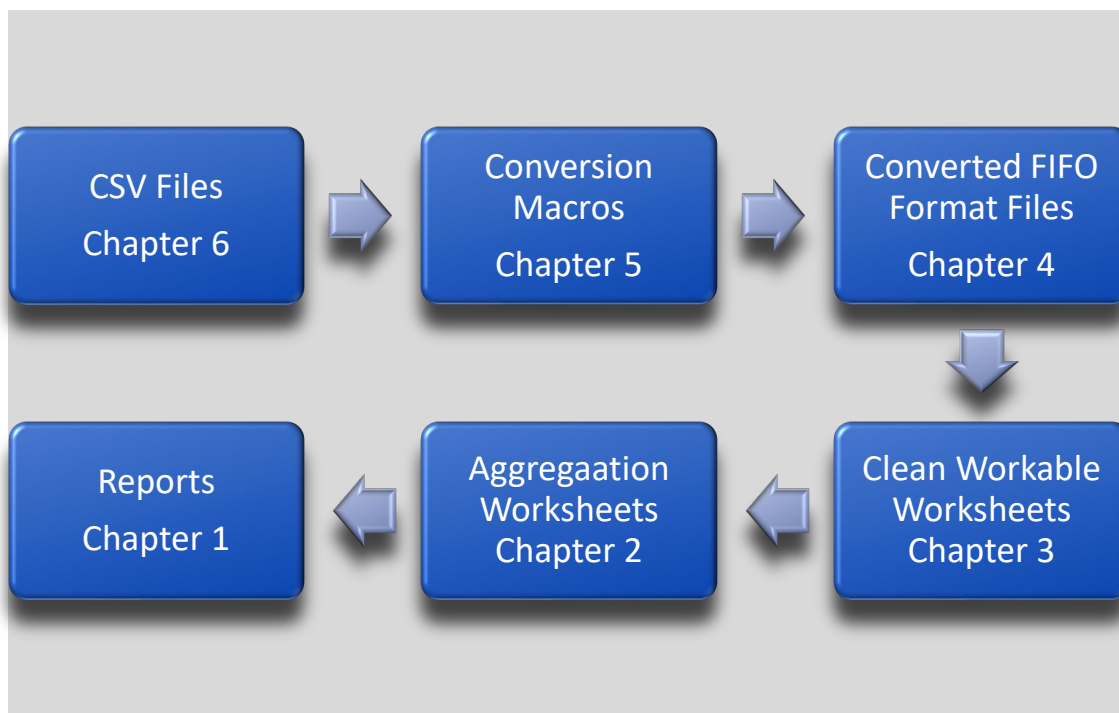
FIFO Figure 4 - The Goal

“Where is the Life we have lost in living? Where is the wisdom we have lost in knowledge? Where is the knowledge we have lost in information?”

T. S. Eliot



## THE WORK PLAN



FIFO Figure 5 - The Work Plan



## EPIGRAPH

If you are an advance Excel user, skip the rigmarole about Excel's basic features, and start aggregating by following the procedures presented in the book, or better yet, for a simple donation in crypto tokens, request the FIFO templates described in Chapter 5 and start aggregating just as well.



## Introduction to FIFO – Aggregator of Capital Gains and Losses



### FIFO Figure 6 - Introduction to FIFO – Aggregator of Capital Gains and Losses

Crypto is here to stay! Not a single day now passes by with one not hearing something good or bad about cryptos. Millions or even billions of dollars change hands every day.

The social media is aghast with stories of people losing their hard-earned dollars in bogus crypto investments. People need protection. Crypto needs to be regulated – that's what many people are now clamoring for.

Strengthened by the desire to tax the billions of dollars in circulation and the crimes coming along with it, governments have now the reason to regulate the crypto industry. Lobbyists from well-heeled institutions are now positioning their principals for an eventual regulation of the industry.

With regulation comes the standardization in the reporting system. Excel, being already a well-known software from whence other applications are derived, will surely play a significant role in the design of reporting methods related to the eventual arrival of regulation. Hence in anticipation, the birth of FIFO –



Aggregator of Capital Gains and Losses. FIFO is the contraction of first-in first-out, a method of assigning cost to assets.

FIFO - Aggregator of Capital Gains and Losses is a macro-driven system for preparing the report of capital gains and losses resulting from the acquisition and disposition of capital assets, particularly cryptocurrencies. Chapter 5 is where macros are constructed to be the aggregator's engine.

## ***MEMORANDUM***

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## Skills Requirement



**FIFO Figure 7 - Skills Requirement**

FIFO – Aggregator of Capital Gains and Losses is for the most part, a template for preparing the report of capital gains and losses resulting from the acquisition and disposition of capital assets, which is cryptocurrencies in this case. Alternatively, or as a last resort, the application can also be conveniently adopted to any asset that generates capital gains and losses.

Only a slightly higher than a beginner's knowledge of Excel is required to implement the templates. Proficiency in the use of Excel is desirable but not critical if one has the desire to improve on his Excel shortcomings.

The most frequently appearing Excel ribbon tabs are Home, Insert, Page Layout, Formulas, Data, Review, View, Developer, and Add-Ins. In the book, Add-Ins is never used, and Page-Layout and Review are rarely used. Even when the rest of the tabs are used, the purpose is mainly for proofing and verifying results from other automatic operations that do not require very deep knowledge of Excel.

As a minimum requirement for using FIFO – Aggregator of Capital Gains and Losses, a beginner must see to it that the above ribbon tabs are readily accessible in the Excel version being used.



Not all users have the same approach to solving problems using Excel. There could be multiple ways to solve a problem. It is in this regard that a slightly skillful planning is required. This aspect in the execution of the templates is left to each user.

### ***MEMORANDUM***

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## Markedly a Different Style of Presentation

The first chapter of the book presents the finished product, the report of aggregated values derived from the entire aggregation process. It is a unique presentation in that instead of building towards the finished product, the finished report is presented first. Each chapter starting with Chapter 1 is built from the details developed in the immediately following higher-numbered chapter.

Each level of complexity in the aggregation process is a quitting opportunity. If the sight of the finished product discourages one instantly, there is no reason for him to continue reading the book.

He should, however, look at the opportunity offered by Chapter 5, which shortens the aggregation process considerably, without going through the tedious task of learning Excel and the headings definitions referred to in APPENDIX B. To familiarize with FIFO – Aggregator of Capital Gains and Losses at the start, a short simple persuasive session is perhaps appropriate.

Chapter 1 - Achieved Goal – Sample Report. If one stops being interested in the project, he immediately knows what he is missing.

Chapter 2 - Intermediate Aggregation Spreadsheets. This chapter supplies the details reported in Chapter 1.

Chapter 3 - Post Conversion Progress Assessment. This chapter supplies the details necessary in the aggregation steps detailed in Chapter 2.

Chapter 4 - Transition to Aggregation. This chapter prepares the spreadsheets for the conversion of the CSV file to FIFO format. This is where the actual aggregation seriously starts in earnest.

Chapter 5 - CSV File to FIFO Format Conversion. It comprises the macros that convert CSV files to FIFO format. Although all the chapters in the project are considered vital in the aggregation process, Chapter 5 is considered the driver of the project.

Chapter 6 - Setting Up CSV File for Conversion to FIFO Format. This chapter is where the CSV files are judged and evaluated for appropriateness.

Aggregating capital gains and losses are difficult at the start. Obstacles appear insurmountable desktop-wise. But once learned, the joy starts, and the benefits abound. For example, privacy remains protected, control is at fingertips, and peace of mind is maintained. Fear of audit is diminished because inventory details are at state of readiness accessible at any moment.





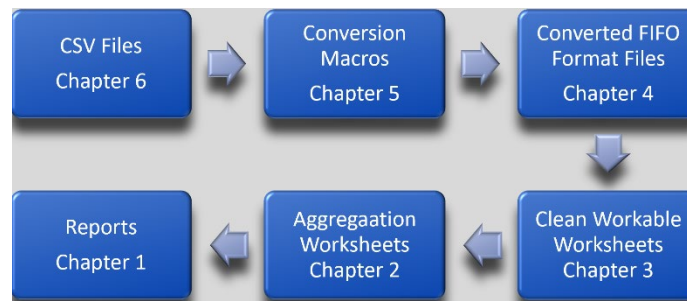
## Chapter 1 – Achieved Goal - Sample Reports

Success is not measured by what you accomplish, but by the opposition you have encountered, and the courage with which you have maintained the struggle against overwhelming odds.

Orison Swett Marden

### **YOUR PROGRESS IN THE AGGREGATION PROCESS! NOTE THE DIRECTION OF THE ARROWS.**

If you are working in this chapter, it means you are done aggregating. CONGRATULATIONS!



## Sample Report 1 – ADA and DOGE coins

**Form 8949** Sales and Other Dispositions of Capital Assets

Department of the Treasury  
Internal Revenue Service

OMB No. 1545-0074  
**2021**  
Attachment  
Sequence No. **12A**

Go to [www.irs.gov/Form8949](https://www.irs.gov/Form8949) for instructions and the latest information.  
File with your Schedule D to list your transactions for lines 1b, 2, 3, 8b, 9, and 10 of Schedule D.

Name(s) shown on return: **ROY E LIQUE**  
Social security number or taxpayer identification number: **550-94-8193**

Before you check Box A, B, or C below, see whether you received any Form(s) 1099-B or substitute statement(s) from your broker. A substitute statement will have the same information as Form 1099-B. Either will show whether your basis (usually your cost) was reported to the IRS by your broker and may even tell you which box to check.

**Part I Short-Term.** Transactions involving capital assets you held 1 year or less are generally short-term (see instructions). For long-term transactions, see page 2.  
**Note:** You may aggregate all short-term transactions reported on Form(s) 1099-B showing basis was reported to the IRS and for which no adjustments or codes are required. Enter the totals directly on Schedule D, line 1a; you aren't required to report these transactions on Form 8949 (see instructions).

**You must check Box A, B, or C below. Check only one box.** If more than one box applies for your short-term transactions, complete a separate Form 8949, page 1, for each applicable box. If you have more short-term transactions than will fit on this page for one or more of the boxes, complete as many forms with the same box checked as you need.

☐ (A) Short-term transactions reported on Form(s) 1099-B showing basis was reported to the IRS (see Note above)  
☐ (B) Short-term transactions reported on Form(s) 1099-B showing basis **wasn't** reported to the IRS  
☒ (C) Short-term transactions not reported to you on Form 1099-B

1	(a) Description of property (Example: 100 sh. XYZ Co.)	(b) Date acquired (Mo., day, yr.)	(c) Date sold or disposed of (Mo., day, yr.)	(d) Proceeds (sales price) (see instructions)	(e) Cost or other basis. See the Note below and see Column (g) in the separate instructions	Adjustment, if any, to gain or loss. If you enter an amount in column (g), enter a code in column (f). See the separate instructions.		(h) Gain or (loss). Subtract column (e) from column (d) and combine the result with column (g)
						(f) Code(s) from instructions	(g) Amount of adjustment	
	300 ADA Coins, Kraken Exchange	2/21/21	6/3/21	526	331		0	195
	25 ADA Coins, Kraken Exchange	2/21/21	6/3/21	44	28		0	16
	675 ADA Coins, Kraken Exchange	2/22/21	6/3/21	1183	717		0	466
	2000 DOGE Coins, Kraken Exchange	2/27/21	4/16/21	757	101		0	657
	3000 DOGE Coins, Kraken Exchange	3/6/21	4/16/21	1136	150		0	986
	1000 DOGE Coins, Kraken Exchange	3/6/21	4/16/21	379	51		0	328
	1500 DOGE Coins, Kraken Exchange	4/17/21	4/17/21	533	76		0	457
	2750 DOGE Coins, Kraken Exchange	3/19/21	4/17/21	977	161		0	816
	1750 DOGE Coins, Kraken Exchange	4/3/21	4/17/21	622	98		0	524
	250 DOGE Coins, Kraken Exchange	4/3/21	4/25/21	60	14		0	46
	400 DOGE Coins, Kraken Exchange	4/16/21	4/25/21	97	96		0	1
	4000 DOGE Coins, Kraken Exchange	4/18/21	4/25/21	967	1002		0	(35)
	1000 DOGE Coins, Kraken Exchange	4/23/21	4/25/21	242	252		0	(10)
	3350 DOGE Coins, Kraken Exchange	4/25/21	4/25/21	810	949		0	(139)
2	Totals. Add the amounts in columns (d), (e), (g), and (h) (subtract negative amounts). Enter each total here and include on your Schedule D, line 1b (if Box A above is checked), line 2 (if Box B above is checked), or line 3 (if Box C above is checked) ▶			8333	4026		0	4308

**Note:** If you checked Box A above but the basis reported to the IRS was incorrect, enter in column (e) the basis as reported to the IRS, and enter an adjustment in column (g) to correct the basis. See Column (g) in the separate instructions for how to figure the amount of the adjustment.

For Paperwork Reduction Act Notice, see your tax return instructions. Cat. No. 37768Z Form **8949** (2021)

FIFO Figure 8 - Sample Report 1, ADA and DOGE coins



### ...Details included in Sample Report 1

Details in the sample report are derived from APPENDIX C:

FIFO Figure 14 as follows:

- 300 ADAs purchased on 2/21/2021.
- 25 ADAs purchased on 2/21/2021.
- 675 ADAs from a purchase of 2,000 on 2/22/2021

FIFO Figure 18 as follows:

First sale of 6,000 DOGEs on 4/16/2021

- 2000 DOGEs purchased on 2/27/2021 for \$100.80 including fees.
- 3000 DOGEs purchased on 3/6/2021 for \$150.49 including fees.
- 1000 DOGEs purchased on 3/6/2021 for \$50.99 including fees.

Second sale of 6,000 DOGEs on 4/16/2021

- 1500 DOGEs purchased on 3/6/2021 for \$76.16 including fees.
- 2750 DOGEs purchased on 3/19/2021 for \$161.31 including fees.
- 1750 DOGEs purchased on 4/3/2021 for \$98.16 including fees.

Third sale of 9,000 DOGEs on 4/25/2021

- 250 DOGEs purchased on 4/3/2021 for \$13.84 including fees.
- 400 DOGEs purchased on 4/16/2021 for \$96.15 including fees.
- 4000 DOGEs purchased on 4/18/2021 for \$1,002.20 including fees.
- 1000 DOGEs purchased on 4/23/2021 for \$251.66 including fees.
- 3350 DOGEs purchased on 4/25/2021 for \$949.39 including fees.



## Sample Report 2 – DOGE and VET coins

<b>Form 8949</b> Department of the Treasury Internal Revenue Service	<b>Sales and Other Dispositions of Capital Assets</b> ▶ Go to <a href="http://www.irs.gov/Form8949">www.irs.gov/Form8949</a> for instructions and the latest information. ▶ File with your Schedule D to list your transactions for lines 1b, 2, 3, 8b, 9, and 10 of Schedule D.	OMB No. 1545-0074 <div style="border: 1px solid black; padding: 2px; display: inline-block;"> <b>2021</b>          Attachment          Sequence No. <b>12A</b> </div>							
Name(s) shown on return <b>ROY E LIQUE</b>		Social security number or taxpayer identification number <b>550-94-8193</b>							
Before you check Box A, B, or C below, see whether you received any Form(s) 1099-B or substitute statement(s) from your broker. A substitute statement will have the same information as Form 1099-B. Either will show whether your basis (usually your cost) was reported to the IRS by your broker and may even tell you which box to check.									
<b>Part I Short-Term.</b> Transactions involving capital assets you held 1 year or less are generally short-term (see instructions). For long-term transactions, see page 2. <b>Note:</b> You may aggregate all short-term transactions reported on Form(s) 1099-B showing basis was reported to the IRS and for which no adjustments or codes are required. Enter the totals directly on Schedule D, line 1a; you aren't required to report these transactions on Form 8949 (see instructions).									
<b>You must check Box A, B, or C below. Check only one box.</b> If more than one box applies for your short-term transactions, complete a separate Form 8949, page 1, for each applicable box. If you have more short-term transactions than will fit on this page for one or more of the boxes, complete as many forms with the same box checked as you need.									
<input type="checkbox"/> (A) Short-term transactions reported on Form(s) 1099-B showing basis was reported to the IRS (see Note above) <input type="checkbox"/> (B) Short-term transactions reported on Form(s) 1099-B showing basis wasn't reported to the IRS <input checked="" type="checkbox"/> (C) Short-term transactions not reported to you on Form 1099-B									
1	(a) Description of property (Example: 100 sh. XYZ Co.)	(b) Date acquired (Mo., day, yr.)	(c) Date sold or disposed of (Mo., day, yr.)	(d) Proceeds (sales price) (see instructions)	(e) Cost or other basis. See the Note below and see Column (e) in the separate instructions	Adjustment, if any, to gain or loss. If you enter an amount in column (g), enter a code in column (f). See the separate instructions.	(f) Code(s) from instructions	(g) Amount of adjustment	(h) Gain or (loss). Subtract column (e) from column (d) and combine the result with column (g)
	150 DOGE Coins, Kraken Exchange	4/25/21	6/3/21	137	42			0	94
	650 DOGE Coins, Kraken Exchange	5/7/21	6/3/21	1845	356			0	1489
	50 VET Coins, Gate.io Exchange	5/23/21	10/6/21	6	5			0	0
	200 VET Coins, Gate.io Exchange	5/23/21	10/6/21	22	17			0	6
	300 VET Coins, Gate.io Exchange	5/24/21	10/6/21	34	28			0	6
	100 VET Coins, Gate.io Exchange	5/24/21	10/6/21	11	9			0	2
	300 VET Coins, Gate.io Exchange	5/24/21	10/6/21	34	33			0	1
	50 VET Coins, Gate.io Exchange	5/24/21	10/6/21	6	6			0	0
	226 VET Coins, Gate.io Exchange	5/24/21	10/6/21	25	25			0	1
	149 VET Coins, Gate.io Exchange	5/24/21	10/7/21	17	17			0	0
	500 VET Coins, Gate.io Exchange	5/24/21	10/7/21	56	57			0	(2)
	600 VET Coins, Gate.io Exchange	5/25/21	10/7/21	100	100			0	0
	900 VET Coins, Gate.io Exchange	5/26/21	10/7/21	111	127			0	(15)
	1000 VET Coins, Gate.io Exchange	5/26/21	10/7/21	43	50			0	(7)
<b>2 Totals.</b> Add the amounts in columns (d), (e), (g), and (h) (subtract negative amounts). Enter each total here and include on your Schedule D, line 1b (if Box A above is checked), line 2 (if Box B above is checked), or line 3 (if Box C above is checked) ▶				2447	872			0	1575
Note: If you checked Box A above but the basis reported to the IRS was incorrect, enter in column (e) the basis as reported to the IRS, and enter an adjustment in column (g) to correct the basis. See Column (g) in the separate instructions for how to figure the amount of the adjustment.									
For Paperwork Reduction Act Notice, see your tax return instructions.					Cat. No. 37768Z		Form <b>8949</b> (2021)		

FIFO Figure 9 - Sample Report 2, DOGE and VET coins



### ...Details included in Sample Report 2

Details in the sample report are derived from APPENDIX C:

FIFO Figure 18 as follows:

- 150 DOGEs purchased on 4/25/2021.
- 650 DOGEs purchased on 5/7/2021.

FIFO Figure 19 and FIFO Figure 20 as follows:

- 50 VET Coins purchased on 5/23/21.
- 200 VET Coins purchased on 5/23/21.
- 300 VET Coins purchased on 5/24/21.
- 100 VET Coins purchase on 5/24/21
- 300 VET Coins purchased on 5/24/21.
- 50 VET Coins purchased on 5/24/21.
- 226 VET Coins purchased on 5/24/21.
- 149 VET Coins purchased on 5/24/21.
- 500 VET Coins purchased on 5/24/21.
- 600 VET Coins purchased on 5/25/21.
- 900 VET Coins purchased on 5/26/21.
- 1000 VET Coins purchased on 5/26/21.





## Sample Report 3 – VET Coins

**Form 8949** Sales and Other Dispositions of Capital Assets

OMB No. 1545-0074

2021

Attachment Sequence No. 12A

Department of the Treasury  
Internal Revenue Service

Go to [www.irs.gov/Form8949](http://www.irs.gov/Form8949) for instructions and the latest information.

File with your Schedule D to list your transactions for lines 1b, 2, 3, 8b, 9, and 10 of Schedule D.

Name(s) shown on return: **ROY E LIQUE**

Social security number or taxpayer identification number: **550-94-8193**

Before you check Box A, B, or C below, see whether you received any Form(s) 1099-B or substitute statement(s) from your broker. A substitute statement will have the same information as Form 1099-B. Either will show whether your basis (usually your cost) was reported to the IRS by your broker and may even tell you which box to check.

**Part I Short-Term.** Transactions involving capital assets you held 1 year or less are generally short-term (see instructions). For long-term transactions, see page 2.

**Note:** You may aggregate all short-term transactions reported on Form(s) 1099-B showing basis was reported to the IRS and for which no adjustments or codes are required. Enter the totals directly on Schedule D, line 1a; you aren't required to report these transactions on Form 8949 (see instructions).

**You must check Box A, B, or C below. Check only one box.** If more than one box applies for your short-term transactions, complete a separate Form 8949, page 1, for each applicable box. If you have more short-term transactions than will fit on this page for one or more of the boxes, complete as many forms with the same box checked as you need.

☐ (A) Short-term transactions reported on Form(s) 1099-B showing basis was reported to the IRS (see Note above)

☐ (B) Short-term transactions reported on Form(s) 1099-B showing basis **wasn't** reported to the IRS

☒ (C) Short-term transactions not reported to you on Form 1099-B

1	(a) Description of property (Example: 100 sh. XYZ Co.)	(b) Date acquired (Mo., day, yr.)	(c) Date sold or disposed of (Mo., day, yr.)	(d) Proceeds (sales price) (see instructions)	(e) Cost or other basis. See the Note below and see Column (g) in the separate instructions	Adjustment, if any, to gain or loss. If you enter an amount in column (g), enter a code in column (f). See the separate instructions.		(h) Gain or (loss). Subtract column (e) from column (d) and combine the result with column (g)
						(f) Code(s) from instructions	(g) Amount of adjustment	
	199 VET Coins, Gate.io Exchange	5/26/21	10/7/21	22	25		0	(3)
	29 VET Coins, Gate.io Exchange	5/26/21	10/7/21	3	4		0	(0)
	8 VET Coins, Gate.io Exchange	5/26/21	10/7/21	1	1		0	(0)
	150 VET Coins, Gate.io Exchange	5/27/21	10/7/21	17	21		0	(4)
	770 VET Coins, Gate.io Exchange	5/27/21	10/7/21	86	100		0	(14)
	300 VET Coins, Gate.io Exchange	5/27/21	10/7/21	33	39		0	(5)
	150 VET Coins, Gate.io Exchange	5/27/21	10/7/21	17	19		0	(2)
	3050 VET Coins, Gate.io Exchange	5/27/21	10/7/21	340	395		0	(55)
	50 VET Coins, Gate.io Exchange	5/28/21	10/7/21	6	5		0	0
	610 VET Coins, Gate.io Exchange	5/29/21	10/7/21	68	64		0	4
	19 VET Coins, Gate.io Exchange	5/30/21	10/7/21	2	2		0	0
	81 VET Coins, Gate.io Exchange	5/30/21	10/7/21	9	8		0	2
	1500 VET Coins, Gate.io Exchange	5/31/21	10/7/21	169	160		0	8
	517 VET Coins, Gate.io Exchange	6/1/21	10/7/21	58	65		0	(7)
2	<b>Totals.</b> Add the amounts in columns (d), (e), (g), and (h) (subtract negative amounts). Enter each total here and include on your Schedule D, line 1b (if Box A above is checked), line 2 (if Box B above is checked), or line 3 (if Box C above is checked) ▶			831	908		0	(76)

**Note:** If you checked Box A above but the basis reported to the IRS was incorrect, enter in column (e) the basis as reported to the IRS, and enter an adjustment in column (g) to correct the basis. See Column (g) in the separate instructions for how to figure the amount of the adjustment.

For Paperwork Reduction Act Notice, see your tax return instructions. Cat. No. 37768Z Form 8949 (2021)

FIFO Figure 10 - Sample Report 3, VET Coins



### ...Details included in Sample Report 3

Details in the sample report are derived from APPENDIX C:

FIFO Figure 19 and FIFO Figure 20 as follows:

- 199 VET Coins purchased on 5/26/21.
- 29 VET Coins purchased on 5/26/21.
- 8 VET Coins purchased on 5/26/21.
- 150 VET Coins purchased on 5/27/21.
- 770 VET Coins purchased on 5/27/21.
- 300 VET Coins purchased on 5/27/21.
- 150 VET Coins purchased on 5/27/21.
- 3050 VET Coins purchased on 5/27/21.
- 50 VET Coins purchased on 5/28/21.
- 610 VET Coins purchased on 5/29/21.
- 19 VET Coins purchased on 5/30/21.
- 81 VET Coins purchased on 5/30/21.
- 1500 VET Coins purchased on 5/31/21.
- 517 VET Coins purchased on 6/1/21.



## Sample Report 4 – Vet Coins

**Form 8949** Sales and Other Dispositions of Capital Assets

OMB No. 1545-0074

2021

Attachment Sequence No. 12A

Department of the Treasury  
Internal Revenue Service

Go to [www.irs.gov/Form8949](http://www.irs.gov/Form8949) for instructions and the latest information.

File with your Schedule D to list your transactions for lines 1b, 2, 3, 8b, 9, and 10 of Schedule D.

Name(s) shown on return: ROY E LIQUE

Social security number or taxpayer identification number: 550-94-8193

Before you check Box A, B, or C below, see whether you received any Form(s) 1099-B or substitute statement(s) from your broker. A substitute statement will have the same information as Form 1099-B. Either will show whether your basis (usually your cost) was reported to the IRS by your broker and may even tell you which box to check.

**Part I** Short-Term. Transactions involving capital assets you held 1 year or less are generally short-term (see instructions). For long-term transactions, see page 2.

**Note:** You may aggregate all short-term transactions reported on Form(s) 1099-B showing basis was reported to the IRS and for which no adjustments or codes are required. Enter the totals directly on Schedule D, line 1a; you aren't required to report these transactions on Form 8949 (see instructions).

**You must check Box A, B, or C below. Check only one box.** If more than one box applies for your short-term transactions, complete a separate Form 8949, page 1, for each applicable box. If you have more short-term transactions than will fit on this page for one or more of the boxes, complete as many forms with the same box checked as you need.

☐ (A) Short-term transactions reported on Form(s) 1099-B showing basis was reported to the IRS (see Note above)

☐ (B) Short-term transactions reported on Form(s) 1099-B showing basis wasn't reported to the IRS

☒ (C) Short-term transactions not reported to you on Form 1099-B

(a) Description of property (Example: 100 sh. XYZ Co.)	(b) Date acquired (Mo., day, yr.)	(c) Date sold or disposed of (Mo., day, yr.)	(d) Proceeds (sales price) (see instructions)	(e) Cost or other basis. See the Note below and see Column (g) in the separate instructions	Adjustment, if any, to gain or loss. If you enter an amount in column (g), enter a code in column (f). See the separate instructions.		(h) Gain or (loss). Subtract column (e) from column (d) and combine the result with column (g)
					(f) Code(s) from instructions	(g) Amount of adjustment	
273 VET Coins, Gate.io Exchange	6/1/21	10/7/21	31	34		0	(4)
1200 VET Coins, Gate.io Exchange	6/1/21	10/7/21	135	149		0	(14)
830 VET Coins, Gate.io Exchange	6/2/21	10/7/21	93	100		0	(6)
500 VET Coins, Gate.io Exchange	6/2/21	10/7/21	56	63		0	(6)
2232 VET Coins, Gate.io Exchange	6/3/21	10/7/21	251	285		0	(33)
160 VET Coins, Gate.io Exchange	6/3/21	10/7/21	18	20		0	(2)
1528 VET Coins, Gate.io Exchange	6/3/21	10/7/21	172	213		0	(41)
6178 VET Coins, Gate.io Exchange	6/3/21	10/7/21	696	763		0	(67)
2007 VET Coins, Gate.io Exchange	6/3/21	10/11/21	223	248		0	(25)
3007 VET Coins, Gate.io Exchange	6/3/21	10/11/21	334	371		0	(38)
18 VET Coins, Gate.io Exchange	6/3/21	10/11/21	2	2		0	(0)
960 VET Coins, Gate.io Exchange	6/4/21	10/11/21	106	132		0	(26)
490 VET Coins, Gate.io Exchange	6/4/21	10/11/21	54	66		0	(11)
3350 VET Coins, Gate.io Exchange	6/4/21	10/11/21	372	449		0	(77)
<b>2 Totals.</b> Add the amounts in columns (d), (e), (g), and (h) (subtract negative amounts). Enter each total here and include on your Schedule D, line 1b (if Box A above is checked), line 2 (if Box B above is checked), or line 3 (if Box C above is checked) ▶			2543	2895		0	(350)

**Note:** If you checked Box A above but the basis reported to the IRS was incorrect, enter in column (e) the basis as reported to the IRS, and enter an adjustment in column (g) to correct the basis. See Column (g) in the separate instructions for how to figure the amount of the adjustment.

For Paperwork Reduction Act Notice, see your tax return instructions. Cat. No. 37768Z Form 8949 (2021)

FIFO Figure 11 - Sample Report 4, VET Coins





### ...Details included in Sample Report 4

Details in the sample report are derived from APPENDIX C:

FIFO Figure 19 and FIFO Figure 20 as follows:

- 273 VET Coins purchased on 6/1/21.
- 1200 VET Coins purchased on 6/1/21.
- 830 VET Coins purchased on 6/2/21.
- 500 VET Coins purchased on 6/2/21.
- 2232 VET Coins purchased on 6/3/21.
- 160 VET Coins purchased on 6/3/21.
- 1528 VET Coins purchased on 6/3/21.
- 6178 VET Coins purchased on 6/3/21.
- 2007 VET Coins purchased on 6/3/21.
- 3007 VET Coins purchased on 6/3/21.
- 18 VET Coins purchased on 6/3/21
- 960 VET Coins purchased on 6/4/21.
- 490 VET Coins purchased on 6/4/21.
- 3350 VET Coins purchased on 6/4/21.



## Report 5, VET and BAT coins

### ...Details included in Sample Report 5

Details in the sample report are derived from APPENDIX C:

FIFO Figure 19 and FIFO Figure 20 as follows:

- 190 VET Coins purchased on 6/4/21.
- 852 VET Coins purchased on 6/11/21.
- 285 VET Coins purchased on 6/18/21.
- 3675 VET Coins purchased on 6/22/21.
- 920 VET Coins purchased on 6/22/21.

Details in the sample report are derived from:

FIFO Figure 16 as follows:

- 100 BAT Coins purchased on 2/27/21.
- 200 BAT Coins purchased on 2/27/21.
- 500 BAT Coins purchased 3/19/21.
- 150 BAT Coins purchased 6/3/21.



## Chapter 2 – Intermediate Aggregation Spreadsheets

The first rule of any technology used in a business is that automation applied to an efficient operation will magnify the efficiency.  
The second is that automation applied to an inefficient operation will magnify the inefficiency.

Bill Gates

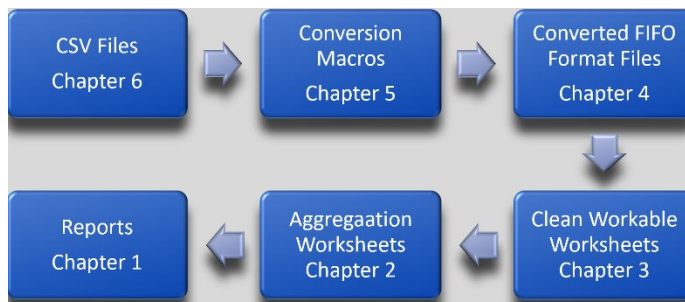
### Pause Chapter!

**If you reach this stage in the aggregation process on your own, it means your privacy is still intact. At this stage you have the choice of whether to delegate the matching of disposed assets against acquisitions and lose your privacy, or do the matching yourself and still maintain absolute privacy.**

**The process is FAST, SIMPLE, and EASY!**

**YOUR PROGRESS IN THE AGGREGATION PROCESS!  
NOTE THE DIRECTION OF THE ARROWS.**

If you are working in this chapter, it means you are done with Chapters 6, 5, 4, and 3.



**MEMORANDUM**

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## ADA Intermediate Aggregation Result

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### FIFO Figure 13 - ADA Intermediate Aggregation Result



### ...Analyzing the ADA Intermediate Aggregation Report

During the year 2021, 83 purchases of ADAs were made with USD and USDT, for a total of 64,489 ADAs.

Only one sale of 1,000 ADAs was made on June 3, 2021, leaving 63,489 in inventory. The sale was from the following purchases:

- 300 ADAs purchased on 2/21/2021.
- 25 ADAs purchased on 2/21/2021.
- 675 ADAs from a purchase of 2,000 on 2/22/2021.



**FIFO Figure 14 - ADA Coin**

The total sale of \$1,752.06 less total acquisition cost of \$1,075.57 (including fees) yielded a profit of \$676.49. Because the sold assets were held less than a year, the profit was reported as a short-term capital gain.

The 1,325 remaining ADAs from the 2,000 purchase on 2/22/2021 will be the first to be sold on the next sale.

The above purchases being the earliest, were the first candidates to be disposed of in accordance with the first-in first out method of assigning cost to assets.

The list of the remaining ADAs is arranged in chronological order from top to bottom, ready for the next activity of more acquisitions and dispositions.



## BAT Intermediate Aggregation Result

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### ...Analyzing the BAT Intermediate Aggregation Report

The first sale of 800 BATs occurred on 4/25/2021. The sale was from a batch of purchases as follows:

- 100 BATs purchased on 2/27/2021 for \$53.04 including fees, for proceeds of \$106.18 and profit of \$53.14.
- 200 BATs purchased on 2/27/2021 for \$105.31 including fees, for proceeds of \$212.36 and profit of \$107.04.
- 500 BATs purchased on 3/19/2021 for \$607.48 including fees, for proceeds of \$530.89 and loss of \$76.59.

Total profit on the sale was \$83.60.

The second and last sale that occurred on 6/3/2021 for \$212.36 was of 200 BATs purchased on 4/3/2021 for \$226.00 base price and \$0.36 fees. Total acquisition price was \$226.36. The sale transaction resulted in a loss of \$14.00.

Net profit in the two sale transactions was \$69.00. Since the BATs sold were held less than a year, the profit was reported as a short-term gain.

All BATs were sold.



FIFO Figure 16 - BAT Coin





### ...Analyzing the DOGE Intermediate Aggregation Report

First sale of 6,000 DOGEs on 4/16/2021 for \$2,271.63 with acquisition cost of \$302.28 netting a profit of \$1,969.35. Sale was from the following purchases:

- 2000 DOGEs purchased on 2/27/2021 for \$100.80 including fees.
- 3000 DOGEs purchased on 3/6/2021 for \$150.49 including fees.
- 1000 DOGEs purchased on 3/6/2021 for \$50.99 including fees.

Second sale of 6,000 DOGEs on 4/16/2021 for \$2,236.62 with acquisition cost of \$335.62 netting a profit of \$1,901.00. Sale was from the following purchases:

- 1500 DOGEs purchased on 3/6/2021 for \$76.16 including fees.
- 2750 DOGEs purchased on 3/19/2021 for \$161.31 including fees.
- 1750 DOGEs purchased on 4/3/2021 for \$98.16 including fees.

Third sale of 9,000 DOGEs on 4/25/2021 for \$2,268.97 with acquisition cost of \$2,313.25 netting a loss of \$44.28. Sale was from the following purchases:

- 250 DOGEs purchased on 4/3/2021 for \$13.84 including fees.
- 400 DOGEs purchased on 4/16/2021 for \$96.15 including fees.
- 4000 DOGEs purchased on 4/18/2021 for \$1,002.20 including fees.
- 1000 DOGEs purchased on 4/23/2021 for \$251.66 including fees.
- 3350 DOGEs purchased on 4/25/2021 for \$949.39 including fees.

Fourth sale of 800 DOGEs on 5/9/2021 for \$1,931.01 with acquisition cost of \$396.38 netting a profit of \$1,534.64

- 150 DOGEs purchased on 4/25/2021 for \$39.94 including fees.
- 650 DOGEs purchased on 5/7/2021 for \$356.44 including fees.



FIFO Figure 18 - DOGE Coin



## VET Coin Intermediate Aggregation Result

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81	Reference	coins bought	Date Acquired (b)	purchasee	Clean Fees	Total Cost	Coins sold	Date Sold	Proceeds	Assigned Cost	Remaining VET	Gain or (loss)
82												
83	49518316534	50	5/23/2021	5.00	0.36	5.36	50	10/6/2021	5.61	5.36	0	0.25
84	49759412179	200	5/23/2021	16.00	0.54	16.54	200	10/6/2021	22.44	16.54	0	5.90
85	49927507282	300	5/24/2021	27.42	0.18	27.60	300	10/6/2021	33.66	27.60	0	6.06
86	49927812128	100	5/24/2021	9.16	0.00	9.16	100	10/6/2021	11.22	9.16	0	2.06
87	50001016901	300	5/24/2021	32.10	0.49	32.59	300	10/6/2021	33.66	32.59	0	1.07
88	50037856198	276	5/24/2021	29.99	0.49	30.48	50	10/6/2021	5.61	5.52	226	0.09
89												
90	50037856198	226	5/24/2021	24.56	0.00	24.56	226	10/7/2021	25.19	24.56	0	0.64
91	50037856198	149	5/24/2021	16.18	0.90	17.08	149	10/7/2021	16.61	17.08	0	(0.47)
92	50040667129	500	5/24/2021	56.24	1.08	57.32	500	10/7/2021	55.74	57.32	0	(1.58)
93	50041552122	600	5/24/2021	67.08	1.62	68.70	600	10/7/2021	66.89	68.70	0	(1.81)
94	50046961228	900	5/25/2021	98.10	1.79	99.89	900	10/7/2021	100.33	99.89	0	0.44
95	50560462598	1000	5/26/2021	125.89	0.70	126.59	1000	10/7/2021	111.48	126.59	0	(15.11)
96	50562834414	390	5/26/2021	49.84	0.35	50.19	390	10/7/2021	43.48	50.19	0	(6.71)
97	50565921186	199	5/26/2021	25.28	0.05	25.33	199	10/7/2021	22.18	25.33	0	(3.15)
98	50565921186	29	5/26/2021	3.63	0.01	3.64	29	10/7/2021	3.23	3.64	0	(0.41)
99	50565921186	8	5/26/2021	0.99	0.27	1.26	8	10/7/2021	0.89	1.26	0	(0.37)
100	50598594446	150	5/27/2021	19.35	1.38	20.73	150	10/7/2021	16.72	20.73	0	(4.01)
101	50600306148	770	5/27/2021	99.03	0.54	99.57	770	10/7/2021	85.84	99.57	0	(13.73)
102	50601627634	300	5/27/2021	38.25	0.27	38.52	300	10/7/2021	33.44	38.52	0	(5.08)
103	50603963425	150	5/27/2021	19.18	0.00	19.18	150	10/7/2021	16.72	19.18	0	(2.46)
104	50624493095	3050	5/27/2021	395.34	0.00	395.34	3050	10/7/2021	340.01	395.34	0	(55.33)
105	50995573855	50	5/28/2021	5.48	0.00	5.48	50	10/7/2021	5.57	5.48	0	0.09
106	51096572579	610	5/29/2021	64.19	0.00	64.19	610	10/7/2021	68.00	64.19	0	3.81
107	51355675886	100	5/30/2021	9.35	0.00	9.35	19	10/7/2021	2.12	1.78	81	0.34
108												
109	51355675886	81	5/30/2021	7.57	0.00	7.57	81	10/7/2021	9.12	7.57	0	1.55
110	51551005735	1500	5/31/2021	160.44	0.00	160.44	1500	10/7/2021	168.94	160.44	0	8.50
111	51784333979	790	6/1/2021	99.28	0.00	99.28	517	10/7/2021	58.23	64.97	273	(6.74)
112												
113	51784333979	273	6/1/2021	34.31	0.00	34.31	273	10/7/2021	30.75	34.31	0	(3.56)
114	51786342200	1200	6/1/2021	149.40	0.00	149.40	1200	10/7/2021	135.16	149.40	0	(14.24)
115	51931836252	830	6/2/2021	99.60	0.00	99.60	830	10/7/2021	93.49	99.60	0	(6.11)
116	52102639749	500	6/2/2021	62.64	0.00	62.64	500	10/7/2021	56.32	62.64	0	(6.32)
117	52143285670	2392	6/3/2021	304.93	0.00	304.93	2232	10/7/2021	251.40	284.53	160	(33.13)
118												
119	52143285670	160	6/3/2021	20.40	0.00	20.40	160	10/7/2021	18.02	20.40	0	(2.38)
120	52143285670	1528	6/3/2021	194.86	18.60	213.46	1528	10/7/2021	172.09	213.46	0	(41.37)
121	52224981268	11192	6/3/2021	1382.21	0.00	1382.21	6178	10/7/2021	695.78	762.98	5014	(67.21)
122												
123	52224981268	5014	6/3/2021	619.23	0.00	619.23	2007	10/11/2021	222.56	247.86	3007	(25.30)
124												
125	52224981268	3007	6/3/2021	371.36	0.00	371.36	3007	10/11/2021	333.52	371.36	0	(37.85)
126	52226745542	18	6/3/2021	2.21	0.00	2.21	18	10/11/2021	2.00	2.21	0	(0.21)
127	52349342210	1450	6/4/2021	194.30	5.57	199.87	960	10/11/2021	106.48	132.33	490	(25.85)
128												
129	52349342210	490	6/4/2021	65.66	0.00	65.66	490	10/11/2021	54.34	65.66	0	(11.32)
130	52381074537	3350	6/4/2021	448.90	0.00	448.90	3350	10/11/2021	371.50	448.90	0	(77.40)
131	52556084536	190	6/4/2021	24.30	0.00	24.30	190	10/11/2021	21.07	24.30	0	(3.23)
132	54082664971	852	6/11/2021	95.50	0.00	95.50	852	10/11/2021	94.48	95.50	0	(1.02)
133	55560215110	285	6/18/2021	30.35	0.00	30.35	285	10/11/2021	31.61	30.35	0	1.26
134	56544209452	3675	6/22/2021	282.97	0.00	282.97	3675	10/11/2021	407.54	282.97	0	124.57
135	56549408623	920	6/22/2021	69.92	0.00	69.92	166	10/11/2021	18.41	12.62	754	5.79
136												
137												(311.02)

### FIFO Figure 19 - VET Coin Intermediate Aggregation Result



### ...Analyzing the VET Coin Intermediate Aggregation Report

VET Coin is presented here for the purpose of showing how FIFO – Aggregator of Capital Gains and Losses, works under different regulatory conditions. Whereas the previous three coins were acquired and sold in an exchange based in the United States and regulated under the United States laws, VET Coin was from Gate.io, a non-U.S. regulated exchange based outside the United States.

Although Gate.io has an entirely different system from that used in the presentation of the previous three coins, the result achieved was as evenly and comparably accurate. Despite the enormous amount of unnecessary information contained in the CSV file, FIFO – Aggregator of Capital Gains and Losses performed well.

As expected, extra work had to be done to the CSV file from Gate.io. For example, text and numbers were mingled in a piece of data where mathematical calculations were performed. Furthermore, after cleaning the data of the text part, the calculations had to contend with the decimal placement which was to the nth number.

VET Coin turned out to be a representative sample of how FIFO – Aggregator of Capital Gains and Losses works. A cursory look at the numerous acquisitions and dispositions of the coin told of a seemingly daunting project. Yet, each sale was matched against purchases that made up the number sold, based on first-in first-out method of assigning cost to assets.

Through standardization of the process, the seemingly daunting task was executed normally.



FIFO Figure 20 - VeChain Coin



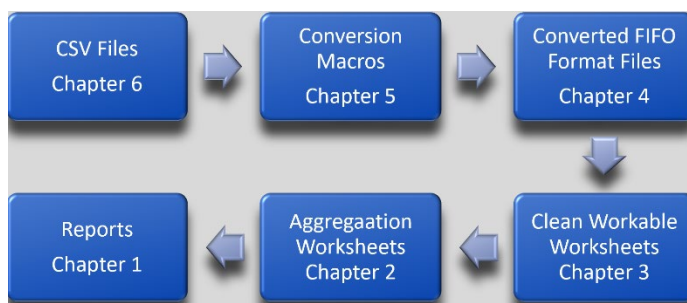
## Chapter 3 – Post Conversion Progress Assessment

There are three principal means of acquiring knowledge... observation of nature, reflection, and experimentation. Observation collects facts; reflection combines them; experimentation verifies the result of that combination.

Denis Diderot

### **YOUR PROGRESS IN THE AGGREGATION PROCESS! NOTE THE DIRECTION OF THE ARROWS.**

If you are working in this chapter, it means you are done with Chapters 6, 5, and 4.



**MEMORANDUM**

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## Buy Ethereum With USD Then Buy ADA With Ethereum

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### ... Annotation on the XETHZ/USD and ADA/ETH ...Currency Pairs

During the year 2021, \$78.15 worth of Ethereum was purchased with U.S. dollar and \$0.04 worth of ADA was purchased with Ethereum. No further activities were recorded on these currency pairs. In conclusion, there was no acquisition and disposition of assets that generated capital gains and losses.



FIFO Figure 22 - ETHEREUM Coin



## Buy and Sell ADA with USD and USDT

[illegible]

### FIFO Figure 23 - Buy and Sell ADA with USD and USDT



### **...Annotation on Buy and Sell ADA with USD and USDT**

It would have been extremely helpful if the Excel sort function were able to immediately separate the sells rows and the buys rows, but that facility was absent, unfortunately. The acquisition and disposition rows were lumped together, requiring a simple manual intervention to delineate the groups' boundaries.

Separation was necessary for a smooth transition from CSV file to FIFO data format, the last step prior to the calculation phase in the aggregation process. The interesting phase of the project was close in sight, so a simple step of classifying transactions into buys and sells was not much of a disincentive.



**FIFO Figure 24 - USDT Coin**



## Buy and Sell BAT with USD

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Exchange A		Currency Pair		Transaction Type		Amount		Date		Unit Price	
Reference		BATUSD		buy		100.00		2/27/2021		0.5290	
T648LZ-6QWC-4UNPGF - Exchange A		BATUSD		buy		200.00		2/27/2021		0.5252	
T787EJ-AA4AQ-JUVM7N - Exchange A		BATUSD		buy		500.00		3/19/2021		1.2121	
TTJDMH-UDA5B-MDP8GN - Exchange A		BATUSD		buy		200.00		4/3/2021		1.1300	
TYQ5XX-JFGKU-EWDOL2 - Exchange A		BATUSD		sell		800.00		4/25/2021		1.0590	
TMTCXH-WEW5N-P7CFWT - Exchange A		BATUSD		sell		150.00		6/3/2021		0.8120	
T22XVT-YPJEP-EKDQ5X - Exchange A											

### ... Annotation on Buy and Sell BAT with USD

It would have been extremely helpful if the Excel sort function were able to immediately separate the sells rows and the buys rows, but that facility was absent, unfortunately. The acquisition and disposition rows were lumped together, requiring a simple manual intervention to delineate the groups' boundaries.

Separation was necessary for a smooth transition from CSV file to FIFO data format, the last step prior to the calculation phase in the aggregation process. The interesting phase of the project was close in sight, so a simple step of classifying transactions into buys and sells was not much of a disincentive.



## Buy USDTZ with USD

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R17	Exchange A	Currency Pair	Transaction Type	Amount	Date	Unit Price	Fees	Cost	Standby Col 1	Standby Col 2	Standby Col 3	Standby Col 4			
1	Reference														
2	TZEZHQ-N2F	USD7ZUSD	buy	200.00	5/18/2021	1.0012	0.40	200.2400							
3	TNOA7B-77I	USD7ZUSD	buy	300.00	5/19/2021	1.0038	0.60	301.1400							
4	TVDLRI-F33	USD7ZUSD	buy	1,600.00	6/3/2021	1.0002	3.20	1,600.3200							
5	T43AED-BM	USD7ZUSD	buy	400.00	6/3/2021	1.0003	0.80	400.1200							
6	T36KLR-BGK	USD7ZUSD	buy	70.00	6/11/2021	1.0004	0.14	70.0280							
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Buy USD7Z with USD Buy & Sell XDG with USD Buy ADA with Ethereum

### FIFO Figure 26 - Buy USDTZ with USD





**... Annotation on Buy USDTZ with USD**

During the year 2021, 2,570 USDTZ US dollar-pegged stable coin was purchased. In lieu of the US dollar, USDTZ was used to purchase other coins. According to the chart no such purchase was made. Therefore, no transactions were generated that recorded capital gains and losses.

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## Buy and Sell XDG with USD

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	Exchange A	Currency Pair	Transaction Type	Amount	Date	Unit Price	Fees	Cost	Standby Col 1	Standby Col 2	Standby Col 3	Standby Col 4		
1	TJFI5U-JXB6-R3NCMF	buy	2,000.00	2/27/2021	0.0503	0.26	100.5366							
2	TCTVSI-555OG-O5EXSC	buy	3,000.00	3/6/2021	0.0500	0.39	150.1026							
3	TUB7B3-NEV3C-G5ZC5	buy	2,500.00	3/6/2021	0.0509	0.33	127.1471							
4	TWCXSU-W7BOL-56FV	buy	2,750.00	3/19/2021	0.0586	0.23	161.0840							
5	TOYEGG-ASUIP-75TK4	buy	2,000.00	4/3/2021	0.0560	0.18	112.0000							
6	TKJ5V-ZY3OI-WH6LL	buy	400.00	4/16/2021	0.2400	0.15	96.0000							
7	TQCVWZ-54BH6-JQW	buy	4,000.00	4/18/2021	0.2499	2.60	999.6000							
8	TPX22-JF3YI-5RWOM	buy	1,000.00	4/23/2021	0.2510	0.65	251.0115							
9	TQ07YA-55U6L-R4B3L	buy	3,500.00	4/25/2021	0.2827	2.57	989.3247							
10	TZQD6-UIKXC-REDXX	buy	800.00	5/7/2021	0.5469	1.14	437.5558							
11	TNUMJ3-WQXX6-LQF3	sell	6,000.00	4/16/2021	0.3776	5.89	2,265.7422							
12	TBYDDH-AJJKY-LX6JW	sell	6,000.00	4/17/2021	0.3543	5.53	2,126.0640							
13	TQR36I-R4CLO-GPYIC	sell	9,000.00	4/25/2021	0.2411	5.64	2,170.0768							
14	TMXCDL-2TOPU-NRXX	sell	800.00	5/9/2021	0.5673	1.18	453.8086							
15	TK5E6U-K7DOT-K4XAV	sell	500.00	6/3/2021	0.4077	0.33	203.8720							
16	TMTXQP-FCVHS-TNUR	sell	0.00	6/3/2021	0.4077	0.00	0.0000							
17														
18														
19														
20														
21														
22														
										Buy & Sell XDG with USD		Buy USD with USD		

FIFO Figure 27 - Buy and Sell XDG with USD



### **... Annotation on Buy and Sell XDG with USD**

It would have been extremely helpful if the Excel sort function were able to immediately separate the sells rows and the buys rows, but that facility was absent, unfortunately. The acquisition and disposition rows were lumped together, requiring a simple manual intervention to delineate the groups' boundaries.

Separation was necessary for a smooth transition from CSV file to FIFO data format, the last step prior to the calculation phase in the aggregation process. The interesting phase of the project was close in sight, so a simple step of classifying transactions into buys and sells was not much of a disincentive.



## Buy and Sell VET Coins with USDT

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A	B	C	D	E	F	G	H	I	J	
Order id	Time	Type	Market	Price	Amount	Total	Fee	Amount of VET	Amount of USDT	
49518316534	5/23/2021	Buy	VET/USDT	0.100800000 USD	50.000000000000 VET	5.004000000000 USD		50	5.00	
49759412179	5/23/2021	Buy	VET/USDT	0.080000000 USD	200.000000000000 VET	16.000000000000 USD	0.36 VET	200	16.00	
49927507282	5/24/2021	Buy	VET/USDT	0.091420000 USD	300.000000000000 VET	27.426000000000 USD	0.54 VET	300	27.42	
49927812128	5/24/2021	Buy	VET/USDT	0.091620000 USD	100.000000000000 VET	9.162000000000 USD	0.18 VET	100	9.16	
50001016901	5/24/2021	Buy	VET/USDT	0.107010000 USD	300.000000000000 VET	32.103000000000 USD	0.064206 POINT	300	32.10	
50037856198	5/24/2021	Buy	VET/USDT	0.108820000 USD	275.630000000000 VET	29.994056600000 USD	0.496134 VET	276	29.99	
50037856198	5/24/2021	Buy	VET/USDT	0.108820000 USD	275.630000000000 VET	29.994056600000 USD	0.496134 VET	276	29.99	
50037856198	5/24/2021	Buy	VET/USDT	0.108820000 USD	148.740000000000 VET	16.185886800000 USD	0.032317736 POIN	149	16.18	
50040667129	5/24/2021	Buy	VET/USDT	0.112490000 USD	500.000000000000 VET	56.245000000000 USD	0.9 VET	500	56.24	
50041552122	5/24/2021	Buy	VET/USDT	0.111810000 USD	600.000000000000 VET	67.086000000000 USD	1.08 VET	600	67.08	
50046961228	5/25/2021	Buy	VET/USDT	0.109000000 USD	900.000000000000 VET	98.100000000000 USD	1.62 VET	900	98.10	
50560462598	5/26/2021	Buy	VET/USDT	0.125900000 USD	999.992000000000 VET	125.898992800000 USD	1.7999856 VET	1000	125.89	
50562834414	5/26/2021	Buy	VET/USDT	0.127800000 USD	390.000000000000 VET	49.842000000000 USD	0.702 VET	390	49.84	
50565921186	5/26/2021	Buy	VET/USDT	0.127320000 USD	198.57128905500 VET	25.28209652248 USD	0.357428320299 V	199	25.28	
50565921186	5/26/2021	Buy	VET/USDT	0.127230000 USD	28.56771094500 VET	3.63466986353 USD	0.051421879701 V	29	3.63	
50565921186	5/26/2021	Buy	VET/USDT	0.127200000 USD	7.861000000000 VET	0.999919200000 USD	0.0141498 VET	8	0.99	
50598594446	5/27/2021	Buy	VET/USDT	0.129000000 USD	150.000000000000 VET	19.350000000000 USD	0.27 VET	150	19.35	
50600306148	5/27/2021	Buy	VET/USDT	0.128620000 USD	770.000000000000 VET	99.037400000000 USD	1.386 VET	770	99.03	
50601627634	5/27/2021	Buy	VET/USDT	0.127500000 USD	300.000000000000 VET	38.250000000000 USD	0.54 VET	300	38.25	
50603963425	5/27/2021	Buy	VET/USDT	0.127900000 USD	150.000000000000 VET	19.185000000000 USD	0.27 VET	150	19.18	
50624493095	5/27/2021	Buy	VET/USDT	0.129620000 USD	3,050.000000000000 VET	395.341000000000 USD		3050	395.34	
50995573855	5/28/2021	Buy	VET/USDT	0.109600000 USD	50.000000000000 VET	5.480000000000 USD	0.01096 POINT	50	5.48	
51096572579	5/29/2021	Buy	VET/USDT	0.105240000 USD	610.013000000000 VET	64.19776812000 USD	0.12839553624 PO	610	64.19	
51355675886	5/30/2021	Buy	VET/USDT	0.093549000 USD	100.000000000000 VET	9.354900000000 USD	0.0187098 POINT	100	9.35	
51551005735	5/31/2021	Buy	VET/USDT	0.106960000 USD	1,500.000000000000 VET	160.440000000000 USD	0.32088 POINT	1500	160.44	
51784333979	6/1/2021	Buy	VET/USDT	0.125680000 USD	790.000000000000 VET	99.287200000000 USD	0.1985744 POINT	790	99.28	
51786342200	6/1/2021	Buy	VET/USDT	0.124500000 USD	1,200.000000000000 VET	149.400000000000 USD	0.2988 POINT	1200	149.40	
51931836252	6/2/2021	Buy	VET/USDT	0.120010000 USD	830.000000000000 VET	99.608300000000 USD	0.1992166 POINT	830	99.60	
52102639749	6/2/2021	Buy	VET/USDT	0.125280000 USD	500.000000000000 VET	62.640000000000 USD	0.12528 POINT	500	62.64	
52143285670	6/3/2021	Buy	VET/USDT	0.127500000 USD	2,391.675000000000 VET	304.938562500000 USD	0.609877125 POIN	2392	304.93	
52143285670	6/3/2021	Buy	VET/USDT	0.127500000 USD	1,528.325000000000 VET	194.861437500000 USD	0.389722875 POIN	1528	194.86	
52224981268	6/3/2021	Buy	VET/USDT	0.123500000 USD	11,192.000000000000 VET	1,382.212000000000 USD	18.63468 VET	11192	1382.21	
52226745542	6/3/2021	Buy	VET/USDT	0.123200000 USD	18.000000000000 VET	2.217600000000 USD	0.0044352 POINT	18	2.21	
52349342210	6/4/2021	Buy	VET/USDT	0.134000000 USD	1,450.000000000000 VET	194.300000000000 USD	0.3886 POINT	1450	194.30	
52381074537	6/4/2021	Buy	VET/USDT	0.134000000 USD	3,350.000000000000 VET	448.900000000000 USD	5.57775 VET	3350	448.90	
52556084536	6/4/2021	Buy	VET/USDT	0.127900000 USD	190.000000000000 VET	24.301000000000 USD	0.048602 POINT	190	24.30	
54082664971	6/11/2021	Buy	VET/USDT	0.112100000 USD	852.000000000000 VET	95.509200000000 USD	0.1910184 POINT	852	95.50	
55560215110	6/18/2021	Buy	VET/USDT	0.106500000 USD	285.000000000000 VET	30.352500000000 USD	0.060705 POINT	285	30.35	
56544209452	6/22/2021	Buy	VET/USDT	0.077000000 USD	3,675.000000000000 VET	282.975000000000 USD	0.56595 POINT	3675	282.97	
56549408623	6/22/2021	Buy	VET/USDT	0.076000000 USD	920.000000000000 VET	69.920000000000 USD	0.13984 POINT	920	69.92	
61225777778	7/10/2021	Buy	VET/USDT	0.075000000 USD	2,000.000000000000 VET	150.000000000000 USD		2000	150.00	
62156911082	7/14/2021	Buy	VET/USDT	0.072000000 USD	2,080.000000000000 VET	149.760000000000 USD	0.29952 POINT	2080	149.76	
62625818987	7/16/2021	Buy	VET/USDT	0.066000000 USD	1,320.000000000000 VET	87.120000000000 USD	0.17424 POINT	1320	87.12	
64932383370	7/26/2021	Buy	VET/USDT	0.077700000 USD	1,299.999000000000 VET	101.009922300000 USD		1300	101.00	
64932383370	7/26/2021	Buy	VET/USDT	0.077700000 USD	0.001000000000 VET	0.000077700000 USD	0.0000001554 POIN	0	0.00	
66351684228	8/1/2021	Buy	VET/USDT	0.091800000 USD	1,634.000000000000 VET	150.001200000000 USD	0.3000024 POINT	1634	150.00	
69581618469	8/14/2021	Buy	VET/USDT	0.131000000 USD	1,180.000000000000 VET	154.580000000000 USD	0.30916 POINT	1180	154.58	
69826007907	8/16/2021	Buy	VET/USDT	0.127500000 USD	550.000000000000 VET	70.125000000000 USD	0.14025 POINT	550	70.12	
82993138412	10/6/2021	Sell	VET/USDT	0.112200000 USD	1,000.000000000000 VET	112.200000000000 USD	0.2244 POINT	1000	112.20	
83065115012	10/7/2021	Sell	VET/USDT	0.111480000 USD	9,100.000000000000 VET	1,014.468000000000 USD	2.028936 POINT	9100	1014.46	
83203897927	10/7/2021	Sell	VET/USDT	0.112620000 USD	2,098.192000000000 VET	236.298383040000 USD	0.47259676608 PO	2098	236.29	
83203897927	10/7/2021	Sell	VET/USDT	0.112620000 USD	5,035.666000000000 VET	567.116704920000 USD	1.13423340984 PO	5036	567.11	
83203897927	10/7/2021	Sell	VET/USDT	0.112620000 USD	7,866.142000000000 VET	885.884912040000 USD	1.77176982408 PO	7866	885.88	
83970592757	10/11/2021	Sell	VET/USDT	0.110900000 USD	2,006.841000000000 VET	222.558666900000 USD	0.4451173338 POIN	2007	222.55	
83970592757	10/11/2021	Sell	VET/USDT	0.110900000 USD	3,985.491000000000 VET	441.990951900000 USD	0.8839819038 POIN	3985	441.99	
83970592757	10/11/2021	Sell	VET/USDT	0.110900000 USD	9,007.667000000000 VET	998.950270300000 USD	1.9979005406 POIN	9008	998.95	
90902545128	11/5/2021	Buy	VET/USDT	0.155950000 USD	41.166000000000 VET	6.419837700000 USD	0.0128396754 POIN	41	6.41	
90902545128	11/5/2021	Buy	VET/USDT	0.155950000 USD	958.834000000000 VET	149.530162300000 USD	0.2990603246 POIN	959	149.53	
96910902223	11/24/2021	Buy	VET/USDT	0.122450000 USD	4,000.000000000000 VET	489.800000000000 USD	7.2 VET	4000	489.80	
99346356773	12/1/2021	Buy	VET/USDT	0.123120000 USD	2,500.000000000000 VET	307.800000000000 USD	4.5 VET	2500	307.80	
1.00007E+11	12/3/2021	Buy	VET/USDT	0.111650000 USD	450.000000000000 VET	50.242500000000 USD	0.81 VET	450	50.24	
1.00379E+11	12/4/2021	Buy	VET/USDT	0.093540000 USD	550.000000000000 VET	51.447000000000 USD	0.99 VET	550	51.44	
1.01433E+11	12/7/2021	Buy	VET/USDT	0.092620000 USD	600.000000000000 VET	55.572000000000 USD	1.08 VET	600	55.57	
								100391	11297.67	

FIFO Figure 28 - Buy and Sell VET Coins with USDT



### ... Annotation on Buy and Sell VET Coins with USDT

It was the cryptocurrencies' soaring popularity three years ago that enticed me into crypto investing. As a new participant in the newly found activity, I had only vague idea what a United States and a non-United States regulated crypto exchange was. Even if I knew then, I did not care, I was happily and successfully buying and selling cryptocurrencies from both types of exchange as I pleased without difficulty.

Lately however in 2022, I started getting notifications from Gate.io that my residence does not qualify me to buy and sell cryptos in their exchange even though they maintain a US address. Despite the fact that I clearly indicated my true residence in my registration for membership with them, I passed their KYC verification without issues. Inadvertently, a mistake had occurred.

The inadvertence allowed me to buy and sell VET coins which appealed to me very much in my early foray into cryptocurrencies. The coin is not listed at the Kraken exchange, my first exchange of choice. However, there was a slight round-about way to purchase the VET coins at the Gate.io exchange.

First, I had to purchase USDT currency with US dollar in the Kraken crypto exchange where I was slightly ahead in knowledge about cryptocurrencies. Then I had to send the USDT currency to Gate.io exchange since I could not send US dollar directly, or even if I could, it was more inconvenient than using USDT currency. Thereafter, I purchased VET coins with USDT currency at the Gate.io exchange. The transactions self-taught me how to manage transfers between crypto exchanges.

The inadvertence also benefited the development of FIFO – Aggregator of Capital Gains and Losses. With Kraken, a US regulated crypto exchange, and Gate.io, a non-US regulated exchange, the desired goals of the aggregation project were achieved. Standardization made them possible.

FIFO – Aggregator of Capital Gains and Losses has now evolved into a system that can handle more universal state of things pertaining to cryptocurrencies. Through the process of converting CSV files to FIFO format, nothing appears to stand on the way for the application to become a suitable choice for aggregating capital gains and losses.

Since the notifications from Gate.io of the inappropriate transactions due to residence ineligibility, I sold most of the VET coins I purchased through the exchange, netting profits and losses in the process. I moved whatever unsold VET coins to a cold storage.



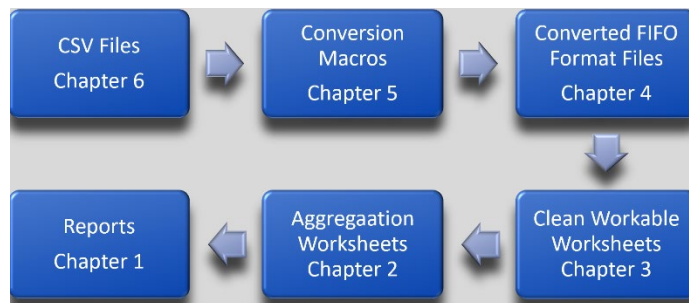
## Chapter 4 – Transition to Aggregation

The control of information is something the elite always does, particularly in a despotic form of government. Information, knowledge, is power. If you can control information, you can control people.

Tom Clancy

### **YOUR PROGRESS IN THE AGGREGATION PROCESS! NOTE THE DIRECTION OF THE ARROWS.**

If you are working in this chapter, it means you are done with Chapters 6 and 5.



**MEMORANDUM**

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## Sort Set Up

The screenshot displays the FIFO application's main window with a data table and an open 'Sort' dialog box. The dialog box is configured to sort the data by 'Date' in 'Ascending' order. The 'My data has headers' checkbox is checked. The data table below shows transaction details for various cryptocurrencies.

	A	B	C	D	E	F	G	H	I	J
	Exchange A	Currency	Transaction	Amount	Date	Unit Pric	Fees	Cost	Standby	Standby
	Reference	Pair	Type					Col 1	Col 2	Col 2
1										
2										
3	TVIMSP-WESYK-PHFWK - Exchange A	ADAETH	buy	44.00	2/28/2021	0.0009	0.00	0.0391		
4	TQZNAJ-POQMA-CC7LN - Exchange A	ADAUSD	buy	300.00	2/21/2021	1.1000	0.86	330.0093		
5	TZ5NGV-U3J2Y-3BVK12 - Exchange A	ADAUSD	buy	35.00	2/21/2021	1.1017	0.07	37.5435		
6	TIHSIQ-JPOBX-AVTJRN - Exchange A	ADAUSD	buy							
7	TY2UEZ-XSJO-YBRD2P - Exchange A	ADAUSD	buy							
8	T7643A-XI2TK-WZM35E - Exchange A	ADAUSD	buy							
9	T6QVBA-5TXLK-XQGET4 - Exchange A	ADAUSD	buy							
10	TBLXIF-FMKC4-DT2HPN - Exchange A	ADAUSD	buy							
11	TQ3OYE-VIRWP-TM3D12 - Exchange A	ADAUSD	buy							
12	TCLW5H-R3LRB-ZE3KAB - Exchange A	ADAUSD	buy							
13	TKJZCX-SNPVN-XQ4QJB - Exchange A	ADAUSD	buy							
14	TUR6PG-6GDD2-C7Q5HS - Exchange A	ADAUSD	buy							
15	TLWEWG-PIJF4-IGHFPI - Exchange A	ADAUSD	buy							
16	TNDIYW-P6UB3-LHIEPF - Exchange A	ADAUSD	buy							
17	TP5ISO-VHVALA-FIKEPP - Exchange A	ADAUSD	buy							
18	TTASCL-2W7RU-0ZCS7H - Exchange A	ADAUSD	buy							
19	TAV4N4-DJETF-GNW7W3 - Exchange A	ADAUSD	buy							
20	TJBWKL-3XBFY-RXGRQJ - Exchange A	ADAUSD	buy							
21	TPKYX-L3QHI-JWWF64 - Exchange A	ADAUSD	buy	1,030.00	3/14/2021	1.0760	1.77	1,108.2800		
22	TK5GMR-Z3HLP-5OBK37 - Exchange A	ADAUSD	buy	970.00	3/14/2021	1.0760	1.67	1,043.7200		
23	TQC75B-FVPVY-3VXZJ4 - Exchange A	ADAUSD	buy	345.60	3/14/2021	1.0760	0.59	371.8656		
24	TYCLP-WRWLN-ZNWF7U - Exchange A	ADAUSD	buy	1,281.17	3/14/2021	1.0760	2.21	1,378.5344		
25	T2FHHK-3GAIO-KUT4QK - Exchange A	ADAUSD	buy	929.00	3/14/2021	1.0760	1.60	999.6040		

FIFO Figure 29 - Sort Set Up



### ...Annotation on Sort Set Up

If there was a phase in the aggregation process that produced a major milestone, the sort set up was the one. After all the difficulties of converting the CSV file to FIFO format, in one sweep the sort set up summarized the partial achievement.

The Excel sort set up function accomplished the following:

- First level sort by: **Type**. This level grouped transactions by buys and sells or whatever terms were used to represent acquisitions and dispositions of cryptocurrencies.
- Second level sort by: **Pair**. This level grouped sorted transaction types by cryptocurrency pairs.
- Third level sort by: **Date**. In chronological order, this final sort level arranged sorted transaction types which were already sorted by currency pairs.



## Sorted File after Conversion to FIFO Format – No Row Separations

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Workbook Views									
Sheet View									
A	B	C	D	E	F	G	H	I	J
Exchange A	Currency	Transaction	Amount	Date	Unit Price	Fees	Cost	Standby	Stand
Reference	Pair	Type						Col 1	Col
1									
2									
3	TVIMSP-WESYK-PHFWK - Exchange A	buy	44.00	2/28/2021	0.0009	0.00	0.0391		
4	TQ2NAI-POQMA-CC7LN - Exchange A	buy	300.00	2/21/2021	1.1000	0.86	330.0093		
5	TZ5NGV-U3I2Y-3BVKI2 - Exchange A	buy	25.00	2/21/2021	1.1017	0.07	27.5425		
6	TJHSIQ-JPOBX-AVTJRN - Exchange A	buy	2,000.00	2/22/2021	1.0596	5.51	2,119.1835		
7	TY2UEZ-X5QJO-YBRD2P - Exchange A	buy	675.00	2/23/2021	1.0000	1.08	675.0000		
8	T7643A-XI2TK-WZM35E - Exchange A	buy	2,000.00	2/24/2021	0.9817	5.11	1,963.4760		
9	T6QVBA-5TXLK-XQGET4 - Exchange A	buy	3,000.00	2/25/2021	1.1399	8.89	3,419.6610		
10	TBLXKF-FMKC4-DT2HPN - Exchange A	buy	1,018.01	2/26/2021	1.2500	2.04	1,272.5075		
11	TO3OYE-VJRWLP-TM3D12 - Exchange A	buy	981.99	2/26/2021	1.2500	1.96	1,227.4925		
104	TQ07YA-55U6L-R4813C - Exchange A	buy	3,500.00	4/25/2021	0.2827	2.57	989.3247		
105	TZQQD6-UIXKC-REDXKS - Exchange A	buy	800.00	5/7/2021	0.5469	1.14	437.5558		
106	TP6XST-S3LNS-D3XTD5 - Exchange A	buy	0.04	2/21/2021	1,953.8000	0.20	78.1520		
107	TSHHNT-DMF75-LYENLZ - Exchange A	sell	1,000.00	6/3/2021	1.7475	4.54	1,747.5150		
108	TMTCXH-WEW5N-P7CFWT - Exchange A	sell	800.00	4/25/2021	1.0590	2.20	847.2282		
109	T22XVT-YPJEP-EKDQ5X - Exchange A	sell	150.00	6/3/2021	0.8120	0.32	121.7970		
110	TNUMJ3-WQXX6-LQF3UQ - Exchange A	sell	6,000.00	4/16/2021	0.3776	5.89	2,265.7422		
111	TBYDDH-AJUKY-LX6JWN - Exchange A	sell	6,000.00	4/17/2021	0.3543	5.53	2,126.0640		
112	TQR36I-R4CLO-GPYCYR - Exchange A	sell	9,000.00	4/25/2021	0.2411	5.64	2,170.0768		
113	TMXCDL-2T0PU-NRXXZU - Exchange A	sell	800.00	5/9/2021	0.5673	1.18	453.8086		
114	TK5E6U-K7DOT-K4XAVQ - Exchange A	sell	500.00	6/3/2021	0.4077	0.33	203.8720		
115	TM7XQP-FCVHS-TNURUM - Exchange A	sell	0.00	6/3/2021	0.4077	0.00	0.0000		
116									
117									

FIFO Figure 30 - Sorted File after Conversion to FIFO Format – No Row Separations



### **...Annotation on Sorted File after Conversion to FIFO Format – No Row Separations**

The Excel sort function did indeed an amazing job! It was not the expectation however, to have every desirable feature built into it because the sort function was not written that way.

All the currency pairs in the photograph were listed one after another. The sort levels were still maintained but care had to be exercised to place each currency accurately where it belonged in the grouping scheme, prior to the start of the aggregation process.

With an enormous number of cryptocurrencies in circulation it was conceivable that, unaware of a wrong data being used as the object of certain calculations, a phase in the aggregation process could continue propagating mistakes.

The following section of the book discusses the advantages of separation rows embedded in the spreadsheets.

.



## Converted Worksheet With Row Separations

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<div> <div>Sheet View</div> <div>Workbook Views</div> <div>Show</div> <div>Zoom</div> <div>Window</div> </div>									
	A	B	C	D	E	F	G	H	J
88	TBDRW2-CTFZL-GZRI5U - Exchange A	ADAUSD	buy	500.00	12/14/2021	1.2000	0.96	600.0000	
89									
90	T64BLZ-6IQWC-4UNPGF - Exchange A	BATUSD	buy	100.00	2/27/2021	0.5290	0.14	52.9000	
91	T787EJ-AA4AQ-JUVM7N - Exchange A	BATUSD	buy	200.00	2/27/2021	0.5252	0.27	105.0400	
92	TTJDMH-UDA5B-MDPBGN - Exchange A	BATUSD	buy	500.00	3/19/2021	1.2121	1.45	606.0300	
93	TYG5XX-JFGKU-EWDOL2 - Exchange A	BATUSD	buy	200.00	4/3/2021	1.1300	0.36	226.0000	
94									
95	TZEZHQ-N2PIK-L5E5U2 - Exchange A	USDZUSD	buy	200.00	5/18/2021	1.0012	0.40	200.2400	
96	TNOQ7B-77LZD-YA6OBZ - Exchange A	USDZUSD	buy	300.00	5/19/2021	1.0038	0.60	301.1400	
97	TVDLR-F335J-CMKQST - Exchange A	USDZUSD	buy	1,600.00	6/3/2021	1.0002	3.20	1,600.3200	
98	T43AED-BMLOE-EX66AA - Exchange A	USDZUSD	buy	400.00	6/3/2021	1.0003	0.80	400.1200	
99	T36KLR-BGKMK-BKXBI - Exchange A	USDZUSD	buy	70.00	6/11/2021	1.0004	0.14	70.0280	
109	TQ07YA-55U6L-R4B3C - Exchange A	XDGUSD	buy	3,500.00	4/25/2021	0.2827	2.57	989.3247	
110	TZQQD6-UJXKC-REDKXS - Exchange A	XDGUSD	buy	800.00	5/7/2021	0.5469	1.14	437.5558	
111									
112	TP6XST-S3LNS-D3XTD5 - Exchange A	XETHUSD	buy	0.04	2/21/2021	1,953.8000	0.20	78.1520	
113									
114	T5HHNT-DMF75-LYENLZ - Exchange A	ADAUSD	sell	1,000.00	6/3/2021	1.7475	4.54	1,747.5150	
115									
116	TMTCXH-WEW5N-P7CFWT - Exchange A	BATUSD	sell	800.00	4/25/2021	1.0590	2.20	847.2282	
117	T2ZXVT-YPIEP-EKDQ5X - Exchange A	BATUSD	sell	150.00	6/3/2021	0.8120	0.32	121.7970	
118									
119	TNUMJ3-WQXX6-LQF3UQ - Exchange A	XDGUSD	sell	6,000.00	4/16/2021	0.3776	5.89	2,265.7422	
120	TBYDDH-AUKY-LX6IWN - Exchange A	XDGUSD	sell	6,000.00	4/17/2021	0.3543	5.53	2,126.0640	
121	TOR36I-R4CLO-GPYCR - Exchange A	XDGUSD	sell	9,000.00	4/25/2021	0.2411	5.64	2,170.0768	
122									

FIFO Figure 31 - Converted Worksheet With Row Separations



### **...Annotation on Converted Worksheet With Row Separations**

What difference do separation rows make to the readability of an Excel worksheet! Not only do they make the worksheet more pleasant to work with, they also significantly improve accuracy. The previous worksheet is presented here with an abundance of separation rows.

Like the way the sort set up was designed, the first separation is by transaction type, followed by currency pair, then followed by date. As evident now, the worksheet is easy to work with, is unlikely to generate errors, and is ready to transition to the next phase of the aggregation process.

There can hardly be a mistake that a currency pair may not belong to a group since each group consists of similarly looking pairs. Just a cursory glance at the worksheet will immediately reveal obvious currency pair misplacement. Row separations are done manually because they involve visual examination.

As planned, the three sort levels imposed on the worksheet produced the desired result. In conclusion, row separations are a step that cannot be skipped nor ignored.



### Discarded Items

The systematic planning when building FIFO – Aggregator of Capital Gains and Losses not only helps in the creation of clean workable worksheets, but it also helps in the elimination of unnecessary data that interfere with subsequent steps in the aggregation process. For example, the following short tabulation shows data that are initially gotten out of the way in this phase of the aggregation process:

Columns of entries eliminated -

- 115 rows of Orderid entries
- 115 rows of Ordertype entries
- 115 rows of Margin entries
- 115 rows of Misc entries
- 115 rows of Ledgers entries

From the scope of FIFO – Aggregator of Capital Gains and Losses the tabulated items are extraneous entries. After all, the original object at the start of the aggregation process is to extract clean worksheets from CSV files. The last few steps accomplished the task.



**MEMORANDUM**

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## Converted Gate.io Worksheet With Row Separations

	File	Home	Insert	Page Layout	Formulas	Data	Review	View	Developer	Help	Acrobat	
	<div><div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div>Clipboard</div><div>Font</div><div>Alignment</div><div>Number</div><div>Conditional Formatting</div></div></div>											
	A	B	E	G	I	J	L	M	O	P	Q	T
81	Reference	coins bought	Date Acquired (b)	purchasee	Clean Fees	Total Cost	Coins sold	Date Sold	Proceeds	Assigned Cost	Remaining VET	Gain or (loss)
82												
83	49518316534	50	5/23/2021	5.00	0.36	5.36	50	10/6/2021	5.61	5.36	0	0.25
84	49759412179	200	5/23/2021	16.00	0.54	16.54	200	10/6/2021	22.44	16.54	0	5.90
85	49927507282	300	5/24/2021	27.42	0.18	27.60	300	10/6/2021	33.66	27.60	0	6.06
86	49927812128	100	5/24/2021	9.16	0.00	9.16	100	10/6/2021	11.22	9.16	0	2.06
87	50001016901	300	5/24/2021	32.10	0.49	32.59	300	10/6/2021	33.66	32.59	0	1.07
88	50037856198	276	5/24/2021	29.99	0.49	30.48	50	10/6/2021	5.61	5.52	226	0.09
89												
90	50037856198	226	5/24/2021	24.56	0.00	24.56	226	10/7/2021	25.19	24.56	0	0.64
91	50037856198	149	5/24/2021	16.18	0.90	17.08	149	10/7/2021	16.61	17.08	0	(0.47)
92	50040667129	500	5/24/2021	56.24	1.08	57.32	500	10/7/2021	55.74	57.32	0	(1.58)
93	50041552122	600	5/24/2021	67.08	1.62	68.70	600	10/7/2021	66.89	68.70	0	(1.81)
94	50046961228	900	5/25/2021	98.10	1.79	99.89	900	10/7/2021	100.33	99.89	0	0.44
95	50560462598	1000	5/26/2021	125.89	0.70	126.59	1000	10/7/2021	111.48	126.59	0	(15.11)
96	50562834414	390	5/26/2021	49.84	0.35	50.19	390	10/7/2021	43.48	50.19	0	(6.71)
97	50565921186	199	5/26/2021	25.28	0.05	25.33	199	10/7/2021	22.18	25.33	0	(3.15)
98	50565921186	29	5/26/2021	3.63	0.01	3.64	29	10/7/2021	3.23	3.64	0	(0.41)
99	50565921186	8	5/26/2021	0.99	0.27	1.26	8	10/7/2021	0.89	1.26	0	(0.37)
100	50598594446	150	5/27/2021	19.35	1.38	20.73	150	10/7/2021	16.72	20.73	0	(4.01)
101	50600306148	770	5/27/2021	99.03	0.54	99.57	770	10/7/2021	85.84	99.57	0	(13.73)
102	50601627634	300	5/27/2021	38.25	0.27	38.52	300	10/7/2021	33.44	38.52	0	(5.08)
103	50603963425	150	5/27/2021	19.18	0.00	19.18	150	10/7/2021	16.72	19.18	0	(2.46)
104	50624493095	3050	5/27/2021	395.34	0.00	395.34	3050	10/7/2021	340.01	395.34	0	(55.33)
105	50995573855	50	5/28/2021	5.48	0.00	5.48	50	10/7/2021	5.57	5.48	0	0.09
106	51096572579	610	5/29/2021	64.19	0.00	64.19	610	10/7/2021	68.00	64.19	0	3.81
107	51355675886	100	5/30/2021	9.35	0.00	9.35	19	10/7/2021	2.12	1.78	81	0.34
108												
109	51355675886	81	5/30/2021	7.57	0.00	7.57	81	10/7/2021	9.12	7.57	0	1.55
110	51551005735	1500	5/31/2021	160.44	0.00	160.44	1500	10/7/2021	168.94	160.44	0	8.50
111	51784333979	790	6/1/2021	99.28	0.00	99.28	517	10/7/2021	58.23	64.97	273	(6.74)
112												
113	51784333979	273	6/1/2021	34.31	0.00	34.31	273	10/7/2021	30.75	34.31	0	(3.56)
114	51786342200	1200	6/1/2021	149.40	0.00	149.40	1200	10/7/2021	135.16	149.40	0	(14.24)
115	51931836252	830	6/2/2021	99.60	0.00	99.60	830	10/7/2021	93.49	99.60	0	(6.11)
116	52102639749	500	6/2/2021	62.64	0.00	62.64	500	10/7/2021	56.32	62.64	0	(6.32)
117	52143285670	2392	6/3/2021	304.93	0.00	304.93	2232	10/7/2021	251.40	284.53	160	(33.13)
118												
119	52143285670	160	6/3/2021	20.40	0.00	20.40	160	10/7/2021	18.02	20.40	0	(2.38)
120	52143285670	1528	6/3/2021	194.86	18.60	213.46	1528	10/7/2021	172.09	213.46	0	(41.37)
121	52224981268	11192	6/3/2021	1382.21	0.00	1382.21	6178	10/7/2021	695.78	762.98	5014	(67.21)
122												
123	52224981268	5014	6/3/2021	619.23	0.00	619.23	2007	10/11/2021	222.56	247.86	3007	(25.30)
124												
125	52224981268	3007	6/3/2021	371.36	0.00	371.36	3007	10/11/2021	333.52	371.36	0	(37.85)
126	52226745542	18	6/3/2021	2.21	0.00	2.21	18	10/11/2021	2.00	2.21	0	(0.21)
127	52349342210	1450	6/4/2021	194.30	5.57	199.87	960	10/11/2021	106.48	132.33	490	(25.85)
128												
129	52349342210	490	6/4/2021	65.66	0.00	65.66	490	10/11/2021	54.34	65.66	0	(11.32)
130	52381074537	3350	6/4/2021	448.90	0.00	448.90	3350	10/11/2021	371.50	448.90	0	(77.40)
131	52556084536	190	6/4/2021	24.30	0.00	24.30	190	10/11/2021	21.07	24.30	0	(3.23)
132	54082664971	852	6/11/2021	95.50	0.00	95.50	852	10/11/2021	94.48	95.50	0	(1.02)
133	55560215110	285	6/18/2021	30.35	0.00	30.35	285	10/11/2021	31.61	30.35	0	1.26
134	56544209452	3675	6/22/2021	282.97	0.00	282.97	3675	10/11/2021	407.54	282.97	0	124.57
135	56549408623	920	6/22/2021	69.92	0.00	69.92	166	10/11/2021	18.41	12.62	754	5.79
136												
137												(311.02)

FIFO Figure 32 - Converted Gate.io Worksheet With Row Separations



### **...Annotation on Converted Gate.io Worksheet With Row Separations**

The post conversion of the Gate.io CSV file to FIFO format renders a somewhat different presentation. The steps followed in the aggregation process remain the same nevertheless, like those of the other CSV files. Imposing a standard format by FIFO – Aggregator of Capital Gain and Losses is what makes the application adaptable to few number of crypto exchanges.

The separations referred to in this presentation are the delineation by empty rows of the different dates when each disposition of the VET coins occurred. Mentioned in the other CSV files are separations between currency pairs, an entirely different separation type but executed in the same manner.

What makes the Gate.io CSV file more challenging to work with is the fact that data are mostly made up of mingled numbers and texts. This type of data does not easily lend themselves to mathematical calculations without first separating the text and the number elements. Furthermore, decimal placement, which is to the nth number, must be dealt with uniformly and accurately.

The additional work is where a slightly advance Excel knowledge is called for while using FIFO – Aggregator of Capital Gains and Losses, a skill which is beyond the scope of this book. However, as a hint, Excel's string functions can be used to format data that are combinations of numbers and texts. The functions are relatively easy to learn.

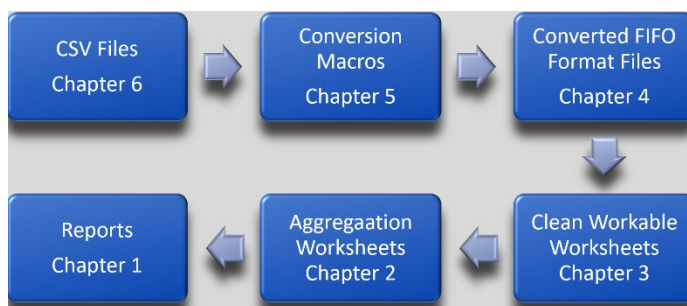


## Chapter 5 - CSV File to FIFO Format Conversion – See APPENDIX A – HEADINGS DEFINITIONS

...template opportunity starts here.

### YOUR PROGRESS IN THE AGGREGATION PROCESS! NOTE THE DIRECTION OF THE ARROWS.

If you are working in this chapter, it means you  
are done with Chapter 6.



**MEMORANDUM**

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### ...About the Base Conversion Platform

FIFO's Base Conversion Platform is where all the actions in the aggregation of capital gains and losses take place. It is the launching pad of all the bright ideas that develop during the aggregation process.

Firstly, notice the worksheet names "CSV File" and "CSV File To FIFO Format" on the bottom left corner of the platform.

The "CSV File" worksheet is where the CSV file (saved in Excel format) from the exchange is uploaded. The whole file including a 1-line header is uploaded into column A, row 1.

The "CSV File To FIFO Format" is the worksheet where the converted CSV file finds a home. The worksheet must be properly labeled as follows:

- Column A, Row 1 – name of the exchange
- Column B, Row 1 and Row 2– Currency Pair
- Column C, Row 1 and Row 2 – Transaction Type
- Column D, Row 2 – Amount
- Column E, Row 2 – Date
- Column F, Row 2 – Unit Price
- Column G, Row 2 - Fees
- Column H, Row 2 – Cost
- Column I, Row 1 and Row 2 – Standby Col 1
- Column J, Row 1 and Row 2 – Standby Col 2
- Column K, Row 1 and Row 2, - Standby Col 3
- Column L, Row 1 and Row 2 – Standby Col 4

Actions on the "CSV File To FIFO" are triggered by macros, keystrokes, or mouse clicks. Normally, "CSV File To FIFO Format" conversion starts at Column A, Row 3, but as you will learn later, it can start at any labelled random column.

The arrangement enables the user to selectively run specific macros in a small area where there are mistakes. For example, fixing errors in one of the labelled columns while leaving the perfect entries untouched in other columns, frequently happens during the aggregation process.



## Convert CSV File “Reference” to FIFO Format

A	B	C	D	E	F	G	H	I
Exchange A	Currency Pair	Transaction Type	Amount	Date	Unit Price	Fees	Cost	Standby Col 1
1	Exchange A	Reference						
2								
3	TVJMSP-WESYK-PHIFWK - Exchange A							
4	TQ2NAJ-POQMA-CCC7LN - Exchange A							
5	TZ5NGV-U3J2Y-3BVKI2 - Exchange A							
6	TJHSIQ-JPOBX-AVTJRN - Exchange A							
7	TY2UEZ-XSQJO-YBRD2P - Exchange A							
8	T7643A-XI2TK-WZM35E - Exchange A							
9	T6QVBA-5TXLK-XQGET4 - Exchange A							
10	TBLXKF-FMKC4-DT2HPN - Exchange A							
11	TQ3OYE-VJRWV-TM3DI2 - Exchange A							
12	TCLW5H-R3LRB-ZE3KAB - Exchange A							
13	TKJZCX-SNPVN-XQ4QJB - Exchange A							
14	TUR6PG-6GOD2-C7Q5HS - Exchange A							
15	TLWEWG-PJF4-IGHFPI - Exchange A							
16	TNDIYW-P6UB3-LHIEPF - Exchange A							
17	TP5ISO-VHALA-FJKEPP - Exchange A							
18	TTASCL-2W7RU-OZCS7H - Exchange A							
19	TAV4N4-DJETF-GNW7W3 - Exchange A							
20	TJBWKL-3KBFY-RXGRQJ - Exchange A							
21	TPKYX-13QHI-JWWF64 - Exchange A							
22	TK5GMR-Z3HLP-5OBK37 - Exchange A							

FIFO Figure 34 - Convert CSV File “Reference” to FIFO Format



```

Sub csv_file_to_fifo_format_REFERENCE()
,
' csv_file_to_fifo_format_REFERENCE Macro
,
,
    Sheets("CSV File To FIFO Format").Select
    Range("A3").Select
    ActiveCell.FormulaR1C1 = _
        "=CONCAT('CSV File'!R[-1]C,'" - "','CSV File To FIFO Format'!R1C1)"
    Range("A3").Select
    Selection.Copy
    Range("A4:A115").Select
    ActiveSheet.Paste
    Application.CutCopyMode = False
    Range("A1").Select
End Sub

```

### ...About Conversion of CSV File “Reference” to FIFO Format

Except for the Excel concatenate function, the macro that does the Reference conversion is built by keystrokes and mouse clicks. The concatenate function attaches the exchange’s name to each Reference, making it possible, if necessary, to combine files from different exchanges. Combined files return a certain amount of profit when an investor has a choice of crypto exchange in which to make a purchase where the total of price and fees is relatively low.

The conversion includes the range from row 1 to the last row of the CSV file. With Excel’s capacity to handle as many as 1,048,576 rows and columns labeled A through XFD, there is no limit on how big a file FIFO – Aggregator of Capital Gains and Losses can handle, depending on the Excel version.

Converted Reference is in text format, so no additional formatting is needed to enhance it.





## Convert CSV File “Currency Pair” to FIFO Format

File

Home

Insert

Page Layout

Formulas

Data

Review

View

Developer

Help

Acrobat

Visual Basic

Macros

Record Macro

Use Relative References

Macro Security

Code

Add-ins

Excel Add-ins

COM Add-ins

Insert

Design Mode

Properties

View Code

Run Dialog

Map Properties

Expansion Packs

Refresh Data

XML

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FIFO Figure 35 - Convert CSV File “Currency Pair” to FIFO Format

Sub csv\_file\_to\_fifo\_format\_CURRENCY\_PAIR()



```

'
' csv_file_to_fifo_format_CURRENCY_PAIR Macro
'
'
    Sheets("CSV File To FIFO Format").Select
    Range("B3").Select
    ActiveCell.FormulaR1C1 = "='CSV File!R[-1]C[1]"
    Range("B3").Select
    Selection.Copy
    Range("B4:B115").Select
    ActiveSheet.Paste
    Application.CutCopyMode = False
    Range("A1").Select
End Sub

```

### **...About Conversion of CSV File “Currency Pair” to FIFO Format**

In the order of how they appear in the CSV file, conversion proceeds from the very first row to the last row and from column A to the last column of the file. Conversion includes the column headings and all the currency pairs.

Conversion is done by macros which are recorded prior to the initiation of the aggregation process. The converted “Currency Pair” is formatted as text, so no additional formatting is needed to enhance it.

With Excel’s capacity to handle as many as 1,048,576 rows and columns labeled A through XFD, there is no limit on how big a file FIFO – Aggregator of Capital Gains and Losses can handle, depending on the Excel version.



## Convert CSV File “Transaction Type” to FIFO Format

File											Home	Insert	Page Layout	Formulas	Data	Review	View	Developer	Help	Acrobat								
Visual Basic			Macros		Record Macro		Use Relative References		Add-ins		Excel Add-ins		COM Add-ins		Insert		Design Mode		Properties		Map Properties		Expansion Packs		Import		Export	
Macro Security																					Refresh Data							

```

Sub csv_file_to_fifo_format_TRANSACTION_TYPE()
'
' csv_file_to_fifo_format_TRANSACTION_TYPE Macro
'
'
    Sheets("CSV File To FIFO Format").Select
    Range("C3").Select
    ActiveCell.FormulaR1C1 = "='CSV File'!R[-1]C[2]"
    Range("C3").Select
    Selection.Copy
    Range("C4:C115").Select
    ActiveSheet.Paste
    Application.CutCopyMode = False
    Range("A1").Select
End Sub

```

### ...About Conversion of CSV File “Transaction Type” to FIFO ...Format

In the order of how they appear in the CSV file, conversion proceeds from the very first row to the last row and from column A to the last column of the file. Conversion includes the column headings and all the transaction types.

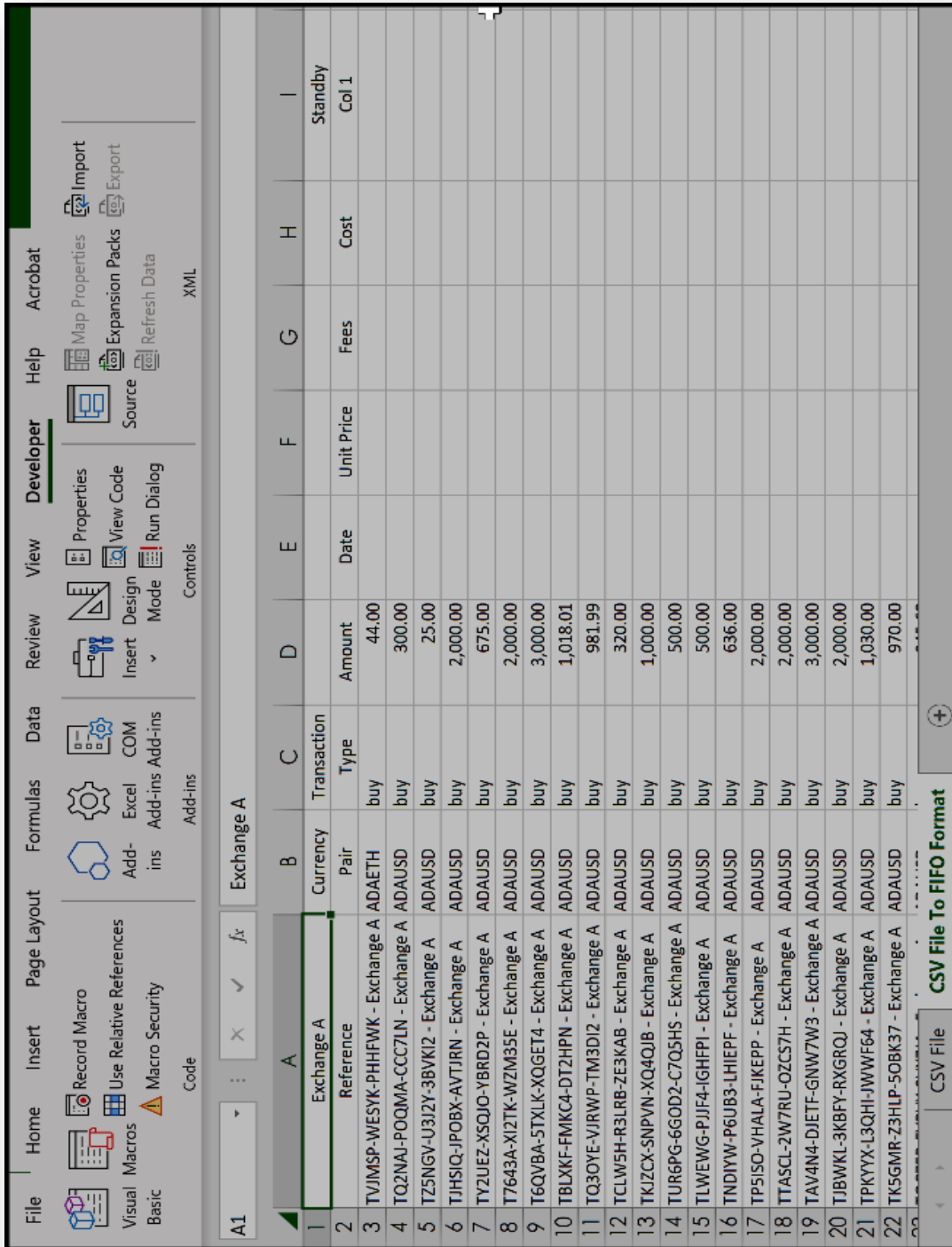
Conversion is done by macros which are recorded prior to the initiation of the aggregation process. The converted “Transaction Type” is formatted as text, so no additional formatting is needed to enhance it.

With Excel’s capacity to handle as many as 1,048,576 rows and columns labeled A through XFD, there is no limit on how big a file FIFO – Aggregator of Capital Gains and Losses can handle, depending on the Excel version.

.



## Convert CSV File “Amount” to FIFO Format



	A	B	C	D	E	F	G	H	I
	Exchange A	Currency Pair	Transaction Type	Amount	Date	Unit Price	Fees	Cost	Standby Col 1
1	Exchange A	ADAETH	buy	44.00					
2	Reference	ADAUSD	buy	300.00					
3	TVJMSW-WESYK-PHFWK - Exchange A	ADAUSD	buy	25.00					
4	TQ2NAI-POQMA-CCC7LN - Exchange A	ADAUSD	buy	2,000.00					
5	TZ5NGV-U3J2Y-3BVKI2 - Exchange A	ADAUSD	buy	675.00					
6	TJHSIQ-JPOBX-AVTJRN - Exchange A	ADAUSD	buy	2,000.00					
7	TY2UEZ-XSJOJ-YBRD2P - Exchange A	ADAUSD	buy	2,000.00					
8	T7643A-XI2TK-WZM35E - Exchange A	ADAUSD	buy	3,000.00					
9	T6QVBA-5TXLK-XQGET4 - Exchange A	ADAUSD	buy	1,018.01					
10	TBLXKF-FMKC4-DT2HPN - Exchange A	ADAUSD	buy	981.99					
11	TQ3OYE-VJRWV-TM3DI2 - Exchange A	ADAUSD	buy	320.00					
12	TCLW5H-R3LRB-ZE3KAB - Exchange A	ADAUSD	buy	1,000.00					
13	TKJZCX-SNPVN-XQ4QJB - Exchange A	ADAUSD	buy	500.00					
14	TUR6PG-6GOD2-C7QSHS - Exchange A	ADAUSD	buy	500.00					
15	TLWEWG-PJF4-IGHFPI - Exchange A	ADAUSD	buy	636.00					
16	TNDIYW-P6UB3-LHIEPF - Exchange A	ADAUSD	buy	2,000.00					
17	TP5ISO-VHALA-FJKEPP - Exchange A	ADAUSD	buy	2,000.00					
18	TTASCL-2W7RU-OZCS7H - Exchange A	ADAUSD	buy	2,000.00					
19	TAV4N4-DJETF-GNW7W3 - Exchange A	ADAUSD	buy	3,000.00					
20	TJBWKL-3KBFY-RXGRQJ - Exchange A	ADAUSD	buy	2,000.00					
21	TPKYX-13QHI-JWWF64 - Exchange A	ADAUSD	buy	1,030.00					
22	TK5GMR-Z3HLP-5OBK37 - Exchange A	ADAUSD	buy	970.00					

FIFO Figure 37 - Convert CSV File “Amount” to FIFO Format



```

Sub csv_file_to_fifo_format_AMOUNT()
'
' csv_file_to_fifo_format_AMOUNT Macro
'
'
    Sheets("CSV File To FIFO Format").Select
    Range("D3").Select
    ActiveCell.FormulaR1C1 = "='CSV File'!R[-1]C[6]"
    Range("D3").Select
    Selection.Copy
    Range("D4:D115").Select
    ActiveSheet.Paste
    Application.CutCopyMode = False
    Range("A1").Select
End Sub

```

### ...About Conversion of CSV File “Amount” to FIFO ...Format

In the order of how they appear in the CSV file, conversion proceeds from the very first row to the last row and from column A to the last column of the file. Conversion includes the column headings and all the amounts.

Conversion is done by macros which are recorded prior to the initiation of the aggregation process. The converted “Amount” is formatted as text, but because it will be used in mathematical calculation in future steps, additional work is needed to format it as number. Number formatting is covered by a separate macro.

With Excel’s capacity to handle as many as 1,048,576 rows and columns labeled A through XFD, there is no limit on how big a file FIFO – Aggregator of Capital Gains and Losses can handle, depending on the Excel version.



## Convert CSV File “Date” to FIFO Format

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Acrobat

Visual Basic

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Record Macro

Use Relative References

Macro Security

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FIFO Figure 38 - Convert CSV File “Date” to FIFO Format



```

Sub csv_file_to_fifo_format_DATE()
'
' csv_file_to_fifo_format_DATE Macro
'
'
    Sheets("CSV File To FIFO Format").Select
    Range("E3").Select
    ActiveCell.FormulaR1C1 = "'CSV File'!R[-1]C[-1]"
    Range("E3").Select
    Selection.Copy
    Range("E4:E115").Select
    ActiveSheet.Paste
    Application.CutCopyMode = False
    Range("A1").Select
End Sub

```

### ...About Conversion of CSV File “Date” to FIFO Format

In the order of how they appear in the CSV file, conversion proceeds from the very first row to the last row and from column A to the last column of the file. Conversion includes the column headings and all the dates.

Conversion is done by macros which are recorded prior to the initiation of the aggregation process. The converted “Date” is formatted as text, but because it will be used in mathematical calculation in future steps, additional work is needed to format it as date and time. Date and time formatting is covered by a separate macro.

With Excel’s capacity to handle as many as 1,048,576 rows and columns labeled A through XFD, there is no limit on how big a file FIFO – Aggregator of Capital Gains and Losses can handle, depending on the Excel version.





## Convert CSV File “Unit Price” to FIFO Format

Exchange A										
A	B	C	D	E	F	G	H	I		
Reference	Currency Pair	Transaction Type	Amount	Date	Unit Price	Fees	Cost	Standby Col 1		
1	Exchange A									
2	Exchange A									
3	TVJMSP-WESYK-PHHFWK - Exchange A	buy	44.00	2/28/2021	0.0009					
4	TQ2NAJ-POQMA-CC7LN - Exchange A	buy	300.00	2/21/2021	1.1000					
5	TZ5NGV-U3I2Y-3BVK12 - Exchange A	buy	25.00	2/21/2021	1.1017					
6	TJHSIQ-JPOBX-AVTJRN - Exchange A	buy	2,000.00	2/22/2021	1.0596					
7	TY2UEZ-XSQJO-YBRD2P - Exchange A	buy	675.00	2/23/2021	1.0000					
8	T7643A-X12TK-WZM35E - Exchange A	buy	2,000.00	2/24/2021	0.9817					
9	T6QVBA-5TXLK-XQGET4 - Exchange A	buy	3,000.00	2/25/2021	1.1399					
10	TBLXKF-FMKC4-DT2HPN - Exchange A	buy	1,018.01	2/26/2021	1.2500					
11	TQ3OYE-VJRWV-TM3DI2 - Exchange A	buy	981.99	2/26/2021	1.2500					
12	TCLW5H-R3LRB-ZE3KAB - Exchange A	buy	320.00	2/26/2021	1.2743					
13	TKJZCX-SNPVN-XQ4QJB - Exchange A	buy	1,000.00	2/26/2021	1.2000					
14	TUR6PG-6GOD2-C7Q5HS - Exchange A	buy	500.00	2/28/2021	1.2700					
15	TLWEWG-PJF4-IHFPI - Exchange A	buy	500.00	2/28/2021	1.2600					
16	TNDIYW-P6UB3-LHIEPF - Exchange A	buy	636.00	3/4/2021	1.2100					
17	TP5ISO-VHALA-FJKEPP - Exchange A	buy	2,000.00	3/6/2021	1.1500					
18	TTASCL-2W7RU-OZCS7H - Exchange A	buy	2,000.00	3/8/2021	1.1181					
19	TAV4N4-DIETF-GNV7W3 - Exchange A	buy	3,000.00	3/12/2021	1.0550					
20	TJBWKL-3KBFY-RXGRQJ - Exchange A	buy	2,000.00	3/14/2021	1.0765					
21	TPKYYX-L3QHI-JWWF64 - Exchange A	buy	1,030.00	3/14/2021	1.0760					
22	TK5GMR-Z3HLP-50BK37 - Exchange A	buy	970.00	3/14/2021	1.0760					
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FIFO Figure 39 - Convert CSV File “Unit Price” to FIFO Format



```

Sub csv_file_to_fifo_format_UNIT_PRICE()
'
' csv_file_to_fifo_format_UNIT_PRICE Macro
'
'
    Sheets("CSV File To FIFO Format").Select
    Range("F3").Select
    ActiveCell.FormulaR1C1 = "'CSV File'!R[-1]C[1]"
    Range("F3").Select
    Selection.Copy
    Range("F4:F115").Select
    ActiveSheet.Paste
    Application.CutCopyMode = False
    Range("A1").Select
End Sub

```

### ...About Conversion of CSV File “Unit Price” to FIFO Format

In the order of how they appear in the CSV file, conversion proceeds from the very first row to the last row and from column A to the last column of the file. Conversion includes the column headings and all the unit prices.

Conversion is done by macros which are recorded prior to the initiation of the aggregation process. The converted “Unit Price” is formatted as text, but because it will be used in mathematical calculation in future steps, additional work is needed to format it as number. Number formatting is covered by a separate macro.

With Excel’s capacity to handle as many as 1,048,576 rows and columns labeled A through XFD, there is no limit on how big a file FIFO – Aggregator of Capital Gains and Losses can handle, depending on the Excel version.



## Convert CSV File “Fees” to FIFO Format

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Refresh Data

Source

View Code

Run Dialog

Properties

View Code

Run Dialog

Import

Export

Map Properties

Expansion Packs

Refresh Data

Source

View Code

Run Dialog

Properties

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FIFO Figure 40 - Convert CSV File “Fees” to FIFO Format



```

Sub csv_file_to_fifo_FEES()
'
' csv_file_to_fifo_FEES Macro
'
'
    Sheets("CSV File To FIFO Format").Select
    Range("G3").Select
    ActiveCell.FormulaR1C1 = "'CSV File'!R[-1]C[2]"
    Range("G3").Select
    Selection.Copy
    Range("G4:G115").Select
    ActiveSheet.Paste
    Application.CutCopyMode = False
    Range("A1").Select
End Sub

```

### ...About Conversion of CSV File “Fees” to FIFO Format

In the order of how they appear in the CSV file, conversion proceeds from the very first row to the last row and from column A to the last column of the file. Conversion includes the column headings and all the fees.

Conversion is done by macros which are recorded prior to the initiation of the aggregation process. The converted “Fees” is formatted as text, but because it will be used in mathematical calculation in future steps, additional work is needed to format it as number. Number formatting is covered by a separate macro.

With Excel’s capacity to handle as many as 1,048,576 rows and columns labeled A through XFD, there is no limit on how big a file FIFO – Aggregator of Capital Gains and Losses can handle, depending on the Excel version.



## Convert CSV File “Cost” to FIFO Format

File Home Insert Page Layout Formulas Data Review View Developer Help Acrobat										
Visual Basic			Record Macro			Properties			Map Properties	
Macro Security			Use Relative References			View Code			Expansion Packs	
Macro Security			Macro Security			Run Dialog			Refresh Data	
Code			Add-ins			Controls			XML	
Exchange A			Currency Pair			Transaction Type			Unit Price	
Reference			Amount			Date			Fees	
Exchange A			buy			2/28/2021			Cost	
TVJMS-PPHFWK - Exchange A			44.00			0.0009			0.0391	
TQ2NAI-POOMA-CC7LN - Exchange A			300.00			1.1000			330.0093	
TZSNGV-U3J2Y-3BVKI2 - Exchange A			25.00			1.1017			27.5425	
TJHSIQ-JPOBX-AVTJRN - Exchange A			2,000.00			1.0596			2,119.1835	
TY2UEZ-XSJO-YBRD2P - Exchange A			675.00			1.0000			675.0000	
T7643A-XI2TK-WZM3SE - Exchange A			2,000.00			0.9817			1,963.4760	
T6QVBA-5TXLK-XQGET4 - Exchange A			3,000.00			1.1399			3,419.6610	
TBLXKF-FMKC4-DT2HPN - Exchange A			1,018.01			1.2500			1,272.5075	
TQ3OYE-VJRW-TPM3D2 - Exchange A			981.99			1.2500			1,227.4925	
TCLW5H-R3LRB-2E3KAB - Exchange A			320.00			1.2743			407.7668	
TKJZCX-SNPVN-XQ4QJB - Exchange A			1,000.00			1.2000			1,200.0000	
TUR6PG-6GOD2-C7Q5HS - Exchange A			500.00			1.2700			635.0000	
TLWEWG-PJF4-IGHFPI - Exchange A			500.00			1.2600			630.0000	
TNDIYW-P6UB3-LHIEPP - Exchange A			636.00			1.2100			769.5600	
TPSISO-VHALA-FIKEPP - Exchange A			2,000.00			1.1500			2,300.0000	
TTASCL-2W7RU-OZCS7H - Exchange A			2,000.00			1.1181			2,236.1300	
TAV4N4-DJETF-GNW7W3 - Exchange A			3,000.00			1.0550			3,165.0000	
TJBWKL-3KBFY-RXGRQJ - Exchange A			2,000.00			1.0765			2,152.9476	
TPKYX-L3QHI-JWWF64 - Exchange A			1,030.00			1.0760			1,108.2800	
TK5GMR-Z3HLP-5OBK37 - Exchange A			970.00			1.0760			1,043.7200	
TOTAL			10,000.00			10,000.00			10,000.00	

FIFO Figure 41 - Convert CSV File “Cost” to FIFO Format



```

Sub csv_file_to_fifo_format_COST()
'
' csv_file_to_fifo_format_COST Macro
'
'
    Sheets("CSV File To FIFO Format").Select
    Range("H3").Select
    ActiveCell.FormulaR1C1 = "'CSV File!R[-1]C"
    Range("H3").Select
    Selection.Copy
    Range("H4:H115").Select
    ActiveSheet.Paste
    Application.CutCopyMode = False
    Range("A1").Select
End Sub

```

### ...About Conversion of CSV File “Cost” to FIFO Format

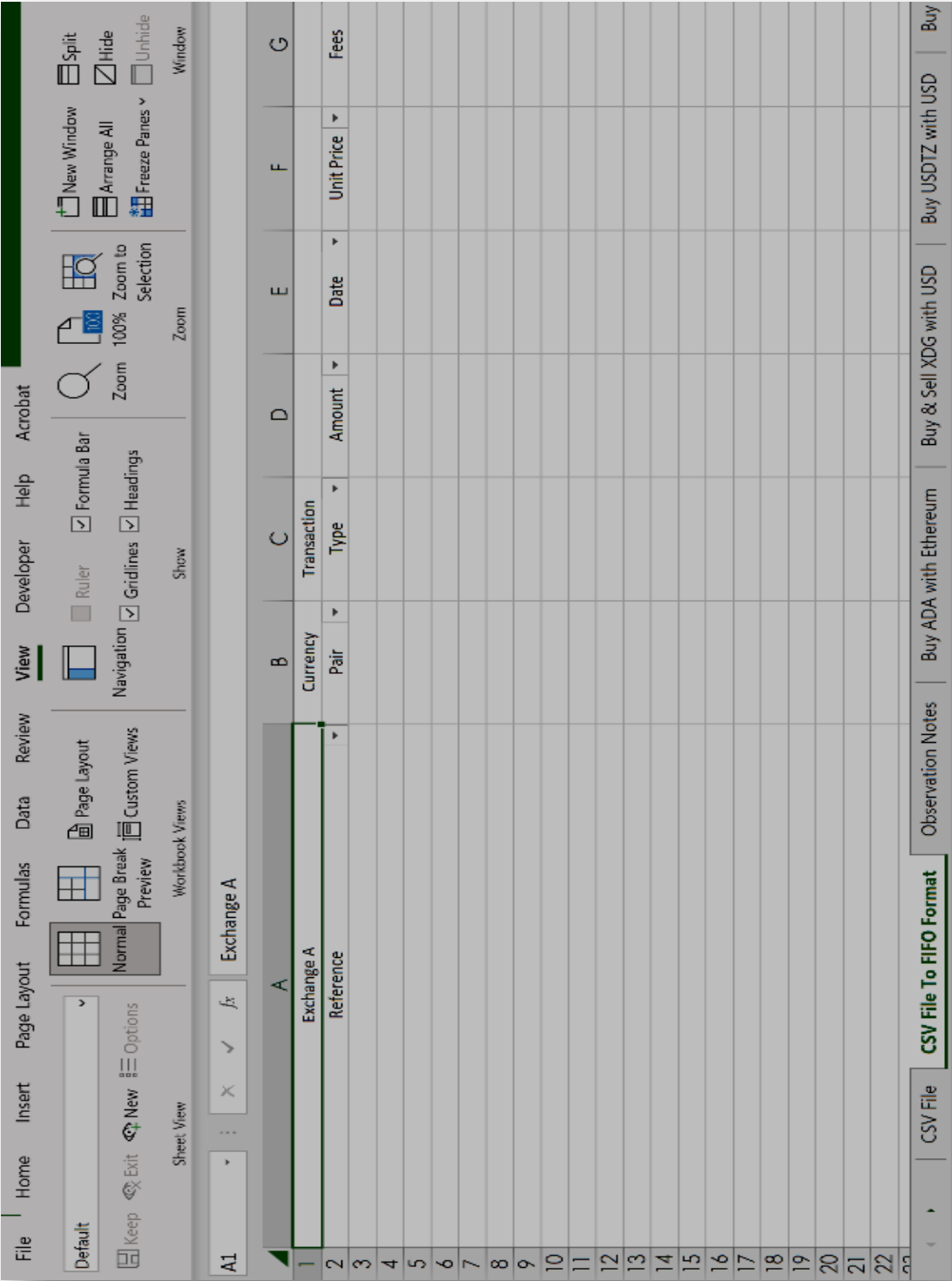
In the order of how they appear in the CSV file, conversion proceeds from the very first row to the last row and from column A to the last column of the file. Conversion includes the column headings and all the costs.

Conversion is done by macros which are recorded prior to the initiation of the aggregation process. The converted “Cost” is formatted as text, but because it will be used in mathematical calculation in future steps, additional work is needed to format it as number. Number formatting is covered by a separate macro.

With Excel’s capacity to handle as many as 1,048,576 rows and columns labeled A through XFD, there is no limit on how big a file FIFO – Aggregator of Capital Gains and Losses can handle, depending on the Excel version.



Other Templates - Clean Slate



FIFO Figure 42 - Other Templates - Clean Slate



```
Sub csv_file_to_fifo_format_DELETE_ROWS_FOR_CLEAN_SLATE()  
,  
' csv_file_to_fifo_format_DELETE_ROWS_FOR_CLEAN_SLATE Macro  
,  
  
,  
Sheets("CSV File To FIFO Format").Select  
    Range("A3").Select  
    Rows("3:115").Select  
    Selection.Delete Shift:=xlUp  
    Range("A1").Select  
End Sub
```

### ...About Other Templates – Starting a Blank Platform

This macro does not involve conversion. It deletes all entries in the platform except the header titles. To eliminate all traces of prior entries including formatting, the macro prefers deleting the entire rows corresponding to the number of rows in the CSV file. The result is a blank platform which can accept new entries including conversions.

With Excel's capacity to handle as many as 1,048,576 rows and columns labeled A through XFD, there is no limit on how big a file FIFO – Aggregator of Capital Gains and Losses can handle, depending on the Excel version.







### ...About Other Templates – Fresh Start

The FIFO platform is completely populated when all the rows and columns in the range are fully filled in. At this stage of the aggregation process, this is considered a milestone, a tangible success that needs to be preserved and protected.

Preservation and protection are done through the successful running of each smaller macro assuming that it is recorded through keystrokes and mouse clicks. Because each smaller macro can be easily proof-read and debugged, its accuracy is higher compared to larger macros.

A new macro is then created by assembling the smaller macros into a larger one. When run, the newly created larger macro executes to populate each and every row and column of the FIFO platform. Thus, the milestone is created anew.

Experimenting with keystrokes and new macros calls for accurate platform entries be in place. The larger macro answers the call. The macro can be run repeatedly, eliminating the need to run each smaller macro if errors are suspected but yet unidentified. The search for the errors continues until they are found and resolved, at which time the macros are adjusted.

With Excel's capacity to handle as many as 1,048,576 rows and columns labeled A through XFD, there is no limit on how big a file FIFO – Aggregator of Capital Gains and Losses can handle, depending on the Excel version.

```
Sub csv_fie_to_fifo_format_COLUMN_WIDTHS()
'
' csv_fie_to_fifo_format_COLUMN_WIDTHS Macro
'
'
Columns("A:A").Select
Selection.ColumnWidth = 35
Columns("B:H").Select
Selection.ColumnWidth = 9
Range("A1").Select
End Sub
Sub csv_file_to_fifo_format_REPOPULATE_PLATFORM_FROM_PRIOR_ENTRIES()
'
' csv_file_to_fifo_format_DELETE_ROWS_AND_START_FRESH Macro
'
'
```



```

Sheets("CSV File To FIFO Format").Select
Rows("3:115").Select
Selection.Delete Shift:=xlUp
Range("A1").Select

```

```

' csv_file_to_fifo_format_REFERENCE Macro

```

```

Range("A3").Select
ActiveCell.FormulaR1C1 = _
    "=CONCAT('CSV File!'R[-1]C,'" - "','CSV File To FIFO Format!'R1C1)"
Range("A3").Select
Selection.Copy
Range("A4:A115").Select
ActiveSheet.Paste
Application.CutCopyMode = False
Range("A1").Select

```

```

' csv_file_to_fifo_format_CURRENCY_PAIR Macro

```

```

Range("B3").Select
ActiveCell.FormulaR1C1 = "'CSV File!'R[-1]C[1]"
Range("B3").Select
Selection.Copy
Range("B4:B115").Select
ActiveSheet.Paste
Application.CutCopyMode = False
Range("A1").Select

```

```

' csv_file_to_fifo_format_TRANSACTION_TYPE Macro

```

```

Range("C3").Select
ActiveCell.FormulaR1C1 = "'CSV File!'R[-1]C[2]"
Range("C3").Select
Selection.Copy
Range("C4:C115").Select
ActiveSheet.Paste
Application.CutCopyMode = False
Range("A1").Select

```

```

' csv_file_to_fifo_format_AMOUNT Macro

```



```

',
Range("D3").Select
ActiveCell.FormulaR1C1 = "'CSV File!R[-1]C[6]"
Range("D3").Select
Selection.Copy
Range("D4:D115").Select
ActiveSheet.Paste
Application.CutCopyMode = False
Range("A1").Select
',
' csv_file_to_fifo_format_DATE Macro
',
',
Range("E3").Select
ActiveCell.FormulaR1C1 = "'CSV File!R[-1]C[-1]"
Range("E3").Select
Selection.Copy
Range("E4:E115").Select
ActiveSheet.Paste
Application.CutCopyMode = False
Range("A1").Select
',
' csv_file_to_fifo_format_UNIT_PRICE Macro
',
',
Range("F3").Select
ActiveCell.FormulaR1C1 = "'CSV File!R[-1]C[1]"
Range("F3").Select
Selection.Copy
Range("F4:F115").Select
ActiveSheet.Paste
Application.CutCopyMode = False
Range("A1").Select
',
' csv_file_to_fifo_FEES Macro
',
',
Range("G3").Select
ActiveCell.FormulaR1C1 = "'CSV File!R[-1]C[2]"
Range("G3").Select
Selection.Copy
Range("G4:G115").Select
ActiveSheet.Paste
Application.CutCopyMode = False
Range("A1").Select

```



' csv\_file\_to\_fifo\_format\_COST Macro

```
Range("H3").Select
ActiveCell.FormulaR1C1 = "'CSV File!R[-1]C"
Range("H3").Select
Selection.Copy
Range("H4:H115").Select
ActiveSheet.Paste
Application.CutCopyMode = False
Range("A1").Select
End Sub
```

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## Other Templates - Format Platform

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Default		Page Break Preview		Page Layout		Navigation		Zoom	
KeepExitNewOptions		Normal		Custom Views		GridlinesHeadings		Formula Bar	
Sheet View		Workbook Views		Show		Zoom		Window	
A1		Exchange A		Exchange A		Exchange A		Exchange A	
1		Reference		Currency		Transaction		Unit Price	
2		ADAUSD		buy		300.00		1.0/1900	
3		TQ2NAI-POQMA-CC7LN - Exchange A		buy		0.04		1.0/1900	
4		TP6XST-53LN5-D3XTD5 - Exchange A		buy		25.00		1.0/1900	
5		TZ5NGV-U3J2Y-38VKI2 - Exchange A		buy		2,000.00		1.0/1900	
6		TJHSIQ-JPOBX-AVTJRN - Exchange A		buy		675.00		1.0/1900	
7		TY2UEZ-X5QJO-YBRD2P - Exchange A		buy		2,000.00		1.0/1900	
8		T7643A-XI2TK-WZM35E - Exchange A		buy		3,000.00		1.0/1900	
9		T6QVBA-5TXLK-XQGET4 - Exchange A		buy		1,018.01		1.0/1900	
10		TBLXKF-FMKC4-DT2HPN - Exchange A		buy		981.99		1.0/1900	
11		TQ3OYE-VJRWV-TM3DI2 - Exchange A		buy		320.00		1.0/1900	
12		TCLW5H-R3LRB-ZE3KAB - Exchange A		buy		1,000.00		1.0/1900	
13		TK7ZCX-SNPVN-XQ4QJB - Exchange A		buy		100.00		1.0/1900	
14		T64BLZ-6IQWC-4UNPGF - Exchange A		buy		2,000.00		1.0/1900	
15		TJFJSU-JCXBG-R3NCMP - Exchange A		buy		200.00		1.0/1900	
16		T787EL-AA4AQ-IJVM7N - Exchange A		buy		500.00		1.0/1900	
17		TUR6PG-6GOD2-C7Q5HS - Exchange A		buy		500.00		1.0/1900	
18		TLWEWG-PJF4-IGHFPI - Exchange A		buy		44.00		1.0/1900	
19		TVJMSV-WESYK-PHHFWK - Exchange A		buy		636.00		1.0/1900	
20		TNDIYW-P6UB3-LHIEFP - Exchange A		buy		3,000.00		1.0/1900	
21		TCTVSI-555OG-O5EXSD - Exchange A		buy		2,000.00		1.0/1900	
22		TP5ISO-VHALA-FIKEPP - Exchange A		buy		0.85		1.0/1900	

## ...About Other Templates – Format Platform

### .....template opportunity ends here

Recall that FIFO platform entries are conversions from the CSV file. The entries are formatted as text initially. With an enormous number of entries one can easily forget how each cell entry has been so formatted. And the wrong format may cause to yield an inaccurate result from mathematical calculations.

This template to format the FIFO platform does the job of wholesale formatting. No longer is it necessary to format each column individually. Precious time particularly in running macros piecemeal is saved at the same time that inadvertent mistakes are avoided.

Column widths are widened to suit entry sizes, entries that need to be formatted as text are formatted accordingly, numbers are formatted as such in a variety of forms, and date and time entries are formatted accordingly as well.

With Excel's capacity to handle as many as 1,048,576 rows and columns labeled A through XFD, there is no limit on how big a file FIFO – Aggregator of Capital Gains and Losses can handle, depending on the Excel version.

```
Sub csv_file_to_fifo_format_PASTE_VALUES_AND_FORMAT_CURRENT_ENTRIES()
,
' csv_file_to_fifo_format_PASTE_VALUES_AND_FORMAT_CELLS Macro
,
,
    Sheets("CSV File To FIFO Format").Select
    Range("A3").Select
    Selection.Copy
    Range("A3:L115").Select
    Application.CutCopyMode = False
    Selection.Copy
    Range("A3").Select
    Selection.PasteSpecial Paste:=xlPasteValues, Operation:=xlNone, SkipBlanks _
        :=False, Transpose:=False
    Columns("D:D").Select
    Application.CutCopyMode = False
    Selection.NumberFormat = "#,##0.00"
    Columns("E:E").Select
    Selection.NumberFormat = "m/d/yyyy"
    Columns("F:F").Select
    Selection.NumberFormat = "#,##0.0000"
    Columns("G:G").Select
```





```
Selection.NumberFormat = "#,##0.00"  
Columns("H:H").Select  
Selection.NumberFormat = "#,##0.0000"  
Range("A1").Select  
End Sub
```

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## How To Create Practice Macro Plus WARNING and CAUTION

Never practice on the original templates. Practice only on PRACTICE macros.

The steps being described here assume that you already successfully recorded “csv\_file\_to\_fifo\_format\_REFERENCE Macro”.

### Step 1:

Record a simple useless macro. For this exercise call it “myPracticeMacro.” Open the macro list to be sure that it has been created.

```
Sub myPracticeMacro()
'
' myPracticeMacro Macro
'
'
    Sheets("CSV File To FIFO Format").Select
    Range("A1").Select
End Sub
```

Close the “myPracticeMacro.”

### Step 2:

Open the macro list and edit the macro you want to duplicate. Let’s duplicate “csv\_file\_to\_fifo\_format\_REFERENCE”  
Copy the whole macro.

```
Sub csv_file_to_fifo_format_REFERENCE()
'
' csv_file_to_fifo_format_REFERENCE Macro
'
'
    Sheets("CSV File To FIFO Format").Select
    Range("A3").Select
    ActiveCell.FormulaR1C1 = _
        "=CONCAT('CSV File!'R[-1]C,'" - "','CSV File To FIFO Format!'R1C1)"
    Range("A3").Select
    Selection.Copy
    Range("A4:A115").Select
    ActiveSheet.Paste
    Application.CutCopyMode = False
    Range("A1").Select
End Sub
```



Close the “Sub csv\_file\_to\_fifo\_format\_REFERENCE()” macro

### Step 3:

Open the macro list and edit “myPracticeMacro”. Paste the macro that you copied from “csv\_file\_to\_fifo\_format\_REFERENCE”, between the “Sub” and “End Sub” of “myPracticeMacro”. Comment out the “Sub” and “End Sub” of the “Sub csv\_file\_to\_fifo\_format\_REFERENCE()” part by placing a single quotation mark in front of each line, so they do not execute.

```
Sub myPracticeMacro()
'
' myPracticeMacro Macro
'
'
    Sheets("CSV File To FIFO Format").Select
    Range("A1").Select
End Sub

Sub myPracticeMacro()
'Sub csv_file_to_fifo_format_REFERENCE()
'
' csv_file_to_fifo_format_REFERENCE Macro ◀
'
'
    Sheets("CSV File To FIFO Format").Select
    Range("A3").Select
    ActiveCell.FormulaR1C1 = _
        "=CONCAT('CSV File!R[-1]C,'" - "','CSV File To FIFO Format!R1C1)"
    Range("A3").Select
    Selection.Copy
    Range("A4:A115").Select
    ActiveSheet.Paste
    Application.CutCopyMode = False
    Range("A1").Select
End Sub ◀
End Sub
```

◀ - Commented out. Won't no longer execute.

Close the “myPracticeMacro.”

### Step 4:

Open the macro list again and run “myPracticeMacro”. There you have it. You are programming without writing a single line of code.



**Step 5:**

Follow the same procedure to duplicate other macros.

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## Programming Without Writing a Single Code - Repopulating the Current Screen

Done by assembling small macros into a large macro

```
Sub csv_fie_to_fifo_format_COLUMN_WIDTHS()
'
' csv_fie_to_fifo_format_COLUMN_WIDTHS Macro
'
'
Columns("A:A").Select
Selection.ColumnWidth = 35
Columns("B:H").Select
Selection.ColumnWidth = 9
Range("A1").Select
End Sub

Sub csv_file_to_fifo_format_DELETE_ROWS_AND_START_FRESH()
'
' csv_file_to_fifo_format_DELETE_ROWS_AND_START_FRESH Macro
'
'
'
Sheets("CSV File To FIFO Format").Select
Rows("3:115").Select
Selection.Delete Shift:=xlUp
Range("A1").Select
'
' csv_file_to_fifo_format_REFERENCE Macro
'
'
Range("A3").Select
ActiveCell.FormulaR1C1 = _
    "=CONCAT('CSV File'!R[-1]C,''' - ''','CSV File To FIFO Format'!R1C1)"
Range("A3").Select
Selection.Copy
Range("A4:A115").Select
ActiveSheet.Paste
Application.CutCopyMode = False
Range("A1").Select
'
' csv_file_to_fifo_format_CURRENCY_PAIR Macro
'
'
```



```

Range("B3").Select
ActiveCell.FormulaR1C1 = "'CSV File'!R[-1]C[1]"
Range("B3").Select
Selection.Copy
Range("B4:B115").Select
ActiveSheet.Paste
Application.CutCopyMode = False
Range("A1").Select

,

' csv_file_to_fifo_format_TRANSACTION_TYPE Macro
,

,

Range("C3").Select
ActiveCell.FormulaR1C1 = "'CSV File'!R[-1]C[2]"
Range("C3").Select
Selection.Copy
Range("C4:C115").Select
ActiveSheet.Paste
Application.CutCopyMode = False
Range("A1").Select

,

' csv_file_to_fifo_format_AMOUNT Macro
,

,

Range("D3").Select
ActiveCell.FormulaR1C1 = "'CSV File'!R[-1]C[6]"
Range("D3").Select
Selection.Copy
Range("D4:D115").Select
ActiveSheet.Paste
Application.CutCopyMode = False
Range("A1").Select

,

' csv_file_to_fifo_format_DATE Macro
,

,

Range("E3").Select
ActiveCell.FormulaR1C1 = "'CSV File'!R[-1]C[-1]"
Range("E3").Select
Selection.Copy
Range("E4:E115").Select
ActiveSheet.Paste
Application.CutCopyMode = False

```



```
Range("A1").Select
'
' csv_file_to_fifo_format_UNIT_PRICE Macro
'
'
Range("F3").Select
ActiveCell.FormulaR1C1 = "='CSV File'!R[-1]C[1]"
Range("F3").Select
Selection.Copy
Range("F4:F115").Select
ActiveSheet.Paste
Application.CutCopyMode = False
Range("A1").Select
'
' csv_file_to_fifo_FEES Macro
'
'
Range("G3").Select
ActiveCell.FormulaR1C1 = "='CSV File'!R[-1]C[2]"
Range("G3").Select
Selection.Copy
Range("G4:G115").Select
ActiveSheet.Paste
Application.CutCopyMode = False
Range("A1").Select
'
' csv_file_to_fifo_format_COST Macro
'
'
Range("H3").Select
ActiveCell.FormulaR1C1 = "='CSV File'!R[-1]C"
Range("H3").Select
Selection.Copy
Range("H4:H115").Select
ActiveSheet.Paste
Application.CutCopyMode = False
Range("A1").Select
End Sub
```



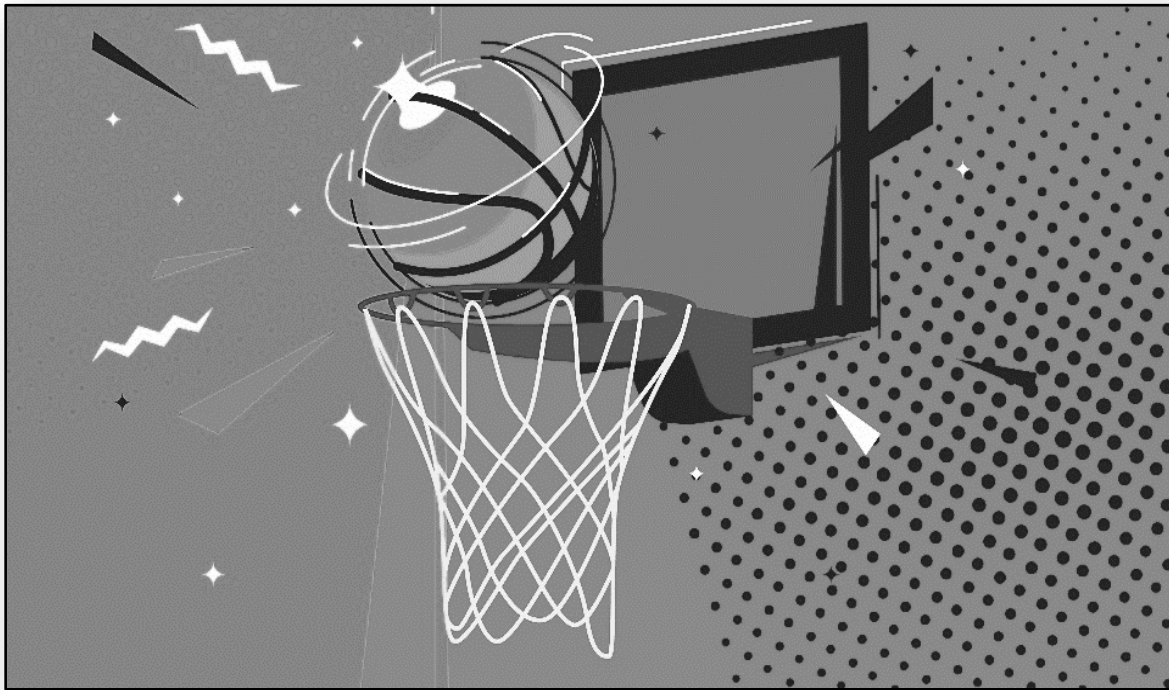
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### FIFO Aggregator Faster Than an NBA Free Shot



FIFO Figure 45 - FIFO Aggregator Faster Than an NBA Free Shot



### **...About FIFO Aggregator's Execution Speed**

Why the uncanny comparison! Most adults love sports that excite and cause them to be alert. The NBA has that attribute. Popular around the world, it appeals to more adults than any other sports because it highlights a player's speed in a drive to score points.

The sense of speed is what makes the audience excited, alert and cause them to show unusual behavior. However, speed in a drive is indeterminate that can end up in failure giving the opponent a payback drive with the same if not more intense speed.

In contrast, the game provides a slow time-measurable way of scoring a point. The free throw is deliberate, unhurried, and unmolested giving the free thrower measurable time to score. In the time that the free thrower scores a single point, the FIFO aggregator, by a lengthy time margin in its favor, does the following conversions from a CSV file to FIFO format.

1. 115 rows of Reference entries
2. 115 rows of Currency Pair entries
3. 115 rows of Transaction Type entries
4. 115 rows of Amount entries
5. 115 rows of Date entries
6. 115 rows of Unit Price entries
7. 115 rows of Fees entries
8. 115 rows of Cost entries

Thanks to the well-placed keystrokes and mouse clicks that form well-planned macros! As noted early in the book, dealing with CSV files is daunting. Nonetheless, FIFO – Aggregator of Capital Gains and Losses compensates a user's hesitance to use it with lightning-like speed.



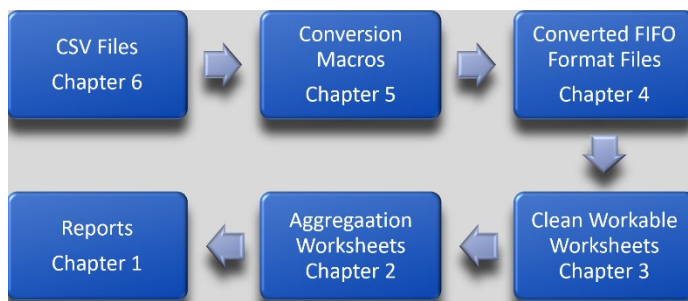
## Chapter 6 – Setting Up CSV File for Conversion to FIFO Format

Don't dwell on what went wrong. Instead, focus on what to do next. Spend your energies on moving forward toward finding the answer.

Denis Waitley

### **YOUR PROGRESS IN THE AGGREGATION PROCESS! NOTE THE DIRECTION OF THE ARROWS.**

If you are working in this chapter, it means you are starting the aggregation process.



*MEMORANDUM*

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## Kraken CSV File

File

Home

Insert

Page Layout

Formulas

Data

Review

View

Developer

Help

Acrobat

FIFO Figure 46 - Kraken CSV File



### ...Annotation on Kraken CSV File

What appears on the opposite page is the Kraken CSV file from which most of the illustrations in the book are constructed. The file contains an enormous amount of information a great portion of which is not usable in mathematical calculations because the file is stored in text format. Furthermore, they are nonessential and of no value to most long-term investors.

The following few sections of the book are devoted to assembling a workable version of the CSV file that helps in the aggregation of capital gains and losses. In the process, the unusable information is dropped, leaving only the details for an effective presentation.

Creating a workable Excel worksheet for aggregating capital gains and losses appears tedious and daunting at first. But once learned, it is impossible not to appreciate the newly acquired skill. The timesaving and privacy-enhancing merit of not having to rely on others for so personal an endeavor as investing, cannot be emphasized enough.

The process starts with the CSV file containing the following warning: **“POSSIBLE DATA LOSS. Some features might be lost if you save this workbook in the comma-delimited (.csv) format. To preserve these features, save it in an Excel file format”**. The warning is an indication that a CSV file is not directly workable for any type of calculations such as those for aggregating capital gains and losses. Hence, the need to convert the CSV file to an Excel worksheet.





## Gate.io CSV File

[illegible]

### FIFO Figure 47 - Gate.io CSV File



### ...Annotation on Gate.io CSV File

The Gate.io CSV file is slightly different from the Kraken CSV file in that the former contains only one coin, namely VET, whereas the Kraken file contains multiple coins. Despite the single coin treatment by Gate.io file, the file poses more intensive work due to some but not all of the following reasons.

The file mingles numbers and texts on a single data item. For example, focus on the first price item on row 3 column E containing “0.100080000 USDT”. Mathematical calculation on this item is not possible without first ridding the item of the text element and then formatting the item as number. The same condition exists in at least three more columns of data where mathematical calculations are anticipated to be performed.

Having already separated the number and text elements on a single data item, next the decimal placement on the number element needs to be dealt with. In the current mode, the decimal is to the nth number. Undesirable results can easily be propagated undetected with even a slight decimal placement error.

The need to resolve the above-mentioned and other problems is where a slightly advance knowledge of Excel is essential. The additional skill is beyond the scope of this book. Nevertheless, a hint here and there is proposed wherever possible to hasten the aggregation process. For example, using the Excel string functions is a possible solution to separating the number and text elements mingled in a single data item.

The Gate.io CSV file looks more challenging, but FIFO – Aggregator of Capital Gains and Losses performs just as well on the file as it does on the simpler Kraken CSV file.







### **...About CSV File Saved as an Excel Worksheet**

The Excel file that is freshly extracted from a CSV file is not that great either for starting the FIFO aggregation process. However, the now Excel file can be subjected to changes without fear of data loss as forewarned in the raw CSV file.

Readability can be immediately improved in the Excel file by adjusting the column widths. Those who have slightly better than a beginner's knowledge of Excel can start formatting the worksheet for eye comfort. In fact, with a slight daring notion, some columns that are not present in the FIFO account Headings Definitions can right away be deleted.

The default general format of Excel is a good start for the FIFO aggregation process. It can be significantly improved, however. Font style and size can be changed, background color can be changed to a comfortable level, some tabs can be added, and the ribbon can be rearranged. Adjustments to the worksheet theme and appearance are unlimited.

With more experience gained in the aggregation process comes the confidence of making additional changes to the Excel worksheet which is in a state of disorderliness few moments ago.



## APPENDIX A – HEADINGS DEFINITIONS



**MEMORANDUM**

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## FIFO Headings Definitions

	A	B	C	D	E	F	G	H	I
3									
4									
5					Yes,				
6					if your trading historical data match FIFO Platform's requirements like				
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FIFO Figure 49 - FIFO Headings Definitions



### ...About FIFO Headings Definitions

#### **While you still wonder what FIFO – Aggregator of Capital Gains and Losses is...!**

The form on the opposite page introduces FIFO – Aggregator of Capital Gains and Losses. Despite its size, the form encapsulates all there is to know about the application used in the aggregation of capital gain and losses. It is a controlling form because with its use, only nine items need to be filled in an Excel spreadsheet. Nevertheless, it achieves the extraction of data from CSV (comma-separate values) files from a single exchange or multiple exchanges.

The form is added to the book as an appendix to separate it from the actual aggregation process. The aim is to allow an aggregator to trend his focus on the aggregation process and not be distracted by side Excel basic features that have been learned already perhaps in other projects.

The following pages of progressively filled-in forms discuss the need for each spreadsheet heading. As the reading of the book progresses, the reader will understand the whole idea behind FIFO – Aggregator of Capital Gains and Losses.

FIFO – Aggregator of Capital Gains and Losses will henceforth be randomly referred to as FIFO.



## FIFO “Reference” Header

Can you use FIFO?									
Yes,									
if your trading historical data match FIFO Platform's requirements like									
Exchange A's does,									
Exchange B's does.									
Exchange A's Trade History Column Labels									
Exchange B's Trade History Column Labels									
Reference									
Currency Pair									
Transaction Type									
Amount									
Date									
Unit Price									
Fees									
Cost									
Standby Col 1									
Standby Col 2									
Standby Col 3									
Standby Col 4									
Standby columns are provided for exchange data that might be needed later in the process but not clear at the moment. At the end of the process the unnecessary exchange data will be DISCARDED.									

FIFO Figure 50 - FIFO “Reference” Header



### **...”Reference” Header in Headings Definitions**

Every financial endeavor including crypto investing needs references for tracing the sources of transactions that result in investment changes. FIFO satisfies the need by using “Reference” heading shown in the “Headings Definitions” form.

If corrective actions need to be instituted to mitigate the impact of weakness in the system, the initiator better be able to pinpoint the area where to make the changes. He can with a good reference instituted in the system.

Each reference needs to be unique to avoid confusion. Transaction identity is crucial. In case of an audit, the transaction’s source can be traced through the unique reference.

Later in the book, you will be shown how to make transactions unique by exchange grouping, using Excel’s concatenate function.







### **...”Currency Pair” Header in Headings Definitions**

“Currency Pair” refers to the pairing of a base currency (the currency before the slash) and a quote currency (the currency after the slash). Some exchanges designate the pair in a variety of nomenclatures such as “pair” and “market” as in the illustration on the opposite page, while others use an entirely different designations depending on the system in place.

Note that the name refers to the pair and not to the currencies. FIFO – Aggregator of Capital Gains and Losses uses “Currency Pair” as the standard name for the pair. FIFO does not mind what names exchanges use to call their currency pairings. Through the process of converting CSV files to FIFO format, exchanges’ designations are overridden.

The only requirement for exchanges in the naming convention is that they be consistent from period to period in order to achieve consistency in the application with minimum alterations.





### **...”Transaction Type” Header in Headings Definitions**

The illustration on the opposite page shows that both exchanges use “Type” to refer to the buy and sell transactions. The column designation by FIFO for this type of transaction is “Transaction Type.”

With hundreds or more exchanges in existence, the variation in the transaction type designation is too numerous to be counted. FIFO utilizes an Excel spreadsheet conversion mechanism that leaves the exchanges alone with their designations in place. With the conversion mechanism FIFO is able to process CSV files from unlimited number of exchanges.

The exchanges that are already providing CSV files to their clients will not have to make changes in their system. Those that have not, might find it convenient to provide CSV files to their clients in order to avail of the large data that can be processed in the CSV file format.





### **..."Amount" Header in Headings Definitions**

The worksheet on the opposite page shows Exchange A using "vol" and Exchange B using "Amount" to mean quantity of asset purchased or sold. In many popular instances, especially in the accounting field, the term refers to dollar amounts.

In order to write standard procedures and formulas suitable for use with any exchange-issued CSV files, FIFO uses "Amount" to mean quantity of asset purchased or sold. If there is any confusion in the use of the term, the circumstance in which it is used can be easily discerned.

Considered and presented like a huge template of a niche in a young and growing industry, FIFO needs to be consistent and less disorienting to help in its early adoption. Attempting to standardize even the terms used to designate tangible and intangible possessions is an excellent starting point. There are many more.





### **...”Date” Header in Headings Definitions**

In the first-in first-out method of assigning cost to assets subject to acquisition and disposition, date is a major determinant of amounts for inclusion in the aggregated capital gains and losses. The items referred to are those that are required to be reported to the pertinent authorities.

FIFO adapts the maxim “you cannot sell what you don’t own” to better explain the first-in first-out method of assigning cost to an asset. Thus, possession and ownership come into the discussion of the method. At the time of sale or disposition of an asset, the date of the acquisition of the asset must be determined.

If acquisition is before the sale, aggregation must follow another set of rules namely, for how long has the seller been in possession of the item. If possession is before the sale and continuously maintained up to the date of sale the first-in first-out rule in the maxim applies. If possession is after the sale the first-in in the maxim does not apply.

NOTE: This is not a financial or legal advice. Readers are advised to consult their financial advisers for clarification of the first-in first-out rule of assigning cost to properties subject to acquisition and disposition.





## FIFO “Unit Price” Header

Can you use FIFO?									
Yes,									
if your trading historical data match FIFO Platform's requirements like									
Exchange A's does,									
Exchange B's does.									
FIFO's Platform Column Labels									
Exchange A's Trade History Column Labels									
Reference									
Currency Pair									
Transaction Type									
Amount									
Date									
Unit Price									
Fees									
Cost									
Standby Col 1									
Standby Col 2									
Standby Col 3									
Standby Col 4									
Standby columns are provided for exchange data that might be needed later in the process but not clear at the moment. At the end of the process the unnecessary exchange data will be DISCARDED.									

FIFO Figure 55 - FIFO “Unit Price” Header



### **...”Unit Price” Header in Headings Definitions**

Exchange A and Exchange B use “price” on the opposite page to mean the price of a single unit of an asset which is currency in this book. Obviously, the use of the term is common, but these are only two exchanges among hundreds and perhaps more. Regardless, owing to the conversion mechanism instituted by FIFO, varying terms used to designate an item is inconsequential.

FIFO though, has an alternative term, “Unit Price”, to mean the price of a single unit of currency. The term appears to be more reflective of its intended use, and it is more readily understandable by readers who are unfamiliar with what this book is written about.

“Unit Price” then is how much of the quote currency (the currency after the slash) can effect a change of ownership of a single base currency (the currency before the slash) in a transaction of acquiring and disposing the asset.



## FIFO “Fees” Header

Can you use FIFO?									
Yes,									
if your trading historical data match FIFO Platform's requirements like									
or									
if your trading historical data match FIFO Platform's requirements like									
<b>Exchange A's does,</b>									
FIFO's	Exchange A's Trade								Exchange B's Trade
Platform	History Column								History Column
Column Labels	Labels								Labels
Reference	txid								Reference
Currency Pair	ordertxid								Currency Pair
Transaction Type	pair								Transaction Type
Amount	time								Amount
Date	type								Date
Unit Price	ordertype								Unit Price
Fees	price								Fees
Cost	cost								Cost
Standby Col 1	fee								Standby Col 1
Standby Col 2	vol								Standby Col 2
Standby Col 3	misc								Standby Col 3
Standby Col 4	ledgers								Standby Col 4
Standby columns are provided for exchange data that might be needed later in the process but not clear at the moment. At the end of the process the the unnecessary exchange data will be DISCARDED.									

FIFO Figure 56 - FIFO “Fees” Header



### **...”Fees” Header in Headings Definitions**

“Fees” are what clients pay the exchange for the latter’s service of acquiring and disposing assets on the clients’ behalf. If they apply, “Fees” are shown as a separate column in the CSV file. Like the other amounts, they need to be converted to FIFO format in order for them to be available for mathematical calculations.

FIFO has a standard procedure for all types of fees pertaining to the acquisition and disposition of crypto assets. So irrespective of the values stored in the column, fees will undergo through the same standard mathematical calculation.

“Fees” are usually charged as lump sum for a whole acquisition or disposition transaction. As such, they need to be apportioned among individual units involved in the transaction. That is the case with first-in first-out method of costing.

For example, assume a sale transaction of units from a single purchase that exceeds the number of units being sold. The “Fees” attributed to the purchase must be allocated between the units being sold and the remaining units.



## FIFO “Cost” Header

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<div> <div>Clipboard</div> <div> <div>Font</div> <div> <div>Calibri</div> <div>11</div> </div> <div> <div>B</div> <div>I</div> <div>U</div> </div> </div> <div> <div>ab Wrap Text</div> <div>Merge &amp; Center</div> </div> <div> <div>General</div> <div>\$ %</div> </div> <div> <div>Conditional Formatting</div> <div>Table</div> </div> </div>									
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Can you use FIFO?

Yes,

if your trading historical data match  
FIFO Platform's requirements like

or

if your trading historical data match  
FIFO Platform's requirements like

Exchange A's does,

Exchange B's does.

FIFO's Platform Column Labels	Exchange A's Trade History Column Labels	FIFO's Platform Column Labels	Exchange B's Trade History Column Labels
Reference	txid	Reference	
Currency Pair	ordertxid	Currency Pair	Order id
Transaction Type	pair	Transaction Type	Time
Amount	time	Amount	Type
Date	type	Date	Market
Unit Price	ordertype	Unit Price	Price
Fees	price	Fees	Amount
Cost	cost	Cost	Total
Standby Col 1	fee	Standby Col 1	Fee
Standby Col 2	vol	Standby Col 2	Amount of VET
Standby Col 3	misc	Standby Col 3	Amount of USDT
Standby Col 4	ledgers	Standby Col 4	

Standby columns are provided for exchange data that might be needed later in the process but not clear at the moment. At the end of the process the unnecessary exchange data will be DISCARDED.

### **...”Cost” Header in Headings Definitions**

Cost is a self-explanatory FIFO reference to the total value assigned to an asset involved in an acquisition or disposition transaction. It means total purchase or disposition price including fees and other charges.

If there is a separate account for fees and other charges, cost is by itself. Fees are dealt with separately. Total cost will then be the sum of the cost and the fees.

If not separately identified in either type of transaction, it is safe to assume that fees are waived or included in total cost. So total cost and cost are the same.

Regardless of how cost and fees are recorded, aggregating capital gains and losses requires that an asset reflects its full cost. FIFO – Aggregator of Capital Gains and Losses assumes that there is always a separate account for fees and provides standard procedures to deal with them accordingly.



## FIFO “Standby Column” Header

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A	B	C	D	E	F	G	H	I	
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5				Yes,					
6				if your trading historical data match FIFO Platform's requirements like					
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FIFO Figure 58 - FIFO “Standby Column” Header



### ...”Standby Column” Headers in Headings Definitions

The standby columns are temporary intermediate ones that can store data whose utilization is still unforeseen during the current process. Instead of going back to search for its location at the time it is first encountered, the data is stored in one of the standby columns. It is held there in abeyance ready to be accessed in case it is needed. If it is not, it is left to expire unutilized.

For example, “txid” is the default transaction identifier under column header A of the CSV file. ‘txid’ is converted as such into column A of the base converter platform. However, there is another column labeled “ledgers” in column M of the CSV file. “ledgers” appears to be equally important as ‘txid’. Its importance though, is still doubtful during the current process.

While focus is still on the CSV file, “ledgers” can be stored in one of the standby columns for later access. If “ledgers” turns out to be important it is not necessary to search for its location because it is already stored in one of the standby columns. Reexamination of ledger’s importance is unnecessary because when it was first encountered focus was sharper then. This way, precious time is saved.





## **APPENDIX B – SUNDRY ESSENTIALS IN AID OF AGGREGATION**

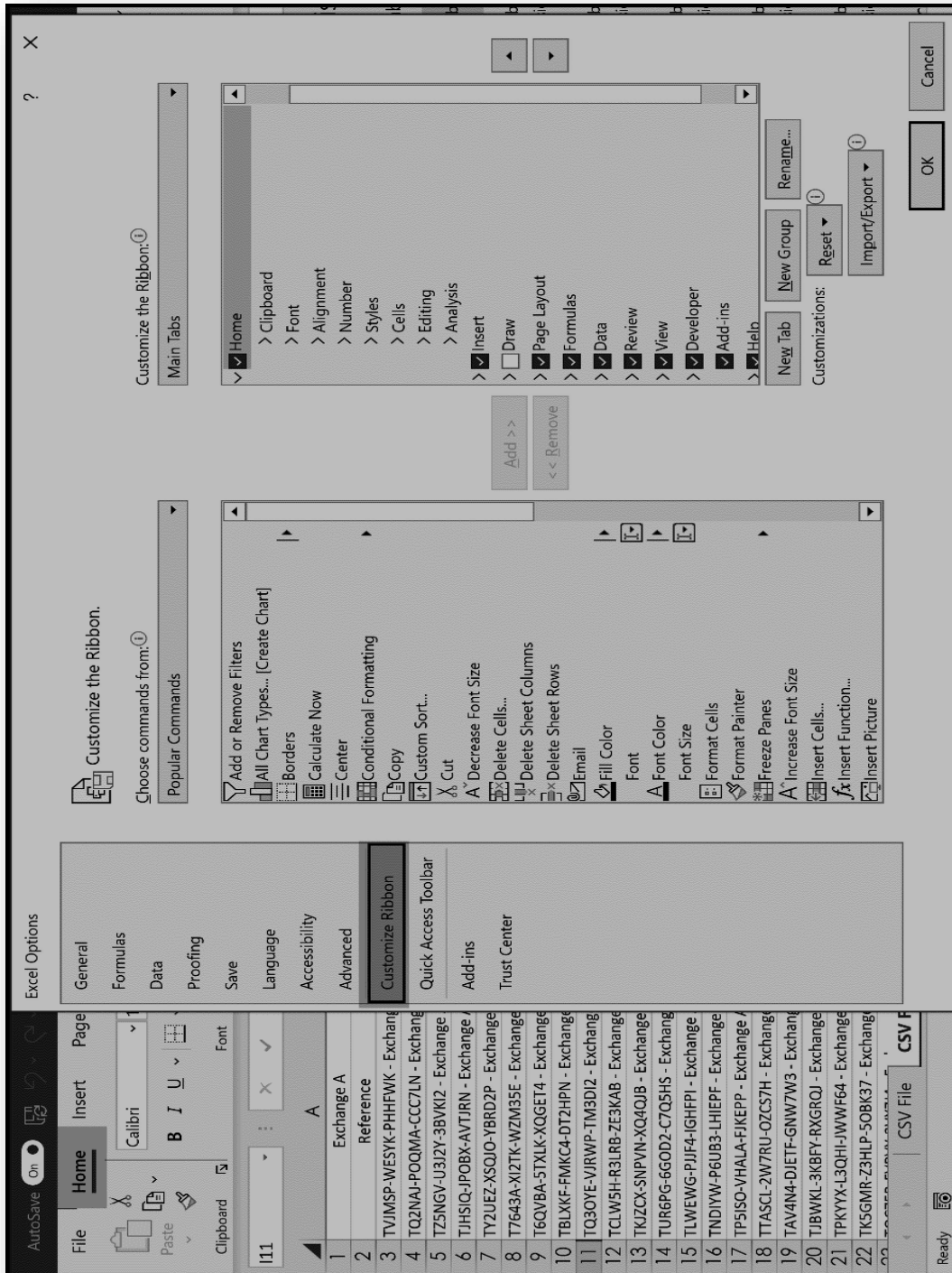


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## Set Up Excel



FIFO Figure 59 - Set Up Excel



### ...About Set Up Excel

FIFO users are not left without support in terms of hints, clues, and guidelines that apply to the process of aggregating capital gains and losses. Being alterable, Excel is a delight to use when it is configured to match the needs of the user.

The variety of needs is served by Excel with as much standard tabs as possible. When additional tabs are not visible, all one has to do is resort to the collection of tabs in Excel's repertoire and find the right ones.

The illustration on the opposite page shows how the Quick Access Toolbar is being customized. The check marked tabs under the main ribbon tab indicate that they are already available for use, while the unchecked ones are available for activation.

If necessary, help from an Excel technician must be sought if a user himself is unable to configure Excel to his needs. The solution is there somewhere for the searching and activating.





### ...Annotation on Formula Tab, Formulas Turned On

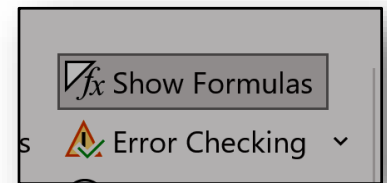
The “Show Formulas” tab allows the user of FIFO – Aggregator of Capital Gains and Losses to check the mode of the entries on the screen. The modes referred to are whether formulas are turned on or off.

Depending on the mode, what appear on the screen are not always what the user expects. They can be numbers, texts, functions, circular calculation results, or strange values brought about by what is entered in the formula bar.

The repetitive execution of the procedures involved in aggregating capital gains and losses requires constant monitoring of the screen entries.

When “Show Formulas” tab is turned on, the screen displays the formulas that generate the entries. The user is alerted that his next entries will be influenced by what the current screen shows, namely formulas.

The current screen entries can potentially generate some errors. It is suggested that users avail themselves of the free proofing features of Excel like the “Show Formulas” tab.



**FIFO Figure 61 - Formulas Tab Turned On**







### ...Annotation on Formula Tab, Formulas Turned Off

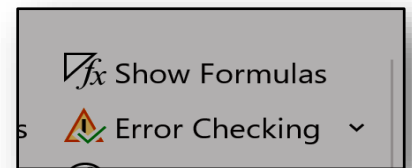
The “Show Formulas” tab allows the user of FIFO – Aggregator of Capital Gains and Losses to check the mode of the entries on the screen. The modes referred to are whether formulas are turned on or off.

Depending on the mode, what appear on the screen are not always what the user expects. They can be numbers, texts, functions, circular calculation results, or strange values brought about by what is entered in the formula bar.

The repetitive execution of the procedures involved in aggregating capital gains and losses requires constant monitoring of the screen entries.

When “Show Formulas” tab is turned off, the screen displays the results generated by what is entered in the formula bar. The entries can be values, functions, or formulas. The user is alerted that his next entries will be influenced by what is on the current screen and the underlying entries in the formula bar.

The current screen entries can potentially generate some errors. It is suggested that users avail themselves of the free proofing features of Excel like the “Show Formulas” tab.



**FIFO Figure 63 – Formulas Tab Turned Off**







### ...Annotation on Developer Tab, Show Macro Recorder Indicator

The macro recorder indicator is located at the top left corner of the screen. It appears when the Developer tab on the Excel ribbon is active. FIFO – Aggregator of Capital Gains and Losses frequently uses the icon that starts and stops recording macros, hence, the reason for referring to the application with the nickname “macro-driven.”

The other buttons in the recorder are used in other sections of the book.

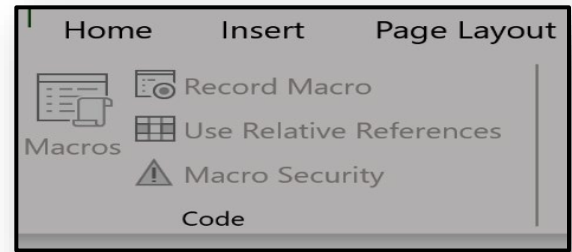
To record a macro the “Record Macro” button is turned on. The following form is filled in with the pertinent macro details including macro name, shortcut key, macro storage location, and macro description.

Macro recording starts as soon as the form is complete. It continues recording until it is stopped at which time the “Record Macro” button changes to “Stop Recording.”

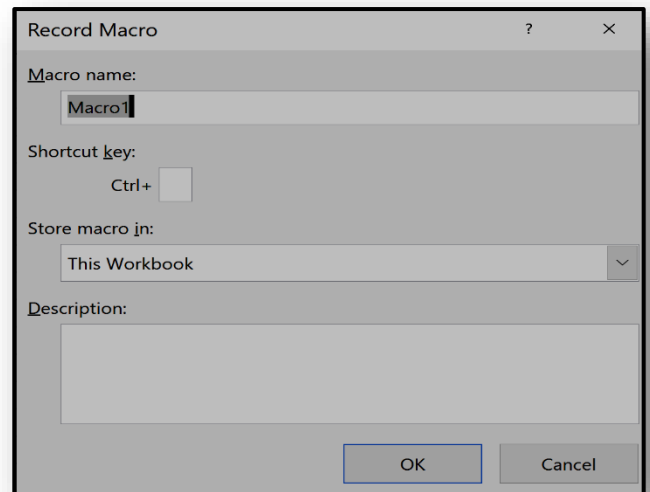
All the keystrokes and mouse clicks are now recorded as a Visual Basic for Applications (VBA) macro.

The procedures described above are repeated to create additional macros. Without writing a single line of code, a sophisticated program can be created by stringing together short macros.

A specimen of such creation is identified as “csv\_file\_to\_fifo\_format\_REPOPULATE\_PLATFORM\_FROM\_PRIOR\_ENTRIES.” The macro is located in Chapter 5 and is reproducible.



FIFO Figure 66 - Macro Recorder, Focus on Macro Creation



FIFO Figure 65 - Macro Form



## Developer Tab, Show Macro List

The screenshot displays the FIFO software interface with the Developer Tab selected. The main window shows a table of transactions with columns A through F. A dialog box titled "Macro" is open, listing various macros and their descriptions.

Macro name	Description
csv file to fifo format_COLUMN_WIDTHS	
csv file to fifo format_COLUMN_WIDTHS	
csv file to fifo FEES	
csv file to fifo format_AMOUNT	
csv file to fifo format_COST	
csv file to fifo format_CURRENCY_PAIR	
csv file to fifo format_DATE	
csv file to fifo format_DELETE_ROWS_AND_START_FRESH	
csv file to fifo format_DELETE_ROWS_FOR_CLEAN_SLATE	
csv file to fifo format_PASTE_VALUES_AND_FORMAT_CELLS	
csv file to fifo format_REFERENCE	
csv file to fifo format_TRANSACTION_TYPE	
csv file to fifo format_UNIT_PRICE	

The main table in the background contains the following data:

	A	B	C	D	E	F
	Exchange A Reference	Currency Pair	Transaction Type	Amount	Date	Unit Price
1						
2						
3	TVMSP-WFSYK-PHFVK - Exchange A	ADAETH	buy	44.00	2/28/2021	0.0009
4	TQ2NAI-POQMA-CC7LN - Exchange A	ADAUSD	buy	300.00	2/21/2021	1.1000
5	TZ5NGV-U3J2Y-3BVK12 - Exchange A	ADAUSD	buy	25.00	2/21/2021	1.1017
6	TJHSIQ-JPOBX-AVTJRN - Exchange A	ADAUSD	buy	2,000.00	2/22/2021	1.0596
7	TY2UEZ-XSOJO-YBRD2P - Exchange A	ADAUSD	buy	675.00	2/23/2021	1.0000
8	T7643A-X12TK-WZM35E - Exchange A	ADAUSD	buy	2,000.00	2/24/2021	0.9817
9	T6QVBA-5TLXK-XQGET4 - Exchange A	ADAUSD	buy	3,000.00	2/25/2021	1.1399
10	TBLXKF-FMKC4-DT2HPN - Exchange A	ADAUSD	buy	1,018.01	2/26/2021	1.2500
11	TQ3OYE-VJRWV-TM3DI2 - Exchange A	ADAUSD	buy	981.99	2/26/2021	1.2500
12	TCLW5H-R3LRB-ZE3KAB - Exchange A	ADAUSD	buy	320.00	2/26/2021	1.2743
13	TKJZCX-SNPVN-XQ4QJB - Exchange A	ADAUSD	buy	1,000.00	2/26/2021	1.2000
14	TUR6PG-6G0D2-C7Q5HS - Exchange A	ADAUSD	buy	500.00	2/28/2021	1.2700
15	TLWEWG-PJIF4-IGHFPI - Exchange A	ADAUSD	buy	500.00	2/28/2021	1.2600
16	TNDIYW-P6UB3-LHIEPF - Exchange A	ADAUSD	buy	636.00	3/4/2021	1.2100
17	TP5ISO-VHALA-FKEPP - Exchange A	ADAUSD	buy	2,000.00	3/6/2021	1.1500
18	TTASCL-2W7RU-OZCS7H - Exchange A	ADAUSD	buy	2,000.00	3/8/2021	1.1181
19	TAV4N4-DJETF-GNW7W3 - Exchange A	ADAUSD	buy	3,000.00	3/12/2021	1.0550
20	TJBWKL-3K8FY-RXGRQJ - Exchange A	ADAUSD	buy	2,000.00	3/14/2021	1.0765
21	TPKYX-13QHI-IWWF64 - Exchange A	ADAUSD	buy	1,030.00	3/14/2021	1.0760
22	TKSGMR-Z3HLP-5OBK37 - Exchange A	ADAUSD	buy	970.00	3/14/2021	1.0760

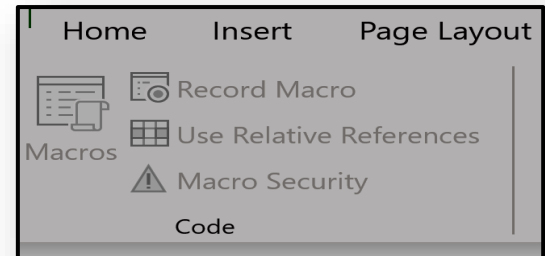
FIFO Figure 67 - Developer Tab, Show Macro List



### ...Annotation on Developer Tab, Show Macro List

The macro recorder indicator is located at the top left corner of the screen. It appears when the Developer tab on the Excel ribbon is active. FIFO – Aggregator of Capital Gains and Losses frequently uses the icon that starts and stops recording macros, hence, the reason for referring to the application with the nickname “macro-driven.”

There is another button however, that plays as important a role as the start and stop button. When clicked, the “Macros” button on the recorder displays a list of all the macros stored with the worksheet.

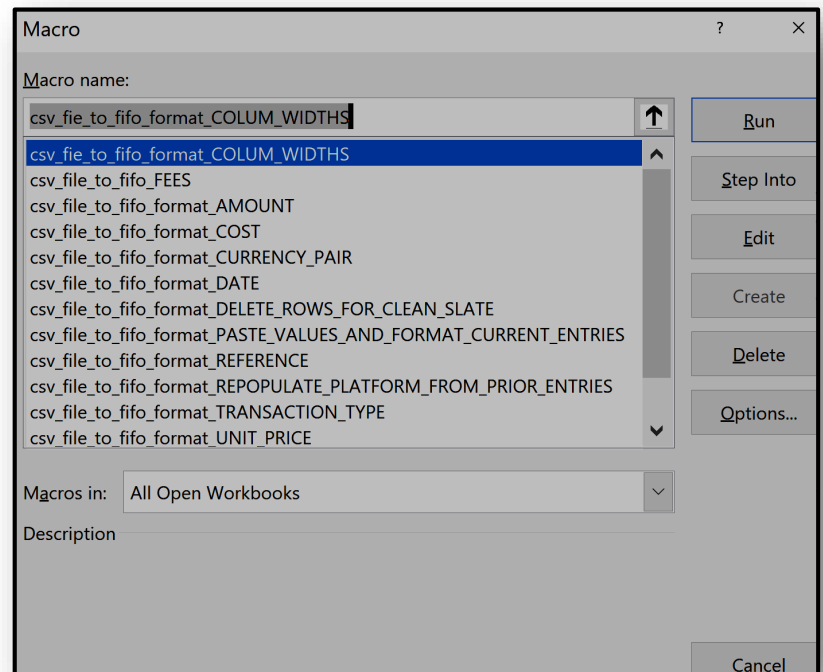


FIFO Figure 68 - Macro Recorder, Focus on Macros Button

The adjoining picture lists all the macros that FIFO – Aggregator of Capital Gains and Losses has in store. There are 12 of them, all shown in Chapter 5. All the listed macros make up a fairly huge template which is offered free in return for a simple donation in crypto tokens. As shown, the list has options to run, edit, create, delete, and select more options.

Each macro has a unique identifying name for easy recognition. Which macro to run depends on the user’s random choice.

Frequently used by FIFO – Aggregator of Capital Gains and Losses are the Run, Edit, and Delete options. The remaining options are within the interest of programmers which is not covered in this book.



FIFO Figure 69 - Macro List





## View Tab, Split Screen

File

Home

Insert

Page Layout

Formulas

Data

Review

View

Developer

Help

Acrobat

Default

Keep

Exit

New

Options

Normal

Page Break

Page Layout

Custom Views

Navigation

Gridlines

Headings

Ruler

Formula Bar

Zoom

100%

Zoom to Selection

Split

Hide

Unhide

Freeze Panes

Arrange All

New Window

Sheet View

Workbook Views

Show

Zoom

Window

A16

=CONCAT('CSV File 'IA15, " - ", 'CSV File To FIFO Format'!\$A\$1)

	B	C	D	E	F	G	A	B	C	D	E	
	Currency	Transaction	Amount	Date	Unit Price	Fees	Exchange A	Currency	Transaction	Amount	Date	Unit
1												
2												
3	ADAETH	buy	44.00	2/28/2021	0.0009	0.00	TVJMSP-WESYK-PHHFWK - Exchange A	ADAETH	buy	44.00	2/28/2021	
4	ADAUSD	buy	300.00	2/21/2021	1.1000	0.86	TQ2NAL-POQMA-CCC7LN - Exchange A	ADAUSD	buy	300.00	2/21/2021	
5	ADAUSD	buy	25.00	2/21/2021	1.1017	0.07	TZ5NGV-U3J2Y-3BVKI2 - Exchange A	ADAUSD	buy	25.00	2/21/2021	
6	ADAUSD	buy	2,000.00	2/22/2021	1.0596	5.51	TJHSIQ-JPOBX-AVTJRN - Exchange A	ADAUSD	buy	2,000.00	2/22/2021	
7	ADAUSD	buy	675.00	2/23/2021	1.0000	1.08	TY2UEZ-XSQJO-YBRD2P - Exchange A	ADAUSD	buy	675.00	2/23/2021	
8	ADAUSD	buy	2,000.00	2/24/2021	0.9817	5.11	T7643A-XI2TK-WZM35E - Exchange A	ADAUSD	buy	2,000.00	2/24/2021	
9	ADAUSD	buy	3,000.00	2/25/2021	1.1399	8.89	T6QVBA-5TXLK-XQGET4 - Exchange A	ADAUSD	buy	3,000.00	2/25/2021	
10	ADAUSD	buy	1,018.01	2/26/2021	1.2500	2.04	TBLXKF-FMKC4-DT2HPN - Exchange A	ADAUSD	buy	1,018.01	2/26/2021	
107	XDGUSD	buy	4,000.00	4/18/2021	0.2499	2.60	TQCWVZ-S4BH6-IQWM3U - Exchange A	XDGUSD	buy	4,000.00	4/18/2021	
108	XDGUSD	buy	1,000.00	4/23/2021	0.2510	0.65	PTX22-IF3YI-5RWOMJ - Exchange A	XDGUSD	buy	1,000.00	4/23/2021	
109	XDGUSD	buy	3,500.00	4/25/2021	0.2827	2.57	TQO7YA-55U6L-R4B13C - Exchange A	XDGUSD	buy	3,500.00	4/25/2021	
110	XDGUSD	sell	9,000.00	4/25/2021	0.2411	5.64	TQR36I-R4CLO-GPYICR - Exchange A	XDGUSD	sell	9,000.00	4/25/2021	
111	XDGUSD	buy	800.00	5/7/2021	0.5469	1.14	TZQDQ6-U1XKC-REDKXS - Exchange A	XDGUSD	buy	800.00	5/7/2021	
112	XDGUSD	sell	800.00	5/9/2021	0.5673	1.18	TMXCDL-2TOPU-NRXXZU - Exchange A	XDGUSD	sell	800.00	5/9/2021	
113	XDGUSD	sell	500.00	6/3/2021	0.4077	0.33	TK5E6U-K7DOT-K4XAVQ - Exchange A	XDGUSD	sell	500.00	6/3/2021	
114	XDGUSD	sell	0.00	6/3/2021	0.4077	0.00	TM7XQP-FCVHS-TNURUM - Exchange A	XDGUSD	sell	0.00	6/3/2021	
115	XETHZUSD	buy	0.04	2/21/2021	1,953.8000	0.20	TP6XST-S3LNS-D3XTD5 - Exchange A	XETHZUSD	buy	0.04	2/21/2021	1.9
116												
117												
118												

CSV File

CSV File To FIFO Format

FIFO Figure 70 - View Tab, Split Screen



### ...Annotation on View Tab, Split Screen

Under Excel's View ribbon tab is the Split screen tab located at the top right corner of the screen. This tab helps in reading off-screen cell entries. When it is turned on, the screen is split into four areas at where the mouse pointer is located, each area being scrollable horizontally and vertically.

When an area of the split screen is scrolled horizontally, off-screen columns of cells are exposed independently of the other areas. When scrolling an area vertically, off-screen rows of cells are exposed, also independently of the other areas.



**FIFO Figure 71 -  
Split Screen Tab**

FIFO – Aggregator of Capital Gains and Losses uses the Split screen tab extensively during macro development to be sure the macro behaves the way it is expected. The Split screen tab can also be used in conjunction with other tabs such as the Formulas tab thereby expediting the development of the application.

After development of FIFO – Aggregator of Capital Gains and Losses the Split screen tab is used to probe the cell entries for accuracy and errors especially in huge spreadsheets.

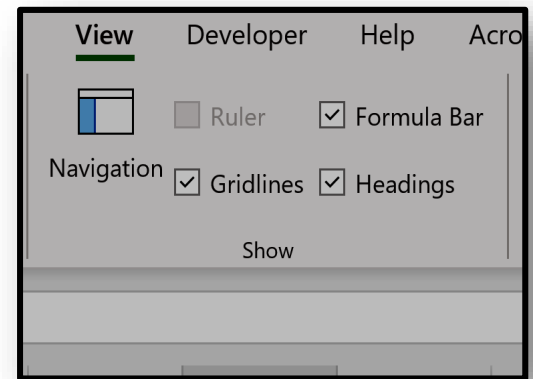




### ...Annotation on View Tab, Formula Bar Off, Headings Off

There are many instances in Excel when a little more screen space is all that's needed to have an excellent presentation in contrast with a mediocre one. This is true with FIFO – Aggregator of Capital Gains and Losses, for example, taking a screenshot with a missing total row at the bottom or a missing extension column at the right.

One of the few solutions to solve the unsightly presentation is to turn off the Formula Bar or the Headings under the View Tab. Turning them off provides the needed additional space as shown in the opposite page. They can be turned on again after the inconvenience is resolved.



**FIFO Figure 73 - Formula Bar, Headings**

Additionally, the Ruler and the Gridlines can be turned on and off if necessary. There are other Excel toggle features that can help in the aesthetics of a presentation. FIFO – Aggregator of Capital Gains and Losses describes only those often used in building the application.





## Formatting Options

The screenshot shows the 'Format Cells' dialog box in Microsoft Excel. The 'Number' category is selected, and the 'General' format is chosen. The sample text indicates that general format cells have no specific number format. The background table contains the following data:

	A	B	C	D	E
	Reference	Currency Pair	Transaction Type	Amount	Date
1	Exchange A				
2					
3	TVJMSP-WESYK-PHFWK - Exchange A	ADAETH	buy	44.00	2/28/2021
4	TOQNAJ-POQMA-CCCTLN - Exchange A	ADAUSD	buy	300.00	2/21/2021
5	TZNSGV-U3JZY-38VKI2 - Exchange A	ADAUSD	buy	25.00	2/21/2021
6	TIHSIQ-POBX-AVTJRN - Exchange A	ADAUSD	buy	2,000.00	2/22/2021
7	TY2UEZ-XSQJO-YBRD2P - Exchange A	ADAUSD	buy	675.00	2/23/2021
8	T7643A-XIZTK-WZM35E - Exchange A	ADAUSD	buy	2,000.00	2/24/2021
9	T6QVBA-5TXLK-XQGET4 - Exchange A	ADAUSD	buy	3,000.00	2/25/2021
10	TBLXKF-FMKC4-DT2HPN - Exchange A	ADAUSD	buy	1,018.01	2/26/2021
11	TQ3OYE-VIRWP-TM3DI2 - Exchange A	ADAUSD	buy	981.99	2/26/2021
12	TCLW5H-R3LRB-ZE3KAB - Exchange A	ADAUSD	buy	320.00	2/26/2021
13	TKJZCX-SNPVN-XQ4QJ8 - Exchange A	ADAUSD	buy	1,000.00	2/26/2021
14	TUR6PG-6GOD2-C7Q5HS - Exchange A	ADAUSD	buy	500.00	2/28/2021
15	TLWEWG-PJF4-IGHFPI - Exchange A	ADAUSD	buy	500.00	2/28/2021
16	TNDIYW-P6UB3-LHIEPF - Exchange A	ADAUSD	buy	636.00	3/4/2021
17	TP5ISO-VHALA-FIKEPP - Exchange A	ADAUSD	buy	2,000.00	3/6/2021
18	TTASCL-2W7RU-OZCS7H - Exchange A	ADAUSD	buy	2,000.00	3/8/2021
19	TAV4N4-DJETF-GNW7W3 - Exchange A	ADAUSD	buy	3,000.00	3/12/2021
20	TJBWKL-3K8FY-RXGRQJ - Exchange A	ADAUSD	buy	2,000.00	3/14/2021
21	TPKYYX-L3QHI-JWWF64 - Exchange A	ADAUSD	buy	1,030.00	3/14/2021
22	TKSGMR-Z3HLP-SOBK37 - Exchange A	ADAUSD	buy	970.00	3/14/2021
23	TQC75B-FVPVY-3VZJ4 - Exchange A	ADAUSD	buy	345.60	3/14/2021
24	TYICLP-WRWLN-ZNWF7U - Exchange A	ADAUSD	buy	1,281.17	3/14/2021
25	T2FHHK-3GAIO-KUT4QK - Exchange A	ADAUSD	buy	925.00	3/14/2021

FIFO Figure 74 - Formatting Options

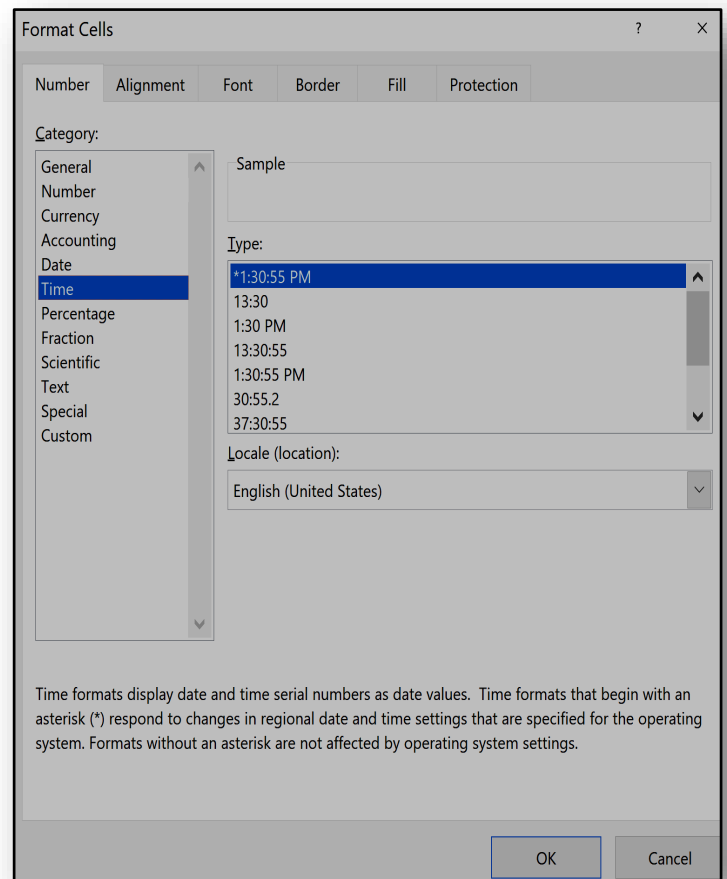


### ...Annotation on Formatting Options

Not all cell formatting options are applied in FIFO – Aggregator of Capital Gains and Losses. Of the 12 known formatting options only four are frequently used, namely number, date, text, and time. Under these popular formatting options are numerous ways of making a good presentation. For example, the following are the assorted styles of formatting a date cell entry:

\*3/14/2012  
 \*Wednesday, March 14, 2012  
 2012-03-14  
 3/14, 3/14/12  
 03/14/12  
 14-Mar  
 14-Mar-12  
 14-Mar-12  
 Mar-12  
 March-12  
 March 14, 2012  
 3/14/12 1:30 PM  
 3/14/12 13:30  
 M  
 M-12  
 3/14/2012  
 14-Mar-2012

The date cell entry is chosen as the example because in the first-in first-out method of assigning cost to assets, date and time are of extreme importance in determining the age of the asset. In addition to the assorted styles of formatting a date cell entry, time has additional formatting choices.



FIFO Figure 75 - Time Formatting Options

Regardless of the style needed to format a cell entry, Excel has the answer. Text entries for example are also formatted in diverse ways to make an eye-pleasing presentation.



## Table of Contents Hierarchy

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FIFO Figure 76 -Table of Contents Hierarchy



### ...Annotation on Table of Contents Hierarchy

The “FIFO Figure 76 -Table of Contents Hierarchy” on the opposite page displays a portion of the book’s expansive but restrictive table of contents. The table is expansive because it covers most aspects of aggregating capital gains and losses from CSV files. It is also restrictive because the descriptions tend to be limited to a single page.

The book’s set up enhances the user’s understanding of the aggregation process. A glimpse of the table of contents immediately thrusts the salient topics being searched for into the user’s attention. Following a pictorial page, in a hierarchical form, a discussion of the display is suggested in an indented format to which a user can immediately move ahead to.

The table of contents is itself an educational tool without turning up too many pages of the book. Right at the beginning when initial interest is kindled about the book’s aggregation process, a reader may form a decision whether to spend money and efforts to learn the procedures proposed in the book.

It cannot be emphasized enough that the book’s table of contents is the first step to learning how aggregating capital gains and losses can be done in a do-it-yourself way while protecting privacy and maintaining complete control over investments.



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FIFO Figure 77 - FIFO Table of Figures



### **...Annotation on Table of FIFO Figures**

Similar to the book's table of contents, the "Table of FIFO Figures" allows the reader to search for topics based on a photo representation if a photograph is the preferred search criterion. The book is designed in such a way that topical discussions are always within the vicinity of a photograph.

All searchable photographs are numbered consecutively starting with 1. The numbering system coincides with the pages of the book, that is, FIFO Figure 1 is located on the earlier page of the book and as the page number increases so does the figure number.

Only photographs that are clarifying, informative and relevant to the aggregation process are assigned numbers. So, there is a smaller number of FIFO figures than are actually shown in the book.

The "Table of FIFO Figures" is included as APPENDIX C towards the end of the book. Including it as such will always be the case even in future editions because the table is updated automatically with new searchable photographs. FIFO Figure 77 presented on the opposite page is a screenshot of the actual partial "Table of FIFO Figures".

As described above, FIFO – Aggregator of Capital Gains and Losses, even in its early edition, has the tools including search by photo representation, to achieve the goal of presenting reliable, consistent and accurate reports.



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