# Introduction to Robotic Process Automation (RPA)

**Order-to-Cash Process Case Individual Workshop 2** 

Adv. Advisory | ACCTG 528

MPAcc Class of 2025

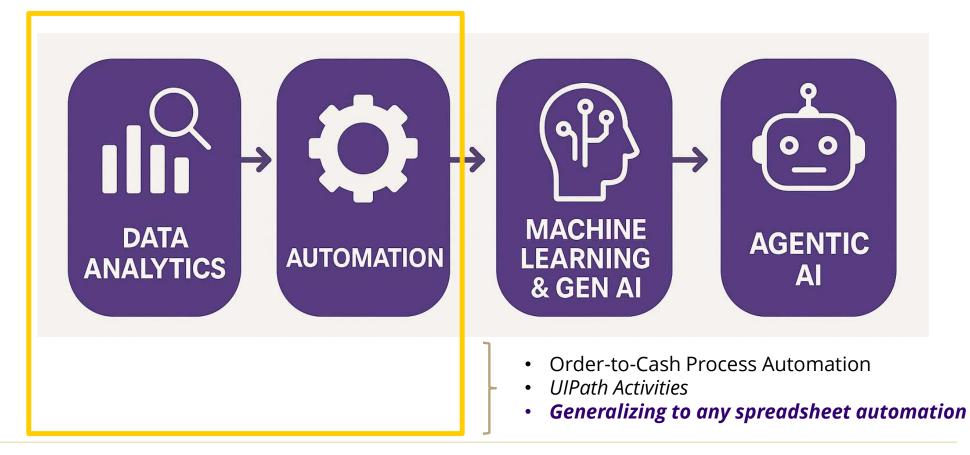


## Agenda

- Review
  - Debugging Tips and Hints
- Pure Reformed Oils Case: Continued
  - Possible extensions



### **Course Overview**



FOSTER SCHOOL OF BUSINESS, UNIVERSITY OF WASHINGTON

foster.uw.edu

## **Debugging Hints and Tips**

[‡] update file logs Sequence	
$\oplus$	
Read Text File     ●        Filename     "4_logs\log_files_processed.csv"	Validation error: variable is out of scope
A+B Assign	<ol> <li>Either not created yet, or</li> <li>Created in a different scope</li> </ol>
Write Text File  Text  Iog_file_of_processed_files  Write to filename  "4_logs\log_files_processed.csv"  (+)	Fix by creating variable (CTRL+K) or increasing the scope (find where you created it)

## **Debugging Hints and Tips**

Warning – variable has been defined twice across different scope levels

Name		Variable type	Scope
log_file_of_processed_files		String	update file logs Sequence
logger_file		String	PRO: Order-to-Cash RPA
logger_files_to_process		Int32	PRO: Order-to-Cash RPA
DT_processed_files		DataTable	PRO: Order-to-Cash RPA
etsy_files_count		Int32	PRO: Order-to-Cash RPA
ups_files_count		Int32	PRO: Order-to-Cash RPA
ups_files_del_count		Int32	PRO: Order-to-Cash RPA
csv_file_log		String	PRO: Order-to-Cash RPA
etsy_files_array	A 1	String[]	PRO: Order-to-Cash RPA
ups_files_array		String[]	PRO: Order-to-Cash RPA
ups_files_del_array		String[]	PRO: Order-to-Cash RPA
DT_erp_customers		DataTable	PRO: Order-to-Cash RPA
DT_erp_sales_orders		DataTable	PRO: Order-to-Cash RPA
etsy_files_array	× <u>*</u>	String	update file logs Sequence
Crente Vanhle			

Problems: may cause overwriting of data, or access of variable not expected.

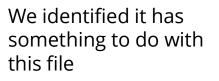
Fix: Usually just delete the one with lowest scope (created by accident) or limit the scope of the higher scope variable

## **Debugging Hints and Tips**

#### May require multiple steps,

#### first look for some evidence of what it relates to

Tracking down a new error ect [ ] Sequence Ui Runtime execution error /ities what is an exception type uipath.excel.csvParseException? ities Source: Read CSV :tivit The UiPath.Excel.CsvParseException is an exception type thrown by UiPath's Excel or Workbook activities Message: The CSV file format for 4\_logs/log\_files\_processed.csv is invalid. Line 2 contains when there is a problem parsing a CSV file. It typically occurs in the Read CSV activity and is part of the tion more values than the header line. bject namespace UiPath.Excel. n pac erien. Exception Type: UiPath.Excel.CsvParseException Mana What it means: Details (v) Open Logs Copy to Clipboard OK Proj This exception indicates that UiPath encountered a format it couldn't handle while reading a .csv fileusually due to malformed structure or unexpected delimiters. A\*B Assign Common causes: 1. Inconsistent column counts across rows (e.g., header has 5 columns, a later row has 3). 2. Unescaped delimiters (e.g., commas inside quoted strings not properly escaped). You can google/GPT the 3. Improper encoding (e.g., the file is UTF-16 but you're reading it as UTF-8). 4. Broken or partial rows, especially when generated by external systems. exception type 5. Corrupted line endings (especially when moving between Unix and Windows systems).



So we can retrace our steps

check for log file			
(	$\oplus$		
Path Exists	*		
Path Type File	•		
"4_logs/log_files_processe	d.csv"		
	v		
) If	1	*	
Condition			
log_csv_exists			
Then	Else		
[ Sequence			
	[‡] Sequence 😞		
+ Read CSV	÷		
la T	🖹 Write Text File 🔗		
Read from file	Text		
"4_logs/log_files_processed.csv"	"filename, processed"		
Output to	Write to filename		
DT_processed_files           Image: state	"4_logs/log_files_processed.csv"		
Has headers			
A+B Assign	A*B Assign		
logger_file = logger_file +"," + ei	logger_file = logger_file +"," + ei	Private	
+	$\oplus$	Output	
		Output to	en file lee
		Output to	csv_file_log
Read Text File	*		
Filename			
"4_logs\log_files_processed.csv			
(			

#### Take a look at the file, we get this but expect this

A	В	с	
filename	processedfilename	processed	
0_etsy_input\orders_2025-04-01.csv	4/22/2025 11:48		

А	В
filename	processed
0_etsy_input\orders_2025-04-01.csv	4/22/2025 16:20
0_etsy_input\orders_2025-04-02.csv	4/22/2025 16:27
0_etsy_input\orders_2025-04-03.csv	4/22/2025 16:27
0_etsy_input\orders_2025-04-04.csv	4/22/2025 16:27
0_etsy_input\orders_2025-04-05.csv	4/22/2025 16:27
0_etsy_input\orders_2025-04-06.csv	4/22/2025 16:27
0_etsy_input\orders_2025-04-07.csv	4/22/2025 16:27
0_etsy_input\orders_2025-04-08.csv	4/22/2025 16:27
0_etsy_input\orders_2025-04-09.csv	4/22/2025 16:27
0_etsy_input\orders_2025-04-10.csv	4/22/2025 16:27
0_etsy_input\orders_2025-04-11.csv	4/22/2025 16:27
0_etsy_input\orders_2025-04-12.csv	4/22/2025 16:27
0_etsy_input\orders_2025-04-13.csv	4/22/2025 16:27
0_etsy_input\orders_2025-04-14.csv	4/22/2025 16:27
0_etsy_input\orders_2025-04-15.csv	4/22/2025 16:27
0_etsy_input\orders_2025-04-16.csv	4/22/2025 16:27
0_etsy_input\orders_2025-04-17.csv	4/22/2025 16:27
0_etsy_input\orders_2025-04-18.csv	4/22/2025 16:27
0_etsy_input\orders_2025-04-19.csv	4/22/2025 16:27

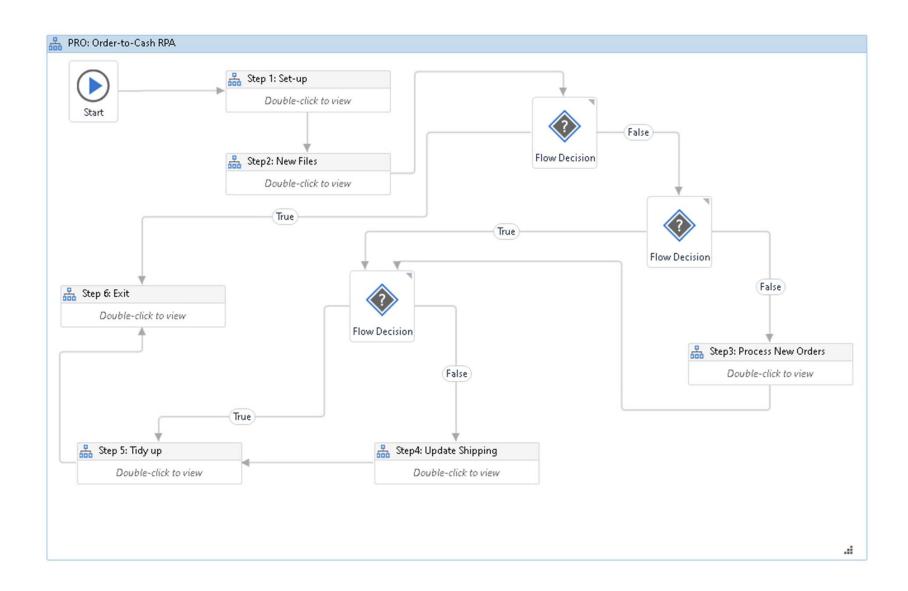
Look for times that the file might be interacted with, e.g., updates to log

	Expression Editor ?	2
$\oplus$	Value(String)	
For Each	1 csv_file_log + environment.newLine + item.tostring + "," + now().ToString	
ForEach item in etsy_files_array Body		
[‡] Body 😤	OK Ca	ance
Text item.ToString + " processed."		
csv_file_log = csv_file_log + en × Add		
$\oplus$		

#### What was the problem???

#### It was this part

[ update file logs Sequence	Expression Editor	? ×
÷	Content (String)	
📄 Read Text File 🔗	log_inc_or_processes_mes	
Filename		
"4_logs\log_files_processed.csv"		
		OK Cancel
A+B Assign	-	
log_file_of_process = log_file_of_process	Expression Editor	? ×
	Value (InArgument)	
🕞 Write Text File 🔗	1 log_file_of_processed_files+csv_file_log	
Text		
log_file_of_processed_files		
Write to filename		OK Cancel
"4_logs\log_files_processed.csv"	1	,
$\oplus$		



## Agenda

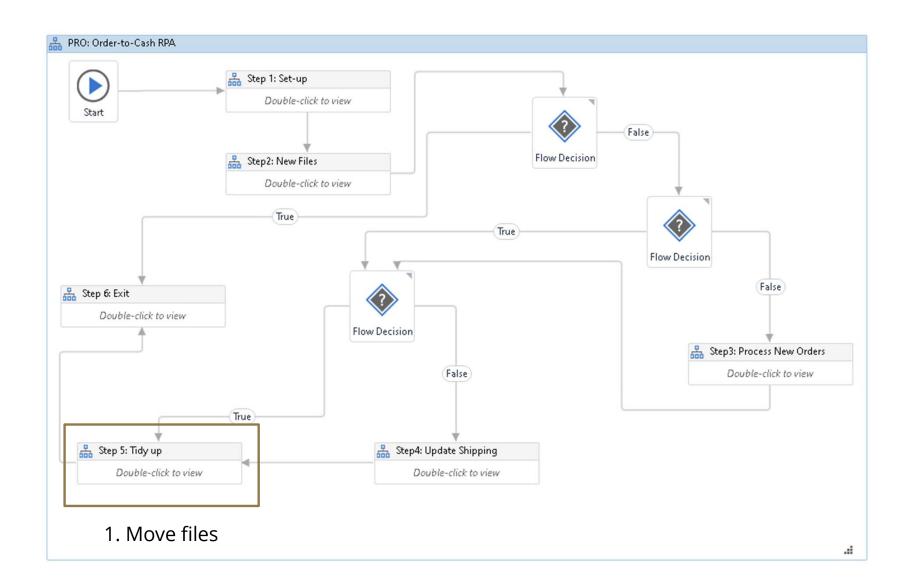
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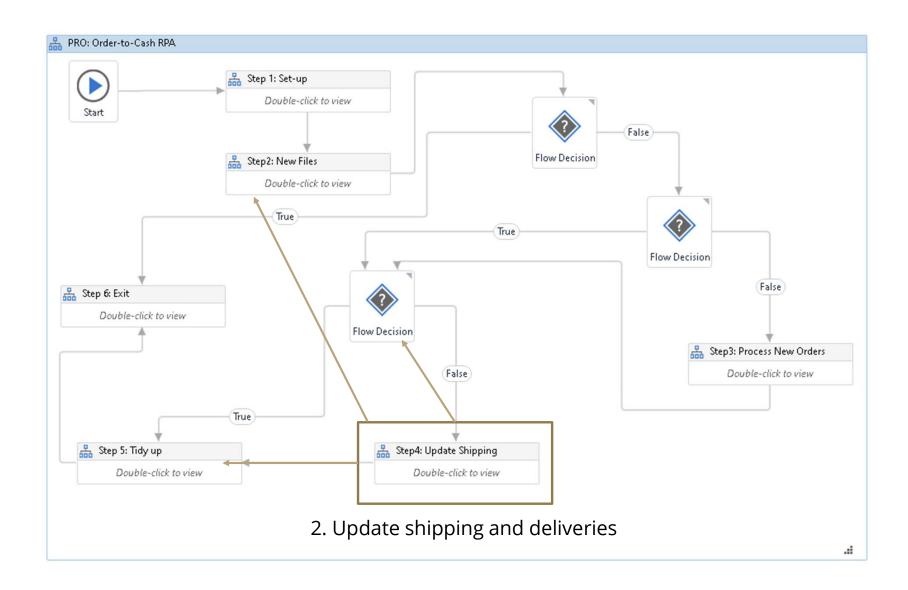


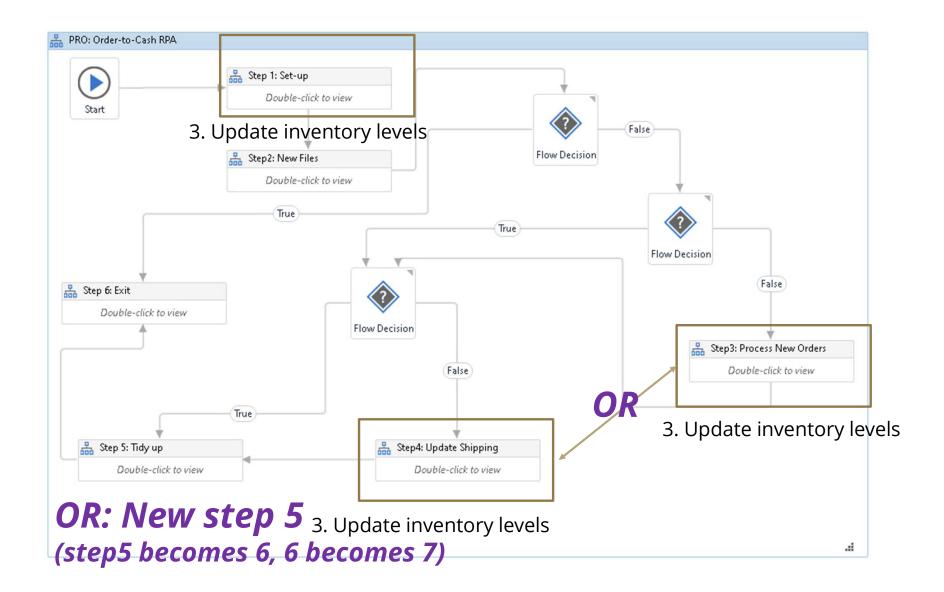
## **Possible extensions**

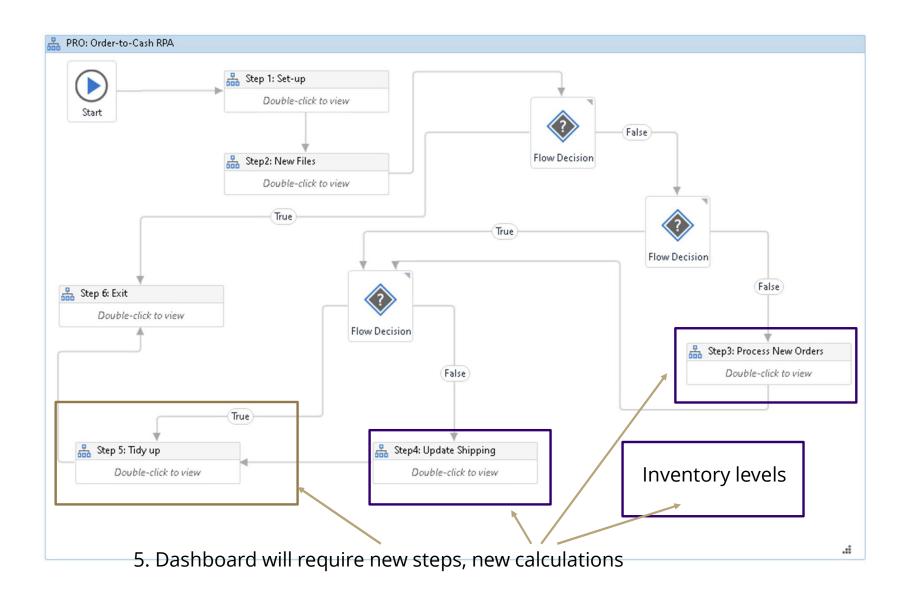
Create a bot that automates the order-to-cash workflow described by the clients:

- 1. Move processed files automatically
- 2. Update ERP for shipments/deliveries
- 3. Update Inventory levels
- 4. Create metadata tags, extend the logger (with a json output)
- 5. Create diagnostic output for a dashboard / create dashboard
- 6. Other ideas:
  - 1. ETSY Payments updates
  - 2. Accounting system
  - 3. Auto reconciliations, controls
  - 4. And anything else you think could be automated / improved.









## **Possible extensions - recap**

Create a bot that automates the order-to-cash workflow described by the clients:

- 1. Move processed files automatically
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- 6. Other ideas:
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  - 4. And anything else you think could be automated / improved.

## **Possible extensions – suggestions & hints**

- Remember the video should include inputs & outputs and preferably the bot running.
  - Hint: show the output log in the video.
- Make it very clear what your extension(s) is(are) in the video.
  - Hint: if you go beyond my list, make it clear, and if you do consider researching "end-toend" automation and discussing your bot/solution using this language.
- Discuss the solution in terms of efficiency (hours saved) and effectiveness (minimization of potential human errors, typos, mis pasting of data, etc).
  - Hint: Consider talking about other uses of time for Victoria and Skylar.
  - Hint: Another discussion point is the provision of follow up services, including maintenance and or help with other automations. You are welcome to discuss these hypotheticals.

## Thank you

