

Process Design Document / Solution Design Document

IAH HIT Epic Willow Auto Refill Automation

Purpose of Document

This document serves as the technology policies and procedure for Intelligent Automation Hub at Geisinger

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1. Document Control

Applies to:	All IAH RPA Operating Model
Classification:	Highly Confidential
Owner:	Intelligent Automation Hub Team

DOCUMENT HISTORY

Version	Date	Author	Approver	Reasons for Change
1.0	8/20/22			Initial Draft
1.1	9/8/22			Workflow Adjustments

REVIEW/APPROVAL

Role	Name	Date
SME		9/8/22
Process Owner		9/8/22
Business Architect		9/8/22
Developer		
IAH Director		9/8/22

STAKEHOLDERS

Role	Name	Email
Process Owner		

SME		
Business Architect		
IAH Director		
Developer		

2. Document Details

2.1 PURPOSE OF THIS DOCUMENT

The Process Design Document outlines the business process chosen for automation and the technology being utilized.

The document describes the sequence of actions performed as part of the business process, the conditions and rules of the process prior to automation and how they are envisioned to work after automating it, partly or entirely. This specifications document serves as a base for developers, providing them with the details required for applying automation to the selected business process.

3. Current State Process Description

3.1 PROCESS SUMMARY

No Current State.

3.2 DATA FLOW & APPLICATIONS

3.2.1 INPUT

Input	Format	Location	Is it natively digital?	Is it structured?
XLSX File with list of transactions	XLSX File	Network Folder	Yes	Yes

3.2.2 OUTPUT

Output	Format	Location	Frequency	Comment
Process Summary	Excel File	Network Folder	Once automation completed	One time run for all transactions

3.2.3 APPLICATIONS

Application	Version	Interface	Req Key / Operation / URL	Comment
Network Folder			Will be created for the project	
Epic Willow Ambulatory REL and PROD			Test (REL) and prod (PROD) bot access will be requested	
Excel				
Outlook				

3.3 BUSINESS RULES

Rule	Detail
Automation frequency	One Time (Between 2/25/23 Saturday 8PM – 3/6/23 Monday 6AM) (ESTIMATED)
Bot start time	TBD (Between 2/25/23 8PM – 3/6/23 6AM)
Patient unique field	Full Name and DOB
Excluding weekends and holidays	No
SLAs	TBD

3.4 CURRENT STATE METRICS

Avg. Daily Transactions	# Batches Daily	Avg. Volume / Batch	Weekly Avg. Volume	Frequency
Daily estimated volumes are 5,500	Daily estimated volumes are 5,500	55,000	Transactions to be completed (Between 2/25/23 8PM – 3/6/23 6AM)	One time continuous run until all transactions completed

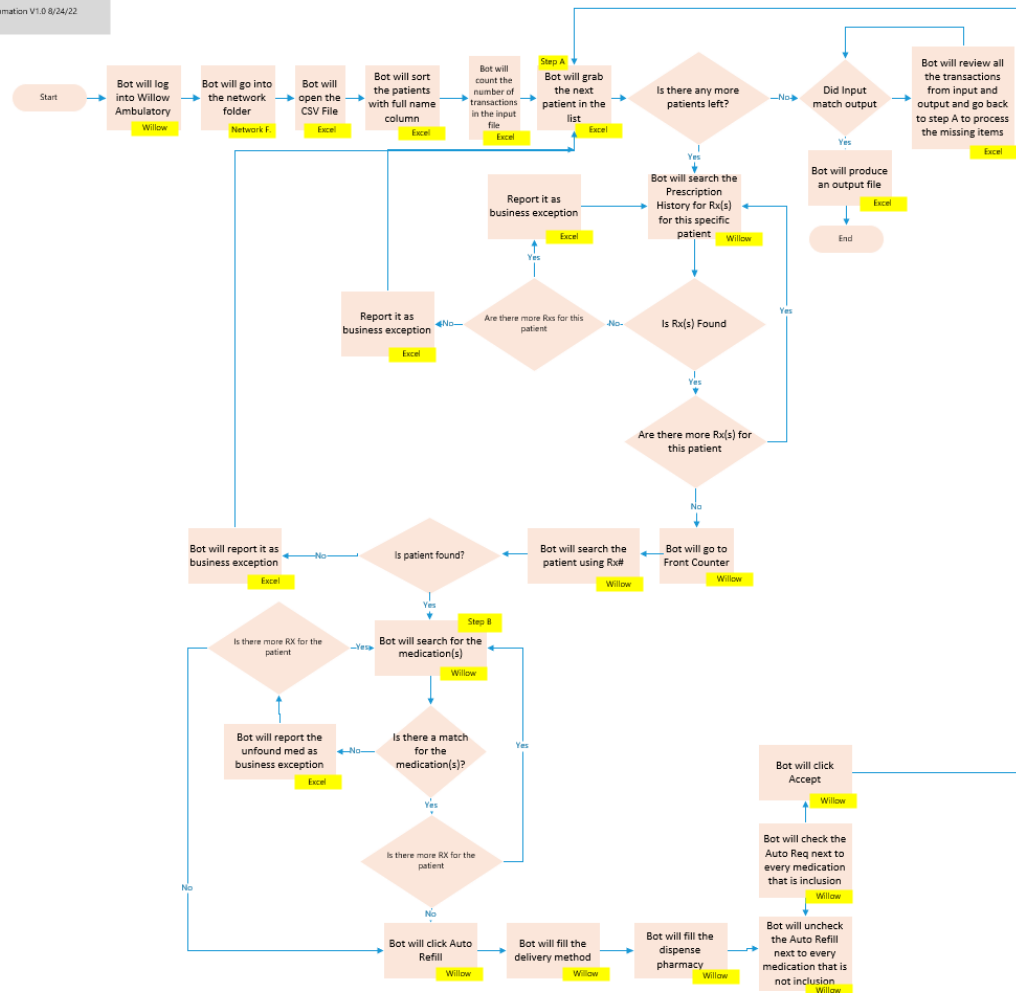
3.5 CURRENT STATE PROCESS FLOW

High Level Process Flow Diagram (Current state): No current state

4. Future State Process Description

4.1 FUTURE STATE PROCESS FLOW

Bot Automation Process & Workflow Diagram (Future State):



1. Bot will go to the network folder
2. Bot will open the input file
3. Bot will count the total number of rows
4. Bot will group the patients with same 'Full_Name' and "Birth_Date' in order to process one patient at a time (sorted: due refill soonest first)
5. Bot will log in to Willow Ambulatory
6. Bot will click on Prescription History and search for the Rx number from the input file
 - a. If the prescription number is not found, Bot will put this prescription for this patient as business exception.
 - b. If the prescription number is found, Bot will use this prescription number to search the patient and to mark for auto refill
7. Once Rx searches for that specific patient is completed Bot will go to the Front Counter
8. Bot will search for matching patients using the Rx# found in Step #6b
 - a. If there is '0 matching patients found' Bot will report it as business exception
 - b. If there is 1 matching patient found, Bot will go into patient to find the RX numbers in patient's chart

9. If Bot can identify the patient, Bot will double click on the patient's name
10. Bot will click on Med Profile
11. Bot will click on Refill Management
12. Bot will click on enroll Auto Refill
13. Bot will fill the Auto Refill delivery method
14. Bot will fill the Dispense pharmacy information
15. Bot will uncheck all the meds with bottle icon under the Auto Refill for the medication(s) if any that are NOT identified from the input file
16. Bot will check all the meds with for the Auto Req for the medication(s) if any that are identified from the input file
17. Bot will repeat the steps until all transactions are completed
18. Bot will count the total transaction number from input file and compare the output file numbers to verify all transactions processed
19. Bot will send an output file with all success and exceptions

4.2 IN SCOPE FOR RPA

100% of current state process is in scope for RPA.

4.3 OUT OF SCOPE FOR RPA

The actions out of scope for RPA should be listed in the table below together with the reasoning.

Activity/Action	Reason for out of scope	Future State solution	Measures to be taken for future automation
N/A	N/A	N/A	N/A

4.4 FUTURE STATE DETAILED STEPS

Step	Short description of key process steps	Screenshot for reference
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1.	Bot will go to the network folder	<network folder path TBD>
2.	Bot will open the input file	<Input file name TBD>
3.	Bot will count the total number of rows	
4.	Bot will first sort the list with oldest 'last filled date' and then group the patients with same First, Middle Initial and Last_Name and "Date of Birth" in order to process one patient at a time (Oldest 'last filled date' prescriptions will be processed first)	Input File Expected Format: • First Name • Middle Initial • Last Name • Date of Birth • Sex • Address 1 • Address 2 • City • State • Zip • Phone • Social Security Number • Rx Number (Prescription Number) • Medication_Name • Last_filled date (Oldest will be due for refill soonest) • Legacy Score Number (Owning_Pharmacy) • Next fill date
5.	Bot will click Start > Willow Ambulatory to launch Epic Willow	
6.	Bot will type user name and password	
7.	Bot will click Log In	

8.	Bot will type 4011016 and press enter	
9.	Bot will click OK	
10	Bot will click on Prescription History	
11	Bot will type the Rx number (prescription number) from the input file	
12	Bot will record the RX number to search the medication (Rx# number will be used to identify the medication under refill management)	
13	Bot will click cancel after recording the Rx Number	
14	If the Rx (prescription) number is not found, Bot will put this prescription for this patient as business exception.	
15	Once Rx searches for that specific patient is completed (repeating steps 11-14), Bot will click Cancel	
16	Bot will click on Front Counter	
17	Bot will search the patient using the Rx# found in step #12. Bot will type the Rx Number in highlighted field	
18	Bot will click uncheck "Pharmacy patients only"	
19	Bot will click Search	
20	Bot will look under patients matching search	
21	If there is '0 matching patients found' Bot will report it as business exception	

22	If there is 1 matching patient found, Bot will go into patient to find the RX numbers in patient's chart	
23	If Bot can identify the patient, Bot will verify patients' DOB first using the information from the input file, then double click on the patient's name	
24	Bot will click on Med Profile	
25	Bot will click on the check box next to Entire Rx profile	
26	Bot will click on Refill Management	
27	Refill Management window will open up	
28	Bot will use RX number(s) Bot obtained on Step 12 to search the RX#	
29	If Bot cannot find some of the medication(s) for auto refill, Bot will report it as business exception	
30	If bot find all or some of the medication(s) for auto refill, Bot will click on Enroll Auto Refill from the Refill Management window (if the auto refill button already been selected, Bot will go to the step 35)	
31	Bot will click on the magnifying glass next to Auto Refill delivery method	
32	Bot will pick Mail and click OK	
33	Bot will click on the magnifying glass next to Dispense pharmacy	

34	Bot will select Geisinger mail order pharmacy (ID 2000016) and click OK	
35	Bot will uncheck all the meds with bottle icon under the Auto Refill for the medication(s) if any that are NOT identified from the input file	
36	Bot will confirm the icon changed to blank box for medications that are NOT identified from the input file	
37	Bot will ensure medication(s) that is in inclusion have the bottle icon under auto refill	
38	Bot will put a check mark under Auto Req next to all inclusion medications	
39	If patient has more prescriptions from the input file to mark for auto refill, Bot will also keep the bottle icon checked in the auto refill column and will put a check mark inside the Auto Req box	
40	Bot will confirm the auto refill and auto req boxes are checked for all inclusion medications	
41	If Bot is able to find the patient but not certain medication, Bot will report it as business exceptions	
42	Bot will click Accept	
43	Bot will scroll right to find the auto refill and auto req icons next to the medications Bot enrolled in Auto Refill	
44	Bot will confirm that the auto refill icon and auto req icon are visible the medications it enrolled in auto refill	
45	If the auto refill icon is missing, Bot will repeat the steps 26 to 44 for each medication in inclusion	

46	Bot will click Accept	
47	Bot will land on the select patient window	
48	Bot will repeat the steps 10-47 until all transactions are completed	
49	Bot will count the total transaction number from input file and compare the output file numbers to verify all transactions processed	
50	Bot will send an output file with all success and exceptions	

4.5 EXCEPTIONS IN THE PROCESS FLOW

Exception	Actions	Comment
Patient Not Found	Flag in output file and continue to next Masterfile entry to process	
Medication Not Found	Flag in output file and continue to next Masterfile entry to process	

4.6 SYSTEM ERRORS

Error	Action	Comment
Application crash	Recover and retry 3 times	The transaction will not be put at the bottom of the list but will be tried 3 times as priority
Willow Downtime	Pause bot if during run time	

4.7 PROCESS CONTINUITY

Prevention:

Establishing and defining what redundancies and protocols are in place to prevent failures in the process and maintain business continuity

Detection:

Defining what protocols are in place for monitoring the process to detect bugs and stop incorrect actions at all points **post go-live and escalated monitoring during massive systems changes**

Recovery

Assessing the level of risk, define strategic stakeholders to be alerted in need of a recovery and outlining the recovery plan to get back to operational state.

Scenario	Prevention	Detection	Recovery
Percentage of transactions will be processed initially	Business reviews and confirms Bot processed the percentage of transactions	Business confirms Bot processed the transactions before running the Bot for the full list	Bot workflow will be adjusted after business audit
Expected number of input files not provided or missing.	Business reviews and confirms number of anticipated files are loaded/prepared by agreed upon date.	Bot scans/inspects for anticipated files/number of files.	- Bot sends notification email to those who are on the distribution list and IAH Prod support team. - Business to resolve the issue and notify IAH regarding next steps. - IAH team to reschedule bot run based on bot's availability.
Input file format change or input file is blank (no data).	Business to notify IAH regarding upcoming changes. IAH and Business work together to prepare	Bot finds out the unexpected file format and fails to complete the process.	- Bot sends notification email to those who are on the distribution list and IAH Prod support team. - Business and IAH work together prepare and

	and follow change management process.		follows change management process.
Bot not completing as outlined in PDD.	N/A: What was not known was not preventable.	Hypercare Phase: every 30 mins auditing is performed and process logs are monitored.	- Initial runs will be monitored by IAH - IAH team adjusts bot design to improve business exceptions.
Higher than expected system exceptions.	N/A: What was not known was not preventable.	Insight Dashboards created during UAT for long term monitoring of volume and exception changes (increases or decreases).	- Alert/pulses identified and notifications sent to IAH Comm Support. - Business and IAH work together if additional phase is needed. - ServiceNOW incident reported and escalated as needed.
Output file errors (timing, format, info, reporting).	N/A: What was not known was not preventable.	Hypercare Phase: Daily auditing is performed and process logs are monitored. Insight Dashboards created during UAT for long term monitoring of volume and exception changes (increases or decreases).	- Business and IAH team adjusts bot design to identify output file errors. - Business and IAH work together if additional phase is needed.
Automated QA Bot.	Bot produces email/confirmation/notification of summary indicating input matches output file/data/action results.	Bot indicates in email either success or failure of input=output comparison.	IAH Support and/or business reviews and determines next steps.
Unknown reasons If the bot fails, how will it continue and resolve issue?	N/A: What was not known was not preventable.	Bot is unable to complete the automated process.	Bot sends notification email to those who are on the distribution list and IAH Prod support team [iah_rpa_prod_support@geisinger.edu].

			• The Bot Controller will then be responsible to triage the bot disruption, fix the issue(s), and either schedule ad hoc processing or resume the bot processing. • Response time confirmed by business – the goal is to complete the work by xxth of the month, but ok if completed by xx th of the month.
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5. Technical Details

Item	Description	Comment
Robot Type	Unattended	
Orchestrator used?	Yes	On-Premise Version
UiPath version used	2020.10.4	

6. Reporting

Report Type	Update Frequency	Details	Distribution List
Process Report	Daily at 7am	Daily Report status of processed transactions via email: Attach Output File	

	(Daily Unique data)	Subject: *IAH – Epic Willow Auto Refill Automation – Completed MM/DD/YYYY* Body: Hello, Please attached file for the processed transactions and exceptions from MM/DD/YYYY run. Attachment: • First Name • Middle Initial • Last Name • Date of Birth • Sex • Address 1 • Address 2 • City • State • Zip • Phone • Social Security Number • Rx Number (Prescription Number) • Medication_Name • Last_filled date (Oldest will be due for refill soonest) • Legacy Score Number (Owning_Pharmacy) • Next fill date • New Column: Success, Business exception (reason), system exception	
Process Report	When all transactions completed	TOTAL Report status of processed transactions via email: Attach Output File Subject: *IAH – Epic Willow Auto Refill Automation – ALL TRANSACTIONS Completed MM/DD/YYYY* Body: Hello, Please attached file for the processed transactions and exceptions	

		Attachment (ALL TRANSACTIONS): • First Name • Middle Initial • Last Name • Date of Birth • Sex • Address 1 • Address 2 • City • State • Zip • Phone • Social Security Number • Rx Number (Prescription Number) • Medication_Name • Last_filled date (Oldest will be due for refill soonest) • Legacy Score Number (Owning_Pharmacy) • Next fill date • New Column: Success, Business exception (reason), system exception	
Error Logs	At Time of Error	Report of process errors Subject: *IAH – Epic Willow Auto Refill Automation – Failed MM/DD/YYYY HH:MM* Body: Hello, The Epic Willow auto refill automation failed.	

7. Environment Details

Application	Development Stage	Environment	Access Type	Access Key/Credential
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Willow	Development	<Willow_REL>	Username and password And Log in dept	Username: <USER ID> Password: <PASSWORD> Login Department: <DEPARTMENT>
	PROD	<Willow_PROD>	Username and password And Log in dept	Username: <USER ID> Password: <PASSWORD> Login Department: <DEPARTMENT>
Outlook	Development /Test/UAT/Prod	<Environment Name>	Email account and password	Email: TBD@geisinger.edu Password: <password1>
Excel				
Network Folders				

8. Assumptions

Assumption	Impact
The entire process is automated end to end with no manual intervention.	
The distribution list, email addresses, and/or shared mailbox listed in the PDD for the purpose of process notification through email are to be maintained solely by the line of business.	

9. ADDITIONAL SOURCES OF PROCESS DOCUMENTATION

Type	Name	Link	Comments
Assessment			IAH Teams Folder
Step Recording (video)			IAH Teams Folder
Task Capture			IAH Teams Folder
UAT Recording (video)			IAH Teams Folder
Executive Summary			IAH Teams Folder

10. Appendix

10.1 GLOSSARY

Acronym/Term	Meaning
PDD	Process Design Document – document that contains information about the process in scope for automation and about the agreed technical solution
RPA	Robotic Process Automation
IAH	Intelligent Automation Hub