

Process Design Document / Solution Design Document

Process Name: General Surgery Referral Automation ROI

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	11.30.23	Dawnell Morgan	Phebe Strzempek	Initial Draft

REVIEW/APPROVAL

Role	Name	Date
SME		
Process Owner		
Business Architect		
Senior BA		
Developer		
IAH Director		

STAKEHOLDERS

Role	Name	Email
Process Owner		

SME		
Business Architect		
IAH Director		
Developer	Nate	

2. Document Details

2.1 PURPOSE OF THIS DOCUMENT

The Process Definition 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

This automation will perform the steps to track Neuroscience appointments completed Neuroscience appointments where the Bot requested a referral and or authorized a referral and or assigned a referral for Neuroscience appointments. This automation will use the billing number through the claim adjudication process to capture the Net Revenue collected for the neuroscience appointment Return on Investment calculation.

3.2 DATA FLOW & APPLICATIONS

3.2.1 INPUT

Input	Format	Location	Is it natively digital?	Is it structured?
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File	Excel	Need performer link for ROI QA file	Yes	Yes
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3.2.2 OUTPUT

Output	Format	Location	Frequency	Comment
File	Excel	Network Folder	Daily	

3.2.3 APPLICATIONS

Application	Version	Interface	Req Key / Operation / URL	Comment
Epic	Production	Citrix	N/A	
Outlook	N/A	N/A	N/A	
Excel	N/A	N/A	N/A	
Network Folders	TBD	TBD	TBD	

3.3 BUSINESS RULES

Rule	Detail
Automation frequency	Daily
Bot start time	after RPA bot finishes
Excluding weekends and holidays	No
SLAs	Before new RPA runs

3.4 CURRENT STATE METRICS

Avg. Daily Transactions	# Batches Daily	Avg. Volume / Batch	Weekly Avg. Volume	Frequency
8-10	1		100	Daily

3.5 CURRENT STATE PROCESS FLOW

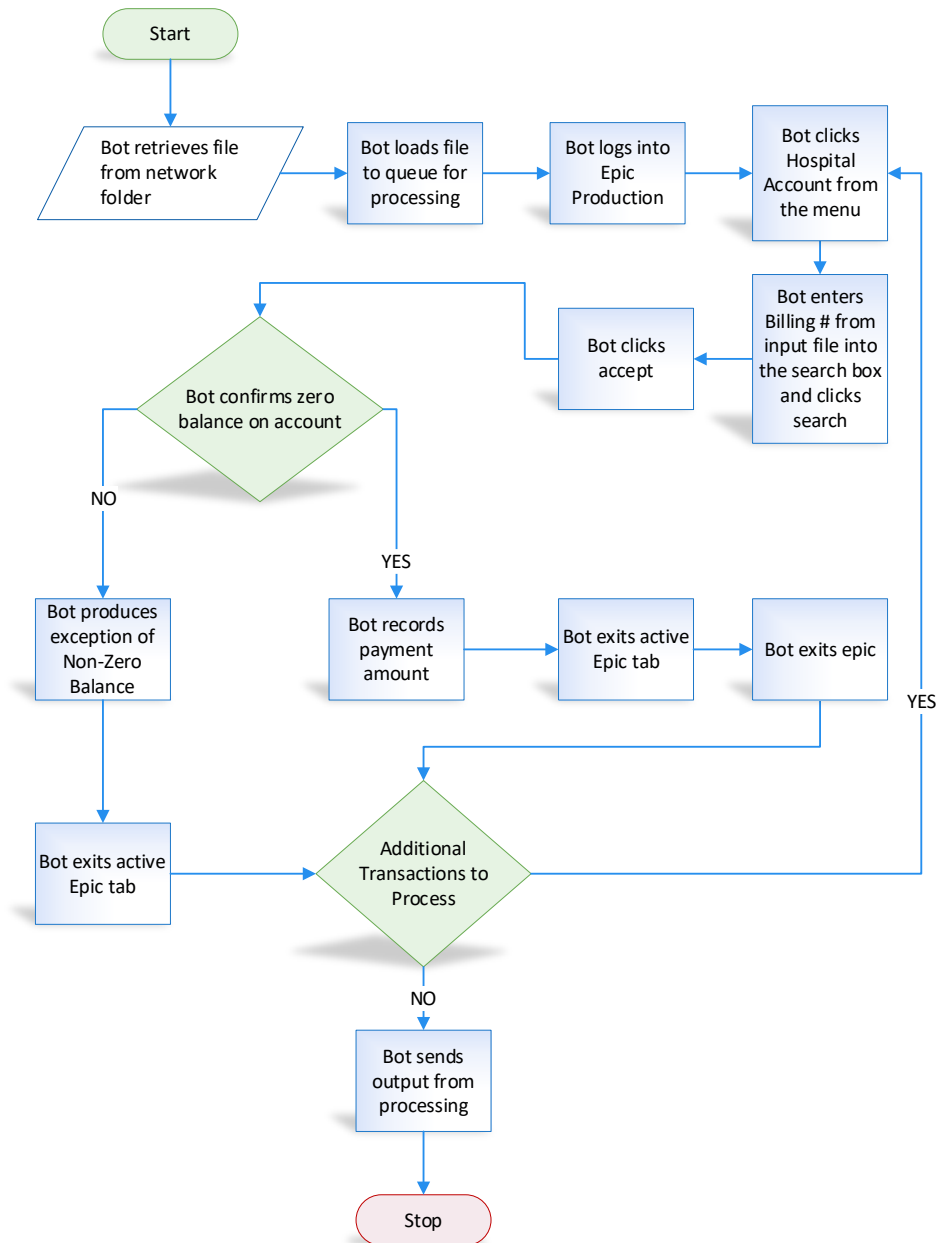
High Level Process Flow Diagram (Current state):

N/A

4. Future State Process Description

4.1 FUTURE STATE PROCESS FLOW

Bot Automation Process & Workflow Diagram (Future State):



1. Bot will retrieve file from network folder
2. Bot will load file to queue for processing
3. Bot will log into Epic Production
4. Bot will click Hospital Account from the menu
5. Bot will enter Billing # from input file into the search box and clicks search
6. Bot will click accept
7. Bot will confirm zero balance on account
8. Bot will record payment amount
9. Bot will exit active Epic tab
10. Bot will repeat steps (4-9) for remaining transactions to be processed

11. Bot will exit epic
12. Bot will send output from processing

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
1.	Bot will retrieve General Surgery Referral QA Report output file from IAH network folder and loads it to queue for processing	
2.	Once file is loaded to queue for processing, Bot will move file to ROI Archive folder	
3.	Bot will Launch Epic Production	
4.	Bot will Enter User ID	
5.	Bot will Enter Password	

6.	Bot will Click 'Log In'	
7.	Bot will Enter Department of 'RESULTS REVIEW [200032]'	
8.	Bot will click 'Hospital Account' in menu bar	
9.	Bot will enter Hospital Account # from input file (Column H) in search box Note: - Transactions with an Appointment Date older than 30 days are processed, transactions less than 30 days are held for processing until 30 days passes from the admit date - Transactions with a payment amount recorded in the queue are excluded - Transactions with the exception of 'Non-Zero Balance' are reprocessed once per day until zero balance appears and remaining steps can be completed	
10.	Bot clicks magnify glass to complete search	
11.	Bot will click 'Accept'	
12.	Bot will confirm account has a zero balance, if account balance is not zero, bot records the transaction as an exception of 'Non-Zero Balance' and proceeds to Step 14	
13.	Bot will capture and records payment amount for transaction in the queue for reporting via Insights	
14.	Bot will close active tab by clicking the 'X' on the tab	

15.	Bot will return to Step 8 for any remaining transactions in queue to be processed	
16.	Bot will click log out	
17.	Bot will send process output email notification	Subject: General Surgery Referral ROI Process Output Body: Attached is the report of the automation ran on *insert date of run* Attachment: General Surgery Referral ROI Report.xls

4.5 EXCEPTIONS IN THE PROCESS FLOW

Exception	Actions	Comment
Billing # Not Found	Flag in output file and continue to next entry to process	
Break-the-Glass	Flag in output file and continue to next entry to process	
Non-Zero Balance	Flag in output file and continue to next entry to process	
Patient Canceled Appointment prior to DOS	Flag in output file and continue to next entry to process	

4.6 SYSTEM ERRORS

Error	Action	Comment
Application crash	Recover and retry 3 times	

Epic Downtime	Pause bot if during run time	
Epic Upgrade	Review with business and determine what/if any action is necessary	

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
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: Daily auditing is performed and process logs are monitored.	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.
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 10th of the month, but ok if completed by 15th of the month.
Downtime is >30 days	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.

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	Report status of processed transactions via email: Attach Output File Subject: General Surgery Referral Process Output Body: Attached is the report of the automation ran on *insert date of run* Attachment: General Surgery Referral QA Report.xls Add the following columns: - A = MRN - B = Name - C = Appointment Date - D = Visit Type name - E = Department - F = DOB - G = Appointment Status - H = Hospital Account # - I = CSN # - J = Payment - K = Exception	
Error Logs	At Time of Error	Report of process errors Subject: Neuroscience referral ROI Error Bot will email the business to inform of the failure.	

		Body: Bot failed due to system error. Bot will run the same population with next run.	
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7. Environment Details

Application	Development Stage	Environment	Access Type	Access Key/Credential
Epic	Development	<Epic_Dev>	Username and password And Log in dept	Username: ID: Login Department: ***
	Test	<Epic_Test>	Username and password And Log in dept	Username: Login Department:
	Prod	<Epic_Prod>	Username and password And Log in dept	Username: Login Department:
Outlook	Development /Test/UAT/Prod	<Environment Name>	Email account and password	Email: TBD@geisinger.edu

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.	
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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
MRN	Medical Record Number
IAH	Intelligent Automation Hub

NOA	Notice of Admission
ROI	Return on Investment