UiPath's Action Center feature helps to implement Human-in-loops approach. The bot can create the task for human validation of the data extracted from the document like invoice, purchase order etc.

Here we will see the common scenario, the problem statement & the solution to implement human-in-loops approach.

The Scenario with the following conditions:

1. The bot is receiving documents to extract the data.
2. The bot has to create the task in the action center for human validation as per the business rule.
3. The bot has to resume processing of the document after the task gets completed in the action center.

The below intelligent OCR activities helps to implement this human-in-loop approach with action center.

#	Activity	Purpose	Package
1	Create Document Validation Action	Creates task in the action center	UiPath.IntelligentOCR.Activities
2	Wait For Document Validation Action And Resume	Suspend the bot until the task gets completed and then resume	

The important point is, these 2 activities should be used in conjunction with each other.

The problem statements: -

1. These 2 activities are part of the same process,
   - Right after creating the first task in the action center, the bot will move into the suspended mode waiting for the human response.
   - Thus, this bot will not consider processing next documents until this particular task gets completed.

2. These 2 activities are part of 2 separate processes,
   - The 1st bot keeps creating the tasks in the action center and the 2nd bot is unaware for which task it should wait, when it gets complete and when to resume further processing.

The solution: -

1. Create 2 separate processes for each of this intelligent OCR activities.
2. The 1st process will create the task in the action center and it will bind the 2nd process with the task. So, every task created in the action center there is this 2nd process attached.

The below persistence activity helps to bind these 2 separate processes.

#	Activity	Purpose	Package
1	Start Job And Get Reference	Invokes an orchestrator job for corresponding task in the action center.	UiPath.Persistence.Activities

Implementation: -

1. The 1st process should have task creating activity, i.e., “Create Document Validation Action”. Right after the task creating activity, the 1st process should have persistence activity, i.e., “Start Job And Get Reference”.
2. The 2nd process should have wait & resume activity, i.e., “Wait For Document Validation Action And Resume”.

Image 1: The 1st process involves task creation & persistence activity one after the other.

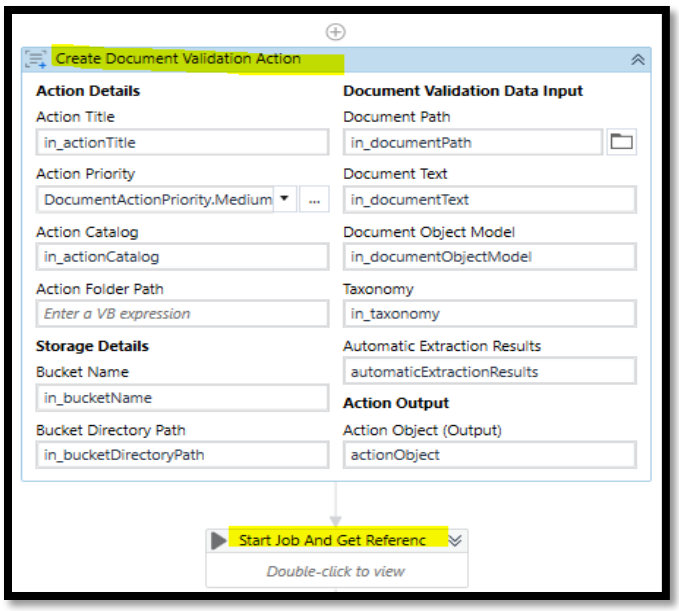


Image 2: The parameter for the persistence activity is the name of the 2nd process. The argument for the 2nd process is an action object output from task creating activity.

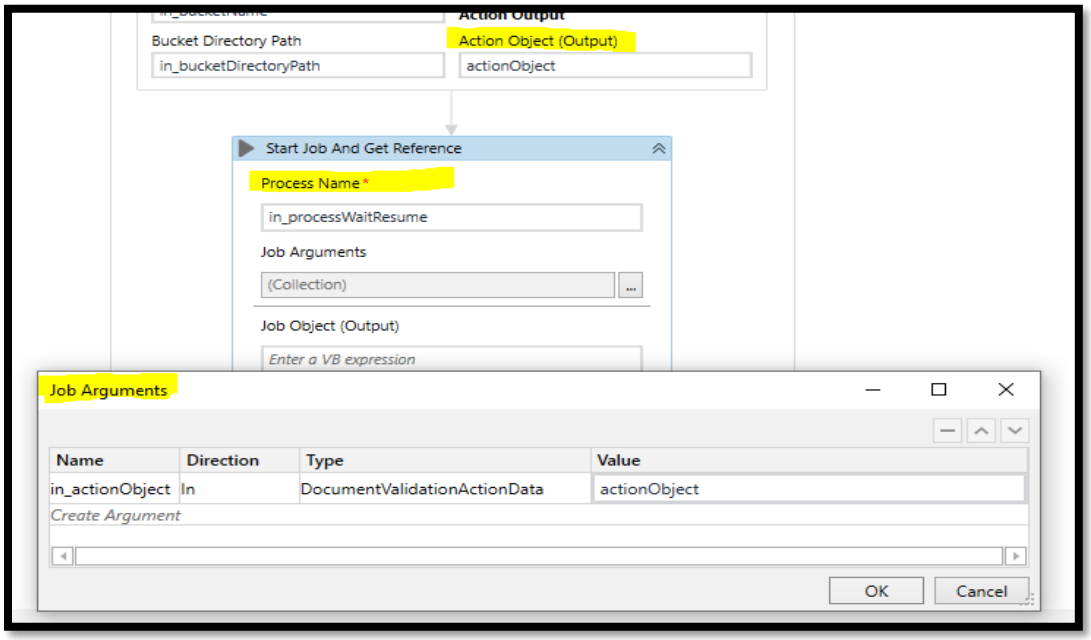


Image 3: The tasks created by the task creation activity from the 1st process can be seen in the action center. Every task has its task ID.

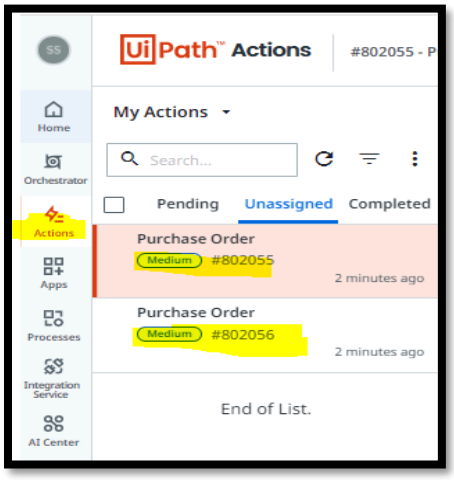


Image 4: The 2nd process invoked by the persistence activity from the 1st process can be seen in the Orchestrator Jobs section. For every task created by the task creation activity, there is an independent job invoked by persistence activity for that specific task. The job is in suspended mode awaiting a human response.

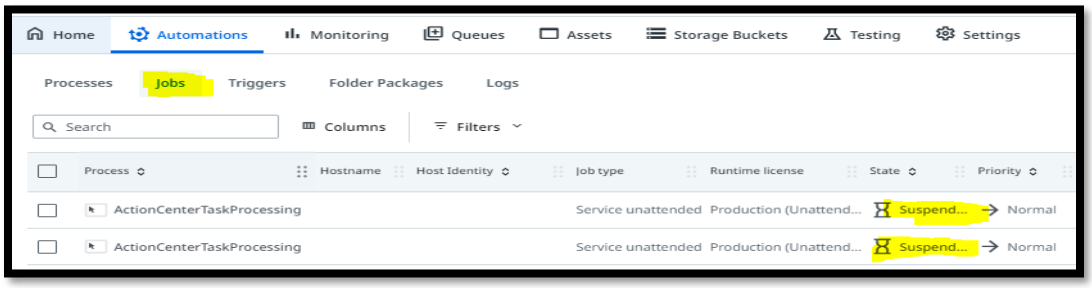


Image 5: The 2nd process involves wait & resume activity. It accepts an action object as an input argument (Refer image 2 for assigning input argument).

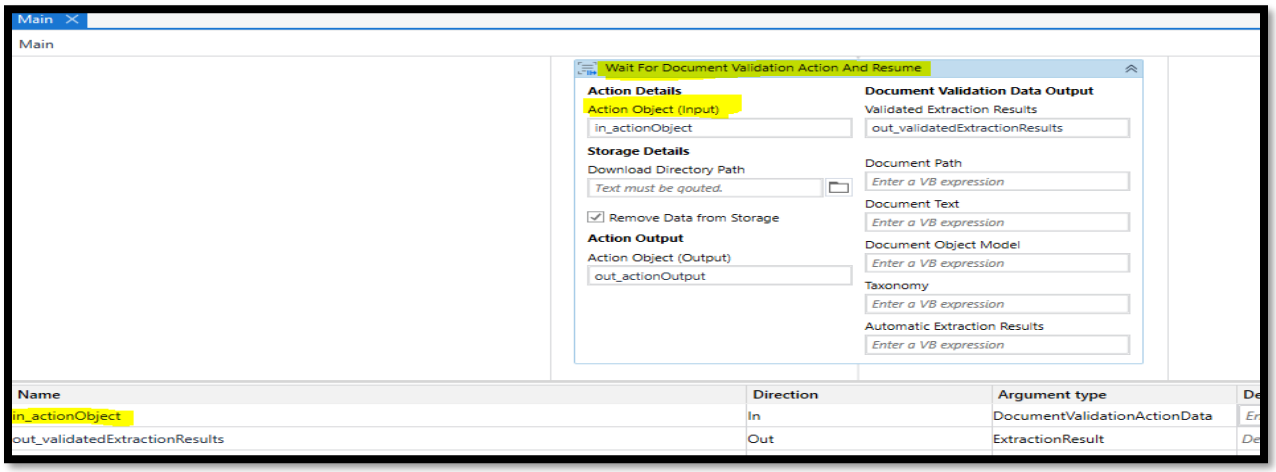


Image 6: The details section of each job showing the task ID (Refer image 3 for task ID) that it is attached.

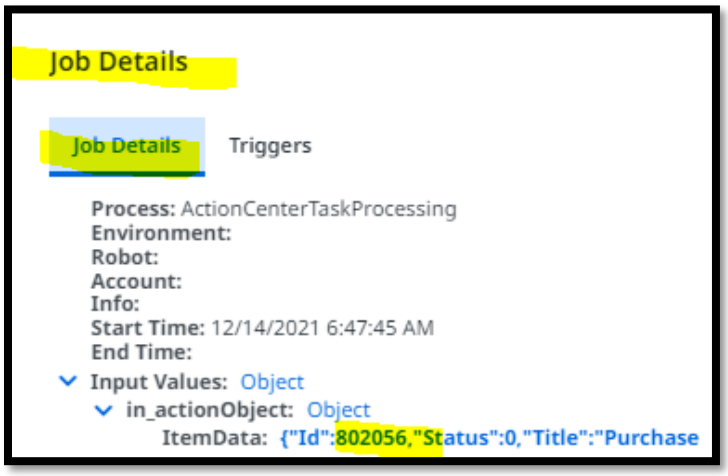


Image 7: The action center task gets completed with human validation.

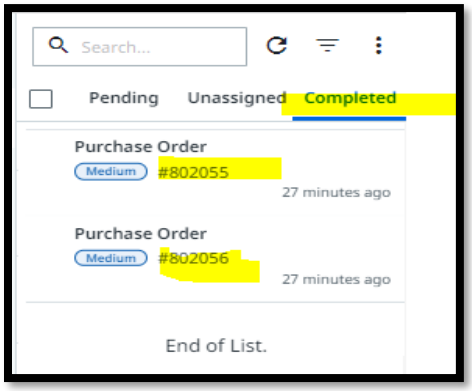
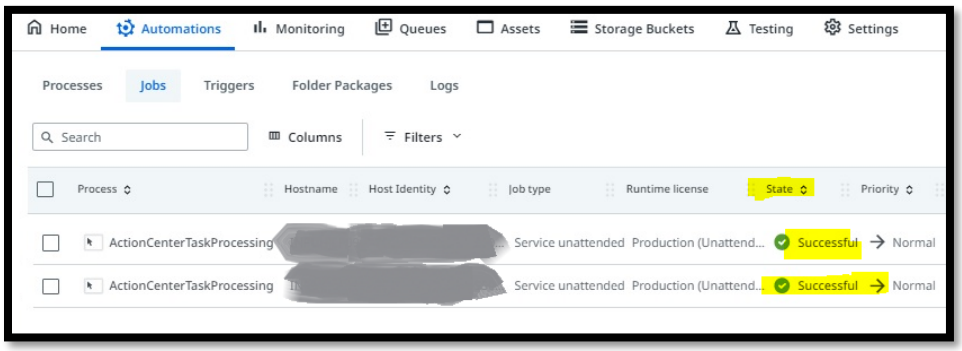


Image 8: As soon as the task gets completed the associated job resumes and compete further processing of the document.



Conclusion: -

1. The 1st process aims at creating the task in the action center and attaching a job to it in the orchestrator in suspend mode.
2. The 2nd process aims at waiting the task to get completed in the action center and resume further processing of the document. Any available bot can resume the 2nd process as soon as the tasks gets completed in the action center.
3. Both the processes can include common logic such as creating the queue in an orchestrator, if no human validation is required or after the human validation as per the business rule for the performer bot.