**Files :**

* Python Script - WLM\_MaxDeviceUtility\_PrioritySync\_Solution.py
* Config.json
* runCronJob.bat

**CR Users :**

* A user to execute the APIs in the Python script
  + Roles: AAE\_Admin
  + License: None

**Instructions :**

* Pause all the Feeder Queue automations.
* All the Feeder Queues and the Active Queue's automation will use the same Device Pool, which should include all the existing runner devices.
* Process-specific device allocation can be mentioned in the config.json file
* Add work items to the FeederQueues as usual. The Cron job will pick items from FeederQueues and push it to Active Queue based on Priority.
* The actual WorkItem response tracking of workitems added to the FeederQueues will be available in the ActiveQueue “WorkItem Result” column.
* The WorkItem template of ActiveQueue should be as follows:
  + Body
  + BotPath
* Modify the existing FeederQueue Bots to retrieve input from a dictionary variable instead of the "Work Item" variable. The usage of the WorkItem Result variable remains unchanged.

A diagram of a flowchart

Description automatically generated

**1. Config Structure**

You have a configuration (JSON structure) that defines:

* Processes: Each process has:
  + ProcessPriority: Defines the importance of the process.
  + AllocatedDeviceCount: Number of devices available for processing.
  + FeederQueueDetails: Multiple queues from which work items will be picked.
    - Each queue has a QueuePriority defining its importance.
* A CSV file maintains queue details (Generated by the script), including:
  + LastPollTime: The last time items were fetched from that queue.
  + LastCron : The last cron job run

**2. Work Item Selection Criteria**

The system selects work items based on:

1. **Filter Queues Based on Eligibility**
   * A queue is **eligible** if: LastPollTime+ ProcessCycleTime >CurrentTime

row['LastPoll'] + timedelta(seconds=cycle\_time\_seconds)) < datetime.now()

* + If not, skip this queue for the iteration.

1. **Prioritize Processes & Queues**
   * Higher ProcessPriority → Higher preference.
   * Within a process, higher QueuePriority → Higher preference.
2. **Determine Number of Items to Pick**
   * **Total items to be picked** = **Sum of AllocatedDeviceCount for all processes**.
   * Within each process, the number of work items picked is based on:
     + The **process priority** (higher priority first).
     + The **queue priority** (higher priority first).
     + The **allocated device count** (number of devices assigned to the process).
3. **Pick Work Items**
   * From each eligible queue, pick NEW status work items based on the computed count.
4. **Update CSV File**
   * Once work items are picked, update LastPollTime in the CSV for that queue.

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