## **Scheduler Workflow Diagram**

Sc	heduler	TaskManager	UIDManager
	I	Ι	I
reate Task	I	I	
	>	1	I
	Create T	ask	I
			I
	Generate	UID	I
		Gener	ate UID
	I		>
	I	Get Co	ounter,PID,TS
	I	Retur	n UID
	UID Gen	erated  <	
	<		I
	Set Task	Params	I
		>	I
		ution Time	I
			I
	'   Add Task	·	·

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1 of 5

Task Execution Workflow				
User PQ	Scheduler	TaskManager	UIDManager	
Execute	Task	1	I	
	>	I	I	
	Get	Next Task	I	
		>	I	
	Retr	ieve Task	I	
1		Retriev	e Task	
1	1		>	
1	1	Task R	etrieved	
	<		I	
1	Exec	ute Task	I	
1		Execute	OpFunc	
	Run <sup>-</sup>	Task Operation	I	
1	1	>  OnFunc(	١ ١	

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2 of 5 12/12/24, 16:41

```
|<----|
            | Update Task Time |
            |---->| Update Time |
                         | New Exec Time |
            | Reinsert Task |
            |-----| Insert Task |
                          |---->| Insert
Task |
                         | Task Reinserted |
            |<----|
 | Task Executed |
 |<-----|
```

Task Removal Workflow				
User	Scheduler	TaskManager	UIDManager	
PQ   Erase Tas	k	I	1	
	>	I	I	
1	Find Task	I	1	
. I		>	1	
1	l Match Tacl	k l	1	

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3 of 5

Priority Queue Operations				
User	Scheduler	TaskManager	UIDManager	
PQ   Insert T	ask	I	I	
	>	1	I	
1	Insert	Task to PQ	I	
1		>	I	
1	Task Ir	nserted	I	
1	<		1	
Get Tack	I	ı	1	

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4 of 5 12/12/24, 16:41

1	Retrieve Task	1	1
1		>	I
 	Task Retrieved	1	I
	<	-	1
Task Executed	1	I	I
<		I	I
Check Size	I	I	I
	->	1	1
	Size of PQ	I	I
 		>	I
' 	Return Size	I	I
· 	<	-	I

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5 of 5 12/12/24, 16:41