Is there a way to add a task to the windows task scheduler via python 3?

Asked 8 years, 3 months ago   Modified 4 months ago   Viewed 17k times

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I have a main python script that generates a GUI, and through that GUI I want the user to be able to create, amend, and delete schedules managed by the windows task scheduler.

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↺

python   python-3.x

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asked Oct 2, 2014 at 12:33

I_do_python
1,278   4   16   31

Is using either WMI or schtasks.exe an option ? – FredP Oct 2, 2014 at 12:43

Ahem... quick google results : blog.ziade.org/2007/11/01/... sourceforge.net/projects/pytaskscheduler Have a nice day :-) – FredP Oct 2, 2014 at 13:01

This looks like it was written for Python 2.3, so not exactly what I was looking for. Will see if I can scavenge from it though. – I_do_python Oct 2, 2014 at 13:48

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1   With `subprocess` you could do: stackoverflow.com/a/2725908/660921 – Martin Tournoij Oct 2, 2014 at 14:02

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1   @FredP, your solution is incompatible with 3.x. – I_do_python Oct 2, 2014 at 14:05
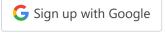
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4 Answers

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This code creates a task which will run in 5 minutes (uses pywin32):

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```python
scheduler.Connect()
root_folder = scheduler.GetFolder('\\')
task_def = scheduler.NewTask(0)

# Create trigger
start_time = datetime.datetime.now() + datetime.timedelta(minutes=5)
TASK_TRIGGER_TIME = 1
trigger = task_def.Triggers.Create(TASK_TRIGGER_TIME)
trigger.StartBoundary = start_time.isoformat()

# Create action
TASK_ACTION_EXEC = 0
action = task_def.Actions.Create(TASK_ACTION_EXEC)
action.ID = 'DO NOTHING'
action.Path = 'cmd.exe'
action.Arguments = '/c "exit"'

# Set parameters
task_def.RegistrationInfo.Description = 'Test Task'
task_def.Settings.Enabled = True
task_def.Settings.StopIfGoingOnBatteries = False

# Register task
# If task already exists, it will be updated
TASK_CREATE_OR_UPDATE = 6
TASK_LOGON_NONE = 0
root_folder.RegisterTaskDefinition(
    'Test Task',  # Task name
    task_def,
    TASK_CREATE_OR_UPDATE,
    '',  # No user
    '',  # No password
    TASK_LOGON_NONE)
```

More info on tasks and their properties here: https://learn.microsoft.com/en-us/windows/desktop/taskschd/task-scheduler-objects

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answered Oct 6, 2018 at 10:08

PyWin32 provides an interface to the Task Scheduler in `win32com.taskscheduler` . You can see an example of it's use here:

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- https://github.com/SublimeText/Pywin32/blob/master/lib/x32/win32comext/taskscheduler/test/test_addtask_1.py

Also @FredP linked to a good example that's much simpler:

- http://blog.ziade.org/2007/11/01/scheduling-tasks-in-windows-with-pywin32/

There is also an interesting tidbit in the wmi module's cookbook about scheduling a job, although it doesn't appear to use the Task Scheduler:

- http://timgolden.me.uk/python/wmi/cookbook.html#schedule-a-job

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edited Sep 21, 2018 at 5:42   answered Oct 2, 2014 at 14:00

Mattwmaster58   Mike Driscoll
2,033   3   22   35   **32.4k**   8   44   87

Warning: Do not use the WMI method. The service which it depends on seems to be deprecated and not enabled by default (Though you can enable it via registry) since Windows 8: learn.microsoft.com/en-us/windows/win32/cimwin32prov/... – xendi Sep 12, 2020 at 22:43 ✏️

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Just to round out the option list here... How about just calling the windows command line?

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```
import os

os.system(r'SchTasks /Create /SC DAILY /TN "My Task" /TR "C:mytask.bat" /ST 09:00')
```

You can launch any executable, batch file, or even another python script - assuming the system is set to execute python...

schtasks has a rich list of options and capabilities...https://learn.microsoft.com/en-us/windows/win32/taskschd/schtasks

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edited Mar 24, 2021 at 8:45   answered Feb 1, 2021 at 21:30

Lê Quang Duy   jaytate
767   7   14   **133**   2   4

I also needed a way to use Python to schedule a task in Windows 10. I discovered something simpler, using only subprocess and PowerShell's

2 Scheduled Tasks cmdlets , which is more powerful as it gives you finer control over the task to schedule.

And there's no need for a third-party module for this one.

```
import subprocess

# Use triple quotes string literal to span PowerShell command multiline
STR_CMD = """
$action = New-ScheduledTaskAction -Execute "powershell.exe" -Argument
"C:\\path\\to\\file.ps1"
$description = "Using PowerShell's Scheduled Tasks in Python"
$settings = New-ScheduledTaskSettingsSet -DeleteExpiredTaskAfter (New-TimeSpan -Seconds
2)
$taskName = "Test Script"
$trigger = New-ScheduledTaskTrigger -Once -At (Get-Date).AddSeconds(10)
$trigger.EndBoundary = (Get-Date).AddSeconds(30).ToString("s")
```

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```python
    listProcess = [
        "powershell.exe",
        "-NoExit",
        "-NoProfile",
        "-Command",
        STR_CMD
    ]

    # Enjoy the magic
    subprocess.run(listProcess, check=True)
```

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answered Sep 3, 2022 at 23:52

howdoicode
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