



UNIVERSIDAD AUTÓNOMA DE
CHIHUAHUA

UNIVERSIDAD AUTÓNOMA DE CHIHUAHUA
Facultad de Ingeniería



Ingeniería en Ciencias de la Computación

COMPUTO PARALELO Y DISTRIBUÍDO

1.12 Actividad 3: Interprete de Python

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```

import threading
import time

def worker(number):
    print(f"Thread {number} starting")
    # Simulamos una tarea más pesada
    start = time.time()
    while time.time() - start < 5: # 5 segundos de trabajo
        pass
    print(f"Thread {number} finished")

if __name__ == '__main__':
    start_time = time.time()

    # Crear hilos
    threads = []
    for i in range(50): # Aumentar el número de hilos
        thread = threading.Thread(target=worker, args=(i,))
        threads.append(thread)
        thread.start()

    # Esperar a que todos los hilos terminen
    for thread in threads:
        thread.join()

    end_time = time.time()
    print(f"Todos los hilos han terminado en {end_time - start_time:.2f} segundos.")

```

```

thead@adrigondo MINGW64 ~/Documents/UACH/Seventh Semester/Parallel and Distributing Computing/code
$ python PDC_August_27_2024.threading.py
Thread 0 starting
Thread 1 starting
Thread 2 starting
Thread 3 starting
Thread 4 starting
Thread 5 starting
Thread 6 starting
Thread 7 starting
Thread 8 starting
Thread 9 starting
Thread 10 starting
Thread 11 starting
Thread 12 starting
Thread 13 starting
Thread 14 starting
Thread 1 finished
Thread 0 finished
Thread 2 finished
Thread 3 finished
Thread 15 starting
Thread 16 starting
Thread 5 finished

```

```
Thread 33 finished
Thread 34 finished
Thread 45 starting
Thread 46 starting
Thread 47 starting
Thread 31 finished
Thread 48 starting
Thread 49 starting
Thread 41 finished
Thread 37 finished
Thread 40 finished
Thread 42 finished
Thread 38 finished
Thread 39 finished
Thread 45 finished
Thread 43 finished
Thread 44 finished
Thread 36 finished
Thread 46 finished
Thread 47 finished
Thread 48 finished
Thread 49 finished
Todos los hilos han terminado en 31.79 segundos.
```

Usando IronPython

```
thead@adrigondo MINGW64 /c/Program Files/IronPython 3.4
$ ./ipy.exe PDC.August_27_2024.threading.py
Thread 6 startingThread 0 startingThread 4 startingThread 3 startingThread 2 startingThread 1 starting

Thread 5 starting
Thread 8 starting
Thread 7 starting
Thread 9 starting

Thread 10 starting
Thread 11 starting
Thread 12 starting
Thread 14 starting
Thread 15 starting
Thread 13 starting
Thread 16 starting
Thread 17 starting
Thread 18 starting
Thread 22 starting
Thread 19 starting
Thread 27 starting
Thread 25 startingThread 20 starting
```

```
MINGW64:/c/Users/thead/Doc  X  MINGW64:/c/Program Files/Ir  X  +  v

Thread 25 finished

Thread 33 finished
Thread 21 finishedThread 28 finishedThread 32 finished
Thread 40 finished
Thread 31 finished
Thread 36 finished


Thread 42 finished
Thread 38 finished
Thread 37 finished
Thread 43 finished
Thread 34 finished
Thread 35 finished
Thread 39 finished
Thread 48 finished
Thread 47 finished
Thread 49 finished
Thread 45 finished
Thread 41 finished
Thread 44 finished
Thread 46 finished
Todos los hilos han terminado en 17.95 segundos.

thead@adrigondo MINGW64 /c/Program Files/IronPython 3.4
$ |
```