

手動並列化

Kernel Configuration	
Class	LocalKernels
Comment	
Evaluation Kernel Arguments	{-noinit}
Kernel Command	'/Applications/Wolfram.app/Contents/MacOS/WolframKernel'
Kernel Count	8
Limit By License	True
Link Protocol	Automatic
Lower Priority	True
Name	Local
Sub Kernel Arguments	{-noinit, -subkernel}
URL	file://
Usages	{Evaluation, Parallel}

advised by ChatGPT5

並列化関数

- LaunchKernels / CloseKernels
- ParallelSubmit
- ParallelMap
- WaitAll
- SetSharedVariable
- DistributeDefinitions
- ParallelEvaluate

例 1.

```
In[ ]:= LaunchKernels[8];
```

(*並列タスクを明示的に作る*)

```
jobs = Table[ParallelSubmit[{n}, Pause[1];
  (*疑似的に重くする*) n^2], {n, 1, 20}];
```

(*すべて完了を待つ回収*)

```
res = WaitAll[jobs];
```

```
res // Short
```

```
Out[ ]//Short=
```

```
{1, 4, 9, 16, 25, 36, 49, 64, 81, 100,
 121, 144, 169, 196, 225, 256, 289, 324, 361, 400}
```

```
In[ ]:= CloseKernels[]
```

```
Out[ ]:=
```

```
{KernelObject[ Local (8)
State: defunct], KernelObject[ Local (8)
State: defunct],
KernelObject[ Local (8)
State: defunct], KernelObject[ Local (8)
State: defunct],
KernelObject[ Local (8)
State: defunct], KernelObject[ Local (8)
State: defunct],
KernelObject[ Local (8)
State: defunct], KernelObject[ Local (8)
State: defunct]}
```

例 2.

```
In[ ]:= SetDirectory[NotebookDirectory[]]
```

```
Out[ ]:=
```

```
/Users/skybird/Desktop
```

```
In[*]:= LaunchKernels[8];
```

(*共有変数が必要なら宣言：例としてカウンタ*)

```
SetSharedVariable[done];
```

```
done = 0;
```

```
process[file_] := Module[{txt, out}, txt = Import[file, "Text"];
```

```
  Pause[0.5];
```

```
  (*何か重い処理の代わり*) out = StringLength[txt];
```

```
  (*例：文字数を返す*) done++;
```

```
  out];
```

```
files = FileNames["*.txt", "~/Desktop/"]; (*対象ファイル群*)
```

```
DistributeDefinitions[process]; (*自作関数を配る*)
```

```
res = ParallelMap[process, files];
```

```
{Length@files, done, Total@res}
```

```
Out[*]=
```

```
{4, 4, 8584}
```

```
In[*]:= CloseKernels[]
```

```
Out[*]=
```

```
{KernelObject[ Local (8)  
State: defunct], KernelObject[ Local (8)  
State: defunct],  
KernelObject[ Local (8)  
State: defunct], KernelObject[ Local (8)  
State: defunct],  
KernelObject[ Local (8)  
State: defunct], KernelObject[ Local (8)  
State: defunct],  
KernelObject[ Local (8)  
State: defunct], KernelObject[ Local (8)  
State: defunct]}
```