Task Schedulers

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TaskScheduler

- **Thread-based task creation and execution**
  - TaskFactory.StartNew
  - TaskFactory constructor
  - Task.Start
  - Task.RunSynchronously
  - Task.ContinueWith
  - TaskFactory.ContinueWhenAll
  - TaskFactory.ContinueWhenAny
  - TaskFactory.FromAsync
- **Data parallelism**
  - ParallelOptions.TaskScheduler
- **Default**
  - TaskFactory.TaskScheduler
  - TaskScheduler.Current
  - TaskScheduler.Default

Default (Thread Pool) Scheduler

- TaskScheduler.Default

SynchronizationContext Scheduler

- **TaskScheduler.FromCurrentSynchronizationContext()**
  - Cannot pass a context

Custom Schedulers

- **Not usually necessary**

- **Override abstract methods:**
  - IEnumerable<Task> GetScheduledTasks()
  - void QueueTask(Task t)
    - Call TryExecuteTask to run the task
  - bool TryExecuteTaskInline(Task t, bool wasPreviouslyQueued)

- **Optionally override virtuals:**
  - bool TryDequeue(Task t)
  - int MaximumConcurrencyLevel { get; }

Summary

- TaskScheduler
- Default scheduler
- SynchronizationContext scheduler
- Custom schedulers