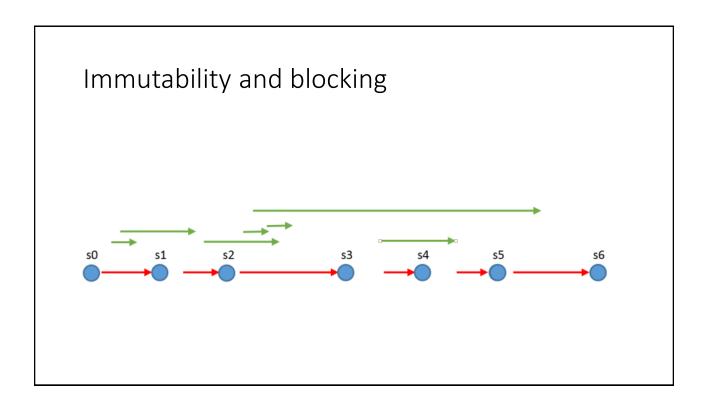
OrigoDB Workshop

Module 6 – Immutability



Example immutable model

```
[Serializable]
public class TodoModel : Model
{
    private String[] _tasks = {};

    public TodoModel AddTask(string task)
    {
       var newState = new TodoModel();
       var temp = _tasks.ToList();
       temp.Add(task);
       newState._tasks = temp.ToArray();
       return newState;
    }

    public IEnumerable<String> Tasks()
    {
       return _tasks.ToArray();
    }
}
```

Example immutable entity

```
public class Task
{
   public readonly string Title;
   public readonly DateTime? Completed;

public Task(string title, DateTime? completed = null)
   {
      Title = title;
      Completed = completed;
   }

public Task Complete(DateTime completed)
   {
      return new Task(Title, completed);
   }
}
```

Immutable command example

```
[Serializable]
  public class AddTaskCommand : ImmutableCommand<TodoModel>
  {
     public readonly string Task;

     public AddTaskCommand(string task)
     {
          Task = task;
     }

     public override void Execute(TodoModel model, out TodoModel next)
     {
          next = model.AddTask(task);
     }
}
```

Configuration

```
var config = EngineConfiguration.Create();
config.Kernel = Kernels.Immutability;
config.Synchronization = SynchronizationMode.None;

// or to get both settings
var config = EngineConfiguration.Create().WithImmutability();

//pass config when creating engine
var engine = Engine.For<TodoModel>(config);

//execute commands as usual
engine.Execute(new AddTaskCommand("500 backhand volley drop shots"));
```

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• Try out the example from the slides