Operation Queues

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Introduction

Operation Queues

NSOperations

Interoperation Dependencies

Operation Execution

What is an Operation Queue?

- Not First In, First Out
- Instance of NSOperationQueue
- Stores NSOperation objects
- Always execute concurrently



NSOperation

NSBlockOperation

```
int (^squareBlock)(int) = ^int(int num) {
    return num * num;
};
```

- (void) addDependency: (NSOperation *)operation
- (void) setCompletionBlock: (void (^)(void))block
- (void) setQueuePriority: (NSOperationQueuePriority)priority

NSOperation

- Two Concrete Subclasses
 - NSInvocationOperation
 - NSBlockOperation
- Create Custom Subclasses
- Key-Value Observing Compliant
- Supports Dependencies with Other Operations
- Set Execution Priority
- Supports Cancellation
- Executable Completion Blocks

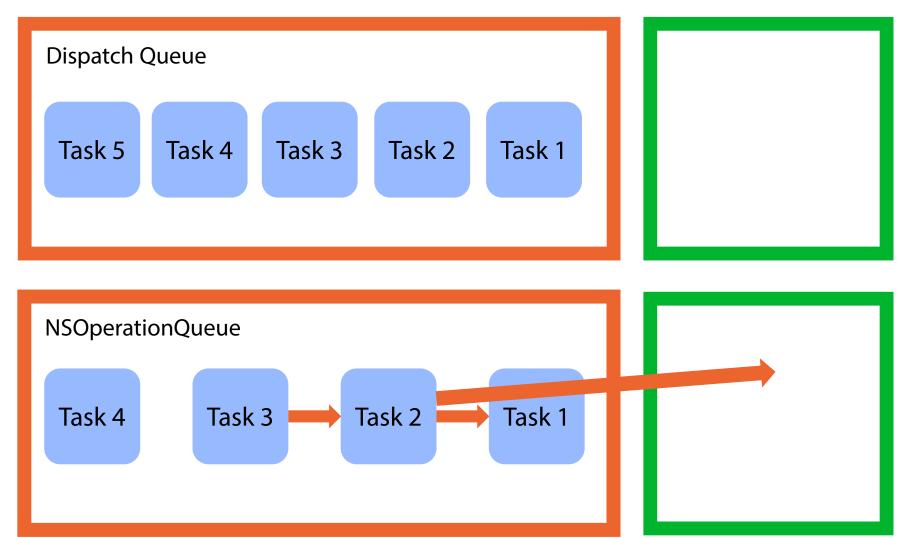
KVO Compliance

- isCancelled
- isConcurrent
- isExecuting
- isFinished

- isReady
- dependencies
- queuePriority
- completionBlock

Interoperation Dependencies

Executing



Execution Priority

Cancelling Operations



NSOperationQueue *operationQueue = [[NSOperationQueue alloc] init];

[operationQueue cancelAllOperations];



Completion Blocks

```
NSBlockOperation *buyTicketsOp = [NSBlockOperation blockOperationWithBlock:^{

//do some work here

}];

[buyTicketsOp setCompletionBlock:^{

NSLog(@"Some work was completed!");

}];
```

Summary

- NSOperationQueues
- NSOperations
- Inter-Operation Dependencies
- KVO Notifications
- Completion Blocks
- Cancellation