

Class Interfaces

```
@interface Shape : NSObject  
  
@property (assign) NSPoint center;  
  
@property (strong) NSColor* color;  
  
@end
```

```
@interface Rectangle : Shape  
  
@property (assign) NSSize size;  
  
@end
```

```
@interface Circle : Shape  
  
@property (assign) CGFloat radius;  
  
@end
```

Class Implementation

```
@implementation Shape  
  
@synthesize centre;  
  
@synthesize color;  
  
- (void)draw {  
  
[color set];  
  
}  
  
@end
```

```
@implementation Rectangle  
  
@synthesize size;  
  
- (void)draw {  
  
[super draw];  
  
[NSBezierPath  
fillRect:NSMakeRect(self.centre.x - size.width /  
2, self.centre.y - size.height / 2, size.width,  
size.height)];  
  
}  
  
@end
```

```
@implementation Circle  
  
@synthesize radius;  
  
- (void)draw {  
  
[super draw];  
  
[[NSBezierPath  
bezierPathWithOvalInRect:NSMakeRect(self.cent  
re.x - radius, self.centre.y - radius, radius2,  
radius2)] fill];
```

Class Implementation (cont)

```
}
```

Class Use

```
- (void)drawRect:(NSRect)rect {  
  
rect = [self bounds];  
  
[[NSColor cyanColor] set];  
  
[NSBezierPath fillRect:rect];
```

```
Rectangle* rectangle = [[Rectangle alloc] init];  
  
rectangle.size = NSMakeSize(300, 200);  
  
rectangle.centre =  
NSMakePoint(NSMidX(rect), NSMidY(rect));  
  
rectangle.color = [NSColor whiteColor];
```

```
[rectangle draw];  
  
Circle* circle = [[Circle alloc] init];  
  
circle.radius = 60;  
  
circle.centre = rectangle.centre;  
  
circle.color = [NSColor redColor];  
  
[circle draw];  
}
```

Result

<http://chocolatapp.com/snaps/japanflag.png>



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