Objective-C ==> RubyMotion
A fly in the ointment

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2013

RubyMotion is a Buzzword

Marc Lainez @mlainez

Yesterday: Xcode => nothing good came out of it.
Today: Rubymotion => almost finished an app.

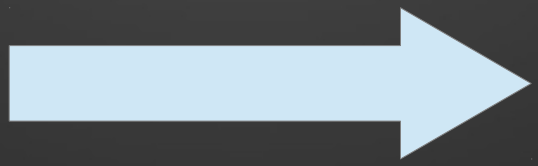
After years of iOS work, RubyMotion seems like a thousand kittens playing the piano while sliding down a double-rainbow.

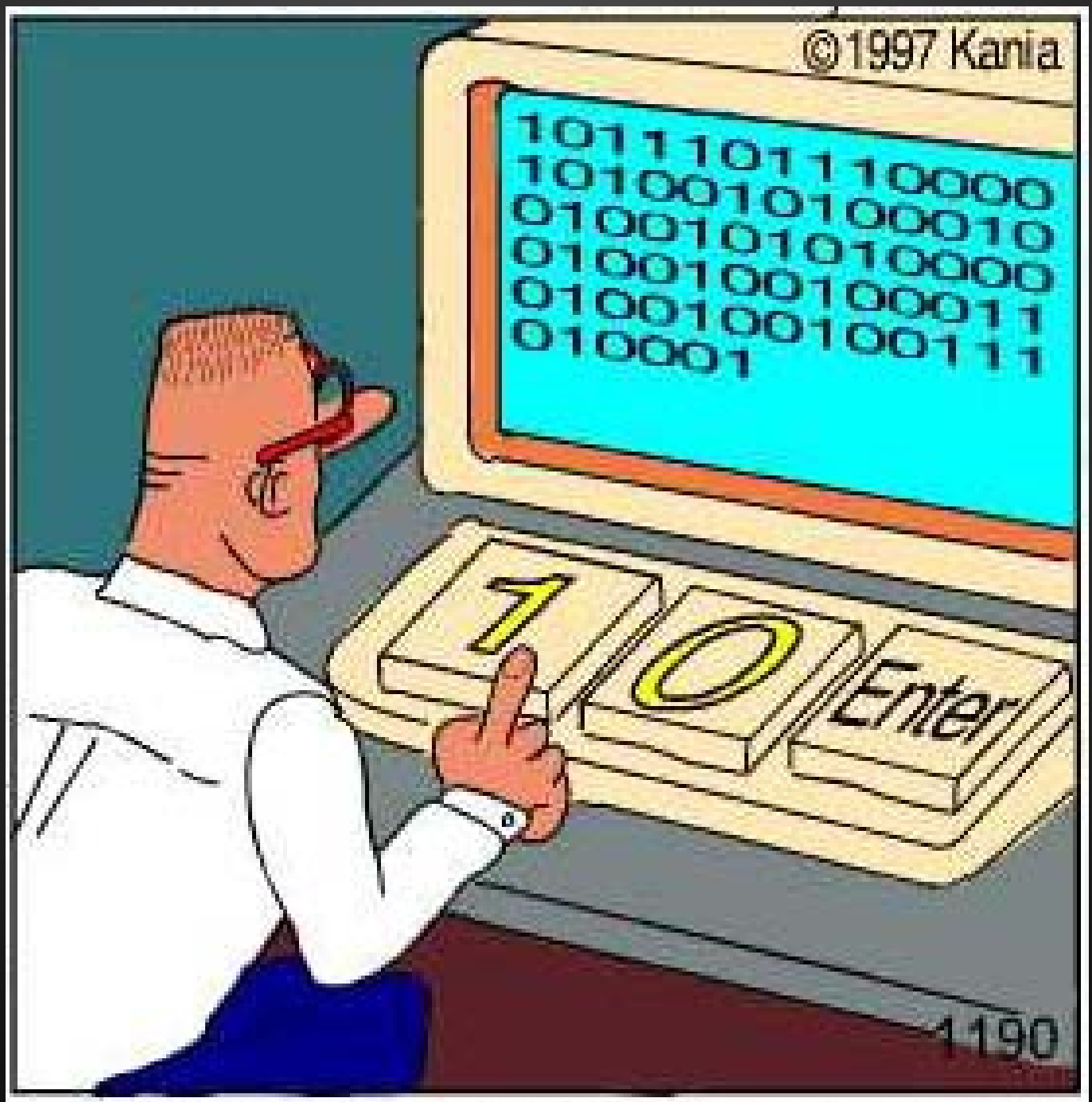
Johannes Fahrenkrug
Founder, Springenwerk

Matt Brewer @macfanatic

@RubyMotion Love, absolutely needed.

Introducing RubyMotion I had 3 goals in mind

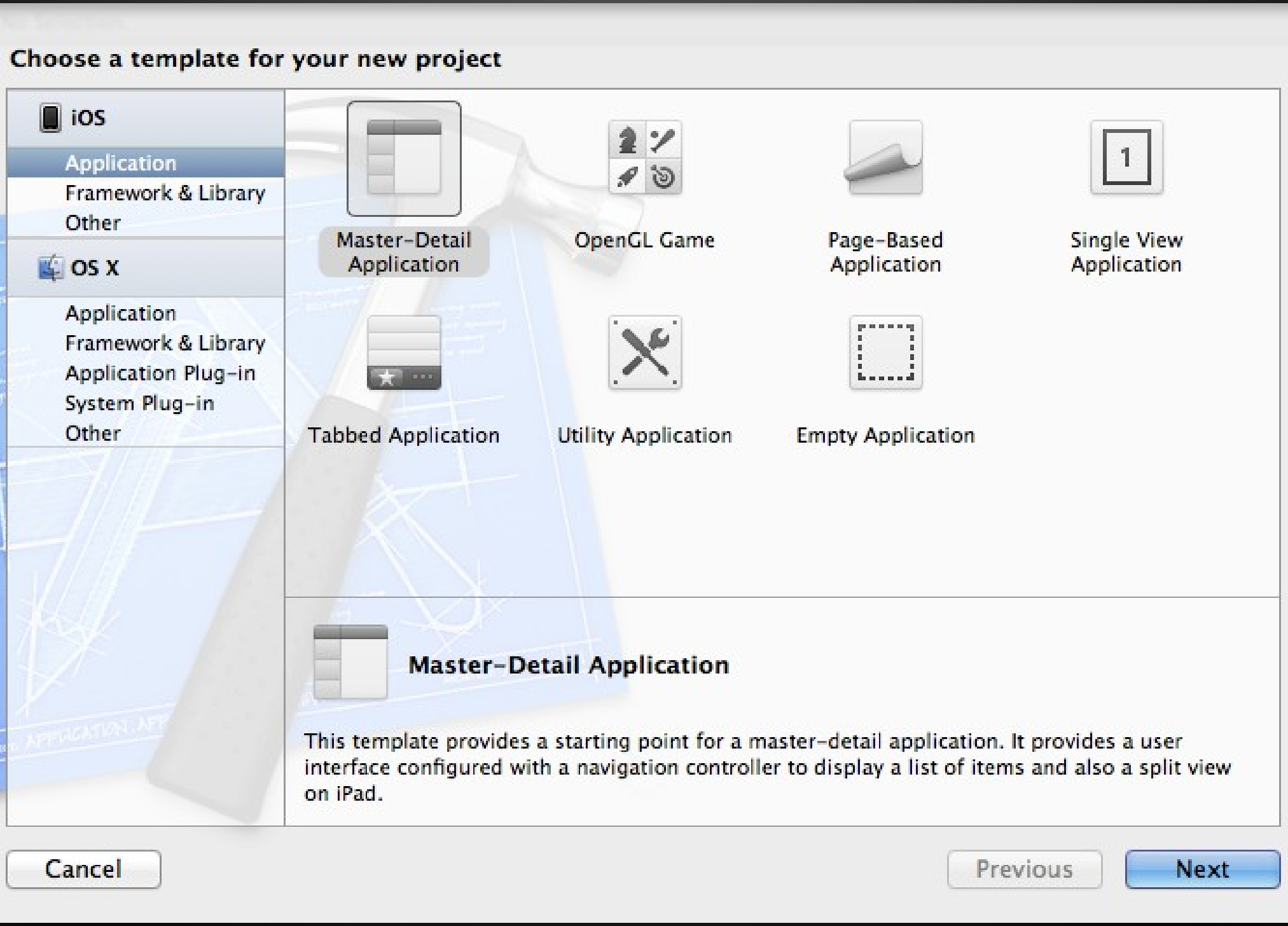




Real programmers code in binary.

Preconditions

Sitecore MobileSDK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Master-Detail Application
OpenGL Game
Page-Based Application
Single View Application
Tabbed Application
Utility Application
Empty Application
Master-Detail Application
This template provides a starting point for a master-detail application. It provides a user interface configured with a navigation controller to display a list of items and also a split view on iPad.
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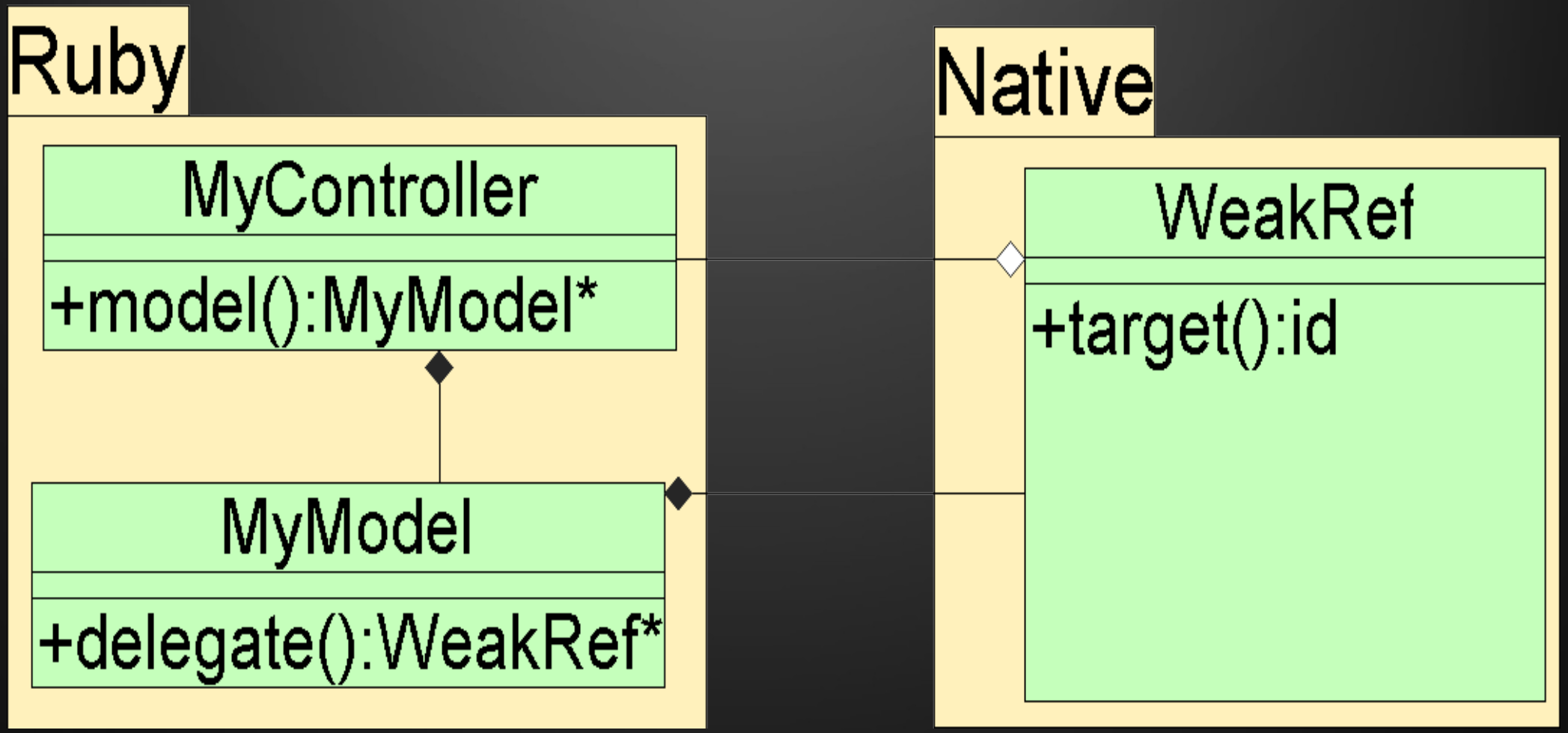
Problem #1 : Memory leaks

- Object cycles, when two or more objects refer to each other, are currently not handled by the runtime, but will be in future releases.

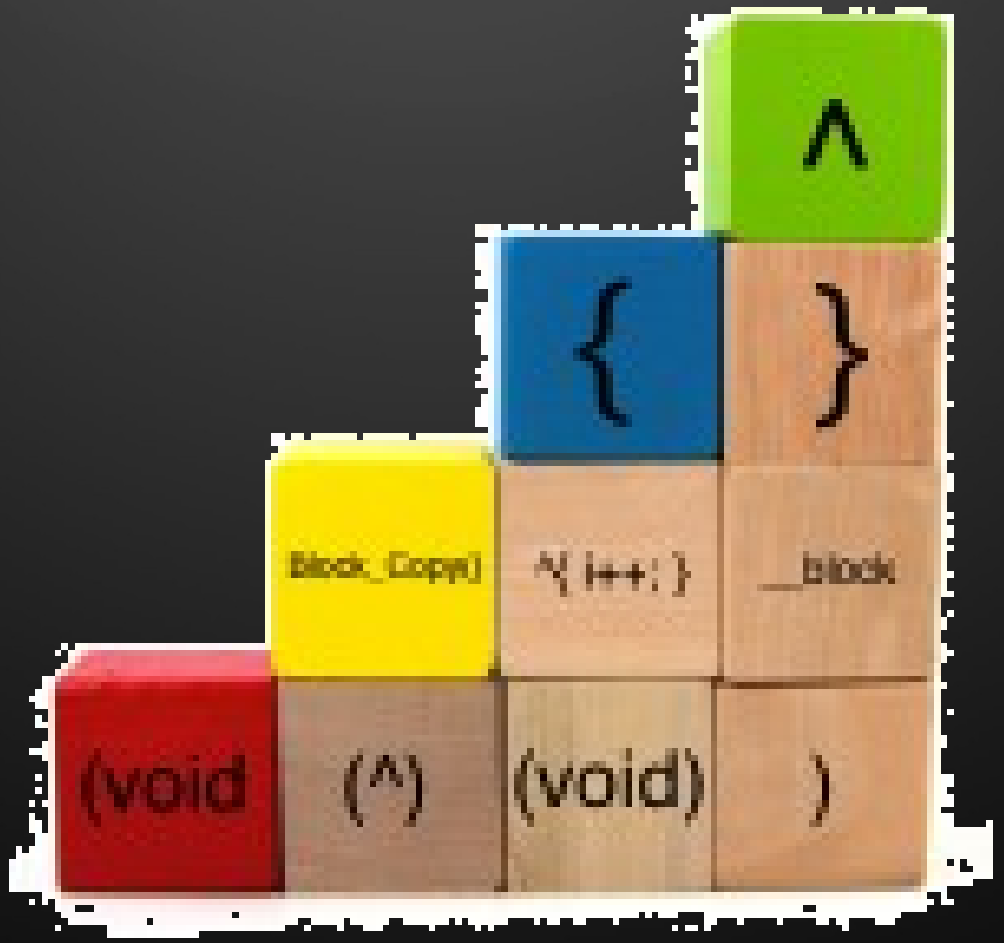

Ruby
MyController
+model():MyModel*
MyModel
+delegate():WeakRef*
Native
WeakRef
+target():id

Farcaller/motion-memorymanagement

Dodikk/MotionBlocks

SOLVED

Problem #2 :
Block API do not compile



```
typedef void (^BBAsyncOpResult)(id result, NSError
*error);
typedef void (^BBAsyncOp)(BBAsyncOpResult handler);


@interface BlockBuilder : NSObject

-(BBAsyncOp)itemsReader;
-(BBAsyncOpResult)itemsReaderCallback;

@end
```

Objective-C stub for message `itemsReader' type `@?@(angry)' not precompiled.

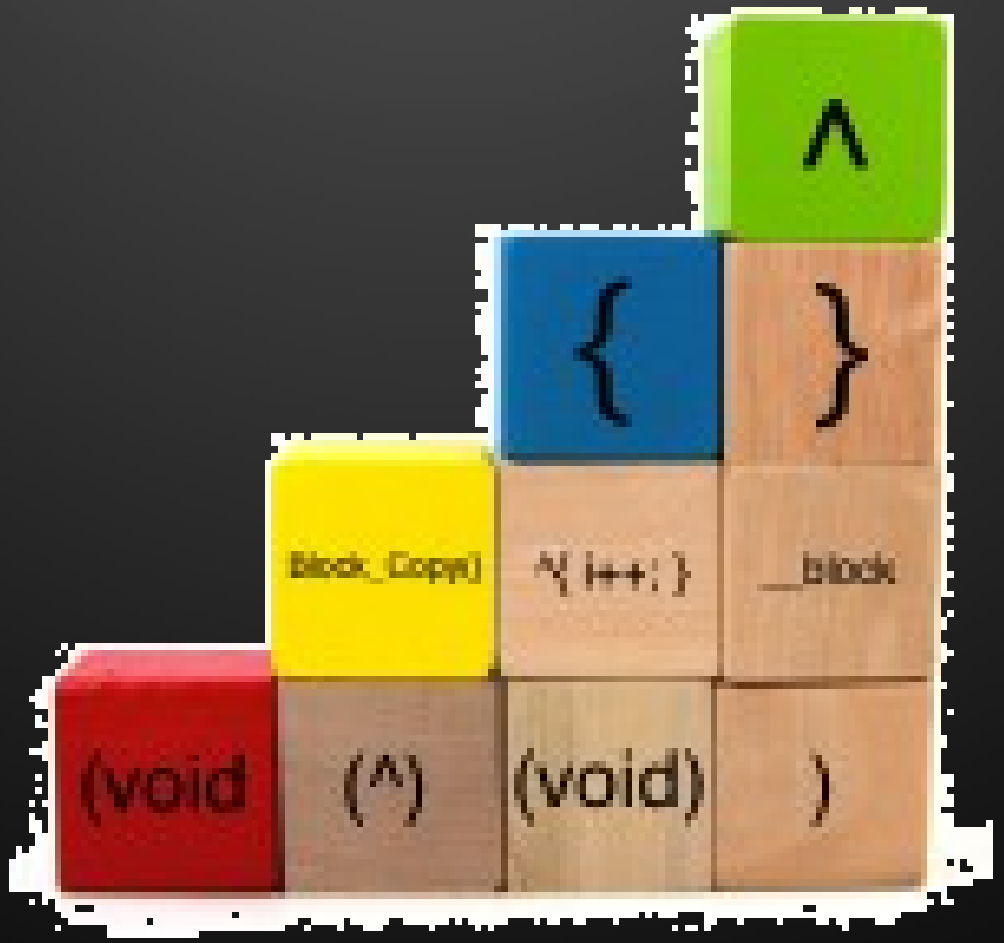
Make sure you properly link with the framework or library that defines this message.

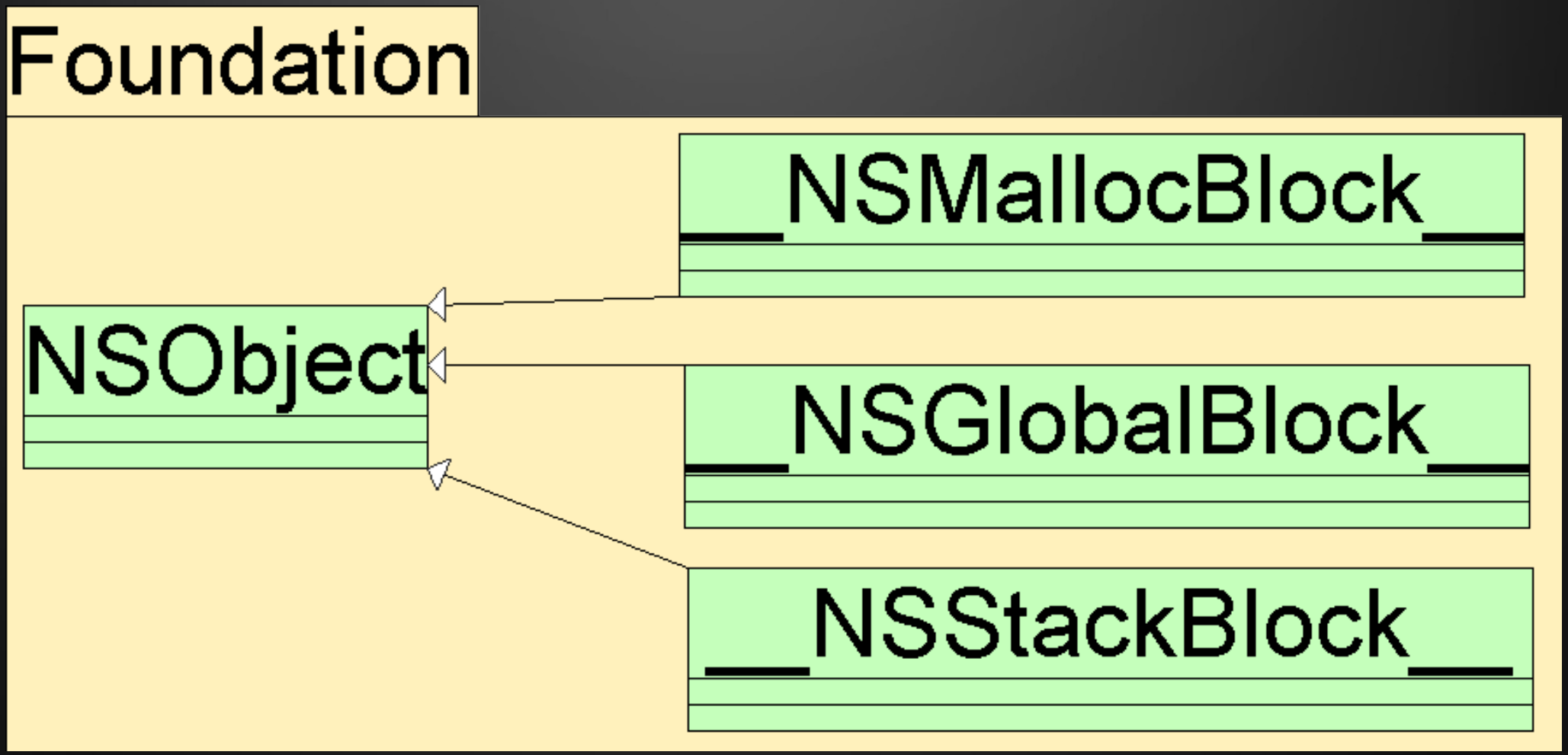
Use id instead of block typedefs

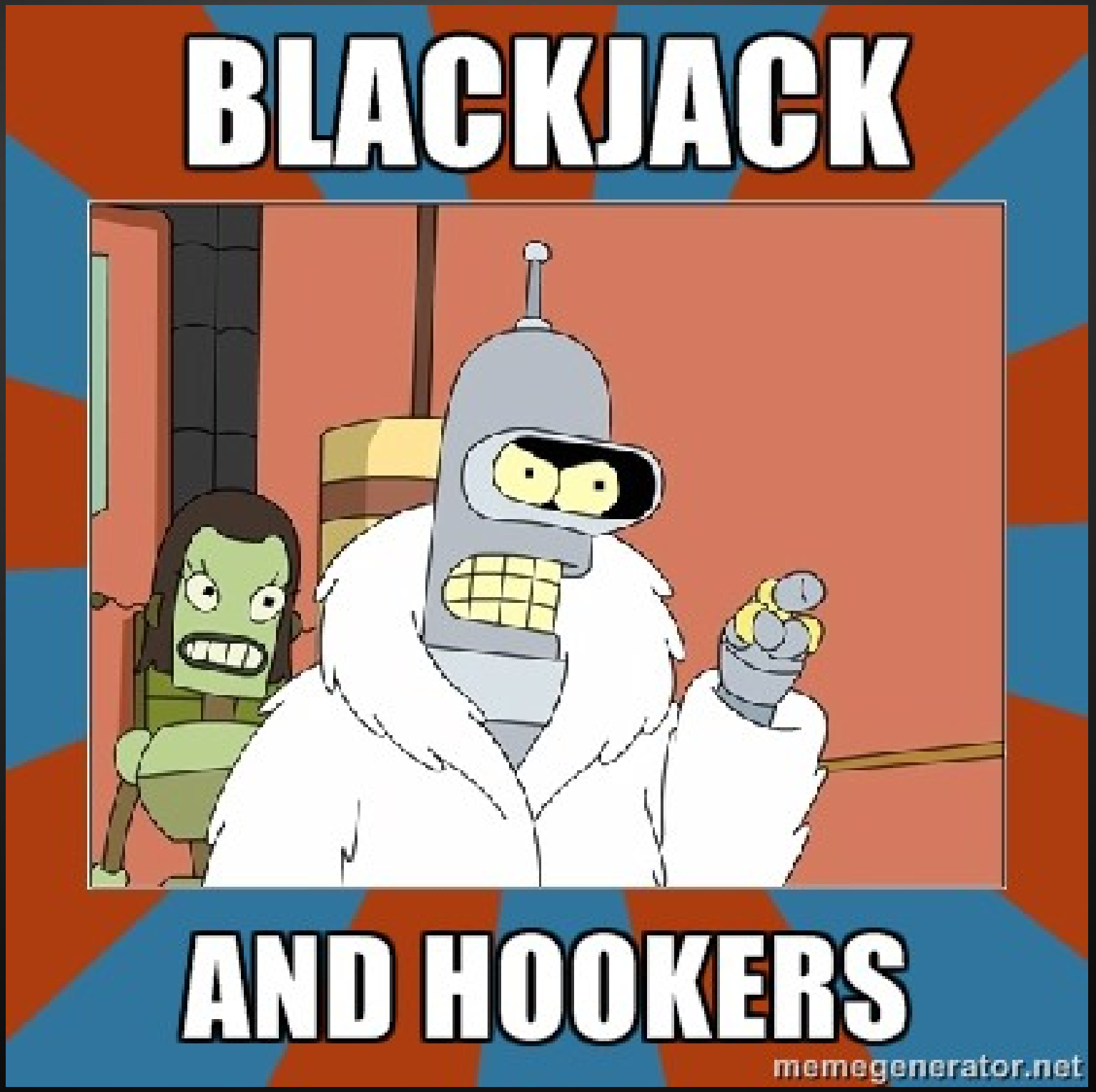
```
typedef void (^BBAsyncOpResult)(id result, NSError
*error);
typedef void (^BBAsyncOp)(id handler);


@interface BlockBuilder : NSObject

-(id)itemsReader;
-(id)itemsReaderCallback;

@end
```

SOLVED

Problem #3 :
How to Invoke an ObjC Block?




Foundation
__NSMallocBlock__
NSObject
__NSGlobalBlock__
__NSStackBlock__


BLACKJACK
AND HOOKERS
memegenerator.net

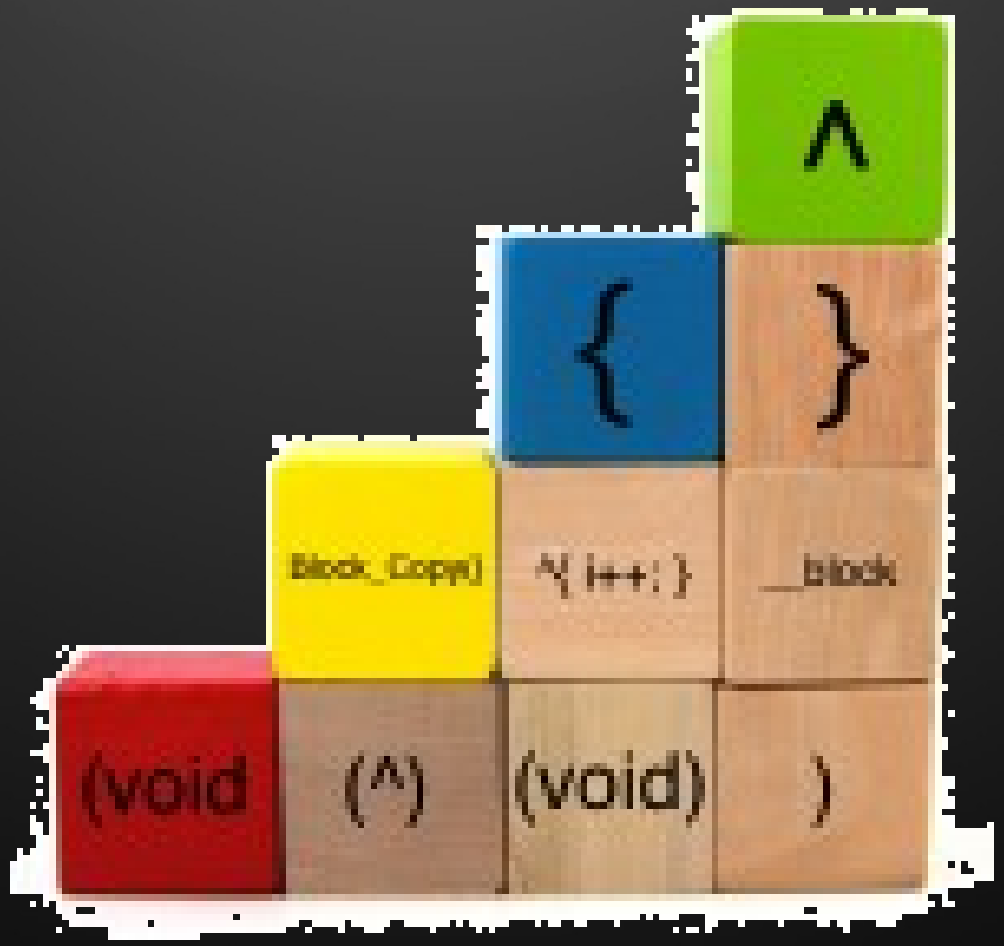
```
@implementation NSObject (BlockForRuby)

-(id)objc_BlockSend1:( id )arg_
{
    typedef id(^Block1)( id arg_ );

    Block1 block_ = (Block1)self;
    return block_( arg_ );
}
```

```
-(id)objc_BlockSend:( NSArray* )args_{
    switch ( [ args_ count ] ){
        case 0:
            return [ self objc_BlockSend0 ];
            break;
        case 1:
            return [ self objc_BlockSend1: args_[0] ];
            break;
        default: //TODO : add as many as you want
            break;
    }
    return nil;
}
```

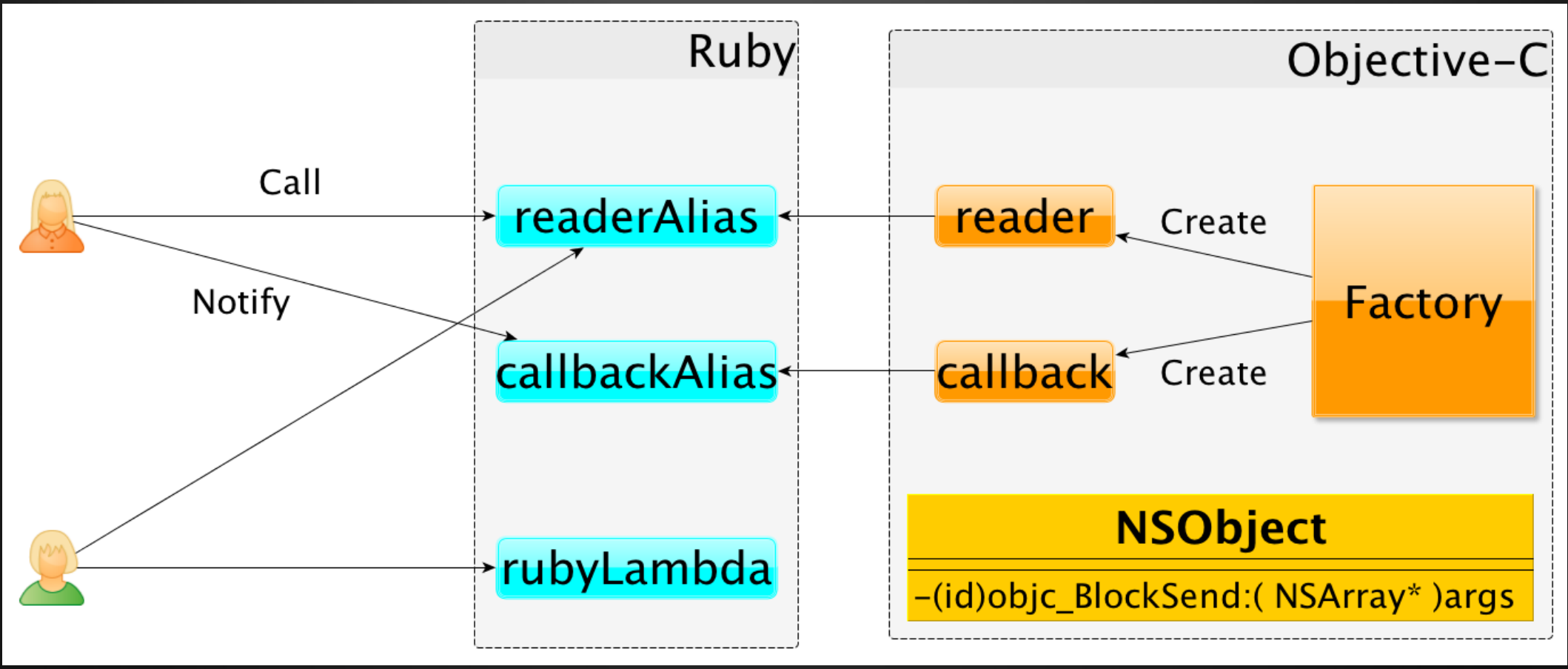
SOLVED

Problem #4 :

ObjC blocks crash



```
reader =
blockBuilder.itemsReaderWithRequest()

callback =
blockBuilder.itemsReaderCallback()

reader.objc_BlockSend( [ callback ] )
```


Ruby
Objective-C
Call
Notify
readerAlias
callbackAlias
rubyLambda
reader
callback
Create
Create
Factory
NSObject
-(id)objc_BlockSend:(NSArray*)args

Demo

Just in case you need the full log

```
---------
reader.class   : __NSGlobalBlock__
callback.class : __NSGlobalBlock__
2013-03-07 12:35:43.985 HelloMotion[1250:1d903] [EXECUTED]
itemsReaderWithRequest
2013-03-07 12:35:43.986 HelloMotion[1250:1d903] handler :
<__NSGlobalBlock__: 0x14b500>
2013-03-07 12:35:43.987 HelloMotion[1250:1d903] handler class :
__NSGlobalBlock__
2013-03-07 12:35:43.987 HelloMotion[1250:1d903] [EXECUTED]
itemsReaderCallback
2013-03-07 12:35:43.988 HelloMotion[1250:1d903] result : ololo
((null))> rake aborted!
Command failed with status (1):
[DYLD_FRAMEWORK_PATH="/Applications/Xcode.a...]
```

P
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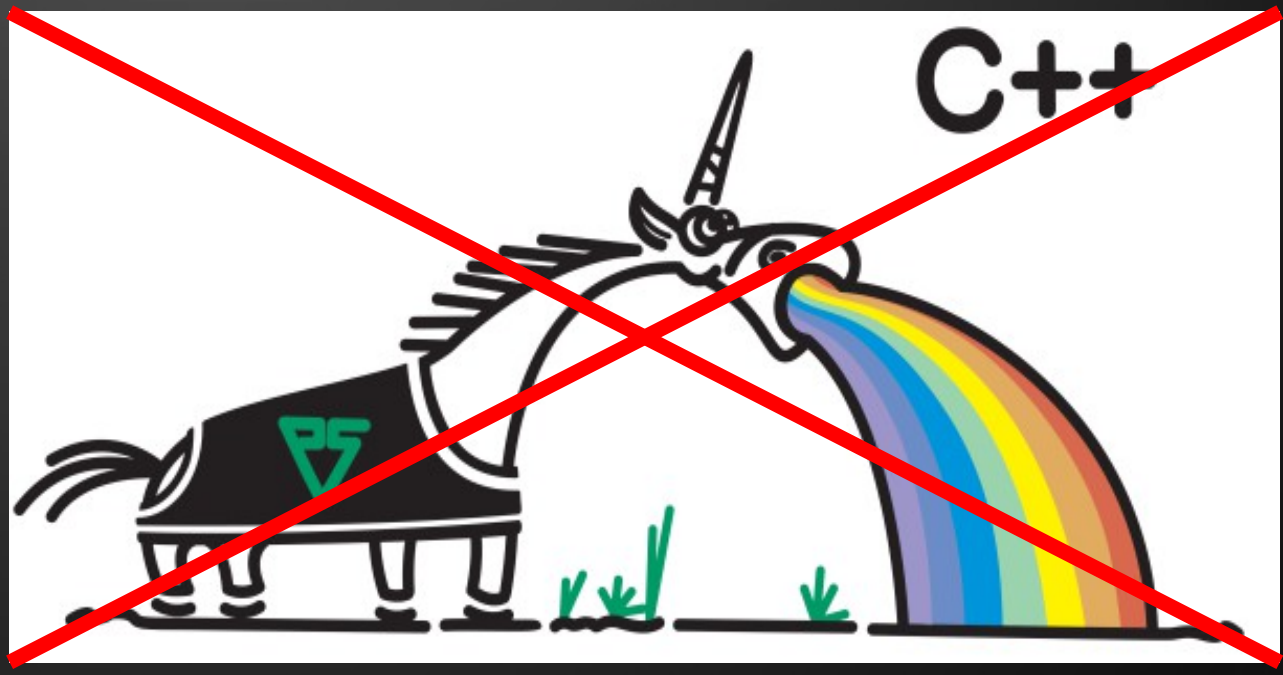
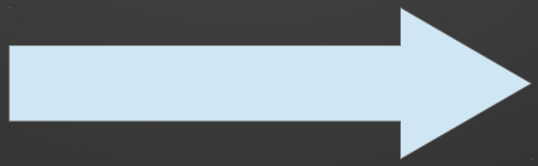
10

One More Thing...





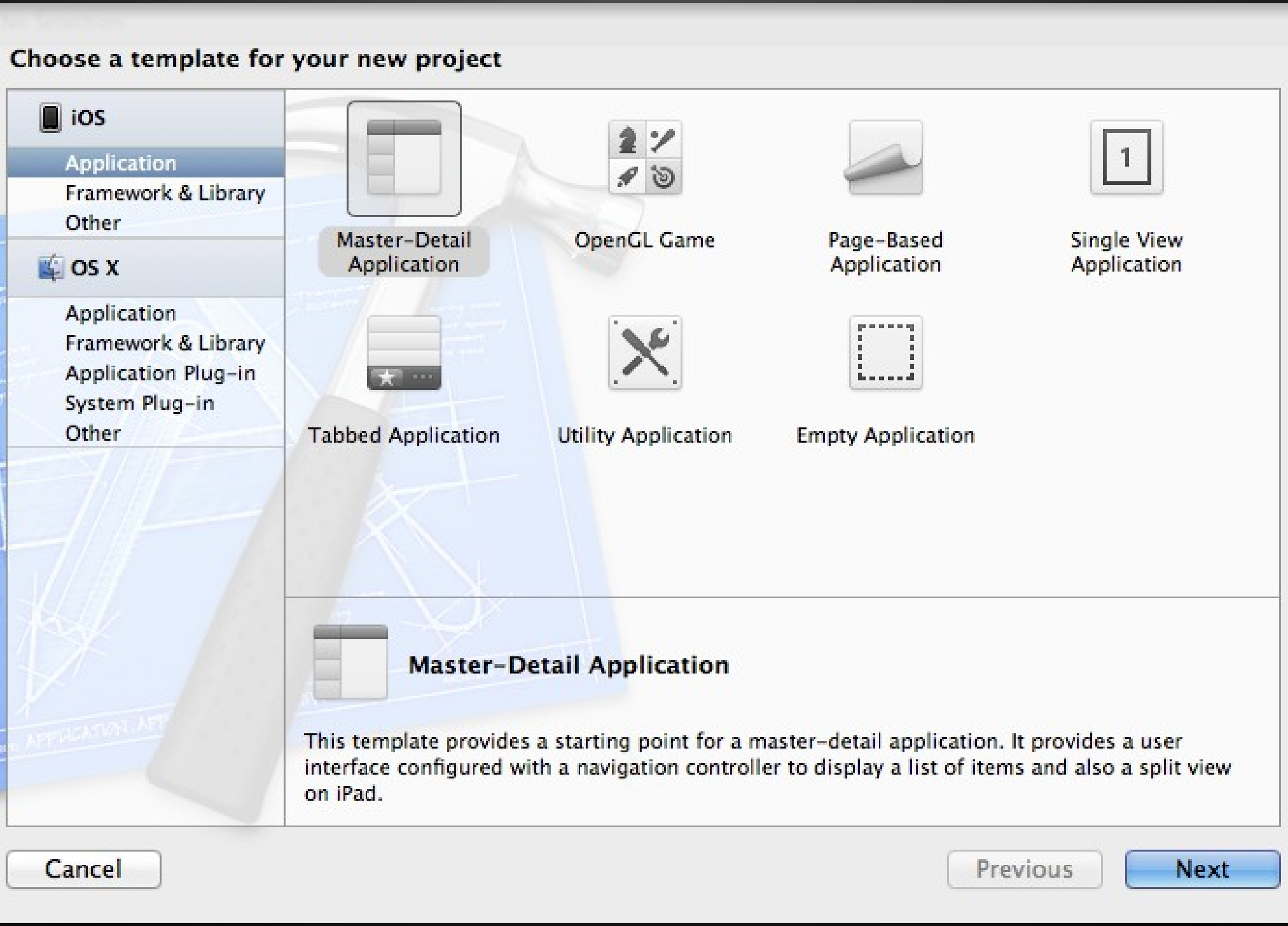
TestingWithFrank/PublicAutomation

Unstable. Did not make it work

Demo

PEACH
ZQUER

Use it for Prototyping Only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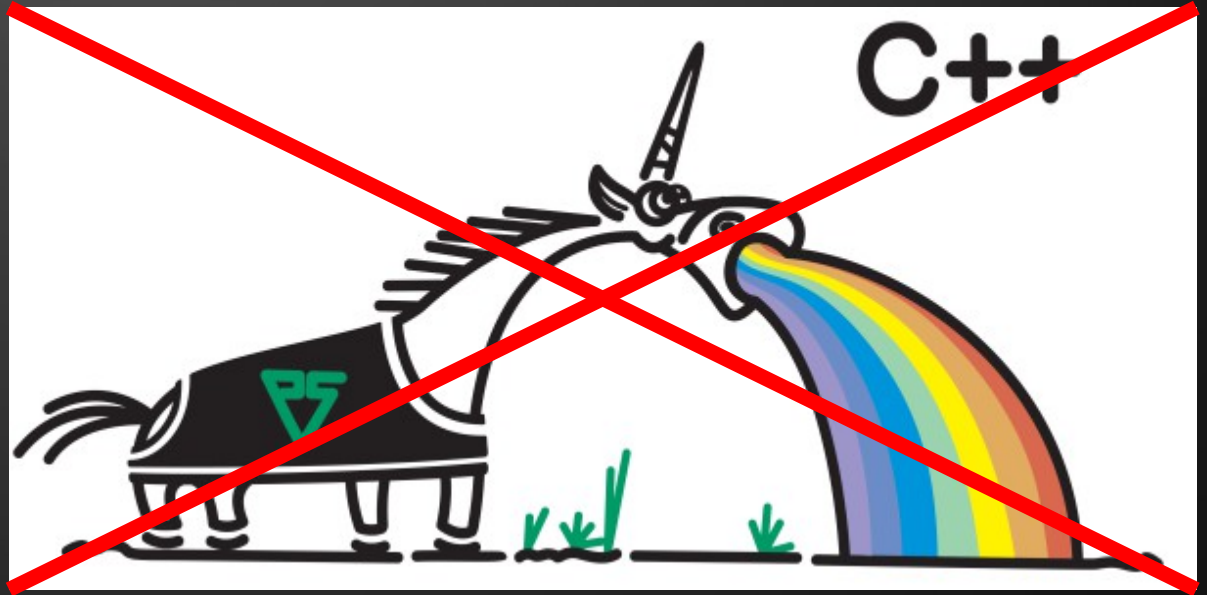
^
{
}
(void)
(^)
(void)


C++

Stay Native

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