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

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RubyMotion is a Buzzword



Marc Lainez @mlainez

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

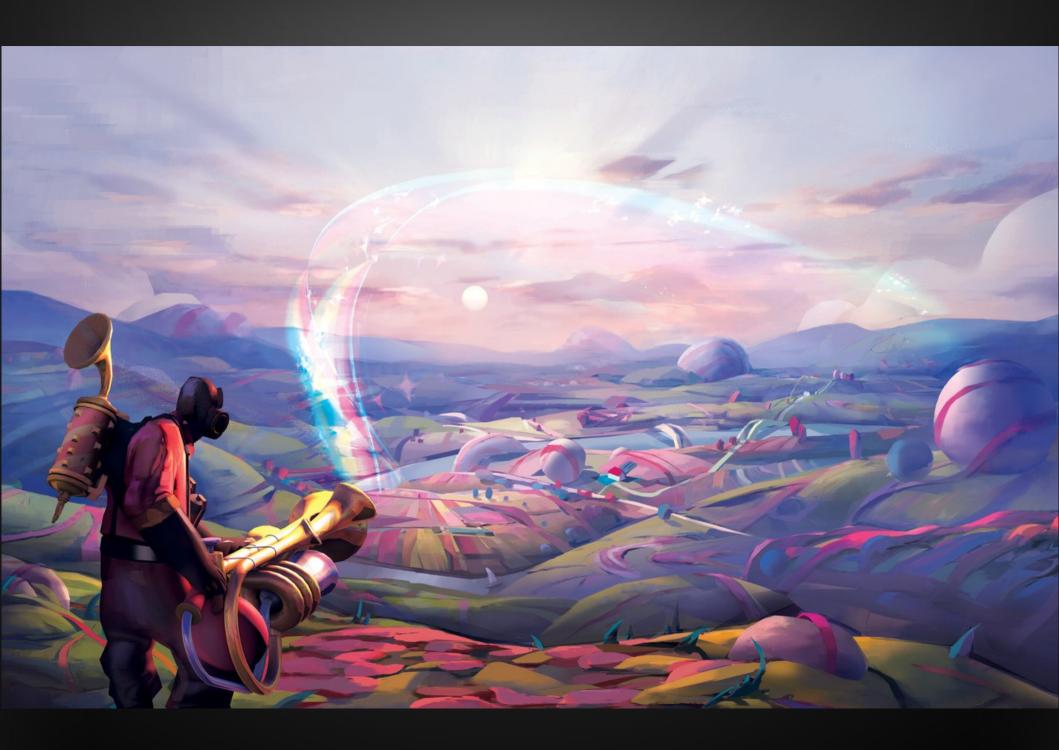
After years of iOS work, RubyMotion seems like a thousand kittens playing the piano while sliding down a double-rainbow.

Johannes Fahrenkrug Founder, Springenwerk

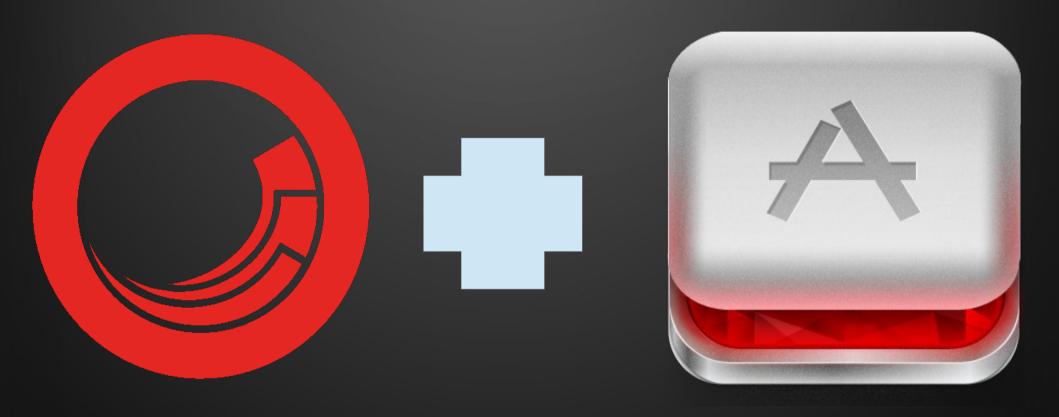


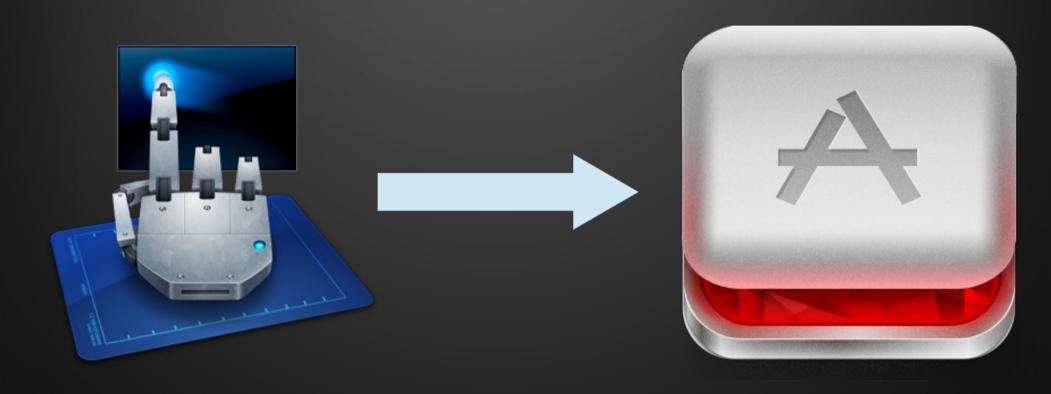
Matt Brewer @macfanatic

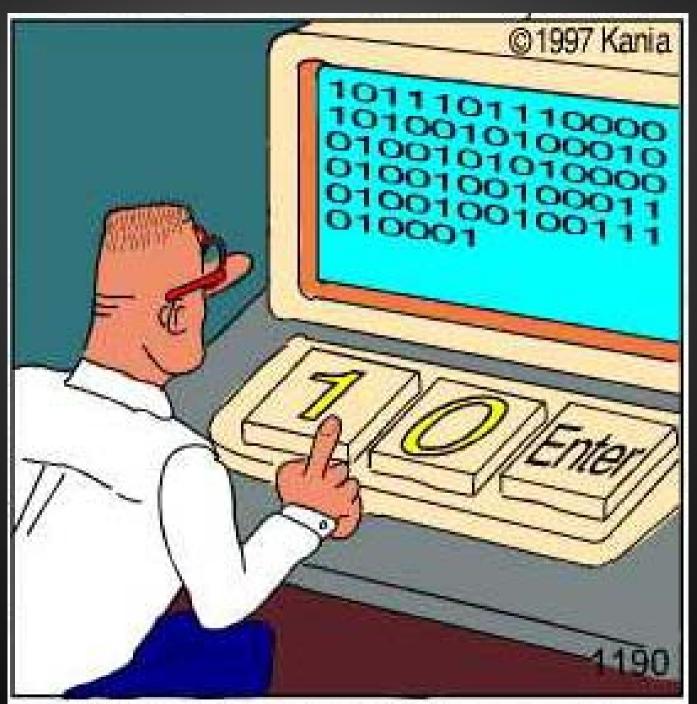
@RubyMotion Love, absolutely needed.



Introducing RubyMotion I had 3 goals in mind







Real programmers code in binary.

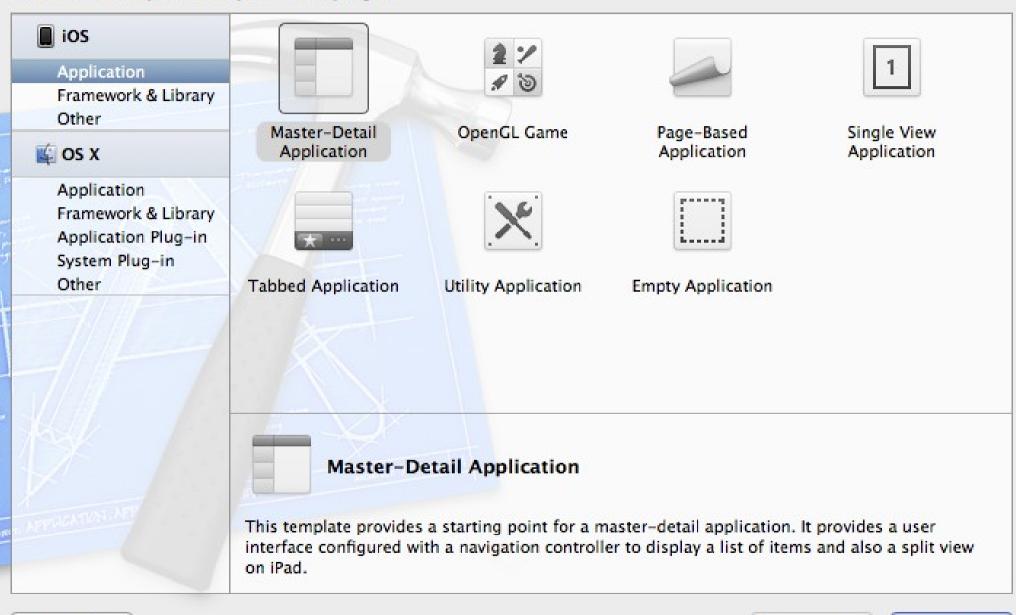
Preconditions



Sitecore MobileSDK



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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

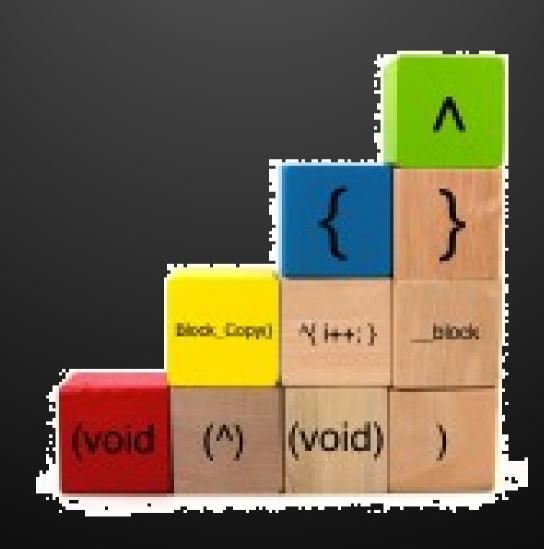
+target():id



Farcaller/motion-memorymanagement Dodikk/MotionBlocks



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;



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);
```

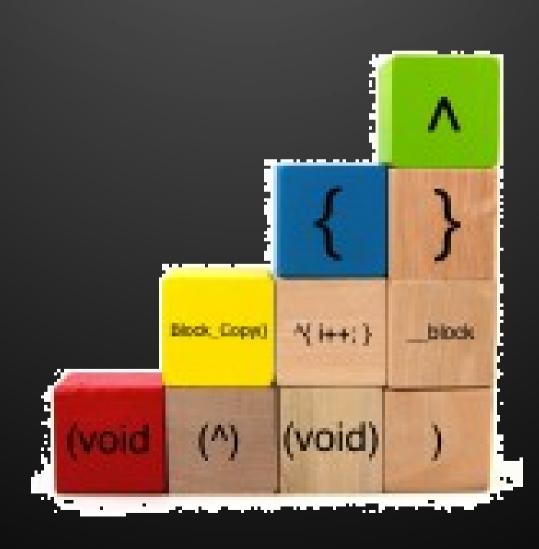
@interface BlockBuilder: NSObject

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





Problem #3: How to Invoke an ObjC Block?



Foundation

NSMallocBlock

NSObject

NSGlobalBlock

NSStackBlock

BLACKINGER



AND HOOKERS

memegenerator.net

```
@implementation NSObject (BlockForRuby)
```

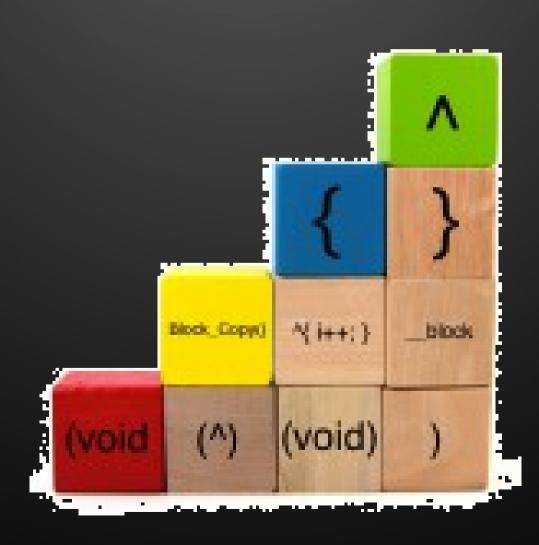
```
-(id)objc_BlockSend1:( id )arg_
{
    typedef id(^Block1)( id arg_ );
    Block1 block_ = (Block1)self;
    return block_( arg_ );
}
```

```
-(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;
```



Problem #4:

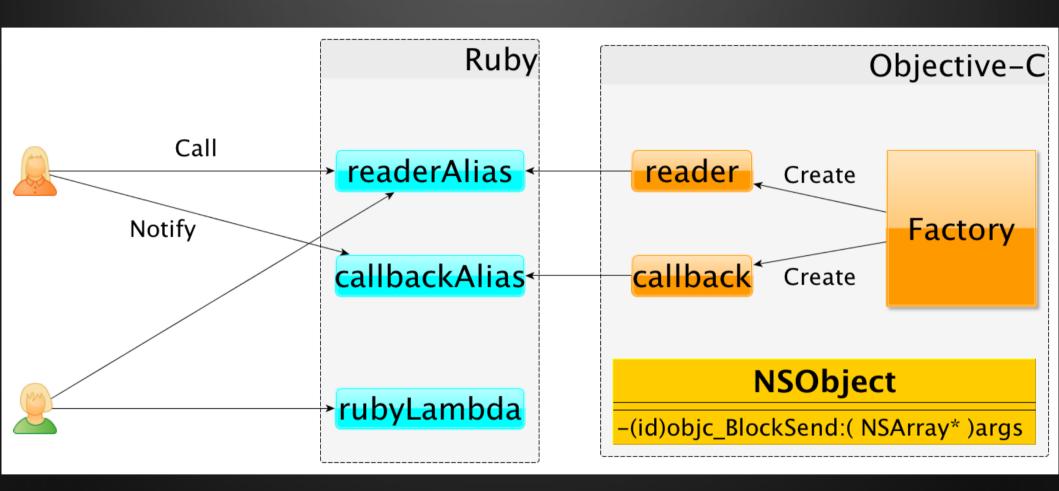
ObjC blocks crash



```
reader = blockBuilder.itemsReaderWithRequest()
```

```
callback = blockBuilder.itemsReaderCallback()
```

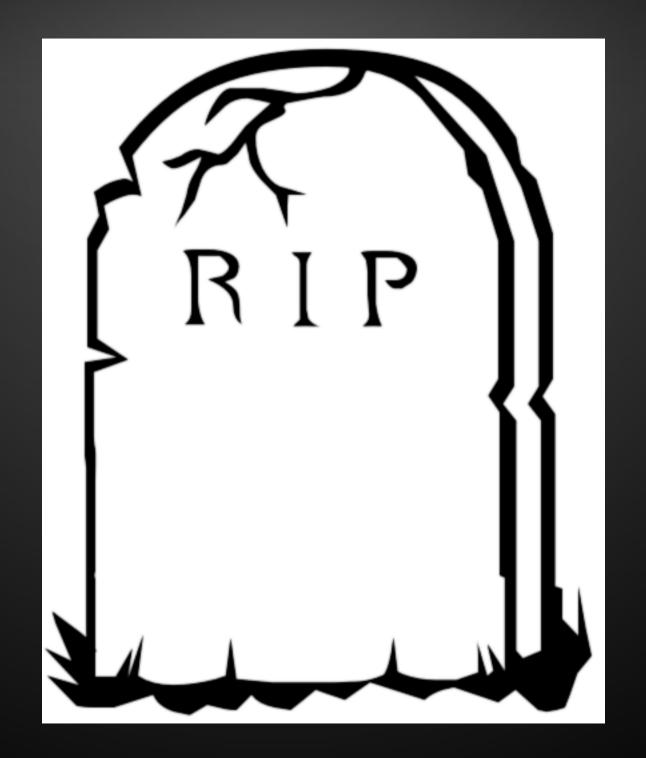
```
reader.objc_BlockSend([callback])
```



Demo

Just in case you need the full log

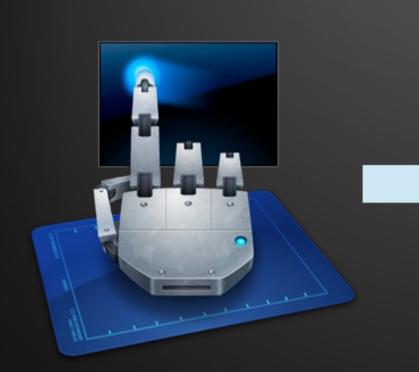
```
reader.class : NSGlobalBlock
callback.class : NSGlobalBlock
2013-03-07 12:35:43.985 HelloMotion[1250:1d903] [EXECUTED]
itemsReaderWithRequest
2013-03-07 12:35:43.986 HelloMotion[1250:1d903] handler:
< NSGlobalBlock : 0x14b500>
2013-03-07 12:35:43.987 HelloMotion[1250:1d903] handler class:
  NSGlobalBlock
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...]
```



One More Thing...









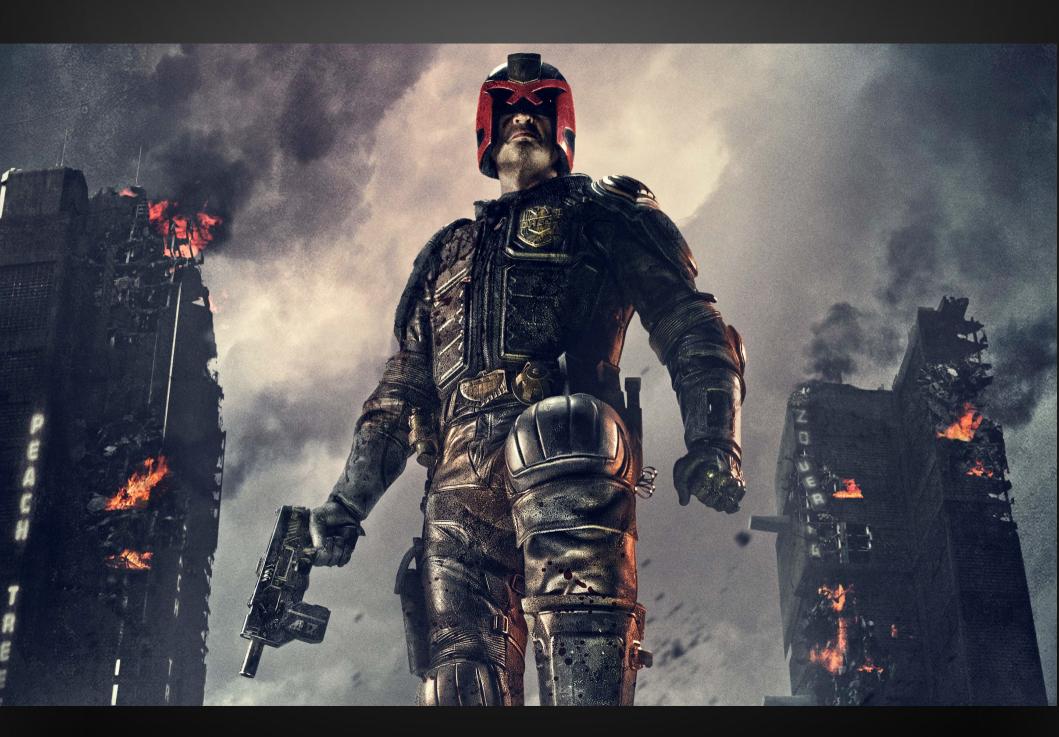




TestingWithFrank/PublicAutomation

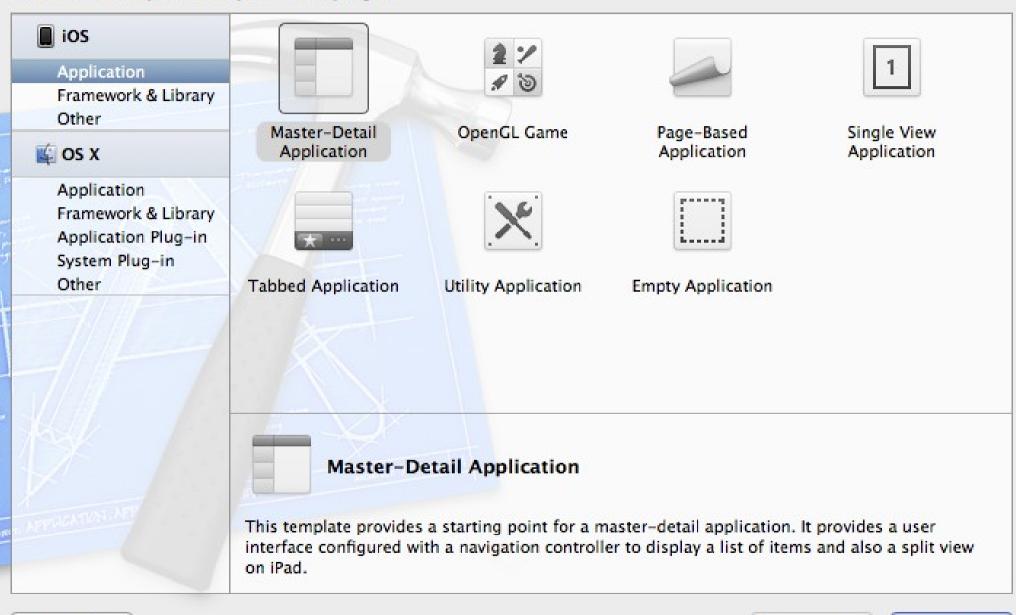
Unstable. Did not make it work.

Demo



Use it for Prototyping Only

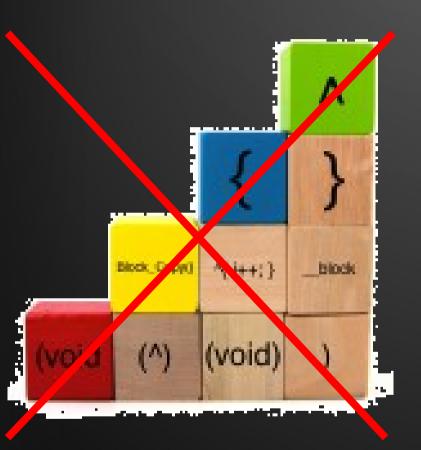
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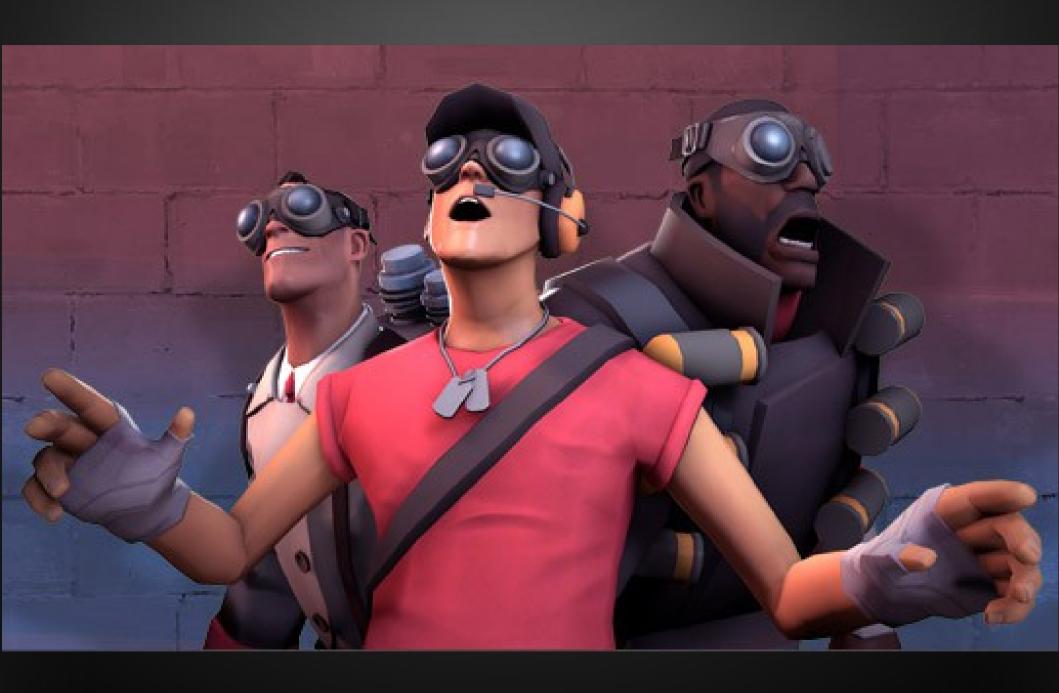
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Stay Native





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