Consuming Web Services and Using Local Storage on iOS

Saving Data to Property Lists

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Saving Data to Property Lists

- **What is a property list?**
- **Creating and saving property lists in Xcode and programmatically**
- **Differences in binary and XML property lists**
- **Steps involved in reading and writing XML and binary property lists**
- **NSPropertyListSerialization class and options for reading lists**

What is a Property List?

Container Types

Arrays

Dictionaries

Primitive Types
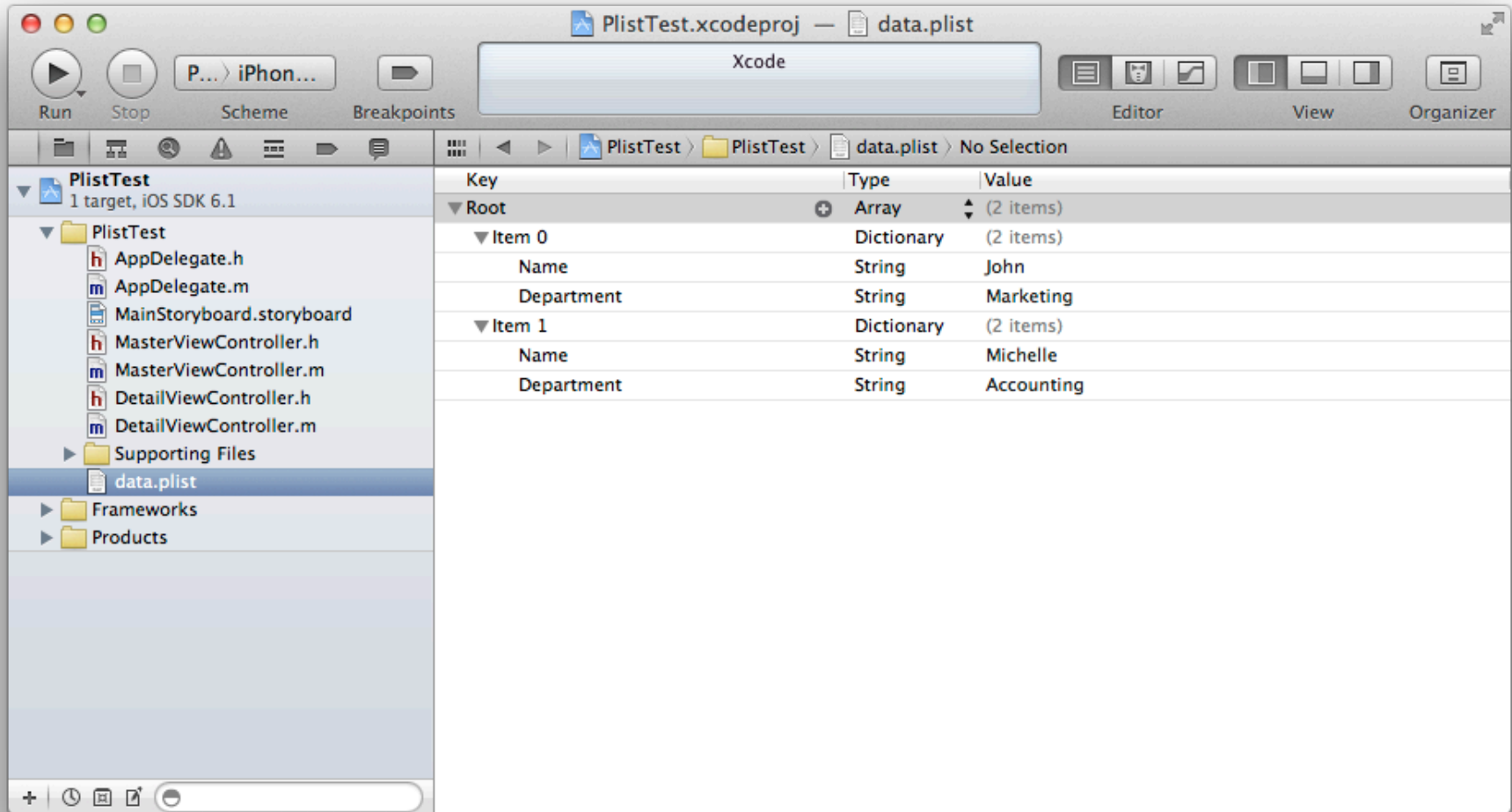
Strings
Numbers
Dates
Binary Data
Booleans

Storage Formats

XML

Binary

Created By

Xcode

Objective-C

Text Editor

Creating Property Lists in Xcode
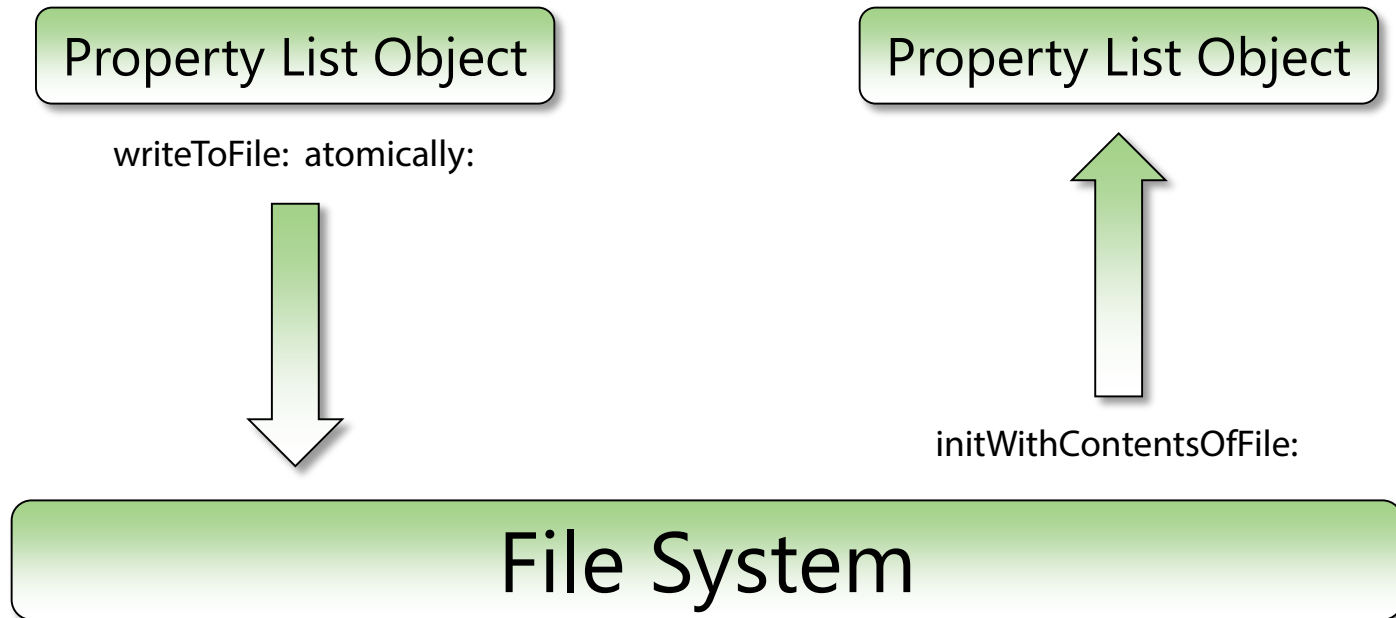
Binary versus XML Property Lists

Binary

- More compact
- Reading and writing is faster
- Uses less memory

XML

- Easily viewed during development
- Edit with any text editor
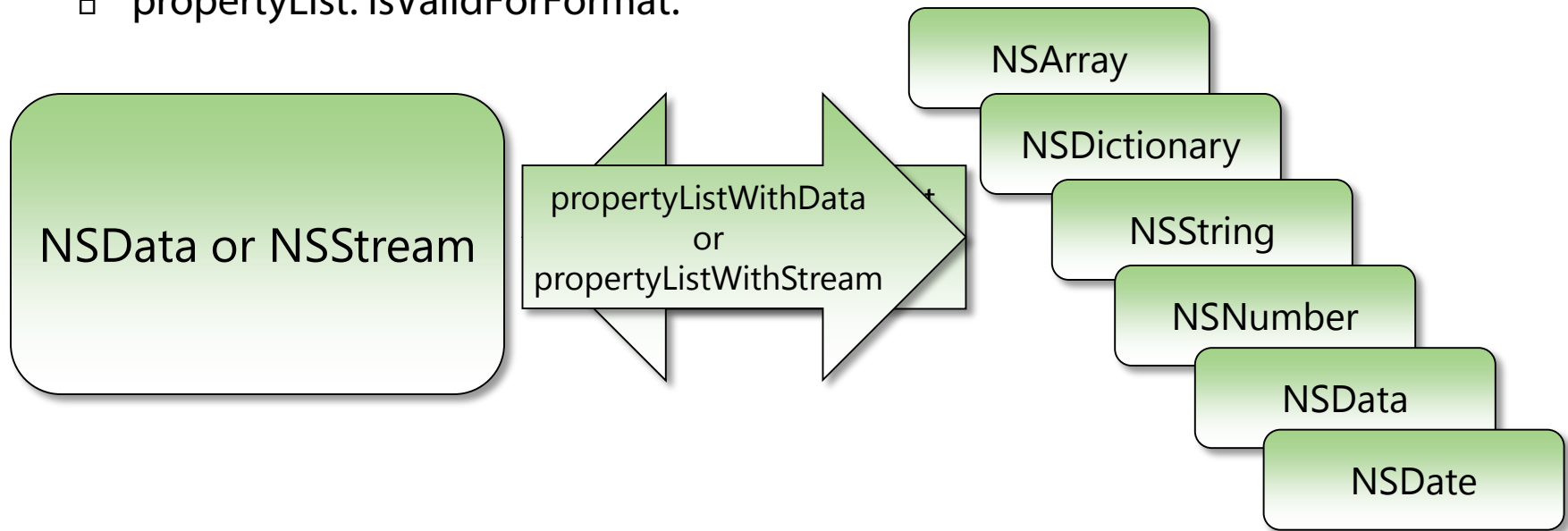- More portable to other platforms
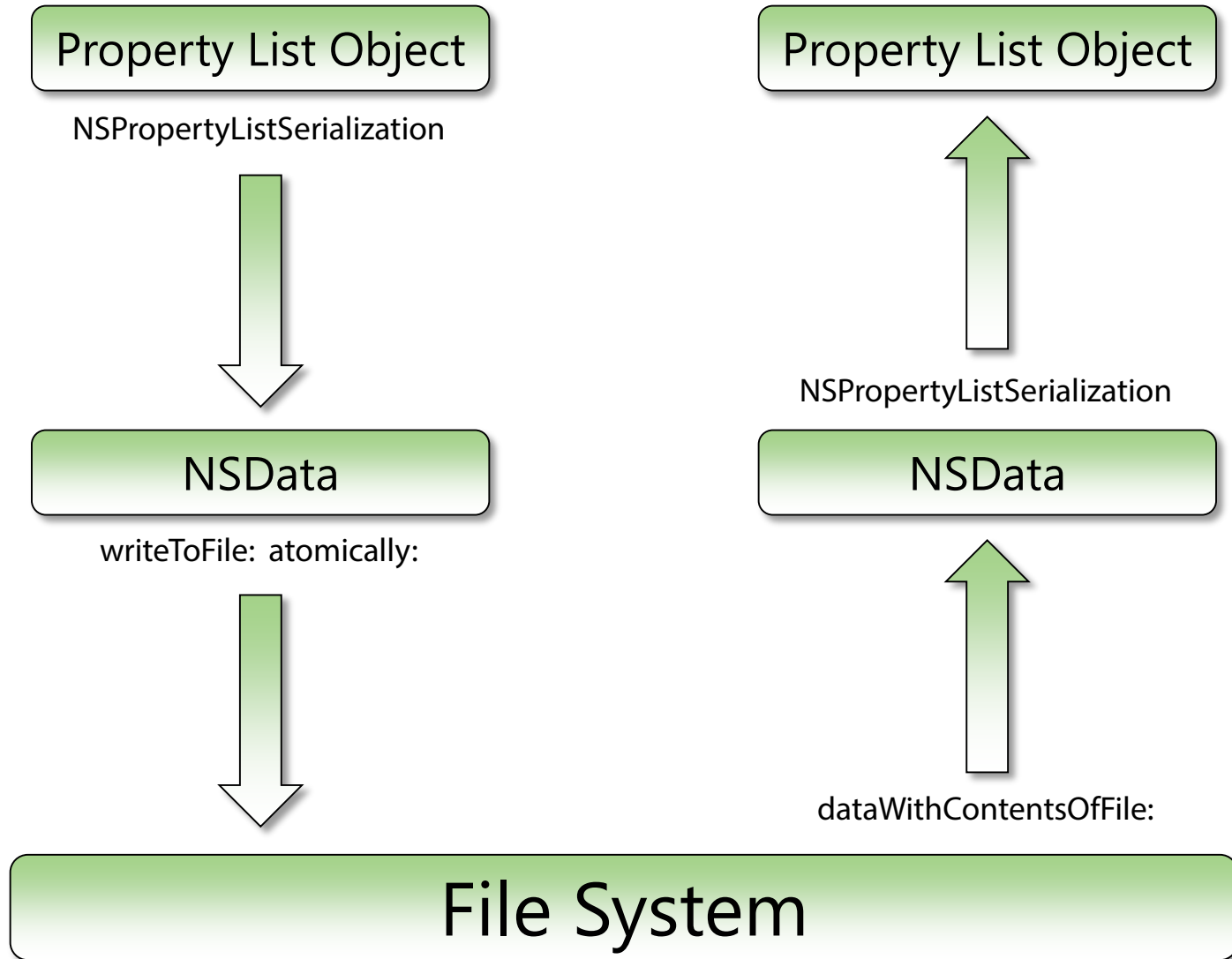
1-Step Reading and Writing (XML)

Property List Object

writeToFile: atomically:

Property List Object

initWithContentsOfFile:

File System

NSPropertyListSerialization

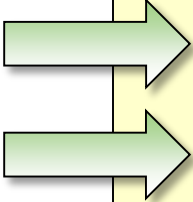- **Class methods serialize to and from "Property List Objects"**
  - dataWithPropertyList: format: options: error:
  - writePropertyList: toStream: format: options: error:
  - propertyListWithData: options: format: error:
  - propertyListWithStream: options: format: error:
  - propertyList: isValidForFormat:

NSData or NSStream

propertyListWithData
or
propertyListWithStream

NSArray

NSDictionary

NSString

NSNumber

NSData

NSDate

2-Step Reading and Writing (Binary)

Property List Object

NSPropertyListSerialization

NSData

writeToFile: atomically:

Property List Object

NSPropertyListSerialization

NSData

dataWithContentsOfFile:

File System

Mutability Options

```objc
- (void)loadPlistWithPath:(NSString *)filepath {

    // root object and all contents will be immutable
    NSArray *array1 = [NSArray arrayWithContentsOfFile:filepath];

    // root object will be mutable, all contents will be immutable
    NSMutableArray *array2 = [NSMutableArray arrayWithContentsOfFile:filepath];

    /*
        do something awesome here
    */
}
```

NSPropertyListMutabilityOptions

- **NSPropertyListImmutable**
  - All returned objects are immutable
- **NSPropertyListMutableContainers**
  - Returns mutable container and immutable leaves
- **NSPropertyListMutableContainersAndLeaves**
  - All returned objects are mutable

Summary

- **Defined what property lists are and their ideal uses**

- **Created property lists in Xcode and programmatically**

- **Discussed differences in binary and XML property lists**

- **Examined two techniques for reading and writing property lists to the file system**

- **Reviewed NSPropertyListSerialization class and options for setting mutability of returned objects**