

How to use TouchJSON in your iPhone apps

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What is TouchJSON?

- Created by Jonathan Wight (aka @schwa)
- Based on his previous code CocoaJSON
- Part of umbrella project TouchCode
 - Winner of Best Open Source Project at iPhoneDevCamp 2
- I'm a committer on the project

How do I include it in my project?

- Check out the TouchCode project
- Copy the files from `./TouchJSON/Source` into your project
- iPhone doesn't offer a good way to include frameworks currently

How do I get JSON?

- The most common way is to get JSON from a Web Service REST API
- In simpler terms, you download some JSON from a website

How do I get JSON? (More details, please.)

```
// This will issue a request to a web service API via HTTP GET to the
// URL specified by urlString.
// It will return the JSON string returned from the HTTP GET.
- (NSString *)jsonFromURLString:(NSString *)urlString {
    NSURL *url = [NSURL URLWithString:urlString];
    NSMutableURLRequest *request = [[NSMutableURLRequest alloc]
initWithURL:url];
    [request setHTTPMethod:@"GET"];

    NSURLResponse *response = nil;
    NSError *error = nil;
    NSData *result = [NSURLConnection sendSynchronousRequest:request
returningResponse:&response error:&error];
    [request release];
    [self handleError:error];
    NSString *resultString = [[NSString alloc] initWithData:result
encoding:NSUTF8StringEncoding];
    return [resultString autorelease];
}
```

How do I transform JSON into Cocoa?

- You use TouchJSON's `CJSONDeserializer` to deserialize a JSON `NSString` into an `NSDictionary` containing keys and values.
- Each value can itself be another object, so you can have a deep tree of objects after deserializing.

Deserializing Details

```
// Parse JSON results with TouchJSON. It converts it into
a dictionary.
CJSONDeserializer *jsonDeserializer = [CJSONDeserializer
deserializer];
NSError *error;
NSDictionary *resultsDictionary = [jsonDeserializer
deserializeAsDictionary:jsonData error:&error];
```

Putting It All Together

Twitter Search on the iPhone with TouchJSON

- User types in query into UISearchBar
- App gets JSON using Twitter's Search API
- App deserializes JSON
- App populates array of Tweets
- Array of Tweets is displayed in UITableView

Resources

- TouchJSON Home Page
 - <http://code.google.com/p/touchcode/wiki/TouchJSON>
- Quick How To
 - <http://code.google.com/p/touchcode/wiki/TouchJSONHowTo>
- Demo Code from this Presentation
 - <http://github.com/luisdelarosa/touchjson-iphonedemo/tree/master>