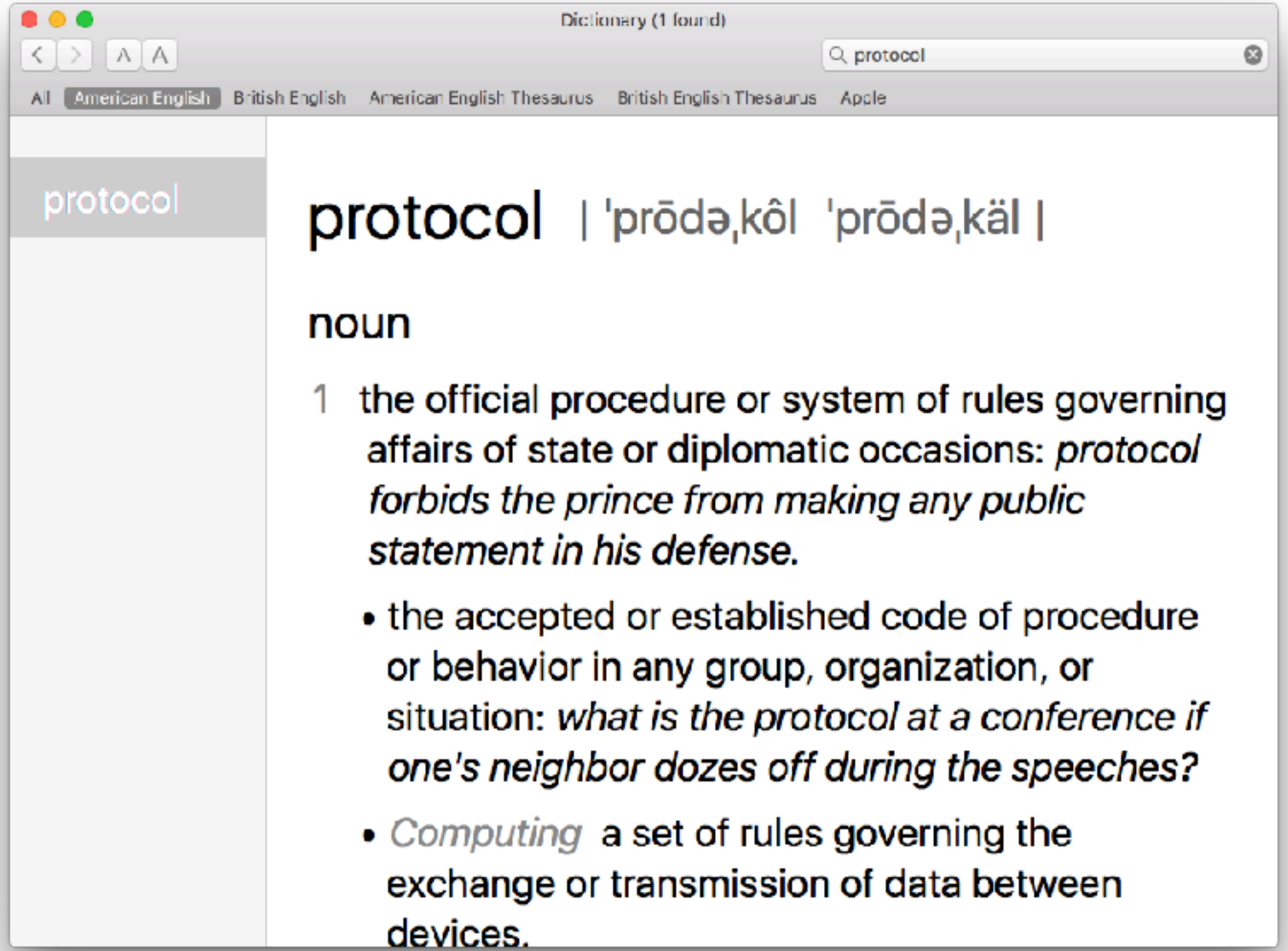
Protocol

A set of rules or code of behavior



protocol | ˈprōdəˌkôl ˈprōdəˌkäl |

noun

1 the official procedure or system of rules governing affairs of state or diplomatic occasions: *protocol forbids the prince from making any public statement in his defense.*

- the accepted or established code of procedure or behavior in any group, organization, or situation: *what is the protocol at a conference if one's neighbor dozes off during the speeches?*
- *Computing* a set of rules governing the exchange or transmission of data between devices.

```swift
protocol MyProtocol {

    // what methods?


    // what properties?


}
```

- Each protocol has a name
- A list of methods
  (names, parameters, and return types)
- A list of properties
  (name, type, get/set)

Protocol Usage

General Purpose

Creating Collections,
Comparing Instances,
Converting, Sorting,
Debugging

App-specific

Loading Data,
Saving Data,
Spellchecking,
Resizing UIs

```
class MyNewClass: SomeSuperClass, SomeProtocol, OtherProtocol {
    ...
}
```

Inheritance and/or Protocol Adoption

Swift classes allow single class inheritance
Swift classes, structs and enums allow multiple protocols

Creating Errors

Some languages have predefined error types.

```
Error myError =  new Error();
myError.description = "Connection failure";
myError.priority = 1;
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Creating Errors

Some languages have predefined error types. Swift does not.

```swift
struct SomeKindOfError {
    // whatever you need...
}
```

Swift Errors

Can be created from any type

```swift
class SomeKindOfError {
    // whatever you need...
}
```

Swift Errors

Can be created from any type

```swift
enum  SomeKindOfError {
    // whatever you need...
}
```

Swift Errors

Can be created from any type