

Objective-C Mapping for Dictionaries

Here is the definition of our [EmployeeMap](#) once more:

Slice

```
dictionary<long, Employee> EmployeeMap;
```

The following code is generated for this definition:

Objective-C

```
typedef NSDictionary EXEmployeeMap;
typedef NSMutableDictionary EXMutableEmployeeMap;
```

Similar to [sequences](#), Slice dictionaries map to type definitions for `NSDictionary` and `NSMutableDictionary`, with the names `<module-prefix><Slice-name>` and `<module-prefix>Mutable<Slice-name>`.

As a result, you can use the dictionary like any other `NSDictionary`, for example:

Objective-C

```
EXMutableEmployeeMap *em = [EXMutableEmployeeMap dictionary];
EXEmployee *e = [EXEmployee employee];
e.number = 42;
e.firstName = @"Stan";
e.lastName = @"Lippman";
[em setObject:e forKey:[NSNumber numberWithInt:e.number]];

e = [EXEmployee employee];
e.number = 77;
e.firstName = @"Herb";
e.lastName = @"Sutter";
[em setObject:e forKey:[NSNumber numberWithInt:e.number]];
```

To put a value type into a dictionary (either as the key or the value), you must use `NSNumber` as the object to hold the value. If you have a dictionary that uses a Slice enumeration as the key or the value, you must insert the enumerator as an `NSNumber` that holds an `int`.

To insert a null proxy or null class instance into a dictionary as a value, you must insert `NSNull`.

As a convenience feature, the Objective-C mapping also allows you to insert `NSNull` as the value of a dictionary if the value type of the dictionary is a string, structure, sequence, or dictionary. If you send such a dictionary to a receiver, the Ice run time marshals an empty string, default-initialized structure, empty sequence, or empty dictionary as the corresponding value to the receiver, respectively.

See Also

- [Dictionaries](#)
- [Objective-C Mapping for Modules](#)
- [Objective-C Mapping for Identifiers](#)
- [Objective-C Mapping for Built-In Types](#)
- [Objective-C Mapping for Enumerations](#)
- [Objective-C Mapping for Structures](#)
- [Objective-C Mapping for Sequences](#)
- [Objective-C Mapping for Constants](#)
- [Objective-C Mapping for Exceptions](#)
- [Objective-C Mapping for Interfaces](#)