

# EOF-Using EOF-Fetching

## Overview

There are many ways to specify what Entities to fetch using EOF.

1. Model a Fetch Specification in EntityModeler
2. Create a FetchSpecification in code
3. Use EOUtilities helper methods
4. User helper fetch methods in your Entity.java (if generated using a more advanced EOGenerator\* template).

\*EOGenerator, Velocity EOGenerator, JavaEOGenerator

For complete details please read the [EOF Documentation](#), the rest of this article will give some simple examples of the different kinds of fetches.

## Examples

### Model a Fetch Specification in EntityModeler

#### Create the Fetch Specification

1. Open your model in EntityModeler and select an Entity to define a fetch spec for.
2. Click on the "New Fetch Specification" tool bar button.
3. In the Properties tab, give the new Fetch Specification a name. ie: userForLoginCredentials
4. Enter a qualifier string in the text area provided. ie:

```
(username = $username) and (password = $password)
```

Binding variables (eg: \$username) will be replaced by user supplied values when the Fetch Specification is called.

#### Fetch using a Modeled Fetch Specification

```
String username; //Assume exists
String password; //Assume exists
EOEditingContext editingContext; //Assume exists
NSMutableDictionary bindings = new NSMutableDictionary();
bindings.takeValueForKey(username, Person.USERNAME_KEY);
bindings.takeValueForKey(password, Person.PASSWORD_KEY);
String fetchSpecName = "userForLoginCredentials";
String entityName = Person.ENTITY_NAME;
NSArray objects = EOUtilities.objectsWithFetchSpecificationAndBindings(editingContext, entityName,
fetchSpecName, bindings);
```

### Create a Fetch Specification in code

#### Build a simple qualifier

```
EOKeyValueQualifier qualifier = new EOKeyValueQualifier(keyName, EOQualifier.QualifierOperatorEqual, value);
```

#### Build a more complex qualifier

```
EOKeyValueQualifier qual1 = new EOKeyValueQualifier(keyName1, EOQualifier.QualifierOperatorEqual, value1);
EOKeyValueQualifier qual2 = new EOKeyValueQualifier(keyName2, EOQualifier.QualifierOperatorEqual, value2);
EOAndQualifier finalQual = new EOAndQualifier(new NSArray(new object[] {qual1, qual2}));
```

#### Build a Fetch Specification

```
NSArray sortOrderings; // Assume Exists (or null for no defined sort)
EOQualifier qualifier; // Assume Exists (or null for all objects)
EOFetchSpecification fetchSpec = new EOFetchSpecification("EntityName", qualifier, sortOrderings);
```

## Fetch with the Fetch Specification

```
String username; //Assume exists
String password; //Assume exists
EOEditingContext editingContext; //Assume exists
EOKeyValueQualifier usernameQual = new EOKeyValueQualifier(Person.USERNAME_KEY, EOQualifier.
QualifierOperatorEqual, username);
EOKeyValueQualifier passwordQual = new EOKeyValueQualifier(Person.PASSWORD_KEY, EOQualifier.
QualifierOperatorEqual, password);
EOAndQualifier credentialsQual = new EOAndQualifier(new NSArray(new object[] {usernameQual, passwordQual}));
EOFetchSpecification userForCredentialsFetchSpec = new EOFetchSpecification(Person.ENTITY_NAME,
credentialsQual, null);
NSArray fetchedObjects = editingContext.objectsWithFetchSpecification(userForCredentialsFetchSpec);
```

## EOUtilities

[EOUtilities](#) has several helper methods for simplifying your fetchs, we've already used "objectsWithFetchSpecificationAndBindings" above.

Also look at:

```
String username; //Assume exists
EOEditingContext editingContext; //Assume exists
EOEnterpriseObject eo = EOUtilities.objectMatchingKeyAndValue(editingContext, Person.ENTITY_NAME, Person.
USERNAME_KEY, username);
```

```
EOEditingContext editingContext; //Assume exists
NSDictionary bindings; //Assume exists
EOEnterpriseObject eo = EOUtilities.objectMatchingValues(editingContext, Person.ENTITY_NAME, bindings);
```

```
EOEditingContext editingContext; //Assume exists
NSArray objects = EOUtilities.objectsForEntityNamed(editingContext, Person.ENTITY_NAME);
```

```
String username; //Assume exists
EOEditingContext editingContext; //Assume exist
NSArray objects = EOUtilities.objectsMatchingKeyAndValue(editingContext, Person.ENTITY_NAME, Person.
USERNAME_KEY, username);
```

```
EOEditingContext editingContext; //Assume exists
NSDictionary bindings; //Assume exists
NSArray objects = EOUtilities.objectsMatchingValues(editingContext, Person.ENTITY_NAME, bindings);
```

## EOGenerator Template Helper Methods.

Depending on your EOGenerator [templates](#) you may have auto generated methods in your `_Entity.java` class that will make fetching objects easier. Look for methods like:

```
EOEditingContext editingContext; //Assume exists
NSArray people Person.fetchAllPeople(editingContext);
```

```
EOEditingContext editingContext; //Assume exists
EQQualifier qualifer; //Assume exists
NSArray people Person.fetchPeople(editingContext, qualifier);
```