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When the *EntityServer* receives a client query request, it looks on the server for a corresponding query method such as a named query or <u>POCO query</u> method. It recognizes a server-side query method by its signature and name. This topic explains the DevForce **query method naming convention** and how to use the *QueryAttribute* when you can't follow the convention.

The client query

At the root of a client *EntityQuery* is the name of the *EntitySet* that identifies the domain of entities to query. Here is an example client query for *Customers*.

var query = new EntityQuery<Customer>("Customers", anEntityManager).Where(...); Dim query = New EntityQuery(Of Customer)("Customers", anEntityManager).Where(...)

"Customers" is the name of EntitySet for the Customer entity type.

The more familiar anEntityManager.Customers() property returns an EntityQuery that is defined in precisely this way.

If your query depends upon a <u>specialized named query</u>, the *EntitySet* name will be something else. It might be "GoldCustomers" if you've defined a named query that implements that concept.

Finding the server-side query method

When the *EntityServer* receives that client query, it looks for a method on the server that corresponds to the *EntityQuery*'s *EntitySet* name.

If it can't find a corresponding query method on the server there could be trouble. In most cases the *EntityServer* throws an exception reporting its inability to find a method to go with the requested *EntitySet* name.

There is one exception. The *EntityServer* can muddle through if the query's *EntitySet* name matches the *EntitySet* name of an Entity Framework entity type. Because "Customers" is the name of the *EntitySet* for the *Customer* EF type, DevForce doesn't **have** to find a matching query method on the server. It will try to find a server-side method ... but it can proceed without one.

That's why you do not have to write a <u>default named query method</u>. If you **do** write a default named query method, make sure DevForce can find it by following the rules described here.

If you wrote a server-side query method, you must help DevForce find it, either by naming the method in a way that conforms to DevForce conventions or by marking it with the DevForce *Query* attribute.

Query naming conventions

DevForce can interpret query method names that begin with any one of the following prefixes:

Prefix	Method name example	Matching EntitySet name
Get	GetCustomers	Customers
Query	QueryCustomers	Customers
Fetch	FetchGoldCustomers	GoldCustomers
Retrieve	RetrieveStates	States
Find	FindWaldo	Waldo
Select	SelectCandidates	Candidates

Using the Query Attribute

You don't have to follow the DevForce conventions when naming a specialized named query or POCO query.

You must follow the DevForce convention when naming the *default named query method*.

You can name the query method as you please as long as you adorn it with the <u>Query</u> attribute.

[Query]

<pre>public IQueryable<customer> ReturnAllCustomers() { } [Query] public IQueryable<customer> GrabMeSomeGoldCustomers() { } [Query] public IEnumerable<state> BringBackTheStates() { }</state></customer></customer></pre>	
<query()>_ Public Function ReturnAllStates() As IQueryable(Of Customer) <query()>_ Public Function GrabMeSomeGoldCustomers() As IQueryable(Of Customer) <query()>_ Public Function BringBackTheStates() As IEnumerable(Of State)</query()></query()></query()>	

Now create the client query using the full server-side method name as the EntitySet name:

```
var customersQuery = new EntityQuery<Customer>("ReturnAllStates", anEntityManager);
var goldCustomersQuery = new EntityQuery<Customer>("GrabMeSomeGoldCustomers", anEntityManager);
var statesQuery = new EntityQuery<State>("BringBackTheStates", anEntityManager);
Dim customersQuery = New EntityQuery(Of Customer)("ReturnAllStates", anEntityManager)
Dim goldCustomersQuery = New EntityQuery(Of Customer)("GrabMeSomeGoldCustomers", anEntityManager)
Dim statesQuery = New EntityQuery(Of State)("BringBackTheStates", anEntityManager)
```

Other discoverability requirements

It isn't enough to name the method properly. You must also

- Ensure the query method signature is appropriate for the root of the *EntityQuery*.
- Define the method within a class marked by the *EnableClientAccess* attribute.
- Locate that class in <u>a discovered assembly</u>.