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The EDM Designer only collects the information it needs for <u>Entity Framework</u>'s native code generator. DevForce needs more information in order to generate its own entity classes. The **DevForce EDM Designer extension** adds features to the base EDM Designer that help the developer provide that extra information.

Extension installed

From the Visual Studio menu pick Tools | Extension Manager ... and scroll through the Extension Manager dialog until you see:

Extensions and Updates			×
▲ Installed	Sort by: Name: Ascending * Search Installed (Ctrl+E)		۰ م
All Controls Samples Templates SDKs Tools	DevForce 2012 EDM Designer Extension fo Disable Created by: IdeaBlade, Inc. IdeaBlade DevForce 2012 extensions to ADO.NET Entity Disable Date Installed: 9/3/2012 Data Model Designer. Uninstall Version: 7.0.0.0		
	DevForce 2012 Templates More Information IdeaBlade DevForce extension to install DevForce 2012 project templates. More Information		

The DevForce 2012 EDM Designer extension is installed with DevForce.

If you don't see this extension, there are several possible reasons:

- 1. DevForce is not installed. Since you're reading this that's probably unlikely, but just as with ensuring your printer is plugged in, needs to be mentioned.
- 2. The extension was not installed for your user account. The extension is installed per user: see <u>here</u> for information on how to install the extension.

The extension changes the EDM Designer in two ways:

- 1. It adds new DevForce properties to the "Properties" panel.
- 2. It writes the property values into the conceptual model section of EDMX file as custom "annotations".

Once the extension is installed and enabled, when you open an EDMX file you'll see a message like the following in the "DevForce" pane of the output window:



Note that the extension will not load or process a model in a .NET 4.0 project. You must re-target the project to .NET 4.5 in order to use the DevForce 2012 EDM Designer Extension.

DevForce extension properties

This screenshot shows the EDM Designer displaying information about an entity property.

Documentation - DevForce EDM Designer extension

	Properties	
	NorthwindModel.Customer	CompanyName Property
🔧 Customer 🖄	<mark>8≣</mark> ≵↓ 🖻	
⇒ Properties	Code Generation	
🚰 CustomerID	Getter	Public
CustomerID_OLD	Setter	Public
CompanyName	Database Script General	tion
ContactName	StoreGeneratedPattern	None
Address	DevForce Code General	tion
City	Attributes to Suppress	None
Region	Bindable Mode	TwoWay
PostalCode	Concurrency Strategy	None
Country	Display Name	Company Name
Phone	Tag	
Pou//errico	Facets	
Navigation Properties	Fixed Length	False
	Max Length	40
- Orders	Unicode	True
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The *CompanyName* property of the Customer entity has been selected in the diagram on the left. The Properties window on the right displays the EDM object definition properties of that *CompanyName* property, sorted by category.

In the middle of the Properties window is a new category, outlined in <u>yellow</u>, labeled "DevForce Code Generation". This category was added by the DevForce EDM Extension. The properties in this category govern code generation of the *CompanyName* property.

The "Display Name" property is outlined in **red** with a value of "Company Name". The developer is telling DevForce to add a .NET *DisplayAttribute* to the *Customer*'s *CompanyName* property when it generates the entity class code.

The *DisplayAttribute* is a standard .NET UI hint; a UI control could discover that attribute and create a label with the words "Company Name" next to a TextBox. Many developers like to decorate their entities with such UI hints.

The DevForce EDM Extension writes this advice as an annotation to the CSDL section in the EDMX file. The CSDL definition of the CompanyName property looks like this:



The attribute *ib10:DisplayName* is the DevForce annotation. After code generation the property looks like something like this:

[Display(Name="Company Name", AutoGenerateField=true)]
public string CompanyName {...}
<Display(Name:="Company Name", AutoGenerateField:=True)>

Public ReadOnly Property CompanyName() As String

End Property

Controlling code generation

DevForce Code Generation sections adorn every level of the CSDL specification. At the top level are properties to control code generation for the model as a whole:

Pro	Properties					
NorthwindModel ConceptualEntityModel						
®]]	21 0					
4	DevForce Code Generation					
	DataSource Key	NorthwindEntities				
	DevForce Enabled	True				
	EntityManager Name	NorthwindManager				
	Generate Binding Attributes	True				
	Generate Developer Classes	False				
	Handle Mapping Mismatches/Issues	Fix				
	Injected Base Type					
	Max. Classes Per File	100				
	OData Enabled	False				
	Tag					
	Validation Attribute Mode	DevForceVerification				

Disabling DevForce code generation

There are two ways to enable or disable DevForce code generation for the entity models.

On a per-EDMX basis

You can switch between the DevForce code generator and the Entity Framework default generator for a specific entity model by setting the "DevForce Enabled" field on the EDMX property sheet:

Prop	roperties		
NorthwindModel ConceptualEntityModel			
•	2 ↓ □		
4	DevForce Code Generation		
	DataSource Key	NorthwindEntities	
	DevForce Enabled	False 💌	
1.24	Entite the Name	Northwind Manager	

Globally for all of Visual Studio

You can enable or disable the DevForce extension itself from within the Visual Studio <u>Extension Manager</u>. Disabling the extension both removes the DevForce properties from the designer and disables DevForce code generation.