

# Improved CategoryList editor descriptor for EPiServer

06.05.2015

**More than one time I have found myself in the need of a filtered category tree in EPiServer. In large sites there can be a lot of categories and sometimes you just want to force the web editors to choose from a predefined root category. What to do? Create a editor descriptor that replaces the built-in one!**

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Of course, you could easily accomplish a filtered category list with the [SelectOne] or [SelectMany] attribute on a string property together with a ISelectionFactory, but I really don't like having to parse that string into a list of integers. I want a CategoryList! Period. :) My idea was to override the editor descriptor for CategoryList that's built into EPiServer. To be able to configure root category id or name, I created a custom

attribute.

## L'attribut

I added three root category configuration properties to my attribute, RootCategoryId, RootCategoryName and RootCategoryAppSettingKey. One of them is selected in the following priority:

1. RootCategoryId
2. RootCategoryName
3. RootCategoryAppSettingKey  
(Name of appSetting key with root category id value)

```
[AttributeUsage(AttributeTargets.Class | AttributeTargets.Property | AttributeTargets.Field, AllowMultiple = false)]
public class CategorySelectionAttribute : Attribute
{
    ///
    /// ID of the root category.
    ///
    public int RootCategoryId { get; set; }

    ///
    /// Name of the root category.
    ///
    public string RootCategoryName { get; set; }

    ///
    /// The appSetting key containing the root category id to use.
    ///
    public string RootCategoryAppSettingKey { get; set; }

    public int GetRootCategoryId()
    {
        if (RootCategoryId > 0)
```

```

        {
            return RootCategoryId;
        }

        if (!string.IsNullOrEmpty(RootCategoryName))
        {
            var category = Category.Find(RootCategoryName);

            if (category != null)
            {
                return category.ID;
            }
        }

        if (!string.IsNullOrEmpty(RootCategoryAppSettingKey))
        {
            string appSettingValue = ConfigurationManager.AppSettings[RootCategoryAppSettingKey];

            int rootCategoryId;

            if (!string.IsNullOrEmpty(appSettingValue) && int.TryParse(appSettingValue, out rootCategoryId))

```

Tjenester

Prosjekter

Partnere

```

    }

    return Category.GetRoot().ID;
}
}

```

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## Editor descriptor

To make things easy I inherited the `CategoryListEditorDescriptor` in `EPiServer` and set the `EditorDescriptorBehavior` to `OverrideDefault`. What I'm doing in the code is to check if one of the attributes is a `CategorySelectionAttribute`, and if true, I replace the settings that is passed to the

dojo widget (epi-cms.widget.CategorySelector). Lucky for me, the category widget in EPiServer already has support for specifying a root category. :)

```
[EditorDescriptorRegistration(TargetType = typeof(CategoryList), EditorDescriptorBehavior = EditorDescriptorBehavior.OverrideDefault)]
public class CustomCategoryListEditorDescriptor : CategoryListEditorDescriptor
{
    public override void ModifyMetadata(ExtendedMetadata metadata, IEnumerable attributes)
    {
        base.ModifyMetadata(metadata, attributes);

        var categorySelectionAttribute = attributes.OfType<CategorySelectionAttribute>().FirstOrDefault();

        if (categorySelectionAttribute != null)
        {
            metadata.EditorConfiguration["root"] = categorySelectionAttribute.GetRootCategoryId();
            return;
        }

        var contentTypeCategorySelectionAttribute = metadata.ContainerType.GetCustomAttribute<CategorySelectionAttribute>(true);

        if (contentTypeCategorySelectionAttribute != null)
        {
            metadata.EditorConfiguration["root"] = contentTypeCategorySelectionAttribute.GetRootCategoryId();
        }
    }
}
```

## Usage examples

```
[CategorySelection(RootCategoryId = 123)]
public virtual CategoryList MyCategories { get;
set; }

[CategorySelection(RootCategoryName = "MyRootCa
tegory")]
public virtual CategoryList MyCategories { get;
set; }

[CategorySelection(RootCategoryAppSettingKey =
"NewsRootCategoryId")]
public virtual CategoryList MyCategories { get;
set; }
```

The last example uses an appSetting to set root category id

```
<appSettings>
  <add key="NewsRootCategoryId" value="123"
/>
</appSettings>
```

## Using the attribute on a content type class

You can also use the `CategorySelectionAttribute` on a content type class to set root category for all `CategoryList` properties, including the built-in `PageCategory` property. Property attribute targets have higher priority than class so you can still override class settings for specific properties.

```
[CategorySelection(RootCategoryId = 123)]
[ContentType]
public class StartPage : PageData
{
    // Overrides settings on the class for this
    property
    [CategorySelection(RootCategoryId = 321)]
```

```
public virtual CategoryList MyCategory { get; set; }  
}
```

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**Mattias Olsson**

E-post: mattias@geta.no

Tlf: (+46) 70 218 67 52

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**Mattias Olsson** • a month ago

Ooops, sorry for not replying earlier. I missed your questions. **@Shoma Gujjar** : It's in EPiServer.Cms.Shell.UI.ObjectEditing.EditorDe  
You need to install the EPiServer.CMS.UI.Core NuGet package.

Pankaj: I have been looking at the implementation in EPiServer 7 and I'm afraid it's not possible to do this. The category selection widget doesn't appear to support passing a category root parameter/setting.

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**Shoma Gujjar** • 3 months ago

Where is the reference to CategoryListEditorDescriptor?

^ | ▾ • Reply • Share ›

**Pankaj** • 3 months ago

I tried to integrate this functionality with EPiServer 7.0 site and could not do it. Is this only applicable to EPiServer 7.5 and above?

Can you guide me how to make this working with version 7.0

^ | ▾ • Reply • Share ›



**Mattias Olsson** • 5 months ago

Hi!

It should work for 7.5 and later, maybe even 7.  
I've tested it on 7.13.2 and 8.5.0.

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**Erik J** • 5 months ago

Hi and thanks for sharing this!

Which version of EPiServer is this developed for?

^ | v • Reply • Share ›

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**Johan Book** — Sweet!  
Thanks for the  
Commerce addition

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**Mattias Olsson** — I'm  
very glad to hear. :)

**NorgeUSA**

Rådhusgata 379 West

30B Broadway

0151 Oslo, Suite 350

Norway New York,

Se på kart Se på kart

Tlf: +47 Tlf: +1

400 03 (866) 289-

344 1597

E-post: E-post:

post@geta.no post@geta.no

**SverigeLatvia**

Första Vientbas

Magasinsgata 109

5 Riga,

803 10 Latvia, LV-

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