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# Content

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## 1 New in Composite c1.2 sp1

A service pack is all about fixing bugs. Besides wiping away the critical ones and a lot of the lesser ones we threw in some highly demanded functionality.

## 1.1 Audience

Document intended for more technical people working with Composite. The first section, about SEO, is directly usable for end users. Section Referential Integrity directly relates to end users but is explained on technical detail level.

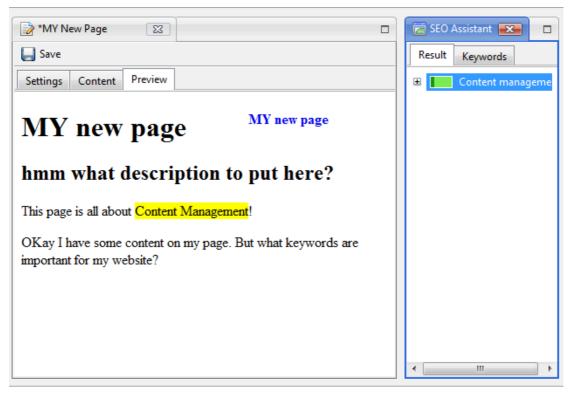
## 1.2 Seo

A new tool to help editors with search engine optimization. Activate it with the red toolbox button. The SEO assistant bar opens on the left. In here you can create a list of keywords that are important for your site.

|   | Tools  |
|---|--|
| Image: Settings     Settings     Content     Preview     B   Image: Settings     Content     Source     Image: Settings     Source     Image: Settings     Image: Settings <th>SEO Assistant Content Management CMS Composite</th> | SEO Assistant Content Management CMS Composite |
| Content   |  |

Using the preview function you can test how well a page does for those keywords





It sees the content management is used and can highlight it.

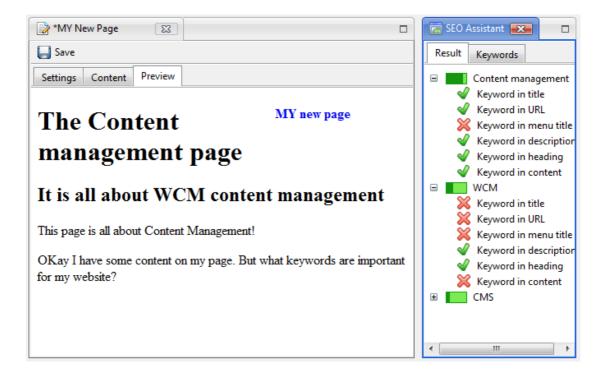
Lets zoom in on the score

| 👼 SEO Assistant 💌 🗖      |                       |  |
|--------------------------|-----------------------|--|
| Result                   | Keywords              |  |
| ⊟ 🔲                      | Content management    |  |
| ×                        | Keyword in title      |  |
| 💥 Keyword in URL         |                       |  |
|                          | Keyword in menu title |  |
| 💥 Keyword in description |                       |  |
|                          | Keyword in heading    |  |
| - 4                      | Keyword in content    |  |

The score is low though we can do better!

The word content management is not used in the important fields, so I edit my page properties and after placing content management in the title abstract (description) and url I come to the following result:





On the Template level a new tag was added to make it easier to add the abstract field as a html description meta tag. Instead of writing a xslt function you can now simply use <rendering:page.metatag.description />.

#### 1.2.1 Dashed Url's from title, better seo

| Advanced settings |                   |  |
|-------------------|-------------------|--|
| Menu title        | this is my page ? |  |
| URL title         | this-is-my-page   |  |

When specifying a title with spaces at page creation this now results in a dashed url. Search engines like Google treat dashes like spaces. Unlike underscores for example, try searching on hello\_hello and hello-hello on google to see for yourselves.



## 1.3 Full SQL 2005 and 2008 support

It is now possible to use either Microsoft SQL Server 2005 or 2008 for storing data. You select what data store C1 should use when you create a new site using the 'Create new site' tool, available from Start | All Programs | Composite C1 1.2 SP1.

| 💈 Composite C1 - C                    | reate new site                                   | <u>_   X</u>  |
|---------------------------------------|--|---------------|
| Create new Com<br>- create and config | posite C1 site<br>ure a new Composite C1 website | C1            |
| Website description                   | Composite C1                                     |               |
| Website http port                     | 80   |               |
| Website host name                     | localhost  |               |
| Website folder path                   | C:\InetPub\Composite C1                          | Browse        |
| ASP.NET Identity                      | NetworkService                                   |               |
| C1 Data store                         | Microsoft SQL Server 2005 or 2008                | •             |
| Connection String                     | Data Source=myServerAddress;Database=myDataB     | Base;UserId=m |
|                                       |  |               |
|                                       |  |               |
|                                       | OK   | Cancel        |

To use MS SQL Server, the following prerequisites exist:

- The specified database muse exist and be empty
- The specified user must have DBO access to the database
- The following components must be installed on the server:
  - Microsoft SQL Server System CLR Types
  - Microsoft SQL Server 2008 Management Objects

If you are missing any of the components you may download them from <a href="http://go.microsoft.com/fwlink/?LinkID=116207">http://go.microsoft.com/fwlink/?LinkID=116207</a>. The 'Create new site' tool will ensure that all prerequisites are met and will alert you with details if checks should fail.

## 1.4 String field multi relations

New functions and widgets were added to allow simple 'multi relation' data.

Real multi relations are on the roadmap for late summer2009

Let's create a multi categories.

Add a string 1024 field,

set widget: DataIdMultiSelector



| Field Widget Configuration  | 🗧 Select Widget   | E E       |
|---|---|-----------|
| <ul> <li>Add New Delete</li> <li>Composite</li> <li>Widgets</li> <li>String</li> <li>TextBox</li> </ul> | <ul> <li>■ All widget functions</li> <li>■ Composite</li> <li>■ Widgets</li> <li>■ String</li> <li>♥ DataldMultiSelector</li> <li>♥ TextArea</li> <li>♥ TextBox</li> <li>♥ VisualXhtmlEditor</li> </ul> |           |
|   | DataIdMultiSelector OK Cancel   | OK Cancel |

| Add New Delete  Add New Delete  Widgets  String  String  Data type to select  Compact UI | Data type to select from<br>← Type<br>The list of options the user can choose from will be selected from this type.<br>Parameter value type |
|--|---|
|  | Value type Specify a simple value   |
|  | Data type to select from ?  |
| 4  |   |

The type we want to refer to.. category

The id's of categories will be stored in the string field.

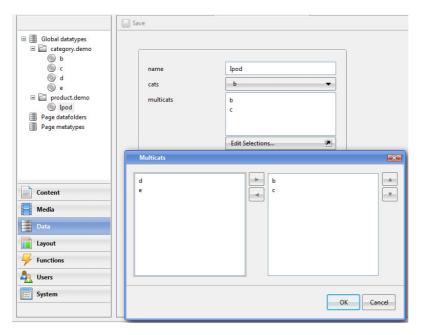
Compact UI is a boolean: Verbose or Compact.

Using the verbose you see all categories displayed as checkboxes.

| ■ Global datatypes ■ Category.demo  6 b  |                           | ]  |
|--|---------------------------|--|
| <ul> <li>b</li> <li>c</li> <li>d</li> <li>e</li> <li>product.demo</li> <li>Ipod</li> <li>Page datafolders</li> <li>Page metatypes</li> </ul> | name<br>cats<br>multicats | Ipod         b         c         d         e |

This won't work for long lists of values, therefore you can choose the compact widget mode





Which shows the current selected values in a listbox . You can alter the selection in a popup window.

Advantage of this string based multi relation is that you also have a possibility to order. id\_d, id\_e or id\_e, id\_d

Note this does not affect referential integrity. If you delete a category this will not directly affect the multicats field. It will fix the data when you edit the data.

There is also some functions that you can use alongside. And note, the widget can also be used in other places, like for an input variable in your function.



## **2 Optional**, **default** and **references**..

You can now specify a default value for all your fields, in advanced tab you can specify the default using functions. You will probably soon wonder how you ever survived without this. Breaking references is handled with referential integrity in C1.2sp1.

## 2.1 **Optional references**

Editors will be happy when you help them out with these.

Data references can now really be optional!

I'm now going for category as an optional field

| 📑 *New Datatype 🛛 💌                               |   |   |                  |
|---|---|---|------------------|
| 🔲 Save  |   |   |                  |
| Settings Fields                                   |   |   |                  |
| 🗣 Add New 🛛 💥 Delete                              | Basic Advanced  |   |                  |
| Datatype Fields     Ame     category     NewField | Field properties<br>Name<br>Label<br>Help<br>Position               | category<br>category<br>2.                    | 2<br>2<br>2<br>2 |
|   | Field type and requiren<br>Field type<br>Reference Type<br>Optional | Data reference<br>category<br>No<br>No<br>Yes | • ?              |

Figure 1 optional reference



## 2.2 Default

| Settings Fields   |   |
|---|---|
| 🔷 Add New 🛛 🔀 Delete  | Basic Advanced  |
| <ul> <li>□ Datatype Fields</li> <li>□ name</li> <li>□ category</li> <li>□ NewField</li> </ul> | Form field presentation<br>Widget type OptionalSelector ?                         |
|   | Field validation Validation rules Add validation rules ?                          |
|   | Structural presentation   |
|   | Is title field Use this as title field in lists ?<br>Field grouping No grouping ? |
|   | Field default value   |
|   | Default value GetDataReference ?  |

Figure 2 optional selector and default property set to getdatareference

| <ul> <li>Field Default Value Configuration</li> <li>Add New &amp; Delete</li> <li>category</li> <li>demo</li> <li>For GetDataReference</li> <li>Key value</li> </ul> | Key value<br>← Guid<br>The key value of the data to re<br>← Parameter value type ── | eference.                |
|--|---|--------------------------|
|  | Value type  | Specify a simple value 🗸 |
|  | Key value<br>Key value  | [gadgets ▼] ?            |
|  |   | OK                       |

Figure 3 Specifying a hard reference value here, I bet you can do better using functions

| 🚱 Demo   |           |
|----------|-----------|
| 🔄 Save   |           |
|          |           |
| name     |           |
| category | gadgets 💌 |
| NewField |           |

Figure 4 Adding a new record -> gadgets as default



| 📑 Data   | 🚱 Demo 🛛  |        |
|--|-----------|--------|
| <ul> <li>Global datatypes</li> <li>category.demo</li> <li>gadgets</li> <li>movies</li> </ul>                   | Save name |        |
| <ul> <li>□ product.demo</li> <li>□ gadgets</li> <li>□ movies</li> <li>○ Jar</li> <li>■ Page datafol</li> </ul> |           | movies |
| 📕 Page metatyj 📍   | , Refresh |        |
|  | •         |        |

Figure 5 When using grouping, you can override the default

when you look carefully you can see I did the naming of types wrong, category.demo instead of demo.category. New layout of creating types..

## 2.3 Referential integrity

Composite has referential integrity implemented in the data types. This prevents you from having inconsistent data in your repository.

Which in turn prevents you from creating "broken links" on the level of data types.

Referential integrity is very powerful, but can also be dangerous when you do not exactly know what you are doing. You must carefully think about where you grant delete rights to editors when using non optional references.

#### 2.3.1 Optional references set to null

If you make a reference optional you can delete the referred data, all references will be set to Null.

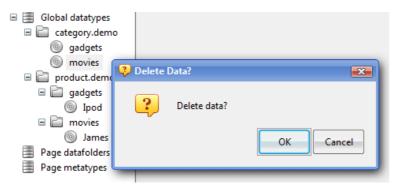


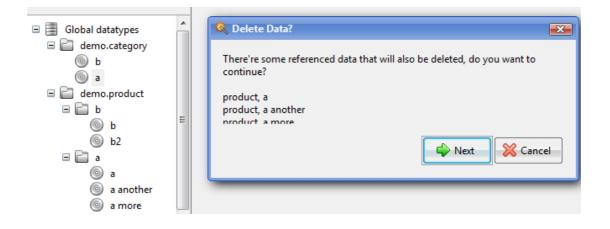
Figure 6 Delete category Movies



#### 2.3.2 Non optional references cascade delete

You can also have non optional references. These are more complicated when it comes to deleting referenced data.

As an example I now have a product type with a category field which is NOT OPTIONAL. If you then try to remove a category with data attached, it will cascade delete all products using that category. In the below screenshot I'm going to delete category A. The system warns that you will cascade delete the related products.



#### Cascade cascades, causing chain reactions!

Cascade really means cascade, it can trigger a chain reaction of deleting data. By deleting one single record, one single category you can easily delete a lot of data referencing that category.

In the previous sample I had only one type referring to the category. Now I added a new type, coolproducts, a kind of teaser type which refers to products. When I now delete category A it will cascade delete product A, but in turn product A will cascade delete coolprod A. Totally correct keeping the data totally clean, but you have to know what you are doing!

| <ul> <li>□ Isological Global datatypes</li> <li>□ Isological datatypes</li> <li>□ Isological datatypes</li> <li>□ Isological datatypes</li> <li>□ Isological datatypes</li> </ul>   | 🔍 Delete Data?   |        |
|---|--|--------|
| interest of the second | There're some referenced data that will also be deleted, do you wa continue? | int to |
| illo a<br>□ □ demo.product<br>□ □ □ a   |  | Cancel |
|   |  |        |

Figure 7 cascade delete producta and Coolprod A



Coolprod A is not directly referenced by category A, but referenced through product A. In the following sample I have two different types directly referring category

| <ul> <li>■ Global datatypes</li> <li>■ a</li> <li>■ Global datatypes</li> <li>■ demo.category</li> <li>● b</li> <li>● a</li> </ul> |   | Q Delete Data? There're some referenced data that will also be deleted, do you want | to    |
|--|---|---|-------|
| <ul> <li>demo.coolprod</li> <li>b</li> <li>a</li> <li>demo.news</li> <li>About A</li> </ul>  | Ш | continue?<br>product, a<br>news About A   | ancel |
| <ul> <li>□ demo.product</li> <li>□ a</li> <li>□ a</li> <li>□ b</li> <li>□ b</li> <li>□ b</li> </ul>                                |   |   |       |

If you don't want to cascade delete data you will have to change the categories of the products and news articles, prior to removing category A. Or you could have used optional on the reference.

| <ul> <li>i demo.news</li> <li>About A</li> <li>i demo.product</li> <li>a</li> </ul> | * III | Continue?  Reading the series of the series |
|---|-------|---|
| © a<br>⊟ È b<br>© b<br>   |       |   |

News is now referring category OPTIONAL.

| □  | name     | About A       |
|--|----------|---------------|
| <ul> <li>a demo.news</li> <li>About A</li> <li>a a demo.product</li> <li>a b</li> <li>b</li> </ul> | category | <none></none> |

Deleted the category A, product and coolprod A have been deleted (refresh the list of data). The news About A still remains and now has the optional category none



#### 2.3.3 Cascade, set security wisely

If you use non optional fields you must be careful what editors to give delete rights to certain types, like the category in the above example. Editors might not realize the chain reaction they can cause, when you have data types referring others, referring others. Simply not allowing them to delete a category will prevent them from causing harm.

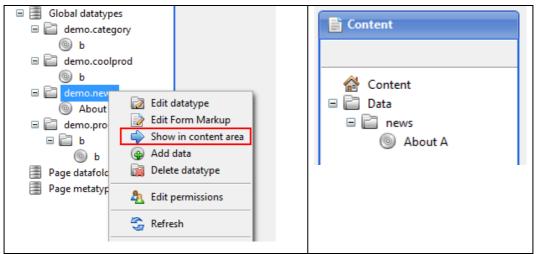
Deleting a product is still fine and having the teaser non optional referencing the product works perfectly, deleting a single product will clean all teasers from the repository.



## 3 More bits n pieces

## 3.1 Specify Data types to show in content area

Previously all datatypes were shown in the content section, unless you specified security on them. Now you specify which datatypes are shown by doing the following;



By default they are not shown, you have to do this for all the types editors want to edit from within the content section.

Note you can still use set security to specify which editors can work with which datatypes..

## **3.2** Better editor for templates, xslt, css etc

The editors are updated, they work much better now.

#### 3.2.1 Insert in templates

| 📑 Layout             | *C12sp1   |  |  |  |
|----------------------|---|--|--|--|
|                      | 🔚 Save  |  |  |  |
| 🗉 📄 Layout Templates | Template Identification Markup Code   |  |  |  |
| c12sp1               | 🖉 Plain Edit  |  |  |  |
| •                    | 🗣 Insert 📝 Format   |  |  |  |
| Content              | <pre>Page URL 0" encoding="UTF-8"?&gt;     Image URL ://www.w3.org/1999/xhtml" xmlns:f="http://www.w3.org/1999/xhtml" xmlns:f="http://www.w3.org/1990/whtml" xmln" xm</pre> |  |  |  |
| Media                | Hedia URL     Function Markup (title>   |  |  |  |
| Data                 | <pre></pre>   |  |  |  |
| Layout               | 7 <rendering:page.metatag.description></rendering:page.metatag.description><br>8  |  |  |  |
| Functions            | 9 <body> 10 <asp:form></asp:form></body>  |  |  |  |
| Lusers               | 11 <div style="float:right; width:10em">       12     <f:function <="" name="Composite.P" td=""></f:function></div>   |  |  |  |
| System               | 13  14  |  |  |  |
|                      | 15 <rendering:page.title></rendering:page.title>  |  |  |  |

#### Figure 8 Insert and format functionality in templates

## 3.3 Visual functions default template

Now create a default layout, showing all the fields and labels in a table

| 🗲 DemoRendering 🛛 💌                           |         |  |  |  |
|---|---------|--|--|--|
| 🔛 Save  |         |  |  |  |
| Visual Function Settings Visual Layout        | Preview |  |  |  |
| B I ∐ AB€ ≣ ≣ ≣ ≣ ₿                           |         |  |  |  |
| 🚠 Paragraph 🕼 (None) 🗣 Insert                 |         |  |  |  |
| name name<br>cats cats<br>multicats multicats |         |  |  |  |

And it now chooses a preview template in case you forget ©

Note the multi field is just a string, it will just show you the comma separated guids. The visual function is not aware of your specific use of this field. Use xslt functions to handle such a field properly.

## 3.4 Changing data type and App\_code folder

Changing data types and the effect on code you have in your app\_code is. This helps you prevent breaking your site when making data type changes. Not that we can catch everything but will warn for many of them.

As I mentioned before in documentation, changing names of fields, name of data types, field types etc is usually something you should avoid. Making a technical design for your data types before you start building should eliminate a lot of changes. Experimenting in a separate local composite site before doing it for real will also help.

Compiling code and placing dll is also a better practice than using the app\_code folder.

For example I have some code in my app\_code. A predicate filter for my product type. You can see the code uses the name field of my product type.



| ile View Tools Help<br>Edit File X Delete Fi  | le Tools 🗃  |
|---|---|
| 📰 System  | Test.cs   |
| <ul> <li>B and Languages</li> <li>App_Code</li> <li>App_Date</li> <li>App_Date</li> <li>Composite</li> <li>Frontend</li> <li>Frontend</li> <li>Global.saxx</li> <li>Web.config</li> </ul> | <pre>Inset Using System.Ling.Expressions; Using Composite.Data; Using demo; namespace Demo If {     public class Fi     public static pression<func<demo.product,bool>&gt; myPrc     {         f</func<demo.product,bool></pre> |
| 📄 Content   | 18 }<br>19 }<br>20 }<br>  |

If I now try to change my datatype product and do something nasty like change the name of the field "name" to "BADname" and try to save that change. Composite warns me:

| File View Tools Help   |  |   |                                 | \$    |
|--|--|---|---------------------------------|-------|
| 📝 Edit Datatype 📝 Edit   | Form Markup 🛛 🗿 Add Data 🛛   | 📓 Delete Datatype   |                                 | Tools |
| Global datatypes     demo.category     demo.category     demo.coolprod     demo.news     demo.news     demo.news     demo.product     b     b     Pa     construct     construct | Settings Fields<br>Save<br>Settings Fields<br>Add New<br>Delete<br>BADname<br>Category | sic Advanced<br>Field properties<br>Name<br>Label<br>e Help<br>Position | BADname<br>name<br>1.<br>String |       |
| 1 *** STR  | ОК   | ]   |                                 |       |

## 3.5 Restart server

You can now restart the IIS web server from within composite.

| File View | Tools             | Help              |  |
|-----------|-------------------|-------------------|--|
|           | Change Password   |                   |  |
|           | Regional Settings |                   |  |
| Conter    |                   | lobal Permissions |  |
|           | 🔍 Se              | erver Log         |  |
|           | 🗐 R               | estart Server     |  |



## 3.6 Server Log

And the server log is now paged and you can delete older entries

Did you know you can keep shift pressed before logging in, the red button will turns green and you can enter devmode. Some developers found the logging there very useful.

## 3.7 Edit XSLT external refreshes functions

The xslt functions store the xslt on the file level, useful to edit them with other tools and version them with code versioning tools.

Previously when you changed the xslt it did not affect the function until you accessed the function in Composite. The xslt was cached.

Now changing the XSLT on the file level will update your function directly!

This also makes deployment of updating functions easier. If you change the xslt of several functions you can just deploy the xslt files directly to the webserver.

As for deployment, the new package creator tool is on it's way but in the first version it supports creating new, datatypes, functions, content templates etc no updating yet.

XSLT's can be found in "App\_Data\Xslt", for example the news functions in my site:

C:\inetpub\c12\App\_Data\Xslt\Composite\News

## 3.8 More!

More? Yes there is more. On the more technical level like more options to hook and plug into the system and improved ajax support

http://docs.composite.net/C1/VersionInfo/Articles/new-in-1-2-sp1.aspx

## 3.9 C1 on Linkedin.com and Twitter.com

Did you already join the linkedin group for Composite?

http://www.linkedin.com/groups?gid=104931

And if you're a bit technical you might be interested in following me on Twitter

http://twitter.com/compositec1

Join us in getting the online community going. Tweet me or post some in the group to let us and others know what you are doing!

