



Use of Global Data

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1 Introduction

Although C1 CMS is on the surface a page-oriented web CMS, it fully utilizes the work with true data structures. Reusing content across a single site or multiple sites is a straightforward task.

1.1 Data types

Working with structured and reusable data in C1 CMS is handled through data types. There are three different kinds of data types:

- **Global data** – data reusable across all pages on all sites connected in the site structure
- **Page data** – “local” data associated with one specific page. It will result in a data folder on the page, in which the editor can store page-specific data
- **Metadata** – a flexible metadata structure that will be assigned to a page or a section of the website

In this instance, the news items will be created as a Global data type. This is done in the Data perspective of C1 CMS.

1.1.1 Data Perspective

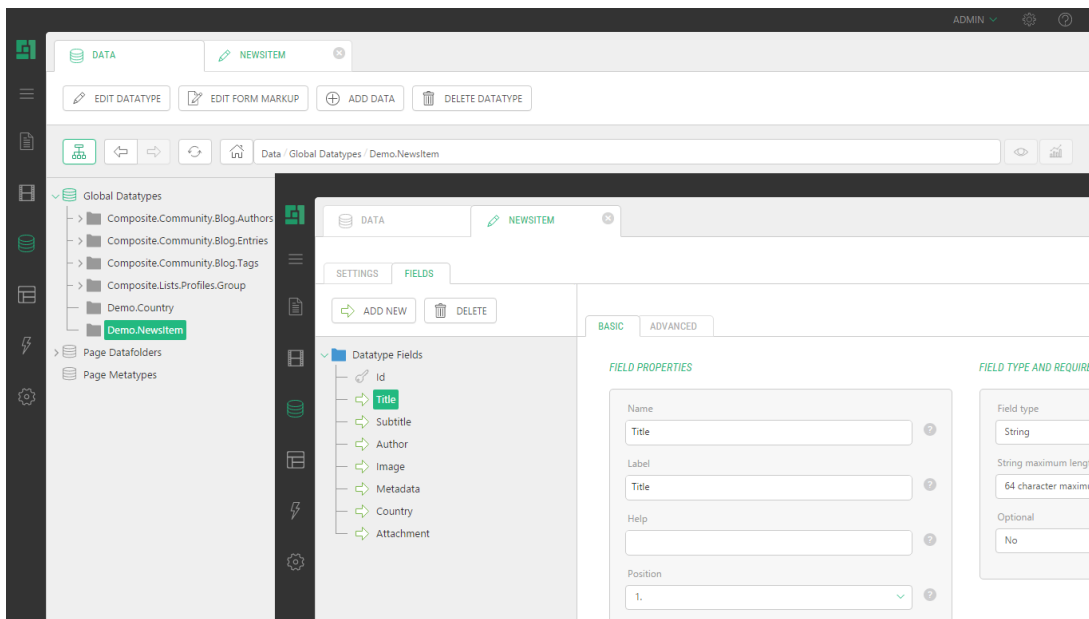


Figure 1: Global data type in the Data perspective

Working with data types is as flexible as working with tables in a SQL-based database. Defining fields in a data type is done using the UI in C1 CMS. In this example, the following fields have been created:

Field Name	Filed Type	Widget
Title	String, 64 characters	Text box
Subtitle	String, 64 characters	Text box
Author	String, 64 characters(might also have been a look-up in the user-hierarchy)	Text box

Image	Data Reference, C1 Image	Image Selector
Metadata	String, Unlimited	Text Area
Country	Data Reference, linked to Demo.Country	Selector
Attachment	Data Reference, C1 Media File	Media File Selector

1.1.2 Creating a data type

Creating the data type looks like this:

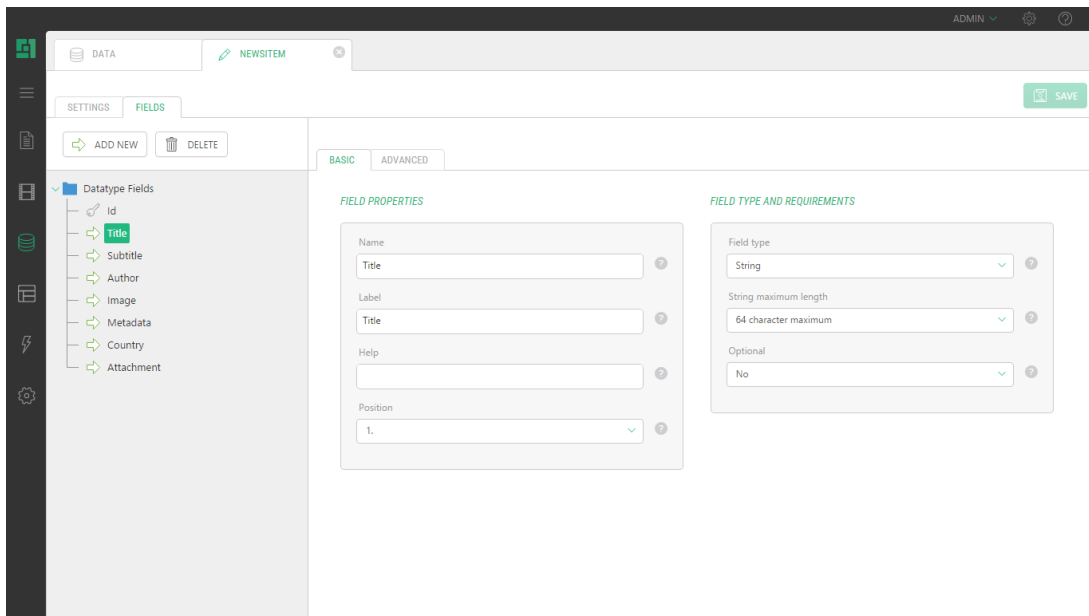


Figure 2: A data type being created

Once the data type has been created, editors can easily fill in content. This can be done from the Data perspective or from the Content perspective directly, as all data are editable from that perspective as well.

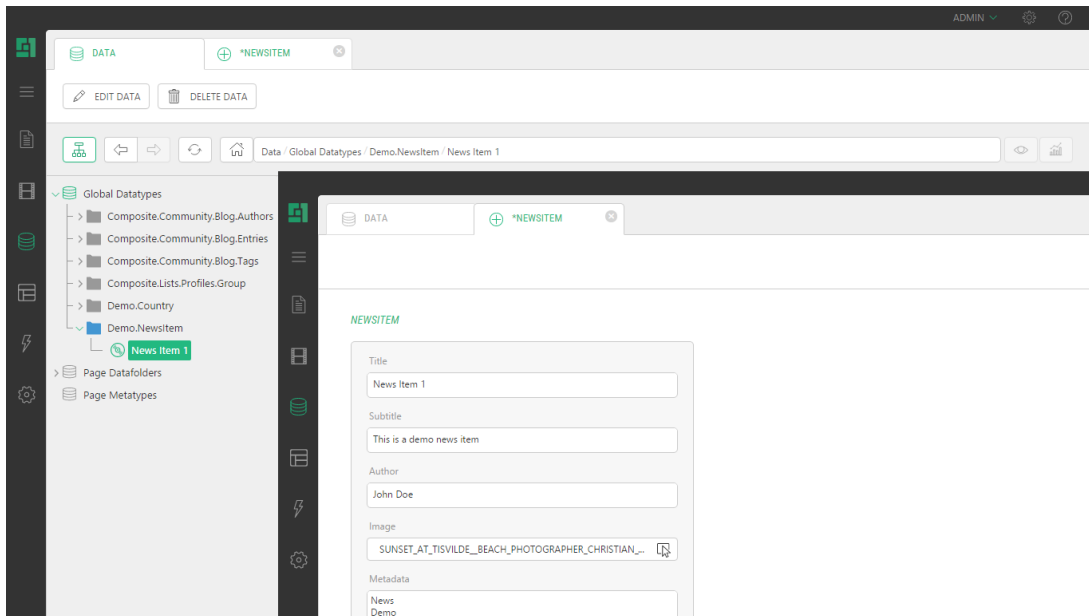


Figure 3: From the Data perspective

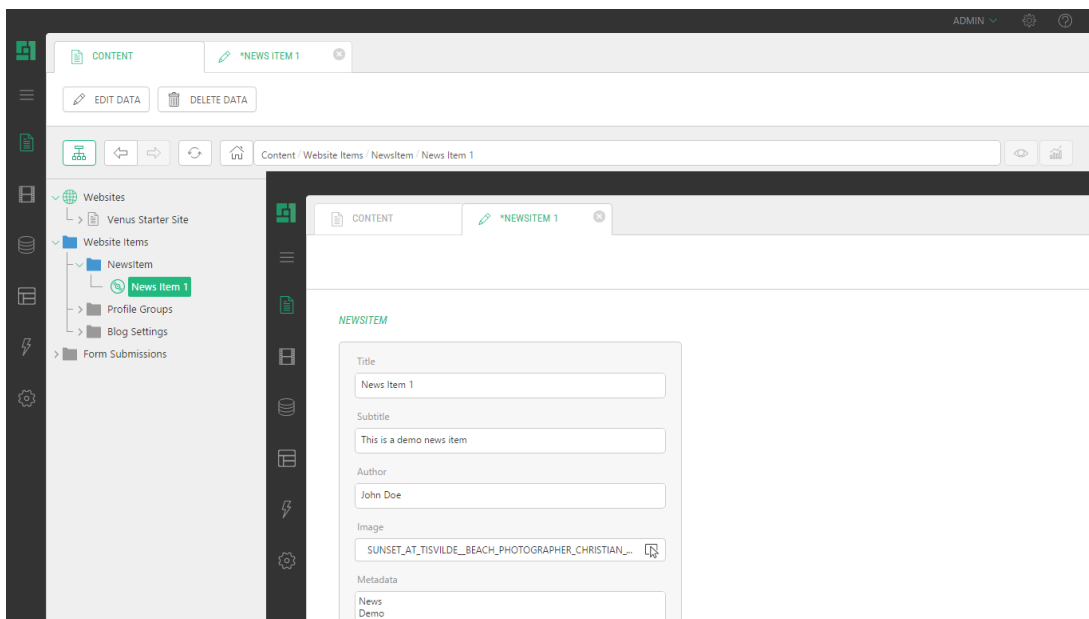


Figure 4: From the Content perspective

2 Renderings and Visual Functions

All content stored as data is regarded as dynamic data and thus reusable in any location on the site. Defining where the content should be rendered is typically done within the page layout template. However, C1 CMS offers a recursive page rendering engine, allowing editors to insert renderings in the Content sections on a page as well. If no rendering is available, the editors can create their own rendering by creating a visual function in C1 CMS. A Visual Function will result in a precompiled rendering that will be available not only to the isolated editor, but also to all editors and all developers entering the solution afterwards (regardless, whether these developers are using C1 CMS development tools, Microsoft Visual Studio or any other application).

Inserting a visual function or any other rendering is as easy as inserting an image.

When editing a page, simply right-click within the Content area of the page and select "Insert" / "Function":

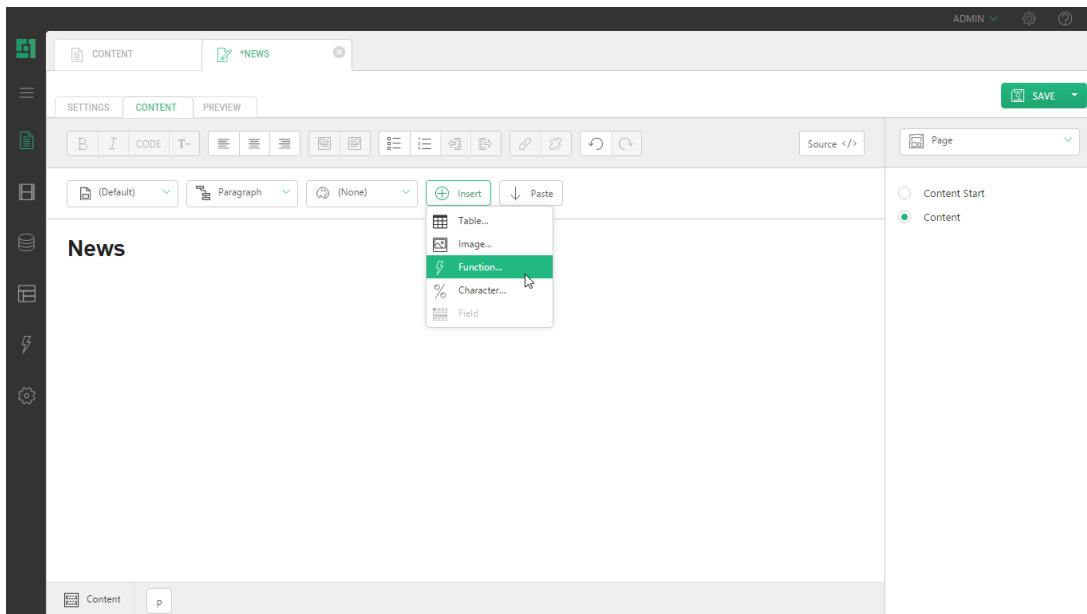


Figure 5: Inserting a function

Then select what rendering function you wish to insert.

In this example, we decide to insert the "NewsItem" rendering function. This will extract news items from the data type called "NewsItem" and render them visually:

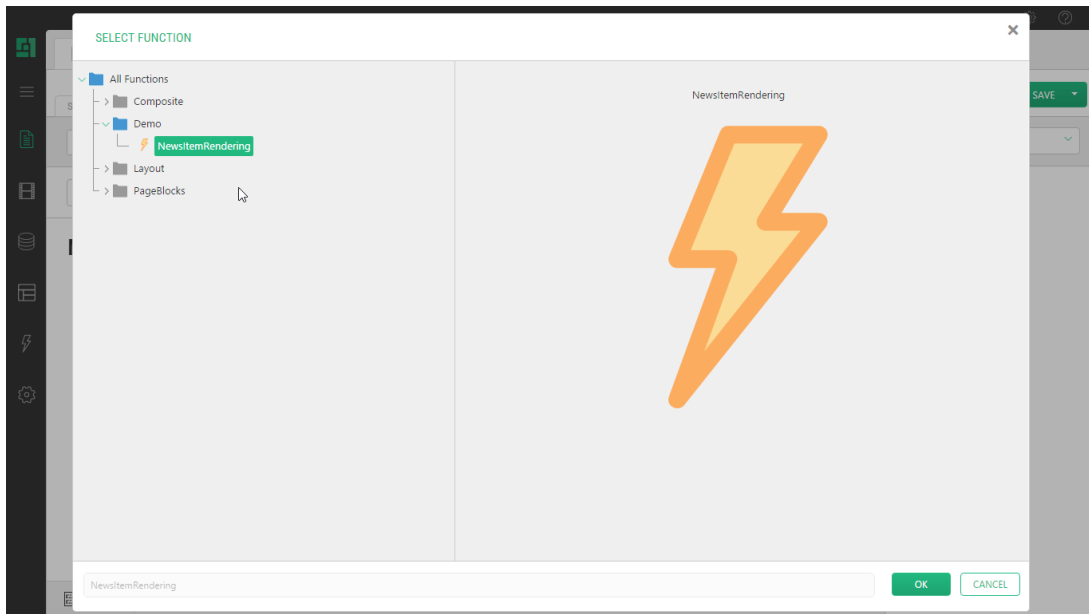


Figure 6: Selecting the NewsItemRendering visual function

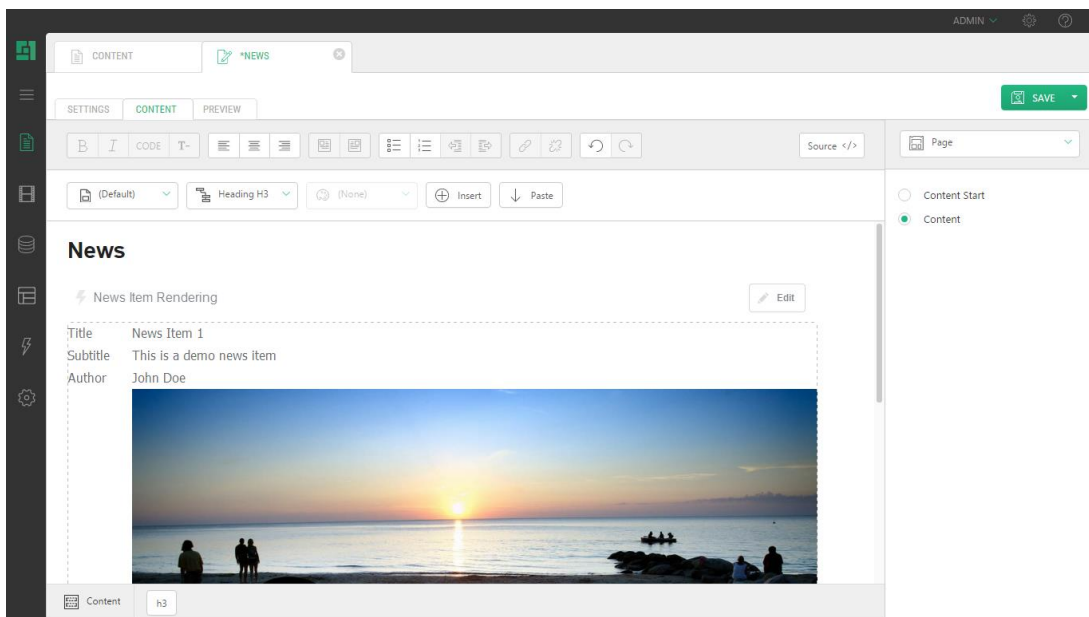


Figure 7: The function has been inserted on the page

If desired, parameters within the visual function can be modified, for instance, changing the sort order or limiting the number of items to include. (For example: A rendering function for the news item data type will render all news items, but in this instance, we only want to include the latest three. We change the sort order to descending on the date and limit the length of the list to three items).

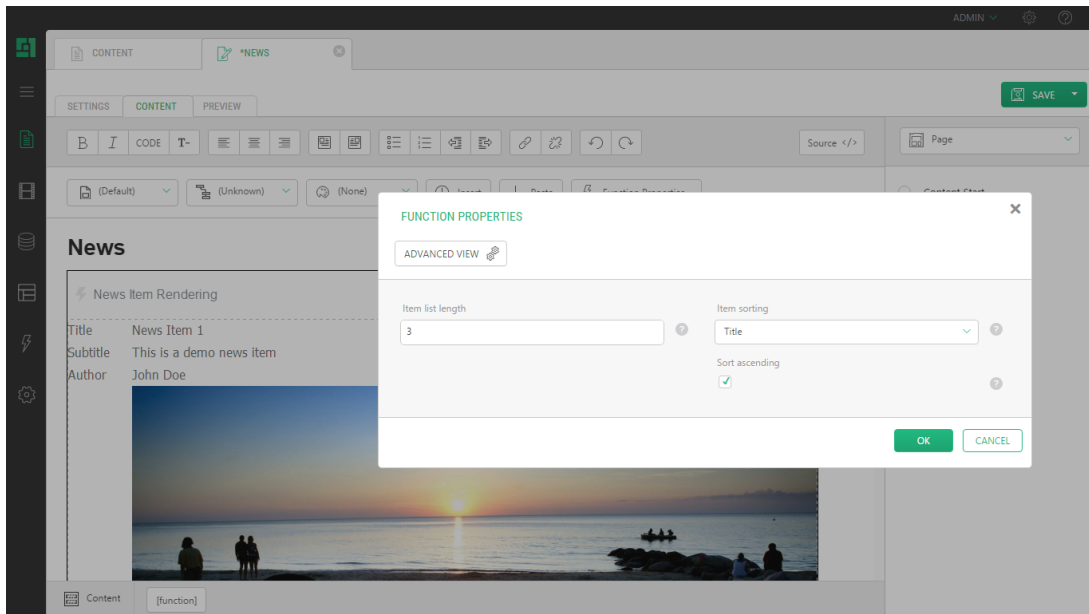


Figure 8: Limiting the number of items to include

Whenever a new item in the data type is added, the page is automatically updated. This is done in all locations where this function is inserted – it being as above by the editor or in the page layout template directly.

3 Security

Working with dynamic data offers the same high level of security as the rest of the C1 CMS application. Assigning who should be able to do what with a data type is identical to assigning security on a simple page.

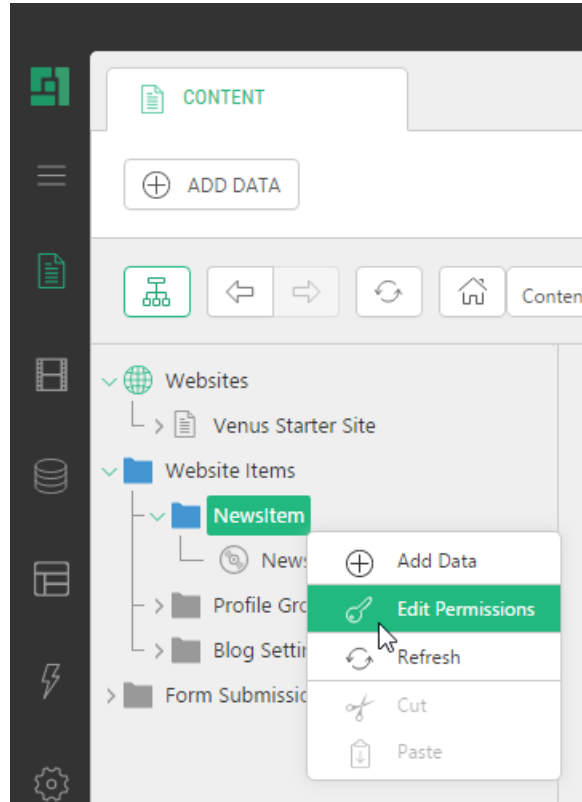


Figure 9: Selecting a data type to edit its permissions

Simply right-click the data type and edit permissions. (Naturally, this requires you to be the administrator of that section of the website.)

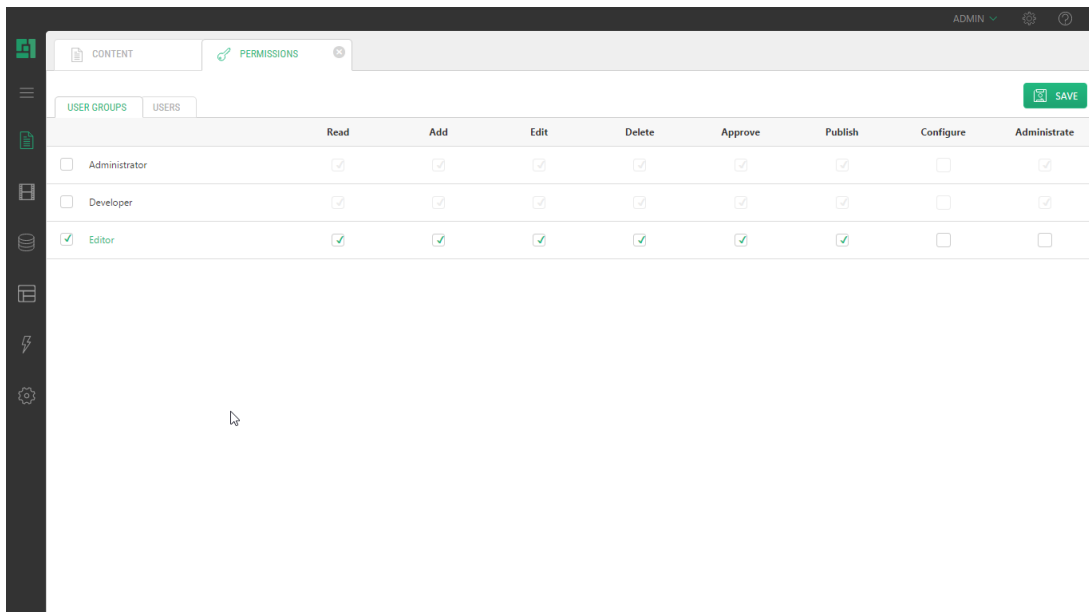


Figure 10: Editing permissions of the data type