

Special data types

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📖 Special data types

Encrypted text, document attachment, image and auto number – the special Nuclos data types and how to configure them.

REFERENZ

APPLICATION DEVELOPER

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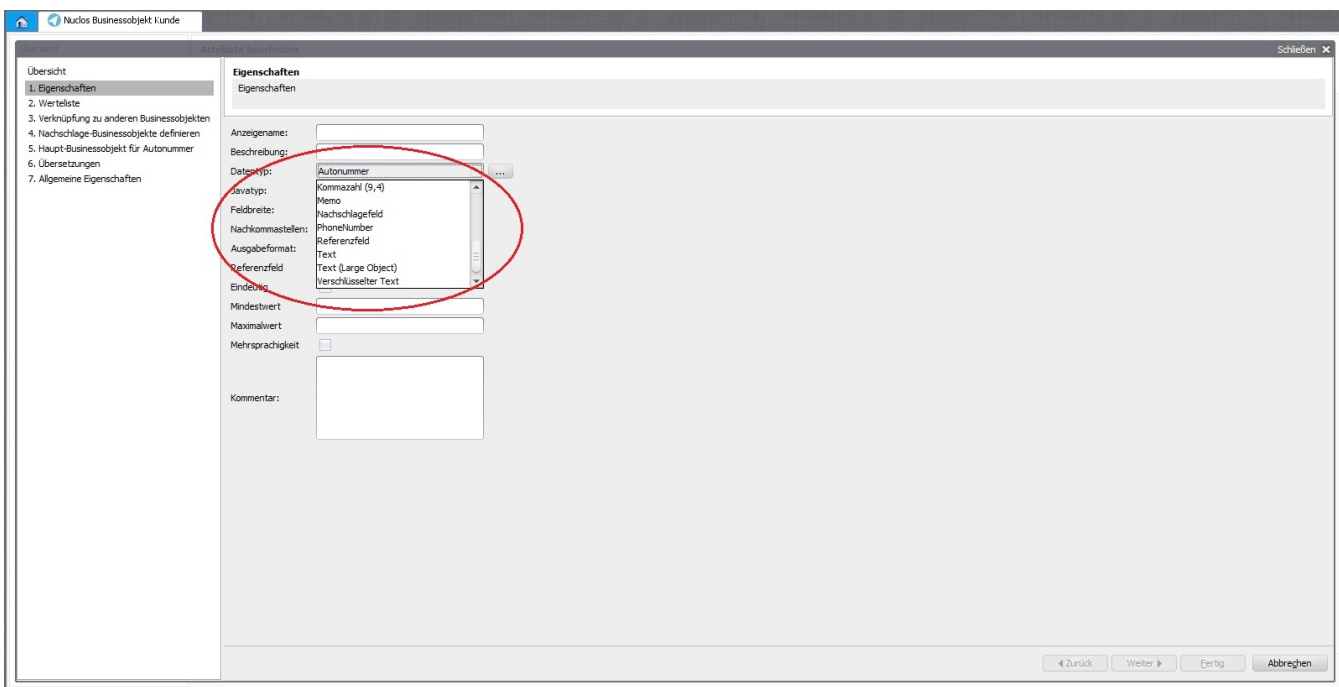
APPLIES TO NUCLOS 4.2026.X

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What are special data types?

Besides the standard data types (text, number, date ...), Nuclos offers **special, pre-configured data types** that cover common requirements without extra configuration. You select them when creating an attribute in the [BO wizard](#).



Overview of the special data types in the BO wizard.

Encrypted text

Stores field content **encrypted** in the database. Encryption is controlled by the server parameter `server.cryptfield.cipher` (32-character hex value = 16 bytes). If the parameter is not set, no encryption takes place.

In the layout the component type determines the display:

- **Password field** value masked (***)

- **Text field** value as plain text



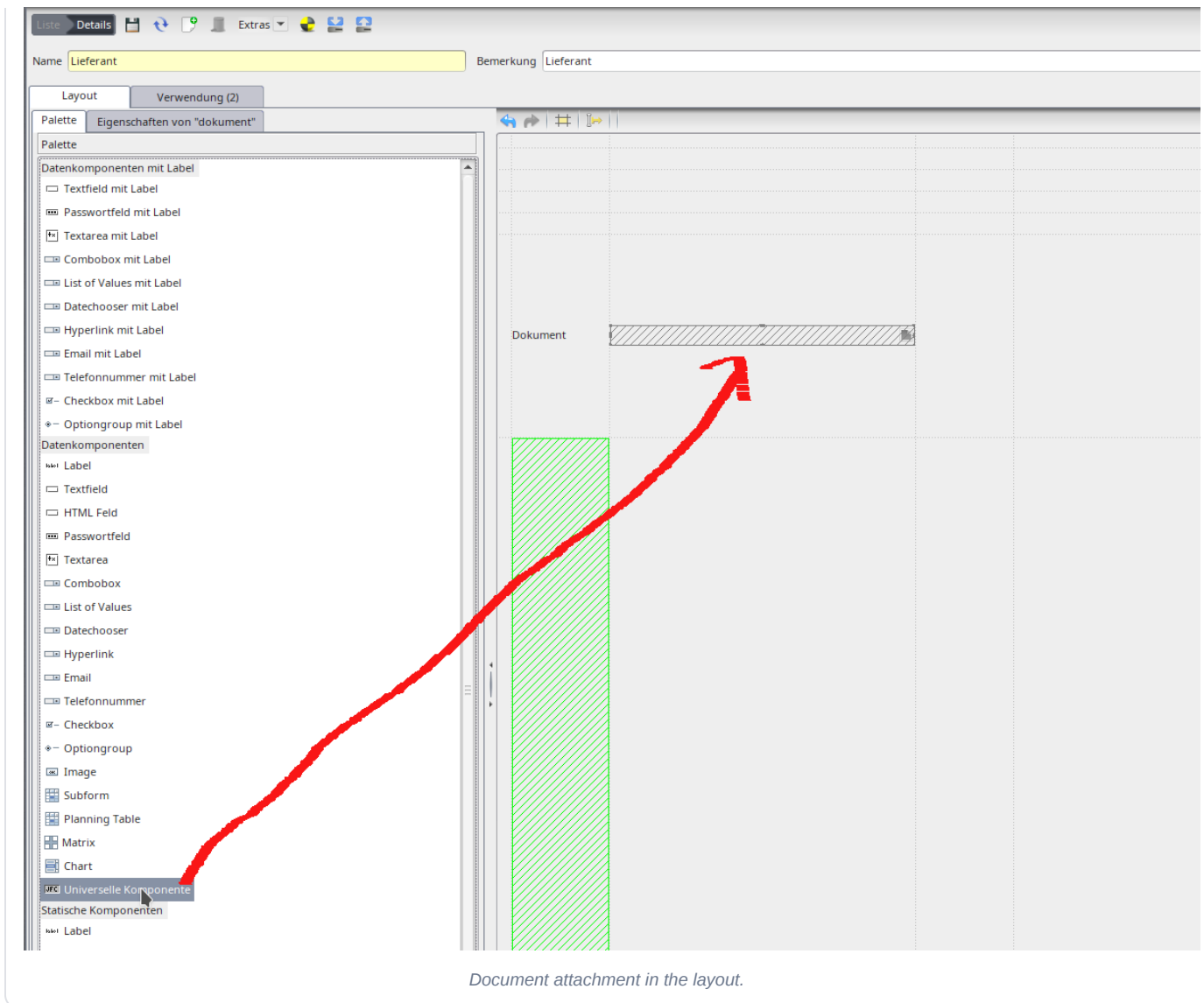
Caution

If the key is changed later, existing data becomes **unreadable**. If the key is lost, the data is **unrecoverable**.

The screenshot shows a web interface titled "Parameter quick find". On the left, there is a sidebar with a "Description" section containing the text "32 Zeichen langer Hex-Werte für ..". The main area displays a configuration form for a parameter named "server.cryptfield.cipher". The form includes a "Name" field with a dropdown menu, a "Description" field with the text "32 Zeichen langer Hex-Werte für verschlüsselung", and a "Value" field containing the hex string "6162636465666768696a6b6c6d6e6f70". Above the form are several icons: a plus sign, a copy icon, a refresh icon, a delete icon, and a loading spinner. At the bottom right of the form area, there is a note: "Server parameter for encryption."

Document attachment

Provides a file picker to upload documents to the server. Create a field of type **document attachment** and add a **universal component** in the layout – also possible in sub-forms. The storage location is controlled via `nuclos.data.documents.path` in `nuclos-server.properties` (restart required).



Image

Displays images in the form (e.g. a photo). Create an attribute of type **image** and use the **Image** data component in the layout. The **scalable** flag controls whether the image is fit to the field size (yes) or shown at original size (no). Images are stored as binary data; in the result list they appear as thumbnails (default 20×20px, adjustable via THUMBNAİL_SIZE).

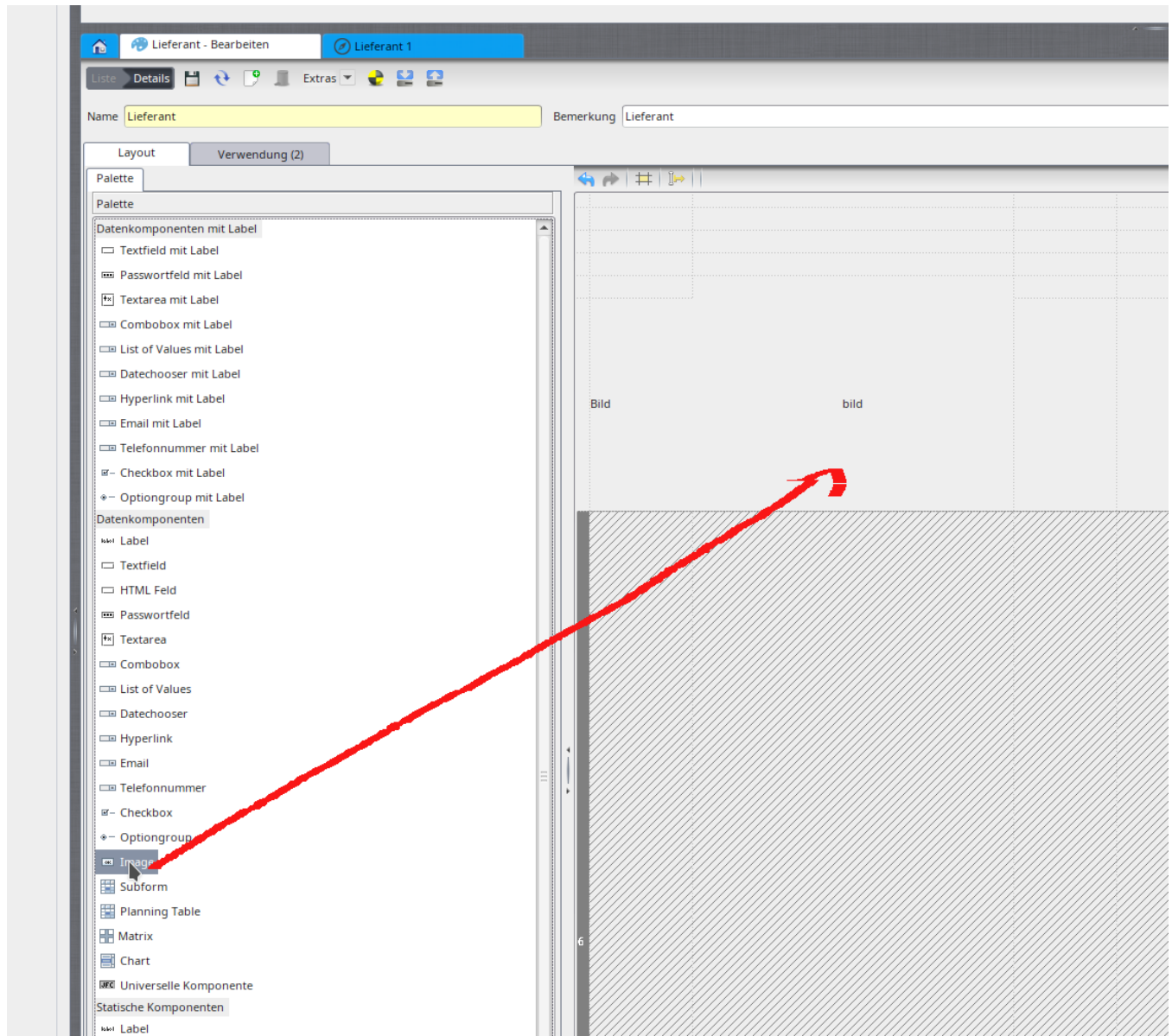
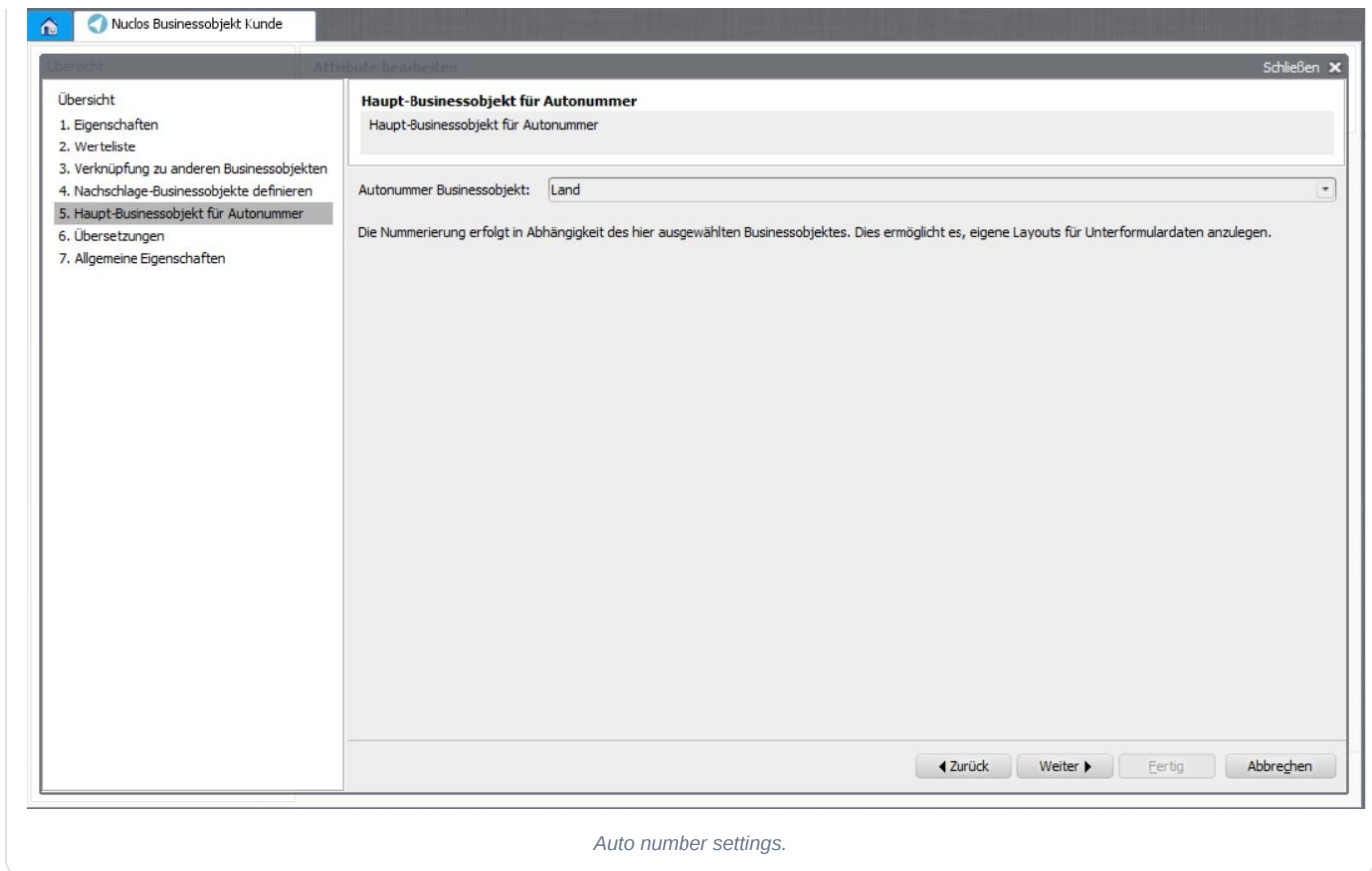


Image component in the layout.

Auto number

Automatically assigns consecutive numbers on creation – e.g. for the positions of an invoice. The **auto-number business object** defines the counter context: if a BO is selected, the number counts per BO (no uniqueness violations); if left empty, the number is assigned per sub-form relative to the main record.



Defining custom data types

Under *Configuration Other Data type* you can additionally define **custom data types** and then use them in the business object.

Related pages

Business object

Create attributes.

[Open](#)

Layout

Place components.

[Open](#)

Calculated attributes

Calculated values.

[Open](#)