Classes, attributes and objects

How a content class defines a kind of content through its attributes, how objects are created from it, and how versions, translations and the version limit work.

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Class, attribute, object

- A **content class** says how one kind of content is structured: an article, a folder, a person.
- A **class attribute** is one field of the class, of a given **datatype** (a short text, rich text, a date, an image). A datatype is the lowest level of typing, though several are powerful compound types (the datatypes tour).
- A **content object** is an instance of a class. Its content elements are the attributes the class names. Besides those it has generic properties: object ID, name, creation date, owner and more. The name is built from one or more attributes by the class's **object name pattern**.

Exponential ships a large set of datatypes, and extensions add more (tags, a map location, star ratings).

Versions

An object is always under **version control**. Editing makes a draft; publishing makes it the current version and the previous one an archived version. The history is kept within a limit, and can be changed in `content.ini`:

INI

```ini
[VersionManagement]
DefaultVersionHistoryLimit=45
VersionHistoryClass[1]=75
```

`DefaultVersionHistoryLimit` is the number of versions to keep for every class; `VersionHistoryClass[<class id>]` sets it for one class (here, class 1 keeps 75). Two things from the book still hold:

- A limit below **2** is not honored: editing needs a draft beside the published version, so the kernel keeps at least 2.
- Older versions are not edited; to go back, copy the older version to a new draft and publish it. For a site with quality rules for documents, this is the document history.

Leftover drafts (an editor who left a window) are cleaned up by settings in the same section (`DraftsDuration` and related) and by a cronjob; see Drafts and pending items. The book noted that comparing versions needed a diff tool. Today the version view shows the versions side by side (Content history).

Version management applies to **every** attribute, binary files included.

Translations

An object can be translated into other languages. An attribute that should not be translated (a photograph, say) can be marked so at the class level. See Content languages and Translating content.

Where to go on

Content model and editing is the reference for this in the administration. Next: content and presentation.

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Adapted from chapter 2, "Content Management with eZ publish", of *Learning eZ publish: Building Content Management Solutions* by Paul Borgermans, Tony Wood, Paul Forsyth, Martin Bauer, Björn Dieding and Ben Pirt (additional material by Bruce Morrison), second edition, 2024, Book-Learning-eZPublish. Copyright (c) 2004-2024 7x and Graham Brookins. Licensed under the GNU Free Documentation License, version 1.3 or any later version, with no Invariant Sections, no Front-Cover Texts and no Back-Cover Texts (the license). Changes: rearranged and shortened; settings, labels, datatypes, tags and URLs checked against Exponential 6 and corrected; links to the current guides added.

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