

# Backend architecture

 This page is still incomplete. Please help us to write a comprehensive CONTENIDO documentation.

## Overview

This page describes the CONTENIDO backend architecture. You will learn what [areas](#), [actions](#) and [frames](#) are, how the [main- and subnavigation](#) work and how this can be extended by a [plugin](#).

- **Action** — An action is a name for a certain task that should be performed when requesting a page in the CONTENIDO backend.
- **Area** — An area is a name for a set of scripts that should be executed when a certain subnavigation item is clicked.
- **Frame** — The CONTENIDO backend is divided into several frames.
- **Navigation** — The navigation consists of the main- and subnavigation.

## Backend URLs

Each page in the CONTENIDO backend corresponds to a PHP script in `ROOT/contenido/includes`. Instead of calling these scripts directly by URL, links in the backend have this form:

```
main.php?contenido=hash&frame=int&area=foo
```

For certain links an additional parameter `action` is appended resulting in an URL like:

```
main.php?contenido=hash&frame=int&area=foo&action=bar
```

This imposes some questions: what are [frames](#), [areas](#) and [actions](#)? And why is that so complicated, wouldn't it be easier to call the scripts directly?

- ✔ To create a backend URL in your plugin you could use the session object. It has a method `url()` which allows to extend a given URL by the current backend session ID, a hash value which is transferred as parameter `contenido`.

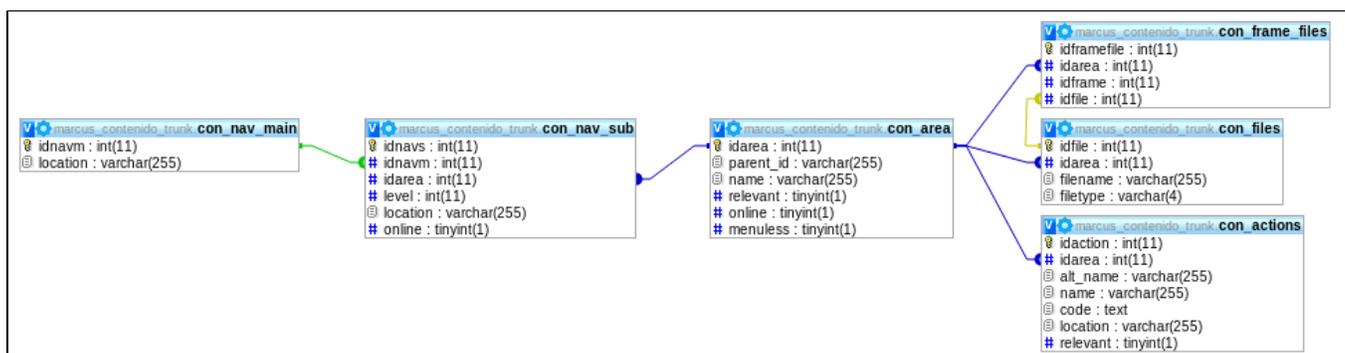
```
$url = cRegistry::getSession()->url('main.php?frame=int&area=foo');
```

## main.php

The script `main.php` is responsible to map the given [frame](#) and [area](#) to the corresponding PHP script. This mapping is stored in the database.

- ✔ This allows us to modify or extend the CONTENIDO backend easily by adding further backend pages. This can be achieved by developing a [plugin](#).

Let's have a look at the tables which are related to [frames](#), [areas](#), [actions](#) and also the [main- and subnavigation](#) which will be described later.



In order for a PHP file to be callable via `main.php` it has to have a record in the [files table](#). This requires a relation to an area in the [area table](#). An [area](#) can best be described as a set of backend scripts that serve a common purpose and belong to a [subnavigation](#) item. It's not much more than a name having some properties which will be described in the [area page](#) in detail. As you might have seen the CONTENIDO backend still uses [frames](#). In order to let CONTENIDO know in which [frame](#) a script will be displayed in, the record in the [files table](#) has to be mapped to its [frame](#) which is achieved by another record in [frame\\_files table](#). With all these records CONTENIDO is able to call a script, but still a link, i.e. a [navigation](#) item, to call it is missing. That's what the [main- and subnavigation](#) is needed for.