

# CMS Certified Integrator 12 LTS

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## About TYPO3

TYPO3 is an open-source enterprise content management system (CMS). The system offers a wide range of functions out of the box and can be extended by extensions. The software license (GPL) lets everyone to access, read, copy, distribute, and modify the source code which is freely available. TYPO3 is well documented at <https://docs.typo3.org>

### Goals:

- I know what TYPO3 is and where I can get further information.
- I know broadly the TYPO3 system requirements.
- I know the TYPO3 vocabulary and can name the essential components.

### Links:

- TYPO3 Getting Started Tutorial: System Requirements: <https://docs.typo3.org/m/typo3/tutorial-getting-started/12.4/en-us/SystemRequirements/Index.html>
- About TYPO3: <https://typo3.org/cms>
- get.typo3.org: System Requirements: <https://get.typo3.org/version/12#system-requirements>
- TYPO3 Getting Started Tutorial: Concepts: <https://docs.typo3.org/m/typo3/tutorial-getting-started/12.4/en-us/Concepts/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TYPO3 Basics

### Tags:

- TYPO3
- Introduction

## About the TYPO3 Security Team

How to deal with security issues, both found and reported.

### Goals:

- I know how to report found issues with TYPO3.
- I know how to deal with disclosures in TYPO3.
- I know how I can help making TYPO3 more secure.

### Links:

- The TYPO3 Security Team: <https://typo3.org/community/teams/security/>
- TYPO3 Explained: The TYPO3 Security Team: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/Security/SecurityTeam/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Security

### Tags:

- TYPO3
- Documentation
- Security

## Accessing Data Sources

Using available data sources in TypoScript.

### Goals:

- I know how to retrieve values from the available data sources, e.g. the current page-id
- I know the currently logged in FE user.
- I know a field value from a data record.
- I know the properties of "data/getText"

### Links:

- TypoScript Reference: Data / getText: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/Functions/Data.html>
- TypoScript Reference: Getting data with stdWrap properties: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/Functions/Stdwrap.html#properties-for-getting-data>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TypoScript

### Tags:

- TYPO3
- Data Records
- TypoScript and Rendering

## Accessing the Install Tool/Maintenance Modules

Knowledge about security measures taken to protect the Admin Tools (Standalone: Install Tool) / maintenance modules.

### Goals:

- I know multiple ways of accessing the install tool and its modules
- I know how the Admin Tools/Install Tool is protected.
- I know how to set the password.
- I know how to access the install tool if I don't know the Install Tool password.
- I know how a backend user as system maintainer can get access to the install tool.
- I know which folders are used to activate the admin tools with the ENABLE\_INSTALL\_TOOL file (composer/non-composer).

### Links:

- TYPO3 System Management: <https://docs.typo3.org/m/typo3/guide-installation/10.4/en-us/In-depth/TheInstallTool/Index.html>
- Installation Guide: The Install Tool: <https://docs.typo3.org/m/typo3/guide-installation/10.4/en-us/QuickInstall/TheInstallTool/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- Security
- Access
- TYPO3
- Install Tool and Site-wide Configuration
- Install Tool

## Active TypoScript / Included TypoScript

About the Active TypoScript and the Included TypoScript.

### Goals:

- I know what the "Active TypoScript" view is and which purpose it serves.
- I know what the "Included TypoScript" view is for.
- I can alter the value of TypoScript objects with the help of the Active TypoScript view.
- I can use the "Included TypoScript View" to analyse existing TypoScript code and identify inheritance in templates.

### Links:

- Debugging / analyzing TypoScript: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/UsingSetting/Debugging.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TypoScript

### Tags:

- TYPO3
- TypoScript

## Admin Panel

The “TYPO3 Admin Panel” provides a deeper insight into the internal processes of TYPO3 at run-time. Once it has been activated, backend users can access performance and cache statistics, settings of a specific page, etc. while accessing the frontend of the website.

### Goals:

- I know which debug information the admin panel provides.
- I know how to activate the admin panel for users or user groups.
- I know that I can enable/disable the various parts of the panel for backend users.
- I know how to use the admin panel to analyse performance problems.

### Links:

- YouTube: TYPO3 Admin Panel: <https://www.youtube.com/watch?v=8l7hRZ4VyAE>
- TSconfig Reference: Admin panel configuration: <https://docs.typo3.org/c/typo3/cms-adminpanel/12.4/en-us/Configuration/Index.html#user-tsconfig-settings>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TYPO3 Handling

### Tags:

- TypoScript
- Frontend
- TypoScript and Rendering
- Caching
- Debugging
- Database Handling
- Performance

## Admin Panel Basics

Once enabled, the admin panel can be accessed by a click of a button in the frontend. This opens a bar at the bottom the screen that shows a summary of information about the currently accessed page, including several TypoScript messages, page load time, and possibly errors and warnings. The main purpose of the admin panel is general system debugging but it contains toggles and switches to control the frontend output as well.

### Goals:

- I know that the admin panel exists and that it can be dis/enabled by an administrator.
- I know how to find information like the current page ID, etc.
- I know that I can use the admin panel in the frontend to find/open a page in the backend.
- I know how I can simulate a specific date or frontend user group.
- I know how to clear or deactivate the page cache through the admin panel.

### Links:

- Admin Panel: <https://docs.typo3.org/c/typo3/cms-adminpanel/12.4/en-us/Introduction/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TYPO3 Handling

### Tags:

- TYPO3
- Cache
- Frontend

## Advanced Site Configuration

Setting up advanced domain and language options for multiple websites on a single installation.

### Goals:

- I know how to set up multiple domains and related entry points.
- I know how to assign languages to domains.
- I know how to implement domain-based error handling by using the site configuration.
- I know how to create domain-based static routes (e.g. for a robots.txt).
- I know how to apply variants based on the application context.
- I know how to use the settings from the site configuration (e.g. with TypoScript, Conditions, PHP).

### Links:

- docs.typo3.org: Site Handling: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/SiteHandling/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- Site Management and URL Routing



## Application Context

The application context can be used to automatically switch configurations for different environments (e.g. development, staging and live system).

### Goals:

- I know that the application context can be changed in the web server configuration depending on the domain.
- I know that I have to explicitly set the application context when I manage TYPO3 through the command line.
- I know how to evaluate the application context in a TypoScript condition.
- I know that the Application Information module in the topbar shows the currently configured application context.
- I can configure system characteristics in the additional.php file based on the application context.
- I can configure different URLs in the site configuration based on the application context by using "variants".

### Links:

- TypoScript Condition: <https://docs.typo3.org/m/typo3/reference-typo3script/12.4/en-us/Conditions/Index.html#applicationcontext>
- Set context depending on current host header: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/RequestLifeCycle/Bootstrapping.html#application-context>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- TypoScript
- Site Management and URL Routing
- CI/CD

## Basic Site Configuration

Setting up the basic domain and request related configuration for a website.

### Goals:

I can perform the following tasks, for a website featuring a single language:

- setting a domain
- configuring the error handling

### Links:

- docs.typo3.org: Site Handling Basics: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/SiteHandling/Basics.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- Site Management and URL Routing

## CSS Basics

Understanding CSS.

### Goals:

- I know how to address HTML tags with CSS.
- I am able to build stylesheets to style a given HTML document according my needs.

### Links:

- wikipedia.org: Cascading Style Sheets: [https://en.wikipedia.org/wiki/Cascading\\_Style\\_Sheets](https://en.wikipedia.org/wiki/Cascading_Style_Sheets)

### Maintainer:

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### Domain Tag:

- Templating and Other Outputs

### Tags:

- TYPO3
- Forms
- CSS

## CSV - Character Separated Values

CSV files are used to exchange data between different computer systems. The editor must know how these files are structured so that they can be exported and additionally how they can be processed by TYPO3 without errors.

### Goals:

- I know what a CSV file is.
- I know how to open and edit a CSV file (with text editors or a table calculation program).
- I know the different common delimiters, enclosure and escape characters.
- I know the different file encodings (latin1 / utf-8).

### Links:

- wikipedia.org: Comma-separated values: [https://en.wikipedia.org/wiki/Comma-separated\\_values](https://en.wikipedia.org/wiki/Comma-separated_values)

### Maintainer:

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### Domain Tag:

- Media Management

### Tags:

- TYPO3
- Basics
- Files

## Caching Basics

Caching overview and purpose.

### Goals:

- I know what caching is, how it is done and why web projects use it.

### Links:

- Wikipedia: Caching: [https://en.wikipedia.org/wiki/Cache\\_\(computing\)](https://en.wikipedia.org/wiki/Cache_(computing))

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Performance

### Tags:

- TYPO3
- Caching

## Charsets

Definition of charsets, common usage, differences (advantages/disadvantages) of specific charsets.

### Goals:

- I know what a charset is.
- I know how charsets can differ.
- I know which charsets are widely common/used and why.
- I can analyse and compare two charsets and their properties for a specific task and choose the most fitting one for my use case.

### Links:

- wikipedia.org: Character encoding: [https://en.wikipedia.org/wiki/Character\\_encoding](https://en.wikipedia.org/wiki/Character_encoding)

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Media Management

### Tags:

- TYPO3
- Internals

## Command Line Basics

Performing elementary tasks on the command line.

### Goals:

I can

- invoke the command line
- list all files in a directory
- change to a specific directory
- create files and directories
- remove files and directories (including recursively)
- copy files and directories (including recursively)
- display the help for specific commands

### Links:

- ubuntu.com: The Linux command line for beginners: <https://ubuntu.com/tutorials/command-line-for-beginners>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Server Management

### Tags:

- Internals

## Composer

Composer basics and its usage for PHP projects.

### Goals:

I know

- what Composer is
- the purpose and the structure of file composer.json
- what composer.lock is and which purpose it serves
- the difference between the install and the update command

I can

- create a new Composer project
- specify requirements for my project
- install packages using Composer
- update packages
- remove packages

### Links:

- Composer Website: <https://getcomposer.org/>

### Maintainer:

HTL Rennweg (Ferdinand Kasper)

### Domain Tag:

- Package management

### Tags:

- PHP



## Composer for TYPO3 Extensions

This skill introduces usage of Composer for extensions and their integration into TYPO3 projects.

### Goals:

- I know which fields to use in the composer.json of my extension, what they mean and how they work, so that I can create working, readable and helpful composer.json files.
- I can use 3rd-party extensions and my own extensions in my site project via Composer.
- I also know the benefits and drawbacks of using Composer and can advise my coworkers and clients when to use which approach.
- In addition, I can build composer.json and ext\_emconf.php files in such a way that their data is synchronized correctly.
- I know how to provide and access public assets in a composer installation.
- Also, I know how to update the autoloader data for non-Composer installations.

### Links:

- Composer Documentation: The composer.json Schema:: <https://getcomposer.org/doc/04-schema.md>
- TYPO3 Explained: composer.json:: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ExtensionArchitecture/FileStructure/ComposerJson.html>
- TYPO3 Explained: ext\_emconf.php: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ExtensionArchitecture/FileStructure/ExtEmconf.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- General Extension Architecture

### Tags:

- TYPO3
- Extensions

## Configure Installation-wide Options in the Admin Tools / Install Tool

Important settings in the Admin Tools / Install Tool.

### Goals:

- I can activate and deactivate the Install Tool.
- I can prevent unauthorized access to the Install Tool.
- I can create new backend administrators with the Install Tool.
- I can restrict backend login access to administrators during maintenance.
- I can perform updates and migrations with the help of the update wizard.
- I know where I can configure installation-wide options.
- I can restrict cookies which are used to a specific domain.
- I can configure the email setup.
- I can configure the connection encryption.
- I can configure session handling.
- I can configure image processing.
- I know how to configure CSP (Content Security Policy) settings.

### Links:

- Resetting Passwords: <https://docs.typo3.org/m/typo3/tutorial-getting-started/12.4/en-us/Troubleshooting/TYPO3.html#install-tool-password>
- TYPO3 Documentation: The install tool: <https://docs.typo3.org/m/typo3/guide-installation/10.4/en-us/In-depth/TheInstallTool/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- Install Tool and Site-wide Configuration

## Configuring Content Security Policy (CSP) in TYPO3

TYPO3 introduces a backend module for CSP reporting and new features such as dynamic nonce generation, providing tools to effectively implement and manage Content Security Policy for a website.

### Goals:

- I know that TYPO3 includes a backend module specifically designed for CSP reporting and understand its main functionalities.
- I am aware of the new features in TYPO3 that enhance CSP implementation, including dynamic nonce generation.
- I understand how to use the TYPO3 backend module to log CSP rule violations and how it can help in identifying security risks.
- I can utilize the TYPO3 backend module to dynamically adjust CSP headers, allowing specific content (e.g., YouTube iframes) to function correctly.
- I know that the URL for reporting can be configured for both frontend and backend in TYPO3, allowing the use of external monitoring services.
- I am aware of the detailed documentation and guidelines provided by TYPO3 for configuring Content Security Policy, ensuring a secure and flexible implementation.
- I recognize the importance of regular monitoring and adjustment of CSP rules in TYPO3 to maintain a balance between security and functionality.

### Links:

- Viewhelper f:asset.script nonce argument: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3/fluid/latest/Asset/Script.html#nonce>
- Viewhelper f:asset.css nonce argument: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3/fluid/latest/Asset/Css.html#nonce>
- Viewhelper f:security.nonce: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3/fluid/latest/Security/Nonce.html>
- TYPO3 Explained: Content Security Policy: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/ContentSecurityPolicy>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Security

### Tags:

- Cross-Site Scripting (XSS)
- Content Security Policy (CSP)

## Configuring Workspaces

Configuration and setup of a defined custom editorial workflow.

### Goals:

- I know how to consult with users in implementing an editorial workflow.
- I know how to define workspaces, stages, roles and notifications.
- I know which scheduler tasks are added by the workspaces extension.

### Links:

- TYPO3 documentation: scheduler tasks for workspaces: <https://docs.typo3.org/c/typo3/cms-workspaces/12.4/en-us/Administration/Scheduler/Index.html>
- TYPO3 documentation: workspaces: <https://docs.typo3.org/c/typo3/cms-workspaces/12.4/en-us/UsersGuide/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- Workflow
- Workspace Module
- Backend Administration
- TYPO3
- Workspaces

## Dashboard Basics

The backend module "Dashboard" allows backend users to create, select, and configure dashboards and widgets. These widgets typically provide details and status information about the TYPO3 instance.

### Goals:

- I know the purpose of the dashboard and its features.
- I am familiar with the terms "dashboard" and "widget".
- I know how to create and edit a dashboard.
- I know how to create and/or select different types of widgets.
- I know that some functions of the "Dashboard" backend module require administrator privileges.
- I know that TYPO3 developers can extend the "Dashboard" functionality, e.g. develop custom widgets.

### Links:

- System extension: Dashboard: <https://docs.typo3.org/c/typo3/cms-dashboard/12.4/en-us/Configuration/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TYPO3 Handling

### Tags:

- TYPO3
- TYPO3 Handling

## Dashboard Configuration

Knowledge of the dashboard configuration options in the TYPO3 backend.

### Goals:

- I know how to configure an existing dashboard and how to add/remove widgets.
- I know how to add additional dashboards for me and for non-admin backend users.
- I know how to configure dashboard presets for new users using TSconfig.
- I know that the configuration of existing widgets can be adjusted by YAML files.

### Links:

- Dashboard Configuration (TYPO3 documentation): <https://docs.typo3.org/c/typo3/cms-dashboard/12.4/en-us/Configuration/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- Backend Administration

## Data Processors

Data processors can be used to prepare data and transfer them to the Fluid template in order to generate an output by the template engine.

### Goals:

- I know that the TYPO3 Core is shipped with the following data processors:
  - CommaSeparatedValueProcessor
  - DatabaseQueryProcessor
  - FilesProcessor
  - FlexFormProcessor
  - GalleryProcessor
  - LanguageMenuProcessor
  - MenuProcessor
  - SiteProcessor
  - SiteLanguageProcessor
  - SplitProcessor
- I know that a TYPO3 developer can create their own data processors.
- I know that dataProcessing is a property of the cObject FLUIDTEMPLATE.
- I know that data processors can be nested within each other.

### Links:

- TypoScript Reference: Fluidtemplate / DataProcessing: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/ContentObjects/Fluidtemplate/DataProcessing.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Templating and Other Outputs

### Tags:

- Fluid
- TypoScript and Rendering

## Database Mounts

Configuring database mounts.

### Goals:

- I understand what a database mount is and why it's important.
- I know how to configure database mounts for users and groups.

### Links:

- Getting Started Tutorial: <https://docs.typo3.org/m/typo3/tutorial-getting-started/12.4/en-us/UserManagement/GroupPermissions/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- TYPO3
- Backend Users and Groups
- Access
- Permissions



## Extension Manager Basics

Knowledge about extension management within the TYPO3 backend.

### Goals:

- I know how to access the Extension Manager in the TYPO3 backend.
- I know how to activate and deactivate extensions in the TYPO3 backend module "Extension Manager".
- I know the difference between composer mode and non-composer mode.
- I am familiar with the restrictions of the Extension Manager when TYPO3 runs in composer mode.

### Links:

- TYPO3 Getting Started Tutorial: Managing Extensions (Legacy Guide):  
<https://docs.typo3.org/m/typo3/tutorial-getting-started/12.4/en-us/Extensions/LegacyManagement.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Extensions

### Tags:

- TYPO3
- Extensions

## File Permissions

Understanding UNIX system file permissions.

### Goals:

- I know how file permissions are implemented in UNIX-based systems.
- I know how to gather information about existing file permissions.
- I know how to adjust file permissions.

### Links:

- wikipedia.org: File System Permissions: [https://en.wikipedia.org/wiki/File\\_system\\_permissions](https://en.wikipedia.org/wiki/File_system_permissions)

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Server Management

### Tags:

- TYPO3
- Internals
- Access
- Permissions

## File abstraction layer (FAL)

Know about transparent inclusion of external file sources into TYPO3.

### Goals:

- I know there is an abstraction layer between actual file storages and their handling in TYPO3.

### Links:

- TYPO3 Explained: File abstraction layer (FAL): <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/Fal/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Core Architecture & APIs

### Tags:

- TYPO3
- File
- Files
- File List Module
- Metadata
- File Tree
- Internal

## Forms Customization

With customization of the YAML files, many configurations can be made that are not possible via the drag-and-drop editor.

### Goals:

- I am able to configure advanced fields
- I am able to pre-populate form fields with data of my choice.
- I am able to create advanced error messages via YAML

### Links:

- TYPO3 Form documentation: <https://docs.typo3.org/c/typo3/cms-form/12.4/en-us//Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- TYPO3
- Forms

## Forms Localization

Setting up localization for a given form.

### Goals:

- I am able to localize the labels and content of a form in the TYPO3 backend.

### Links:

- TYPO3 documentation: Form Framework: <https://docs.typo3.org/c/typo3/cms-form/12.4/en-us//Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- TYPO3
- Forms
- Translation
- Internationalization

## Forms Templating

Adjusting and customizing form templates.

### Goals:

- I am able to adjust the HTML of a given form to my needs (customization).

### Links:

- TYPO3 documentation: System extension form (Frontend Rendering):  
<https://docs.typo3.org/c/typo3/cms-form/12.4/en-us/1/Concepts/FrontendRendering/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- TYPO3
- Forms
- Templating
- Fluid

## Forms Vocabulary

Knowing the terminology of the form framework.

### Goals:

- I know the terminology of the form framework und I understand the meaning of "Variants", "Validators", and "Finishers".

### Links:

- Form Documentation: Concepts: <https://docs.typo3.org/c/typo3/cms-form/12.4/en-us//Concepts/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- TYPO3
- Forms

## Git basics

Basics and most important commands for working with the version-control system Git.

### Goals:

I know

- what a VCS is
- what a branch is
- what a tag is
- what a repository is
- what a merge is

I can

- initialize a Git repository
- execute commands "commit", "push" and "pull"
- create a branch and work on it
- assign a tag to a certain development state
- merge code

### Links:

- Git website: <https://git-scm.com/>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Server Management

### Tags:

- Package management



## Gzip Compression

Compression of data returned by the server as a response to a HTTP request.

### Goals:

- I know how I can configure TYPO3 to compress the HTTP responses.
- I know the requirements for gzip compression for CSS and JS files.
- I am familiar with the TypoScript configuration "config.compressCss" and "config.compressJs".
- I am familiar with the global FE and BE configuration "compressionLevel".
- I know how to adjust the compression handler in TYPO3.

### Links:

- TYPO3 Explained: Compression level as global configuration:  
<https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/Configuration/Typo3ConfVars/BE.html#compressionlevel>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Performance

### Tags:

- TYPO3
- Performance

## HTML Basics

Understanding HTML.

### Goals:

- I know the standard HTML tags and how to use them.
- I am able to build simple HTML documents.
- I am able to adjust given HTML files to my needs.

### Links:

- w3schools.com: HTML Tutorials: <https://www.w3schools.com/html/default.asp>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Templating and Other Outputs

### Tags:

- TYPO3
- Forms
- HTML

## HTTP Status Codes

Basic knowledge of HTTP status codes.

### Goals:

- I know what HTTP status codes are
- I know the typical 2xx success codes.
- I know the typical 3xx redirections, in particular 301, 302, and 307, including their specific characteristics.
- I know the typical 4xx client errors, in particular 403 and 404.
- I know the typical 5xx server errors which can be found in server log files.

### Links:

- wikipedia.org: HTTP Status Codes: [https://en.wikipedia.org/wiki/List\\_of\\_HTTP\\_status\\_codes](https://en.wikipedia.org/wiki/List_of_HTTP_status_codes)
- mozilla.org: Web technology for developers: <https://developer.mozilla.org/en-US/docs/Web/HTTP/Status>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Server Management

### Tags:

- Site Management and URL Routing

## IP-Anonymization for Data Records

Anonymizing IP-Adresses in the persistent storage of TYPO3 with the help of the scheduler for increased data protection.

### Goals:

I know

- possible reasons for anonymizing IP-adresses stored in the database

I can

- setup a scheduler task for anonymizing IP-adresses stored in the syslog
- use advanced options of a scheduler task for anonymizing IP-adresses in other tables inside the database

### Links:

- TYPO3 Changelog: Added scheduler task to anonymize IP addresses of tables:  
<https://docs.typo3.org/c/typo3/cms-core/main/en-us/Changelog/7.6.x/Feature-84781-AddedSchedulerTaskToAnonymizeIPAddressesOfTables.html>
- TYPO3 Explained: Global configuration "ipAnonymization":  
<https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/Configuration/Typo3ConfVars/SYS.html#ipanonymization>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Server Management

### Tags:

- Internals

## Image Generation / Manipulation with TypoScript

Image creation, image manipulation and integration of fonts with TypoScript.

### Goals:

- I can create images with TypoScript.
- I can manipulate existing images with TypoScript.
- I can include text and specific fonts in images with TypoScript.
- I can access crop variants and take them into account.

### Links:

- TYPO3 Documentation: GIFBUILDER: <https://docs.typo3.org/m/typo3/reference-typo3/12.4/en-us/Gifbuilder/Gifbuilder/Index.html>
- TypoScript Reference: Function imageLinkWrap: <https://docs.typo3.org/m/typo3/reference-typo3/12.4/en-us/Functions/Imagelinkwrap.html>
- TypoScript Reference: Function imgResource: <https://docs.typo3.org/m/typo3/reference-typo3/12.4/en-us/Functions/Imgresource.html>
- docs.typo3.org: Advanced image processing: [https://docs.typo3.org/typo3cms/extensions/doc\\_tut\\_n2/Manual/Index.html#advanced-image-processing](https://docs.typo3.org/typo3cms/extensions/doc_tut_n2/Manual/Index.html#advanced-image-processing)
- TYPO3 Documentation: GIFBUILDER: <https://docs.typo3.org/m/typo3/reference-typo3/10.4/en-us/Gifbuilder/Gifbuilder/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TypoScript

### Tags:

- TYPO3
- Internals
- Image Generation

## Import/Export

Exporting pages and content to another installation

Importing pages and content from another installation

### Goals:

- I know how to import and export pages and/or content elements and transfer them from one installation to another.

### Links:

- TYPO3 Import/Export documentation: <https://docs.typo3.org/c/typo3/cms-impexp/12.4/en-us/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- TYPO3
- Page and Content Properties
- ImpExp

## Important Actions in the Admin Tools (former Install Tool)

Overview about important actions handled in the Admin Tools.

### Goals:

- I can test the email setup of the instance.
- I can create a new BE admin.
- I can flush all caches.
- I can compare and fix database schema definition.
- I can run upgrade wizards.

### Links:

- TYPO3 System Management Documentation: <https://docs.typo3.org/m/typo3/guide-installation/10.4/en-us/In-depth/TheInstallTool/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Installation

### Tags:

- Cache
- Installation
- TYPO3
- Install Tool and Site-wide Configuration
- Install Tool

## Importing ViewHelpers

Using third party ViewHelpers in your Fluid templates.

### Goals:

- I can include third party ViewHelpers in my Fluid templates.
- I know that a TYPO3 Developer can build custom ViewHelpers

### Links:

- Fluid: importing ViewHelpers: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/Fluid/Syntax.html#import-viewhelper-namespaces>
- TYPO3 CMS: Developing a custom ViewHelper: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/Fluid/DevelopCustomViewhelper.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Templating and Other Outputs

### Tags:

- Templating with Fluid
- ViewHelper



## Internal Notes

The system extension "sys\_note" allows backend users to create internal notes.

### Goals:

- I know that the notes appear in different colors depending on the selected category.
- I know that other backend users can see the notes if I haven't enabled the "personal" mode.
- I know that I can position the notes at the top or at the end of the "Content Area".

### Links:

- Whats new slides TYPO3 v11:  
[https://typo3.org/fileadmin/t3o\\_common\\_storage/images/release\\_notes/v11/whats-new/TYPO3-v11-LTS-whats-new.pdf](https://typo3.org/fileadmin/t3o_common_storage/images/release_notes/v11/whats-new/TYPO3-v11-LTS-whats-new.pdf)
- packagist.org: <https://packagist.org/packages/typo3/cms-sys-note>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- Backend
- List Module
- Page Module
- Single Table View
- TYPO3 Handling
- Backend Administration
- Docheader

## JavaScript Basics

Understanding JavaScript.

### Goals:

- I am able to build and debug simple JavaScript functions.
- I am able to adjust JavaScript code to my needs.

### Links:

- wikipedia.org: JavaScript: <https://en.wikipedia.org/wiki/JavaScript>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Templating and Other Outputs

### Tags:

- TYPO3
- Forms
- JavaScript

## Knowing Data Sources

What data sources are available to access in TypoScript.

### Goals:

- I know what data sources are available (like global objects, data records, global variables).

### Links:

- TypoScript Reference (TSRef): Simple data types: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/DataTypes/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TypoScript

### Tags:

- TYPO3
- TypoScript and Rendering

## Knowing the Cron Daemon

Cron daemon basics on UNIX-based systems and according cronjobs.

### Goals:

- I know what a cron daemon and cronjobs are.
- I can create a cronjob with a specific interval on a server.

### Links:

- wikipedia.org: Cron: <https://en.wikipedia.org/wiki/Cron>
- TYPO3 System Extension "Scheduler": Setting up the cron job:  
<https://docs.typo3.org/c/typo3/cms-scheduler/12.4/en-us//Installation/CronJob/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Server Management

### Tags:

- TYPO3
- Internals
- Cron

## Language Records

Supporting multiple languages.

### Goals:

- I know what language records are and why they are needed.
- I know how to create and modify language records.
- I know that the backend module Site Configuration stores the language configuration.

### Links:

- Localization Guide: <https://docs.typo3.org/m/typo3/guide-frontendl1ocalization/12.4/en-us/SettingUpLanguages/Index.html>
- Localization Guide: <https://docs.typo3.org/m/typo3/guide-frontendl1ocalization/10.4/en-us/SettingUpLanguages/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- TYPO3
- Localization and Internationalization
- Translation

## Linkvalidator

Detect broken internal and external links with the TYPO3 core extension Linkvalidator.

### Goals:

- I know that the Linkvalidator can be used to detect broken links (RTE and other content).
- I know how to configure the Linkvalidator (TSconfig, Scheduler).
- I know how to execute the Linkvalidator manually in the TYPO3 backend.
- I know how to execute the Linkvalidator automatically by configuring a Scheduler task.
- I know that the Linkvalidator sends reports in an email if executed as a Scheduler task.
- I know how to customize the email that the Linkvalidator generates.

### Links:

- Backend Module Linkvalidator: <https://docs.typo3.org/c/typo3/cms-linkvalidator/12.4/en-us/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- CKEditor
- TYPO3 Handling

## Managing Backend Pages Access

Configuring access to backend pages and page (sub) trees for backend users and groups.

### Goals:

- I know how to configure access to the pages for backend users and groups.
- I know that I can set default values for page creation via PageTS.

### Links:

- TYPO3 Explained: Access Control Options: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/Backend/AccessControl/AccessControlOptions/Index.html#page-permissions>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- TYPO3
- Backend Users and Groups
- PageTS
- Module: Access

## Managing Backend Users and Backend User Groups

Configuring backend users and backend groups to ensure correct permissions for the editors.

### Goals:

- I understand what backend users and backend groups are.
- I know how to configure backend groups in a correct way.
- I know how to bundle user groups and inherit rights to other groups.
- I know how to configure access to specific backend modules.
- I know what exclude fields are and how to show/hide them for backend users.
- I know how to compare backend users and backend user groups.

### Links:

- TYPO3 Explained: Backend access control (Users & Groups): <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/Backend/AccessControl/Index.html>
- Getting Started Tutorial: Backend User Management: <https://docs.typo3.org/m/typo3/tutorial-getting-started/12.4/en-us/UserManagement/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- TYPO3
- Backend Users and Groups
- Access
- Permissions



## Multi-Factor Authentication (MFA) configuration

The MFA can be configured for a single user/group and extended by extensions.

### Goals:

- I know that I can force the use of MFA for editors and administrators.
- I know that the TYPO3 Core includes two MFA providers by default: Time-based one-time password (TOTP) and recovery codes (fallback provider)
- I know that more providers can be added via extensions
- I know how to configure providers for individual user / user groups
- I know that the MFA can be disabled

### Links:

- TYPO3 explained: Multi-Factor Authentication: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/Authentication/MultiFactorAuthentication.html>
- Whats new slides TYPO3 v11: [https://typo3.org/fileadmin/t3o\\_common\\_storage/images/release\\_notes/v11/whats-new/TYPO3-v11-LTS-whats-new.pdf](https://typo3.org/fileadmin/t3o_common_storage/images/release_notes/v11/whats-new/TYPO3-v11-LTS-whats-new.pdf)

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Security

### Tags:

- Backend
- Login
- Backend Users and Groups

## Outputting Variables

Basic usage of variables inside Fluid templates and knowledge about escaping.

### Goals:

- I can find out which variables are passed to a Fluid view.
- I can output variables with the according path syntax.
- I know how Fluid escapes variable output in templates.
- I know how to disable escaping of variables.
- I also know which security risks (XSS) may occur, when disabling escaping of variables.

### Links:

- Passing Variables from Typoscript FLUIDTEMPLATE:: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/ContentObjects/Fluidtemplate/Index.html#variables>
- Fluid: Using variables example: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/Fluid/Syntax.html#variables>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Templating and Other Outputs

### Tags:

- Templating with Fluid

## Page TSconfig

Basics of page-specific TypoScript in the backend.

### Goals:

- I know what Page TSconfig is and what the difference to TypoScript in frontend templates is.
- I know basics of which settings can be made with the help of Page TSconfig.
- I can give basic examples for Page TSconfig and generate practical examples.
- I know where TYPO3 12 looks by default for a file for Page TSconfig inside a sitepackage extension.

### Links:

- TYPO3 Documentation: Page TSconfig: <https://docs.typo3.org/m/typo3/reference-tsconfig/12.4/en-us/UsingSetting/PageTSconfig.html>
- TYPO3 Documentation: Page TSconfig example: <https://docs.typo3.org/m/typo3/reference-tsconfig/10.4/en-us/UsingSetting/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TypoScript

### Tags:

- PageTS
- TYPO3
- TypoScript and Rendering

## Page Tree

The structure of the web pages managed in TYPO3 is easily accessible via the page tree. It is possible to manage pages that are visible in the frontend as well as associated data, which are then installed at the appropriate place in the frontend. With a click on the page icon the context menu appears with additional options.

### Goals:

- I know the structure of the page tree.
- I am aware of the existence of the page tree context menu, and I am aware of the existence of various options offered.
- I can use the page tree operations: Filter, Drag & Drop (Create, Copy, Delete).
- I know the connection between the page tree and the menus in the frontend.

### Links:

- TYPO3 Tutorial for Editors: <https://docs.typo3.org/m/typo3/tutorial-editors/12.4/en-us/Pages/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TYPO3 Handling

### Tags:

- TYPO3
- Page
- Menu
- Navigation
- Access

## Page cache

The basic idea of pre-rendering content for speed optimization and the effect it might have on content editing.

### Goals:

- I know what a cache is.
- I know that the cache can effect the visibility of changes made to the content.
- I know the difference between clearing the cache for a specific page and clearing the global frontend cache.
- I can flush the page cache.

### Links:

- TYPO3: Cache: <https://docs.typo3.org/m/typo3/tutorial-editors/12.4/en-us/Concepts/Cache.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Target Group Optimization

### Tags:

- TYPO3
- Page
- Cache
- Caching

## PageTitleProvider

As part of the search engine optimization (SEO), the HTML title of pages can be controller by using TypoScript to configure the PageTitle Handler.

### Goals:

- As an integrator, I can set the priorities of PageTitle Providers using TypoScript.
- I know that extensions can add more PageTitleProviders

### Links:

- PageTitle API (TYPO3 documentation): <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/Seo/PageTitleApi.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TypoScript

### Tags:

- TypoScript
- Search Engine
- SEO

## Password Policies

This skill covers the configuration of TYPO3 v12's password policy to bolster security for both backend and frontend users. It includes understanding how to employ built-in validators and awareness of the possibilities for creating custom validators.

### Goals:

- I know how to configure the basic settings of TYPO3 v12's password policy to enhance user security.
- I can effectively utilize TYPO3's built-in password validators for creating secure password policies.
- I am aware that custom password validators can be implemented to meet specific security requirements.

### Links:

- Password policies:  
<https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/PasswordPolicies/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Security

### Tags:

- Backend
- Login
- User
- Authorization
- Authentication
- Frontend Users and Groups

## RTE Config

Configure the Rich Text Editor.

### Goals:

- I know the possibilities and limitations of the Rich Text Editor (RTE) in TYPO3.
- I know how to configure the RTE for specific fields, users, groups or pages.
- I know how to extend the functionality of the RTE using CKEditor add-ons.

### Links:

- RTE Config: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/Rte/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- TYPO3
- Backend Users and Groups
- RTE
- CKEditor



## Recycler

The Recycler backend module provides the option to clear the garbage collection and to restore data.

### Goals:

- I know that I can use the Recycler to permanently delete data sets.
- I know that I can use the Recycler to recover data sets marked as deleted.
- I know how to configure the Recycler to limit access for editors by using User TSconfig.

### Links:

- TYPO3 Documentation Recycler: <https://docs.typo3.org/c/typo3/cms-recycler/12.4/en-us/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- Recycler
- Page
- Content
- Content Elements
- Backend Administration

## Regular Expression Basics

Identifying and matching patterns in strings with the help of regular expressions (PCRE).

### Goals:

I know

- how regular expressions can be used for pattern recognition
- how to use external resources for verifying regular expressions

I can

- create simple regular expressions to match certain use cases

### Links:

- wikipedia.org: Regular Expression: [https://en.wikipedia.org/wiki/Regular\\_expression](https://en.wikipedia.org/wiki/Regular_expression)
- PHP documentation: <https://www.php.net/manual/en/reference.pcre.pattern.syntax.php>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Server Management

### Tags:

- Site Management and URL Routing

## Reports Module

The *Reports* module contains information and diagnostic data about your TYPO3 CMS installation. This module can list configuration errors, security issues, etc.

### Goals:

- I know where to find the Reports backend module and I am familiar with its functions.
- I know which details the Report module provides, e.g. system, security, extension, and Composer issues, etc.
- I know how to configure a Scheduler task to send out status reports via email.

### Links:

- docs.typo3.org: Backend Modules: <https://docs.typo3.org/m/typo3/tutorial-getting-started/10.4/en-us/OtherBackendModules/SystemModules/Index.html#reports>
- Documentation system extension "reports": <https://docs.typo3.org/c/typo3/cms-reports/12.4/en-us/>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- TYPO3
- Module: Reports

## Reusing Basic Forms

Transferring basic forms from one instance to another installation.

### Goals:

- I am able to transfer a form from one installation to another.

### Links:

- TYPO3 Form documentation: <https://docs.typo3.org/c/typo3/cms-form/12.4/en-us//Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- TYPO3
- Forms

## Root Node

Properties and particularities of the root node in TYPO3.

### Goals:

- I know what the root node is.
- I know the importance of the root node and its particularities.
- I know which records have to be placed on the root node.

### Links:

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- TYPO3
- Page and Content Properties

## SEO Extension

The goals of the SEO extension are:

- Provide editors with the fields required to set the necessary meta tags.
- Provide the rendering of meta tags in the frontend for SEO related information.

### Goals:

- I know how to configure the output of the sitemap for search engines (e.g. filter the page types in sitemap.xml).
- I know that the SEO extension adds “hreflang” tags automatically.
- I know that the SEO extension adds the canonical URL automatically.
- I know various configuration options of the SEO extension using TypoScript, the site configuration among others.

### Links:

- Google: Information about canonical tags:  
<https://support.google.com/webmasters/answer/139066?hl=en>
- Google: Information about hreflang tags:  
<https://support.google.com/webmasters/answer/189077?hl=en>
- System extension: SEO: <https://docs.typo3.org/c/typo3/cms-seo/12.4/en-us/>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Target Group Optimization

### Tags:

- Page
- Search Engine
- Site Management and URL Routing

## Scheduler

The Scheduler supports one-time or periodic execution of tasks. The TYPO3-internal tasks can be extended by extensions.

### Goals:

- I know what the TYPO3 Scheduler is.
- I know that a system cron job is required to run the TYPO3 Scheduler and I know how to configure the cron jobs.
- I know how to use the Scheduler to execute a given task at a given time.

### Links:

- TYPO3 Documentation: Scheduler: <https://docs.typo3.org/typo3cms/extensions/scheduler/Introduction/Index.html>
- TYPO3 Documentation: Scheduler: <https://docs.typo3.org/c/typo3/cms-scheduler/12.4/en-us/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- TYPO3
- Internals
- Cron

## Security best practices in TYPO3

As a TYPO3 integrator I know the different types of security vulnerabilities and how to secure a TYPO3 installation.

### Goals:

- I know the security-related configuration options in the TYPO3 Admin Tool (Install Tool), such as SSL, MFA, notifications, etc.
- I know how to configure backend users and secure logins.
- I know how to prevent SQL injections in TypoScript.
- I know where I find information about security updates for the TYPO3 Core and for third-party extensions.
- I know which log files I can review to analyse attacks and hack attempts.
- I know how to configure the Content Security Policy (CSP), for example to protect files in fileadmin.
- I know the required actions if I find a security vulnerability.
- I know the required actions if my TYPO3 instance appears to be compromised.

### Links:

- Security Advisories Mailing List: <https://lists.typo3.org/cgi-bin/mailman/listinfo/typo3-announce>
- Security Bulletins: <https://typo3.org/help/security-advisories/typo3-extensions>
- Security guidelines: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/Security/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Security

### Tags:

- Password
- Access
- Install Tool and Site-wide Configuration
- Install Tool
- Permissions
- Backend Users and Groups
- Logging
- Cross-Site Scripting (XSS)
- SQL Injection



## Server-Side Image Manipulation

Overview of TYPO3 supported server-side image manipulation libraries.

### Goals:

- I know what server-side image manipulation libraries are (e.g. ImageMagick).
- I know which server-side image manipulation libraries TYPO3 supports.
- I know how I can test if TYPO3 can interact with the installed server-side image manipulation library correctly.
- I know which fonts and filetypes are supported for generating images with text.

### Links:

- ImageMagick: <https://imagemagick.org>
- GraphicsMagick: <http://www.graphicsmagick.org>
- TYPO3 Getting Started Tutorial: System Requirements: <https://docs.typo3.org/m/typo3/tutorial-getting-started/12.4/en-us/SystemRequirements/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Server Management

### Tags:

- TYPO3
- Install Tool and Site-wide Configuration
- Image Generation

## System Requirements

System requirements to install and operate TYPO3 CMS.

### Goals:

- I am familiar with the TYPO3 system requirements, such as PHP version, database engine, etc.
- I know where to look-up any specific requirements that go beyond the general requirements.

### Links:

- TYPO3 Tutorial: Getting Started: <https://docs.typo3.org/m/typo3/tutorial-getting-started/12.4/en-us/SystemRequirements/Index.html>
- get.typo3.org: <https://get.typo3.org/>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Installation

### Tags:

- Operation systems
- Install Tool
- Installation

## TER

Knowledge about the standard extension hub of TYPO3.

### Goals:

- I know that almost all extensions available for TYPO3 are hosted in the TYPO3 Extension Repository (TER).
- I know how to access the TYPO3 Extension Repository (TER), search through extensions, and download them.

### Links:

- TYPO3 Extension Repository (TER): <https://extensions.typo3.org/>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Extensions

### Tags:

- TYPO3
- Extensions

## TLOs Temp and Lib

Difference between TypoScript TLOs temp and lib, what the main difference is.

### Goals:

- I know the caching behaviour for temp versus other TLOs.
- I can choose the fitting TLO for certain scenarios.

### Links:

- TypoScript Reference: temp, styles & lib: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/TopLevelObjects/Other.html>
- TypoScript Reference: Top-level objects: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/TopLevelObjects/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TypoScript

### Tags:

- TYPO3
- TypoScript and Rendering

## TYPO3 Association

The TYPO3 Association builds the groundwork for the TYPO3 project and empowers the TYPO3 community with infrastructure and guidance.

### Goals:

- I know the tasks of the TYPO3 Association.
- I know the memberships and what benefits I get from them.
- I know which events are organized by the TYPO3 Association.

### Links:

- TYPO3 Association: <https://typo3.org/project/association>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TYPO3 Basics

### Tags:

- TYPO3

## TYPO3 Caching

Caching basics in TYPO3. Functionality and types of caching as well as an overview over the different caches.

### Goals:

- I know how caches can be manipulated.
- I can configure caching with TypoScript.
- I can exclude pages from caching.

### Links:

- TYPO3 Explained: Caching in TYPO3: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/CachingFramework/Index.html>
- Caching Framework: <https://docs.typo3.org/m/typo3/reference-coreapi/10.4/en-us/ApiOverview/CachingFramework/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Performance

### Tags:

- TYPO3
- Caching

## TYPO3 Community

The TYPO3 community consists of everyone who uses TYPO3 as a editor or develops it further as a developer, integrator or agency. The community organizes further events like Usergroup meetings and TYPO3Camps. Everyone can participate in different teams to bring the TYPO3 project forward.

### Goals:

- I know the events organized by the TYPO3 community.
- I know different teams such as the Documentation Team, the Strategic Initiatives, TYPO3 Marketing Team.
- I know that everyone is invited to participate in the TYPO3 project.

### Links:

- TYPO3 Initiatives: <https://typo3.org/community/teams/typo3-development/initiatives>
- TYPO3 Community: <https://typo3.org/community/>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TYPO3 Basics

### Tags:

- TYPO3
- team

## TYPO3 Console

Using the TYPO3 console core extension.

### Goals:

I know

- how to execute CLI commands using the command line.
- what parameters are and how I can assign values to them.

I can

- list all commands available via TYPO3 console.
- display a help text for a specific command available via TYPO3 console.
- execute a specific command via TYPO3 console.

### Links:

- docs.typo3.org: Command Reference: <https://docs.typo3.org/p/helhum/typo3-console/master/en-us/CommandReference/Index.html>
- TYPO3 Explained: Console commands (CLI): <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/CommandControllers/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TYPO3 Handling

### Tags:

- Internals



## TYPO3 Directory Structure (v12+)

In TYPO3 12 the directory structure, especially in Composer installations, was heavily revised. One goal was to increase the security of an installation.

### Goals:

- I know the differences in directory structure between Composer and Legacy installations.
- I know that in Composer installations, only the Resources/Public/ subdirectories within all extensions are made publicly accessible as a symlink to the public/\_assets/ folder. This prevents access to private files (templates, PHP files).
- I know that the symlink is only created if the resources/public/ folder was present before executing "composer require" or "composer install".
- I know how to create missing symlinks afterwards.
- I know that the LocalConfiguration.php and AdditionalConfiguration.php are renamed and located in other directories.
- I know where to find the system extensions in legacy and composer installations.

### Links:

- Legacy installations: Directory structure: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/DirectoryStructure/LegacyInstallations.html>
- Directory Structure (Composer): <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/DirectoryStructure/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Installation

### Tags:

- Architecture
- Security

## TYPO3 Documentation

I know where to find documentation and support.

### Goals:

I am aware of the following websites and platforms and know how to get access if required:

- docs.typo3.org
- Stackoverflow with [TYPO3]
- typo3.slack.com

### Links:

- TYPO3 Documentation: <https://docs.typo3.org/>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Getting Help

### Tags:

- TYPO3
- Documentation

## TYPO3 File Architecture

TYPO3 architecture – charsets, folder structure, access rights.

### Goals:

- I know that the default charset to be used with TYPO3 is UTF-8.
- I know which files and folders TYPO3 generates and their purpose.
- I know which permissions on Linux/UNIX-based systems have to be set for files/folders for optimal TYPO3 performance.

### Links:

- TYPO3 Explained: File structure and reserved folders: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ExtensionArchitecture/FileStructure/Index.html>
- TYPO3 Explained: File/directory permissions: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/Security/GuidelinesAdministrators/FileDirectoryPermissions.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Server Management

### Tags:

- TYPO3
- Internals

## TYPO3 Info Module

The Info backend module displays a variety of information related to the pages in your web site.

### Goals:

- I know which information the backend module provides.
- I know that extensions can extend the Info backend module.

### Links:

- TYPO3 Documentation: <https://docs.typo3.org/m/typo3/tutorial-getting-started/10.4/en-us/OtherBackendModules/InfoAndFunctions/Index.html>
- Getting started Documentation: Info Module (TYPO3 v10): <https://docs.typo3.org/m/typo3/tutorial-getting-started/10.4/en-us/OtherBackendModules/InfoAndFunctions/Index.html#>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- Translation
- Page Tree
- PageTS
- Logging
- Validation
- Backend Administration

## TYPO3 Project

The development of the TYPO3 project began in 1997. Since then, in addition to the TYPO3 CMS, other products such as Surf, Fluid, Neos have been developed as open source software by the TYPO3 community and later by TYPO3 GmbH, which was founded by the TYPO3 Association. The TYPO3 Association is the owner of the TYPO3 brand and provides the TYPO3 style guide.

### Goals:

- I know the rough history of the development of TYPO3.
- I know the original developer of TYPO3.
- I know the products that have been developed in the TYPO3 project (TYPO3 CMS, TYPO3 Surf).
- I know what licenses are valid for the products and what rights and obligations derive from them.
- I know how TYPO3 logos and fonts may be used.

### Links:

- TYPO3 Project: <https://typo3.org/project>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TYPO3 Basics

### Tags:

- TYPO3
- License

## TYPO3 URL Redirects (Configuration)

Redirecting URLs in TYPO3, related options and their implications.

### Goals:

- I know how to create a redirect for multiple URLs to a specific page by applying a regular expression pattern.
- I understand the implications of using a temporary vs. a permanent redirect status code (301, 302, and 307).
- I know how to preserve additional GET parameters when creating a redirect.

### Links:

- TYPO3 Redirects documentation: <https://docs.typo3.org/c/typo3/cms-redirects/12.4/en-us/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- Site Management and URL Routing

## TYPO3 Versions

TYPO3 uses Semantic Versioning for the version numbers. Each major version usually gets 3 years of free bug fixes and security updates. After that the support can be extended with ELTS versions for a fee via TYPO3 GmbH.

### Goals:

- I know what Semantic Versioning means.
- I know the difference between Sprint Release and LTS Release.
- I know the TYPO3 Roadmap and therefore also the point in time when I will no longer receive free or paid security updates for my TYPO3 installation.
- I know that TYPO3 GmbH offers Service Level Agreements.

### Links:

- ELTS - Extended Support: <https://typo3.com/services/extended-support-elts>
- Semantic Versioning: <https://semver.org/>
- TYPO3 Roadmap: <https://typo3.org/cms/roadmap/>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TYPO3 Basics

### Tags:

- TYPO3
- Security
- Version

## Templates, Layouts, Partials

Fluid Templates, Layouts, Partials - their interaction and properties.

### Goals:

I know

- what Fluid Templates are
- what Fluid Layouts are
- what Fluid Partials are
- how Templates, Layouts and Partials are connected

I can

- structure Templates, Layouts and Partials
- combine Templates, Layouts and Partials for templating
- use Templates, Layouts and Partials to realise a specific template example

### Links:

- Fluid: Template File Structure: <https://docs.typo3.org/other/typo3fluid/fluid/main/en-us/Usage/Structure.html>
- Fluid ViewHelper Reference: Render ViewHelper: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3fluid/fluid/latest/Render.html>
- Fluid ViewHelper Reference: Layout ViewHelper: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3fluid/fluid/latest/Layout.html>
- Fluid ViewHelper Reference: Section ViewHelper: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3fluid/fluid/latest/Section.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Templating and Other Outputs

### Tags:

- Fluid
- Templating
- HTML



## TypoScript Conditions

Using TypoScript conditions in concrete scenarios.

### Goals:

- I know how to compare values with TSFE variables.
- I know how to compare with values from data records (e.g. be\_layouts).
- I know how to compare values from global variables (e.g. hostname).
- I know how to compare values from the current session
- I know how to compare values from the site configuration
- I know, now the symfony expression language has been implemented.

### Links:

- TypoScript Reference: Conditions: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/Conditions/Index.html>
- TYPO3 Explained: Conditions: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/Configuration/TypoScript/Syntax/Conditions/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TypoScript

### Tags:

- CHANGED
- TYPO3
- TypoScript and Rendering

## TypoScript Constants

Setting and using constants in TypoScript.

### Goals:

- I know what TypoScript constants are and how they are defined.
- I can use TypoScript constants in my templates.

### Links:

- TypoScript Reference: Constants: <https://docs.typo3.org/m/typo3/reference-typo3/12.4/en-us/UsingSetting/Constants.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TypoScript

### Tags:

- TYPO3
- TypoScript and Rendering

## TypoScript Fluid Template Object

TypoScript knowledge for using basic Fluid templates.

### Goals:

- I know how I can use Fluid for frontend templating.
- I know how to pass variables and objects to Fluid frontend templates from TypoScript.
- I know that data can be modified by data processors before being passed to the Fluid template.

### Links:

- TypoScript Reference: Fluid Template: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/ContentObjects/Fluidtemplate/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TypoScript

### Tags:

- TYPO3
- TypoScript and Rendering
- Fluid
- Templating

## TypoScript Language Menus

Creating a selection menu for different languages on your website using TypoScript.

### Goals:

I can

- create a language menu for the frontend with the help of TypoScript

### Links:

- Frontend Localization Guide: <https://docs.typo3.org/m/typo3/guide-frontendlocalization/12.4/en-us/LanguageMenu/Index.html>
- Language menu with the data processor LanguageMenuProcessor: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/ContentObjects/Fluidtemplate/DataProcessing/LanguageMenuProcessor.html>
- Language Menu with the cObject HMENU: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/ContentObjects/Hmenu/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TypoScript

### Tags:

- TypoScript and Rendering

## TypoScript Menus

Generation of hierarchical menus with TypoScript, using item states (CUR, SPC, etc.).

### Goals:

- I can create hierarchical menus with multiple levels with TypoScript.
- I can create item states for menu elements and assign them (CUR, SPC, etc.).

### Links:

- TypoScript in 45 Minutes: Create a menu: <https://docs.typo3.org/m/typo3/tutorial-typoscript-in-45-minutes/12.4/en-us/CreateAMenu/Index.html>
- TypoScript Reference: MENU objects: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/MenuObjects/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TypoScript

### Tags:

- Menu
- TYPO3
- TypoScript and Rendering

## TypoScript OptionSplit

Option split basics, overview of all seven option split rules.

### Goals:

- I know the TypoScript option split ruleset.
- I can use option split in a meaningful way (e.g. for menus).

### Links:

- TypoScript Reference: optionSplit: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/Functions/OptionSplit.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TypoScript

### Tags:

- TYPO3
- TypoScript and Rendering

## TypoScript Record

Creating and using TypoScript records, understanding connections between records.

### Goals:

- I can create TypoScript records.
- I can integrate TypoScript records on my website and use inheritance for them.
- I know the difference between the Root TypoScript record and Additional TypoScript records and can choose the correct approach for given scenarios.

### Links:

- TypoScript Reference: Using and setting TypoScript: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/UsingSetting/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TypoScript

### Tags:

- TYPO3
- TypoScript and Rendering

## TypoScript Syntax & Basics

TypoScript basic knowledge and syntax.

### Goals:

- I can explain what TypoScript is.
- I can include TypoScript inside TYPO3 so it affects the behaviour of the site.
- I can assign values.
- I know the difference between referencing and copying and can apply these techniques to fitting scenarios.
- I know the syntax (like comments and brackets).
- I know the difference between functions, objects and properties and can apply this knowledge to different scenarios.

### Links:

- TypoScript Reference (TSRef): <https://docs.typo3.org/m/typo3/reference-typo3/12.4/en-us/>
- TypoScript in 45 Minutes - First steps: <https://docs.typo3.org/m/typo3/tutorial-typo3-in-45-minutes/12.4/en-us/TypoScriptOverview/FirstSteps/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TypoScript

### Tags:

- TYPO3
- TypoScript and Rendering



## TypoScript TLO Config

Using the TypoScript TLO config to define behaviour of the instance in terms of FE output.

### Goals:

- I know some properties of config and their purpose.
- I can define cache settings and additional headers.

### Links:

- TypoScript Reference: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/Setup/Config/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TypoScript

### Tags:

- TYPO3
- TypoScript and Rendering

## TypoScript TLOs and Reserved Names

Top-Level Object (TLO) overview, special TLOs like temp, commonly used configuration directives in regard to TLOs.

### Goals:

- I know what Top-Level Objects are.
- I can give examples for Top-Level Objects and according configuration.
- I can configure Top-Level Objects with TypoScript to change common configuration in regard to a website.

### Links:

- TypoScript Reference: Top-level objects: <https://docs.typo3.org/m/typo3/reference-typo3/12.4/en-us/TopLevelObjects/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TypoScript

### Tags:

- TYPO3
- TypoScript and Rendering

## TypoScript Wraps

Using TypoScript wraps in order to manipulate data.

### Goals:

- I know which wrap functions are available, what they do, and how they are used, e.g. stdWrap, innerWrap, outerWrap, dataWrap, noTrimWrap and others.

### Links:

- TYPO3 Documentation: dataWrap: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/Functions/Stdwrap.html#datawrap>
- TYPO3 Documentation: stdWrap: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/Functions/Stdwrap.html>
- TYPO3 Documentation: outerWrap: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/Functions/Stdwrap.html#outerwrap>
- TYPO3 Documentation: Wrap3: <https://docs.typo3.org/m/typo3/reference-typoscript/11.5/en-us/Functions/Stdwrap.html#wrap3>
- TYPO3 Documentation: Wrap2: <https://docs.typo3.org/m/typo3/reference-typoscript/11.5/en-us/Functions/Stdwrap.html#wrap2>
- TYPO3 Documentation: noTrimWrap: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/Functions/Stdwrap.html#notrimwrap>
- TYPO3 Documentation: wrap: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/Functions/Stdwrap.html#wrap>
- TYPO3 Documentation: InnerWrap2: <https://docs.typo3.org/m/typo3/reference-typoscript/11.5/en-us/Functions/Stdwrap.html#innerwrap2>
- TYPO3 Documentation: innerWrap: <https://docs.typo3.org/m/typo3/reference-typoscript/12.4/en-us/Functions/Stdwrap.html#innerwrap>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- TypoScript

### Tags:

- TYPO3
- TypoScript and Rendering

## URL Routing Basics

Understanding the basics of human readable URLs.

### Goals:

- I know that human-readable URLs are user-friendly and SEO-friendly URLs (also called "slugs").
- I know that I can define rules that convert slugs into path segments, GET parameters, etc.

### Links:

- Video on YouTube: Mathias Schreiber demonstrates URL handling in TYPO3 v9 and above: <https://www.youtube.com/watch?v=dUz4B08XFes>
- TYPO3 Explained documentation: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/Routing/Introduction.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- Site Management and URL Routing

## URL Routing in TYPO3

Handling the routing implementation in TYPO3.

### Goals:

- I know where to find existing URL path segments (slugs) for pages in the TYPO3 backend.
- I know how to adjust the page slugs.
- I understand the relationship between routing path segments and relevant site configuration.
- I know how to configure routes in the site configuration file "config.yaml".

### Links:

- docs.typo3.org: "Speaking URLs" in TYPO3: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/Routing/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- Site Management and URL Routing

## Understanding Content Security Policy (CSP)

Content Security Policy (CSP) is a security standard introduced to prevent cross-site scripting (XSS), clickjacking and other code injection attacks resulting of malicious content being executed in the trusted web page context.

### Goals:

- I know what Content Security Policy (CSP) is and how it serves as a tool to prevent Cross-Site Scripting (XSS) and data injection attacks.
- I understand that CSP rules can block certain content on my website, particularly controlling inline code and external contents like iframes.
- I can formulate specific policies to determine which scripts, images, stylesheets, and other resources are allowed, enhancing my website's security.
- I am aware of the mechanisms for monitoring CSP violations and can create reports to identify and fix possible security breaches.
- I understand how Content Security Policy can be combined with other security practices to create a robust defense system.
- I recognize that CSP is flexible and can be customized to meet the specific needs and requirements of my website without affecting functionality or user experience.

### Links:

- Documentation w3.org: <https://www.w3.org/TR/CSP2/>
- Documentation developer.mozilla.org: <https://developer.mozilla.org/en-US/docs/Web/HTTP/CSP>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Security

### Tags:

- Cross-Site Scripting (XSS)
- Content Security Policy (CSP)

## Upgrade Wizards

Existing Upgrade Wizards and their purpose and usage.

### Goals:

- I know the purpose of the upgrade wizards and how to execute them in the TYPO3 backend and on the command line.
- I know how to reset an upgrade wizard (mark to re-run).
- I know where to find information about failed upgrade wizards.

### Links:

- Installation and Upgrade Guide: Upgrade Wizard: <https://docs.typo3.org/m/typo3/guide-installation/12.4/en-us/Major/PostupgradeTasks/Index.html#run-the-upgrade-wizard>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Installation

### Tags:

- TYPO3
- Install Tool and Site-wide Configuration
- Install Tool

## User TSconfig

Using TSconfig for backend user settings.

### Goals:

- I know what User TSconfig is and how it can be generated.
- I can name scenarios for User TSconfig and apply them, for example:
  - setting permissions on a user (or user group) base (visibility, readonly, etc.)
  - setting up default values and override values

### Links:

- TYPO3 Documentation: User TSconfig: <https://docs.typo3.org/m/typo3/reference-tsconfig/12.4/en-us/Introduction/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- TypoScript
- Permissions
- TYPO3
- TypoScript and Rendering



## Using Reactions

The extension "Reactions" handles incoming webhooks to TYPO3. It also provides a corresponding backend module to manage reaction records.

### Goals:

- I know that by default only records can be created on an incoming webhook.
- I know what the "Secret" is used for.
- I know that reactions can be extended by a developer.
- I know what information I need to share with an external developer, so he can address my reaction through a webhook.

### Links:

- Official documentation of the extension "Reactions": <https://docs.typo3.org/c/typo3/cms-reactions/12.4/en-us/>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- Automation

## Using Webhooks

Webhooks are a useful way to integrate real-time information between different applications or services. They allow a service to "call" or notify another application or service when a specific event occurs. This is done by sending an HTTP request to a specific URL provided by the receiving application.

### Goals:

- I understand how webhooks function within TYPO3 and how they enable real-time communication between applications or services.
- I know which triggers can be used by default within TYPO3
- I am aware that developers can program additional triggers to extend functionality.
- I comprehend the difference between GET and POST requests, recognizing their specific roles and applications within the context of webhooks.
- I know what the "Secret" is used for in the configuration of webhooks, understanding its role in ensuring the authenticity and security of webhook communication.

### Links:

- TYPO3 12 ChangeLog: <https://docs.typo3.org/c/typo3/cms-core/12.4/en-us/Changelog/12.3/Feature-99629-Webhooks-OutgoingWebhooksForTYPO3.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- Automation

## Using the Drag & Drop Editor for Basic Forms

Building simple forms.

### Goals:

- I am able to build simple forms using the built-in drag'n drop editor of the form framework.
- I know the different purposes of the mailer properties: From, To, Bcc, Cc, Reply-To, Return-Path and the resulting problems when sending emails.

### Links:

- TYPO3 documentation: Form Framework: <https://docs.typo3.org/c/typo3/cms-form/12.4/en-us/Introduction/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- TYPO3
- Forms

## Using the Fluid View

Knowing and understanding the different parts of a Fluid template view.

### Goals:

- I understand the API of a Fluid view.
- I know the public methods that assign variables and template paths.
- I know the internal API to configure Fluid behaviour.
- I know the action of rendering a template.

### Links:

- Introduction to Fluid:  
<https://docs.typo3.org/m/typo3/reference-coreapi/main/en-us/ApiOverview/Fluid/Introduction.html>
- Documented example of using a Fluid view with MVC pattern:  
[https://github.com/TYPO3/Fluid/blob/main/examples/example\\_mvc.php](https://github.com/TYPO3/Fluid/blob/main/examples/example_mvc.php)

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Templating and Other Outputs

### Tags:

- TYPO3
- Templating with Fluid

## Using the Step Installer

Installing an instance from scratch using the step installer.

### Goals:

- I know what prerequisites have to be met in order to install TYPO3.
- I can invoke the installation via browser.
- I can fix reported problems.

### Links:

- TYPO3 Tutorial: Getting started ("complete the installation process"):  
<https://docs.typo3.org/m/typo3/tutorial-getting-started/12.4/en-us/Installation/Install.html#access-typo3-via-a-web-browser>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Installation

### Tags:

- TYPO3
- Install Tool and Site-wide Configuration
- Install Tool

## ViewHelper: Asset

The ViewHelpers `<f:asset.css>` and `<f:asset.script>` can be used in Fluid templates to add CSS and JavaScript through files or inline.

### Goals:

- I know that purpose of the identifier and the impact if the same identifier is used more than once.
- I know how to modify the priority of the included CSS files.

### Links:

- Fluid ViewHelper Reference: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3/fluid/latest/Asset/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Templating and Other Outputs

### Tags:

- CSS
- JavaScript
- Fluid
- ViewHelper
- Templating with Fluid

## ViewHelper: Comment

Including comments in Fluid templates.

### Goals:

- I know how to include Fluid comments in my templates.
- I know the difference between HTML comments and Fluid comments regarding the rendered HTML output.

### Links:

- Fluid ViewHelper Reference: Comment ViewHelper: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3fluid/fluid/latest/Comment.html>

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### Domain Tag:

- Templating and Other Outputs

### Tags:

- Templating with Fluid
- ViewHelper

## ViewHelper: Debug

Utilising output to access Fluid variables.

### Goals:

- I know how to use the debug ViewHelper to output variables available to Fluid.
- I know what makes this ViewHelper more appropriate than using a simple echo in my controller.

### Links:

- Fluid ViewHelper Reference: Debug ViewHelper: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3fluid/fluid/latest/Debug.html>

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### Domain Tag:

- Templating and Other Outputs

### Tags:

- TYPO3
- Debugging



## ViewHelper: For-Loop

Iterating through a list with the for ViewHelper.

### Goals:

- I know how to cycle through items with the help of the for ViewHelper inside my Fluid templates.
- I also know how to utilize the iteration object within a cycle.

### Links:

- Fluid ViewHelper Reference: For-Loop ViewHelper: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3fluid/fluid/latest/For.html>
- Fluid ViewHelper Reference: Grouped-Loop ViewHelper: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3fluid/fluid/latest/GroupedFor.html>

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### Domain Tag:

- Templating and Other Outputs

### Tags:

- Templating with Fluid
- ViewHelper

## ViewHelper: Format

Using Fluid Format ViewHelpers.

### Goals:

- I know how to use Fluid's format ViewHelper and its arguments and purposes.

### Links:

- Fluid ViewHelper Reference: Format ViewHelper (typo3/fluid):  
<https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3/fluid/latest/Format/Index.html>
- Fluid ViewHelper Reference: Format ViewHelper (typo3fluid/fluid):  
<https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3fluid/fluid/latest/Format/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Templating and Other Outputs

### Tags:

- TYPO3
- Templating with Fluid
- ViewHelper

## ViewHelper: If/Else

Creating if/else statements within Fluid templates.

### Goals:

- I can create an if/else statement in my templates with the help of the according Fluid ViewHelper.
- I can apply conditions using the inline notation of Fluid.

### Links:

- Fluid ViewHelper Reference: If/Else ViewHelper: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3fluid/fluid/latest/If.html>

### Maintainer:

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### Domain Tag:

- Templating and Other Outputs

### Tags:

- Templating with Fluid
- ViewHelper

## ViewHelper: Image

Using the Fluid ViewHelper `f:image()`.

### Goals:

- I know the important arguments of `f:image()` ViewHelper (`image`, `src`, `crop`, `cropVariant`, `loading`) and how to use the ViewHelper.

### Links:

- Fluid ViewHelper Reference: Image ViewHelper: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3/fluid/latest/Image.html>

### Maintainer:

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### Domain Tag:

- Templating and Other Outputs

### Tags:

- TYPO3
- Templating with Fluid
- ViewHelper

## ViewHelper: Link, Uri

Using the Fluid ViewHelpers `f:link.*` and `f:uri.*`.

### Goals:

- I know the ViewHelpers of the `f:link.*` family such as `f:link.typolink`, `f:link.email` etc. and their important arguments.
- I know the ViewHelpers of the `f:uri.*` family and their important arguments.
- I know how to use the `f:link.*` and `f:uri.*` ViewHelpers properly.

### Links:

- Fluid ViewHelper Reference: Link ViewHelper: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3/fluid/latest/Link/Index.html>
- Fluid ViewHelper Reference: URI ViewHelper: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3/fluid/latest/Uri/Index.html>

### Maintainer:

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### Domain Tag:

- Templating and Other Outputs

### Tags:

- TYPO3
- Templating with Fluid
- ViewHelper

## ViewHelper: Render

Using `f:render` to render sections and partials as well as passing arguments.

### Goals:

- I can use `f:render` in my templates to render sections and partials.
- I can pass arguments (along with optional flagging).

### Links:

- Fluid ViewHelper Reference: Render ViewHelper: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3fluid/fluid/latest/Render.html>

### Maintainer:

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### Domain Tag:

- Templating and Other Outputs

### Tags:

- Templating with Fluid
- ViewHelper

## ViewHelper: cObject

Including cObjects from the global TypoScript configuration in Fluid templates.

### Goals:

- I know how to include cObjects in my Fluid templates.
- I know that data and a current value can be transferred to the cObject by arguments of the ViewHelper.

### Links:

- Fluid ViewHelper Reference: cObject ViewHelper: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3/fluid/latest/CObject.html>

### Maintainer:

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### Domain Tag:

- Templating and Other Outputs

### Tags:

- ViewHelper
- Templating with Fluid

## ViewHelpers

Getting to know what a ViewHelper is.

### Goals:

- I know what ViewHelpers are.
- I know what a Namespace is.
- I can use ViewHelpers in my template.
- I know which ViewHelpers are shipped by stand-alone Fluid, and which are provided by TYPO3 CMS.

### Links:

- Fluid ViewHelper Reference: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/Index.html>
- TYPO3 Explained: Fluid: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/Fluid/Index.html>
- Fluid: What are ViewHelpers?: [https://github.com/TYPO3/Fluid/blob/main/doc/FLUID\\_VIEWHELPERS.md#what-are-viewhelpers](https://github.com/TYPO3/Fluid/blob/main/doc/FLUID_VIEWHELPERS.md#what-are-viewhelpers)
- Fluid: Using ViewHelpers in templates: [https://github.com/TYPO3/Fluid/blob/main/doc/FLUID\\_VIEWHELPERS.md#using-viewhelpers-in-templates](https://github.com/TYPO3/Fluid/blob/main/doc/FLUID_VIEWHELPERS.md#using-viewhelpers-in-templates)

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Templating and Other Outputs

### Tags:

- Templating with Fluid
- ViewHelper



## What is Fluid?

Definition of Fluid and its possible use with regards to the Model View Controller pattern.

### Goals:

- I can explain what Fluid is.
- I can define its role in the context of a MVC system.

### Links:

- typo3.org: Fluid Template Engine: <https://typo3.org/fluid>

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### Domain Tag:

- Templating and Other Outputs

### Tags:

- Templating with Fluid

## What is MVC?

The MVC pattern, what it can be used for, and common implementations.

### Goals:

- I have a basic understanding of what MVC is.

### Links:

- Wikipedia: MVC (Model-View-Controller):  
<https://en.wikipedia.org/wiki/Model%E2%80%93view%E2%80%93controller>

### Maintainer:

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### Domain Tag:

- Software Architecture for Extensions

### Tags:

- Design patterns
- Templating with Fluid

## What is a Templating Engine?

Introduction to the basic concept of a templating engine/processor.

### Goals:

- I can explain what the basic concept of a templating engine is.
- I can identify needed parts for a templating engine.

### Links:

- wikipedia.org: Template processor: [https://en.wikipedia.org/wiki/Template\\_processor](https://en.wikipedia.org/wiki/Template_processor)

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Software Architecture for Extensions

### Tags:

- TYPO3
- Templating with Fluid

## Workspace Concepts

Knowledge about workspace concepts in TYPO3 context.

### Goals:

- I can explain what the purpose of workspaces in TYPO3 is.
- I know which roles are related to workspaces.
- I know that workspaces are core functionality.
- I know that workspaces are provided by a system extension.

### Links:

- TYPO3 documentation: workspaces: <https://docs.typo3.org/c/typo3/cms-workspaces/12.4/en-us/UsersGuide/Index.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Backend Administration

### Tags:

- Workflow
- Workspace Module
- Backend Administration
- TYPO3
- Workspaces

## XLIFF / locallang.xlf

Working with XLIFF files in TYPO3 for multilingual websites. Includes writing and extending XLIFF files, overriding translations in TypoScript, and using the f:translate ViewHelper.

### Goals:

- I know what XLIFF is.
- I know how to write and extend an XLIFF file.
- I know how to introduce new languages and generate the needed XLIFF file.
- I know how to override the translations of an extension in TypoScript.
- I know how to access the translations with the f:translate-Viewhelper

### Links:

- TYPO3 Explained: Managing translations for backend: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/Localization/ManagingTranslations.html>
- TYPO3 Explained: XLIFF Format: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ApiOverview/Localization/XliffFormat.html>
- Fluid ViewHelper Reference: <https://docs.typo3.org/other/typo3/view-helper-reference/12.4/en-us/typo3/fluid/latest/Translate.html>
- TypoScript Reference: Properties for all frontend plugin types: <https://docs.typo3.org/m/typo3/reference-typo3script/12.4/en-us/TopLevelObjects/Plugin.html#local-lang-lang-key-label-key>
- TypoScript Reference: FLUIDTEMPLATE property extbase.controllerExtensionName: <https://docs.typo3.org/m/typo3/reference-typo3script/12.4/en-us/ContentObjects/Fluidtemplate/Index.html#extbase-controllerextensionname>
- TYPO3 Explained: Output localized strings with Typoscript: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/ExtensionArchitecture/HowTo/Localization/TypoScript.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Core Architecture & APIs

### Tags:

- TYPO3
- Forms
- XLIFF
- Translation
- Internationalization

## YAML Basics

Understanding YAML configuration files.

### Goals:

- I know the importance of indentation and colons, and can write and adjust YAML configuration files.

### Links:

- wikipedia.org: YAML: <https://en.wikipedia.org/wiki/YAML>
- TYPO3 Explained: YAML Syntax: <https://docs.typo3.org/m/typo3/reference-coreapi/12.4/en-us/Configuration/Yaml/YamlSyntax.html>

### Maintainer:

TYPO3 (Oliver Thiele)

### Domain Tag:

- Server Management

### Tags:

- TYPO3
- Forms
- YAML