TYPO3 Version 9.5 – What’s New

Summary of the new features, changes and improvements

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TYPO3 Version 9.5 = TYPO3 v9 LTS

During a four weeks stabilization phase between the last intermediate version 9.4 and the new major version 9.5 (also known as "TYPO3 v9 LTS"), final elements of features were completed but nothing new was started.

This is to make sure that the LTS release is robust, stable and can power websites of all sizes and complexities, even those with thousands of pages.

Please see the TYPO3 v9 LTS slides for an overview of the changes in v9 LTS.
Introduction

The Facts
Introduction

TYPO3 Version 9.5 – The Facts

- Release date: 02 October 2018
- Release type: LTS release (Long Term Support)
Introduction

System Requirements

- PHP version 7.2 or higher
- PHP settings:
  - memory_limit >= 256M
  - max_execution_time >= 240s
  - max_input_vars >= 1500
  - compilation option --disable-ipv6 must not be used

- Most database servers supported by Doctrine DBAL also work with TYPO3. Tested DB engines are for example: Microsoft SQL Server, PostgreSQL, MariaDB, SQLite.
Introduction

Development, Release and Maintenance Timeline

TYPO3 version 9.5 is a LTS Release (Long Term Support)
Regular maintenance and bugfixes until March 2020
Security and critical bugfixes until October 2021

Extended Support
TYPO3 GmbH offers Extended Long Term Support (ELTS) for TYPO3 v9 LTS until October 2024.
Introduction

TYPO3 v9 Roadmap

Release dates and their primary focus:

- **v9.0**  12/Dec/2017  Install Tool and Page Tree Refactoring, Unified Page Translations
- **v9.1**  30/Jan/2018  Redirect Handling
- **v9.2**  10/Apr/2018  Site Handling
- **v9.3**  12/Jun/2018  SEO and URL Routing Preparations
- **v9.4**  04/Sep/2018  URL Routing for Pages
- **v9.5**  02/Oct/2018  LTS Preparation and Release

https://typo3.org/article/typo3-v9-roadmap/
https://typo3.org/cms/roadmap/
Introduction

Installation

- **Official classic installation procedure under Linux/Mac OS X** (DocumentRoot for example /var/www/site/htdocs):
  
  ```
  $ cd /var/www/site
  $ wget --content-disposition get.typo3.org/9.5
  $ tar xzf typo3_src-9.5.0.tar.gz
  $ cd htdocs
  $ ln -s ../typo3_src-9.5.0 typo3_src
  $ ln -s typo3_src/index.php
  $ ln -s typo3_src/typo3
  $ touch FIRST_INSTALL
  ```

- **Symbolic links under Microsoft Windows:**
  - Use junction under Windows XP/2000
  - Use mklink under Windows Vista and Windows 7 and higher

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Installation Using composer

- Installation using composer under Linux, Mac OS X and Windows 10:
  
  ```
  $ cd /var/www/site/
  $ composer create-project typo3/cms-base-distribution typo3 ^9
  ```

- Alternatively, create your custom composer.json file and run:
  
  ```
  $ composer install
  ```

  Further details and examples for composer.json files are available at: https://composer.typo3.org
Finalized Features
**Finalized Features**

**utf8mb4 on MySQL**

- New TYPO3 instances use **utf8mb4 on MySQL** by default now.
- This allows 4 byte unicode characters such as emojis.
- Basic settings to use **utf8mb4** in file `LocalConfiguration.php`:

```php
'DB' => [
    'Connections' => [
        'Default' => [
            'driver' => 'mysqli',
            ...
            'charset' => 'utf8mb4',
            'tableoptions' => [
                'charset' => 'utf8mb4',
                'collate' => 'utf8mb4_unicode_ci',
            ],
        ],
    ],
],
```
Finalized Features

Search Engine Optimization (SEO)

The following SEO features have been added since TYPO3 version 9.3:

- New **Page Title API** allows integrators and developers to influence what exactly is shown as the page title
- TYPO3 can generate **XML Sitemaps** now, with the capability to render different sitemaps per site and language
- Canonical links to pages are automatically added to prevent ranking penalties due to duplicate content for example
- In multi-language TYPO3 sites, **hreflang**-tags are added automatically
Finalized Features

Static Routes

- Static routes can be configured on a per site basis
- This allows integrators to have different `robots.txt` files for each site in a multi-site installation for example
- Routes can be configured as top level files or as path
- Configuration is possible in TYPO3 backend or directly in YAML
- Two options are currently supported:
  - deliver static text
  - resolve a TYPO3 URL
- Resolving of static routes is implemented as a PSR-15 middleware
Finalized Features

Symfony ExpressionLanguage

- The Symfony ExpressionLanguage component has been implemented for TypoScript conditions (frontend and backend)

- Some examples:

  [page["uid"] in 18..45]
  # This condition matches, if current page uid is between 18 and 45
  [END]

  [not ("foo" matches "/bar")]
  # This condition matches, if "foo" does not match the regular expression '/bar/'
  [END]

  [request.getNormalizedParams().getHttpHost() == 'example.com']
  # This condition matches, if current hostname is 'example.com'
  [END]

- Using old condition syntax triggers a deprecation message
Finalized Features

Extbase Translation Handling

- Extbase now renders translated records the same way as TypoScript does
- The new behaviour is controlled by the feature switch:
  
  ```
  config.tx_extbase.features.consistentTranslationOverlayHandling = 1
  ```
- The new behaviour is the default in v9 LTS (the feature switch will be removed in v10)
- Learn more about how to query data using Extbase in the TYPO3 documentation
Finalized Features

Site Configuration in TypoScript

Site configuration can be accessed via `getProperty` property in TypoScript:

```typo3
page.10 = TEXT
page.10.data = site:base
page.10.wrap = The base URL is: |

page.20 = TEXT
page.20.data = site:customConfigKey.nested.value
page.20.wrap = The nested value is: |
```
Deprecated/Removed Functions
Second argument to backend and eID controller actions has been marked deprecated (controllers should create a response object implementing `Psr\Http\Message\ResponseInterface`).

TypoScript cObject `FILE` is error-prone and has been marked deprecated.

Extbase misuses the `@internal` annotation and therefore this annotation has been marked deprecated without a replacement.

Annotation `@flushesCaches` has been marked deprecated.
The following classes have been marked deprecated:

- `TYPO3\CMS\Recordlist\Controller\ElementBrowserFramesetController`
- `TYPO3\CMS\Backend\Module\BaseScriptClass`
- `TYPO3\CMS\Backend\Module\AbstractFunctionModule`

Class `TYPO3\CMS\Taskcenter\Controller\TaskModuleController` no longer inherits `TYPO3\CMS\Backend\Module\BaseScriptClass`

Single task classes should no longer expect to have an instance of the TaskModuleController set as `$GLOBALS['SOBE']`

The visibility of the following method has been changed from public to protected:

- `TYPO3\CMS\Backend\Controller\BackendController->render()`
Deprecated/Removed Functions

Deprecated Options and Functions (3)

The following configuration options have been marked deprecated:

- config.tx_extbase.objects
- plugin.tx_%plugin%.objects

The following hooks have been marked deprecated (PSR-15 middleware concept offers better implementation options)

$GLOBALS ... ['tslib/class.tslib_fe.php']['tslib_fe-PostProc']
$GLOBALS ... ['tslib/class.tslib_fe.php']['connectToDB']
$GLOBALS ... ['tslib/class.tslib_fe.php']['initFEuser']
$GLOBALS ... ['tslib/index_ts.php']['preBeUser']
$GLOBALS ... ['tslib/index_ts.php']['postBeUser']
$GLOBALS ... ['tslib/class.tslib_fe.php']['checkAlternativeIdMethods-PostProc']
$GLOBALS ... ['tslib/index_ts.php']['preprocessRequest']
Deprecated/Removed Functions

Deprecated Options and Functions (4)

- The following TCA properties on type="user" config types have been deprecated and should not be used anymore:
  - userFunc
  - parameters
  - noTableWrapping

- Some methods in the following class have been marked deprecated:
  TYPO3\CMS\Backend\FrontendBackendUserAuthentication
  - checkBackendAccessSettingsFromInitPhp()
  - extPageReadAccess()
  - extGetTreeList()
  - extGetLL()
Deprecated/Removed Functions

Site configuration

- Site configuration in YAML file resides directly in the root now
- Previously used key "site" became obsolete and triggers a deprecation message when used

Migration:
- Edit file `config.yaml`, remove key "site" and move configuration up one level, or:
- Save site configuration via the backend module
Deprecated/Removed Functions

Changed Visibilities

- The visibility of several properties and methods have been changed from public to protected in classes:
  - TYPO3\CMS\Filelist\Controller\FileListController
  - TYPO3\CMS\Frontend\Controller\TypoScriptFrontendController
  - TYPO3\CMS\Impexp\Controller\ImportExportController
  - TYPO3\CMS\Recordlist\Controller\AbstractLinkBrowserController
  - TYPO3\CMS\Recordlist\Controller\ElementBrowserController
  - TYPO3\CMS\Recordlist\Controller\RecordListController
  - TYPO3\CMS\Reports\Controller\ReportController
  - TYPO3\CMS\RteCKEditor\Controller\BrowseLinksController
  - TYPO3\CMS\Setup\Controller\SetupModuleController
  - TYPO3\CMS\Taskcenter\Controller\TaskModuleController
Deprecated/Removed Functions

Preparations for TYPO3 v10

- In preparation for a refactoring of module **Web → Template** in TYPO3 v10, some classes have been updated and a number of properties and methods marked deprecated.
  - TYPO3\CMS\Tstemplate\Controller\*

- Same for module **Web → Info**
  - TYPO3\CMS\Info\Controller\*
  - TYPO3\CMS\Linkvalidator\Report\*

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Chapter 6: Sources and Authors
Sources and Authors

Sources

**TYPO3 News:**
- [https://typo3.org/project/news/](https://typo3.org/project/news/)

**Release Infos:**
- [https://get.typo3.org/release-notes/9.x/TYPO3_CMS_9.5.0](https://get.typo3.org/release-notes/9.x/TYPO3_CMS_9.5.0)
- INSTALL.md and ChangeLog
- typo3/sysext/core/Documentation/Changelog/9.5/*

**TYPO3 Bug-/Issuetracker:**

**TYPO3 and Fluid Git Repositories:**
- [https://git.typo3.org/Packages/TYPO3.CMS.git](https://git.typo3.org/Packages/TYPO3.CMS.git)
- [https://github.com/TYPO3/Fluid](https://github.com/TYPO3/Fluid)
Sources and Authors

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https://typo3.org/help/documentation/whats-new/

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