

TYP03 Version 9.1 – What's New

Summary of the new features, changes and improvements

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TYPO3 Version 9.1 - What's New

Chapter Overview

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Backend User Interface

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Sources and Authors

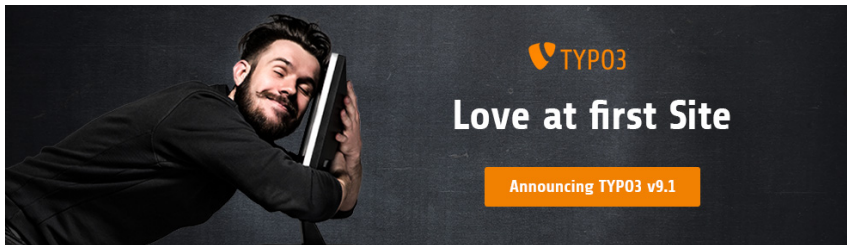
Introduction

The Facts

Introduction

TYPO3 Version 9.1 – The Facts

- Release date: 30 January 2018
- Release type: Sprint Release



Introduction

System Requirements

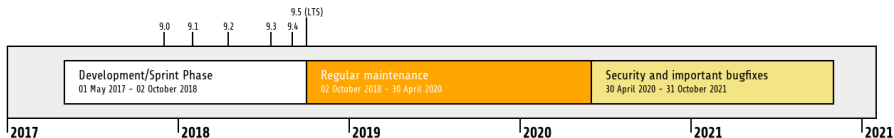
- PHP version 7.2
(will possibly be lowered to PHP 7.1 or 7.0 for future releases, decision pending)
- PHP settings:
 - `memory_limit >= 128M`
 - `max_execution_time >= 240s`
 - `max_input_vars >= 1500`
 - compilation option `--disable-ipv6` must not be used
- Most database servers supported by **Doctrine DBAL** also work with TYPO3. Tested DB engines are for example:



Introduction

Development, Release and Maintenance Timeline

TYPO3 v9



Extended Support

The [TYPO3 GmbH](#) offers further support options for TYPO3 v9 LTS even after 31 October 2021 for up to two additional years.

Introduction

TYPO3 v9 Roadmap

Estimated 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 Configuration
- v9.3 12/Jun/2018 URL Routing
- v9.4 04/Sep/2018 Frontend Editing
- v9.5 02/Oct/2018 LTS Release

<https://typo3.org/news/article/typo3-v9-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/9.1
$ tar xzf typo3_src-9.1.0.tar.gz
$ cd htdocs
$ ln -s ../typo3_src-9.1.0 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

Introduction

Installation Using composer

- Installation using *composer* under Linux/Mac OS X

```
$ cd /var/www/site/  
$ composer create-project typo3/minimal
```

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

```
$ composer install
```

An example `composer.json` file can be downloaded at:

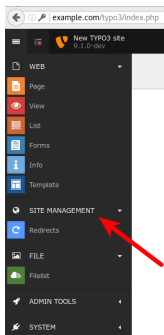
git.typo3.org/TYPO3CMS/Distributions/Base.git/blob/HEAD:/composer.json

Chapter 1: Backend User Interface

Backend User Interface

Site Management

A new main module **Site Management** has been introduced to the TYPO3 core. Its main purpose is to host functions related to the configuration of the site, e.g. languages, domains and routing.



The new system extension `EXT:redirects` builds the first component of this main module (see next page for details).

Backend User Interface

Redirects

New module allows integrators and editors to configure redirects. The function contains a simple hit counter (needs to be enabled) and redirects can be set up unlimited or for a specific time period.

General		Statistics	Access
Source Domain			
<input type="text" value="example.com"/>		<input type="text"/>	
Source Path		Is regular expression?	
<input type="text" value="/old-page/"/>		<input type="checkbox"/> Yes	
Target		Status Code HTTP Header	
<input type="text" value="t3://page?uid=2"/>		<input type="text" value="307 Temporary Redirect"/>	
SSL Redirect		GET Parameters	
<input type="checkbox"/> Force SSL Redirect		<input type="checkbox"/> Keep GET Parameters	

Backend User Interface

Field Names in Debug Mode

- TYPO3 integrators and developers often deal with input fields in the backend, e.g. when setting up access permissions or during TsConfig configuration.
- Instead of looking into the source code of the browser, field names are shown for each field generated by the FormEngine now.
- This applies to users with administrator privileges only and requires that the debug mode is enabled in TYPO3:

```
$GLOBALS['TYPO3_CONF_VARS']['BE']['debug']
```

The screenshot shows a configuration form for 'Headlines'. It features a text input field for 'Header' with the label 'Header [header]' in red. Below this are three columns of configuration options: 'Type [header_layout]' with a dropdown menu set to 'Default', 'Alignment [header_position]' with a dropdown menu set to 'Default', and 'Date [date]' with an empty text input field and a calendar icon.

Chapter 2: Changes for Integrators

Changes for Integrators

Import/Export

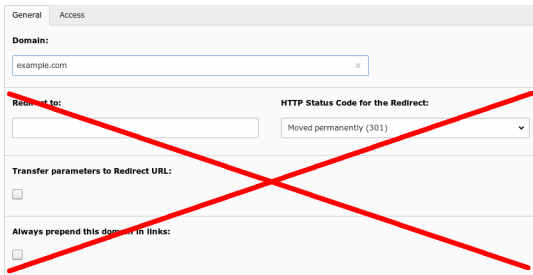
Various updates have been done to the system extension `impexp`:

- **Restriction "maximum number of records" has been removed**
When exporting pages or records, the restriction to export only a maximum number of records has been removed.
- **Restriction "maximum file size" has been removed**
When exporting files using the "Export" interface, the restriction to only export files of a certain maximum size has been removed.
- **Size handling removed**
When exporting or importing structures, records and files wrote size information to export files and checked these during import. This change has no impact on editors.

Changes for Integrators

Redirect Functionality

- Option to configure a redirect, when a domain was added to a specific page or page branch, has been removed
- Setting up redirects can now be done in the new module **Site Management** → **Redirects**



The image shows a screenshot of a web application interface for configuring a redirect. The form is titled "General" and "Access". It contains the following fields and options:

- Domain:** A text input field containing "example.com".
- Redirect to:** An empty text input field.
- HTTP Status Code for the Redirect:** A dropdown menu with "Moved permanently (301)" selected.
- Transfer parameters to Redirect URL:** A checkbox that is unchecked.
- Always prepend this domain in links:** A checkbox that is unchecked.

A large red 'X' is drawn over the entire form, indicating that this functionality is deprecated or no longer available.

Chapter 3: Changes for Developers

Changes for Developers

`filterRecursive()`

- Class TYPO3\CMS\Core\Utility\ArrayUtility features a new method to filter multidimensional arrays:
`filterRecursive()`
- This method behaves just like PHP function `array_filter()`
<https://php.net/manual/en/function.array-filter.php>
- If no callback is defined, values are removed, if they equal to boolean "false"

Changes for Developers

Feature Toggles (1)

- New API **Feature Toggles** has been implemented
- The purpose of this API is to better support alternative functionality, while retaining old functionality
- The API checks against a system-wide option array within `$TYPO3_CONF_VARS['SYS']['features']`
- Both, the TYPO3 core as well as extensions can then provide alternative functionality for a certain feature
- Typical use cases are for example:
 - Throw exceptions on certain occasions instead of returning a string as an error message.
 - Disable obsolete functionality, which might still be used, but slows down the system.
 - Enable alternative PageNotFound handling for an installation.

Changes for Developers

Feature Toggles (2)

- Features are documented for the TYPO3 core
(add link)
- Extension authors can use the API for any custom feature provided by the extension:

```
if (GeneralUtility::makeInstance(Features::class)->isFeatureEnabled('myFeatureName')) {  
    // do custom processing  
}
```

Changes for Developers

"Draw Header" Hook

- New hook has been added to `EXT:recordlist` to render content above any other content
- Register a hook:

```
$GLOBALS['TYPO3_CONF_VARS']['SC_OPTIONS']['cms/layout/db_layout.php']  
  ['drawHeaderHook']['sys_note'] = \Vendor\Extkey\Hooks\PageHook::class . '->render';
```

Changes for Developers

BE User Login Hook (1)

- On backend user logins, registered hooks are executed
- This allows TYPO3 developers to build functions that do *something* when a BE user logs in
- Notification services are typical use cases:
 - Post a message to Slack or a similar messaging system.
 - Send a text message (SMS) to the user's mobile number.
 - Pass this event to other systems to monitor suspicious activities.
 - etc.

Changes for Developers

BE User Login Hook (2)

- Register a hook:

```
$GLOBALS['TYPO3_CONF_VARS']['SC_OPTIONS']['t3lib/class.t3lib_userauthgroup.php']  
  ['backendUserLogin'][] = \Vendor\Extkey\Hooks\BackendUserLogin::class . '->dispatch';
```

- This executes method `dispatch()` when a BE user logs in, and passes the user array as a parameter to the method:

```
public function dispatch($backendUser)  
{  
    if (isset($backendUser['user']['username'])) {  
        $username = $backendUser['user']['username'];  
        $email = $backendUser['user']['email'];  
        // do something...  
    }  
}
```

Chapter 4: Deprecated/Removed Functions

Deprecated/Removed Functions

EXT:rsaauth

- Extension EXT:rsaauth has been marked as **deprecated**
- Due to the fast growing acceptance of SSL/TLS, the technology used by the extension is no longer deemed "secure":
 - Only the password is transmitted encrypted
 - Key exchange between server and client is not authenticated (allows man-in-the-middle attacks)
 - Session IDs are transferred unencrypted, but are almost as valuable as passwords
- Use a secure connection (HTTPS) instead, and encrypt all data sent between client and server (TYPO3 frontend and backend)

Note: modern browsers warn users by default when form data is submitted via an unencrypted connection - not only passwords or credit card data.

Deprecated/Removed Functions

RawValidator

- RawValidator has been marked as **deprecated**
- It was meant to be some kind of NullObject to prevent a "NoSuchValidatorException", but these Exceptions are caught, which makes the validator obsolete
- Due to the fact that the validator does not validate anything, chances are high that this change does not affect any installations at all
- In case developers use the RawValidator, they need to implement it themselves

Chapter 5: Miscellaneous

Miscellaneous

Various Libraries Upgraded

- "doctrine/dbal" upgraded to version 2.6.3
<http://doctrine-project.org>
- "CKEditor" upgraded to version 4.8.0
<https://ckeditor.com>
- "D3.js" upgraded to version 4.12.2
<https://d3js.org>
- "Moment.js" upgraded to version 2.20.1
<https://momentjs.com>
- "CodeMirror" upgraded to version 5.33.0
<https://codemirror.net>
- "imagesLoaded" upgraded to version 4.1.4
<https://imagesloaded.desandro.com>

Chapter 6: Sources and Authors

Sources and Authors

Sources

TYPO3 News:

- <https://typo3.org/news>

Release Infos:

- https://get.typo3.org/release-notes/9.x/TYPO3\CMS_9.1.0
- [INSTALL.md](#) and [Changelog](#)
- `typo3/sysex/core/Documentation/Changelog/9.1/*`

TYPO3 Bug-/Issuetracker:

- <https://forge.typo3.org/projects/typo3cms-core>

TYPO3 and Fluid Git Repositories:

- <https://git.typo3.org/Packages/TYPO3.CMS.git>
- <https://github.com/TYPO3/Fluid>

Sources and Authors

TYPO3 CMS What's New Team:

Pierrick Caillon, Richard Haeser, Jigal van Hemert
Henrietta Kucsovan, Michael Schams and Roberto Torresani

<https://typo3.org/download/release-notes/whats-new>

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