

TYPO3 CMS 6.2 LTS – What's New

Pregled novih funkcionalnosti, promena i unapredjenja

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TYPO3 CMS 6.2 LTS - What's New

Pregled

Uvod

Install Tool

Risponsiv slike

Promene administratorskog dela

Promene administratorskog dela

TSconfig i TypoScript

Package Management

Konceptualne izmene

Application Programming Interface

Extbase i Fluid

Unapredjenje na Typo3 CMS 6.2

LTS

MythBuster

Izvori i autori

Uvod (Cinjenice)

Uvod

TYPO3 CMS 6.2 LTS: Cinjenice

- U fokusu su:

- Laka migracija
- Robustna i sigurna osnova
- Srecni korisnici
- Moderne tehnologije/sposobnost zajednickog rada

- Release Manager:

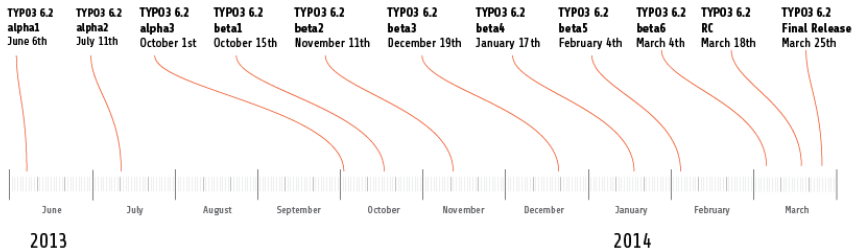
- Ernesto Baschny
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Twitter: @baschny



Uvod

TYPO3 CMS 6.2 LTS: Cinjenice

- Datum izlaska: 25. Mart 2014.
- Vreme razvoja i izlaska:



Uvod

TYPO3 CMS 6.2 LTS: Cinjenice

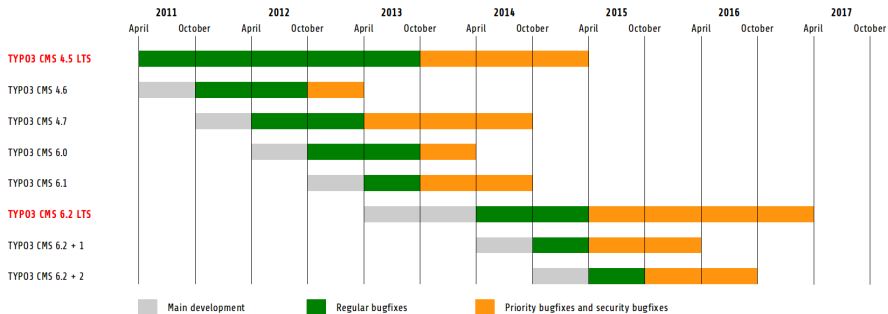
- **Sistemske zahteve**
 - PHP v5.3.7 - v5.5.x
 - MySQL v5.1.x - v5.6.x

- **Prestanak održavanja: 30 Decembar 2016**
- **TYPO3 CMS 6.2 je verzija sa dugoročnom podrskom (LTS) (podrska od 3 godine!)**

Uvod

TYPO3 CMS 6.2 LTS: Cinjenice

■ Agenda izlaska:



Poglavlje 1: Install Tool

Install Tool

Instalacija

- Samo jedan paket je potreban za instalaciju:
`typo3_src-6.2.x.tar.gz` (velicine fajla oko 20MB)
- "Dummy" i "Blank" paketi zastareli su
- Instalacija:
 - Raspakovati arhivu u koren sajta
 - Mapraviti symbolic link-ove kao sto je trazeno
 - U pretrazivacu uneti adresu sajta
 - TYPO3 Installer pokrece 1-2-3-4-koraka carobnjaka

Install Tool

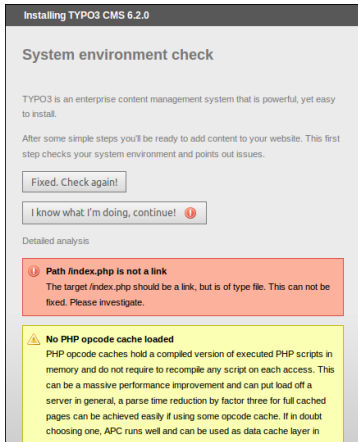
Instalacija

- Obezbedjuje da su svi potrebni fajlovi i direktorijumi na svom mestu
- Fajlovi potrebni za dodatna podesavanja bice kreirani automatski
- Sledeci symbolic link-ovi moraju da postoje:
 - `typo3_src` (upucuje na TYPO3 izvorni direktorijum)
 - `typo3` (upucuje na direktorijum: `typo3_src/typo3`)
 - `index.php` (upucuje na fajl: `typo3_src/index.php`)
- Nema dodatnih fajlova/direktorijuma koji su neophodni za instalaciju Typo3
- Direktorijum `t3lib` je uklonjen
- Dodatni detalji: Typo3 instalacija i uputstvo za unapredjenje:
<http://docs.typo3.org/typo3cms/InstallationGuide>

Install Tool

Reprogramiranje

- Reprogramiran od pocetka koriscenjem Fluid-a
- Prvi korak testira sistemsko okruzenje i javlja probleme
- Prijavljeni problemi mogu biti ispravljani (i ponovo testirani) ili zanemareni
- Pogresno podesavanje core-a (na primer nema preporucenih symbolic link-ova) se takodje prijavljuje kao problem



Installing TYPO3 CMS 6.2.0

System environment check

TYPO3 is an enterprise content management system that is powerful, yet easy to install.

After some simple steps you'll be ready to add content to your website. This first step checks your system environment and points out issues.

Fixed. Check again!

I know what I'm doing, continue! ⓘ

Detailed analysis

ⓘ Path /index.php is not a link
The target /index.php should be a link, but is of type file. This can not be fixed. Please investigate.

⚠ No PHP opcode cache loaded
PHP opcode caches hold a compiled version of executed PHP scripts in memory and do not require to recompile any script on each access. This can be a massive performance improvement and can put load off a server in general, a parse time reduction by factor three for full cached pages can be achieved easily if using some opcode cache. If in doubt choosing one, APC runs well and can be used as data cache layer in

Install Tool

Reprogramiranje

- Drugi korak omogućuje korisnicima da unesu podatke za pristup bazi podataka
- Mozete izabrati tip veze
 - Veza bazirana na TCP/IP
 - Veza bazirana na Socket-u
- Moguce su i alternative za MySQL

Installing TYPO3 CMS 6.2.0

Connect to your database host

If you have not already created a username and password to access the database, please do so now. This can be done using tools provided by your host.


Username

Password

Type

Socket

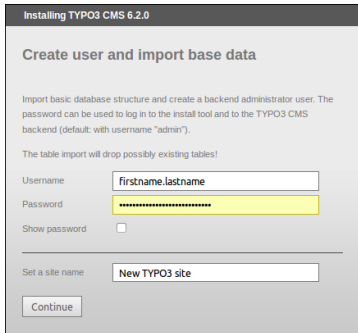
TYPO3 CMS native database implementation is based on mysql. A database abstraction layer allows to run TYPO3 CMS on different database engines like postgres. This is used rather seldom and some core parts and extensions do not fully support this. Your TYPO3 CMS experience might suffer if you choose to install the system on anything different than mysql.



Install Tool

Reprogramiranje

- Treci korak omogućava korisniku da izabere/kreira bazu podataka (kao i kod TYPO3 < 6.2)
- Cetvrti korak omogućava korisniku da postavi lozinku za admin korisnika (koja je takodje pocetna lozinka za Install Tool) i ime sajta

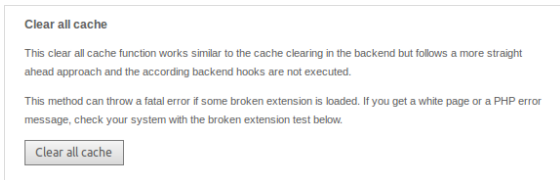
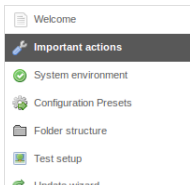


The screenshot shows the 'Installing TYPO3 CMS 6.2.0' window. The main heading is 'Create user and import base data'. Below this, there is explanatory text: 'Import basic database structure and create a backend administrator user. The password can be used to log in to the install tool and to the TYPO3 CMS backend (default: with username "admin").' A warning states: 'The table import will drop possibly existing tables!'. The form contains the following fields: 'Username' with the value 'firstname.lastname', 'Password' with a masked password '*****', and 'Show password' which is unchecked. Below a horizontal separator, there is a 'Set a site name' field with the value 'New TYPO3 site'. At the bottom left is a 'Continue' button.

Install Tool

Brisanje kompletnog kesa

- Nova funkcija pod "Important actions" omogućava korisniku da izbrise kompletan kes.
- Ovo takodje radi ako kes sadrzi nevazeci PHP kod. (koji moze da blokira TYPO3 CMS)
- Install Tool-u se moze pristupiti i direktno, zaobilazenjem TYPO3 instalacije koja ne funkcioniše:
`http://example.com/typo3/install`



Install Tool

Clear All Cache

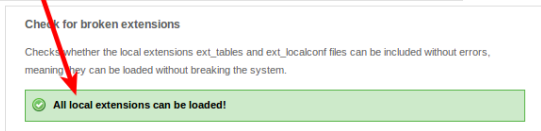
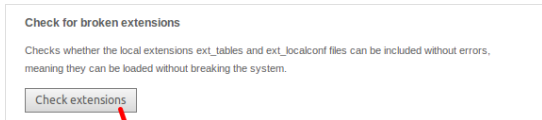
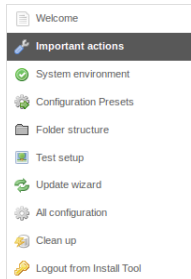
Redosled radnji prilikom izvršenja "Clear all cache":

1. Sadržaj direktorijuma `typo3temp/Cache` je izbrisan
2. Tabele u bazi podataka `cf_*` se prazne
3. Fajlovi `ext_localconf.php` i `ext_tables.php` se učitavaju iz proširenja
4. `flushCaches()` se izvršava

Install Tool

Provera prosirenja koja ne rade

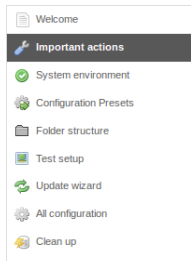
- Nova funkcija u "Important actions" omogućava korisniku da proveri da li prosirenje moze da se ucita, a da ne srusi sistem
- Veoma korisno prilikom unapredjenja sa TYPO3 4.5 na 6.2



Install Tool

Salted lozinka

- Kada kroz Install Tool kreiramo novog administratora sajta, a **salted** lozinka se koristi (zahteva instalirano, ucitano i konfigurisano prosirenje EXT:saltedpasswords)
- Install Tool lozinka je **salted** lozinka takodje (postojeci MD5 hes se konvertuje prilikom prvog logovanja)



Create backend administrator user

You should use this function only if there are no admin users in the database, for instance if this is a blank database. After you've created the user, log in and add the rest of the user information, like email and real name.

Username:

Password:

Password again:

Install Tool

Kontekst aplikacije (1)

- TYPO3 >= 6.2 uzima **kontekst aplikacije** u obzir (poznato iz TYPO3 Flow)
- Promenljiva okruženja `TYP03_CONTEXT` postavlja kontekst (podrazumevano: `Production`, podkontekst kao na primer `Production/Staging` je takodje moguć)

```
# File: .htaccess
```

```
# Rules to set Application Context based on hostname:
```

```
RewriteCond %{HTTP_HOST} ^dev\.example\.com$  
RewriteRule (.*) $1 [E=TYP03_CONTEXT:Development]
```

```
RewriteCond %{HTTP_HOST} ^www\.example\.com$  
RewriteRule (.*) $1 [E=TYP03_CONTEXT:Production]
```

```
# Sets an environment variable, which is then available to TYPO3 CMS:  
SetEnv TYP03_CONTEXT Production
```

Install Tool

Podrazumevana podesavanja TYPO3_CONF_VAR

- Odredjena podesavanja TYPO3_CONF_VAR-a mogu biti definisana u Install Tool-u
- Podesavanja kao stop su debug output, deprecation log, devIPmask i ostali sistemski logovi, kao i nivo logovanja
- Ugradjeni konteksti: "Production" i "Development" (konfiguracija po zelji korisnika je takodje moguca)

Development / Production settings

TYPO3 can be run in a specific application context by using one of the built-in contexts "Production" (default), "Development" or "Testing". This can be used to provide specific configuration sets for each context. The context can be defined with the environment variable "TYPO3_CONTEXT" which is usually set through your webserver configuration (e.g. in htaccess).

However, if you don't set a context environment variable, you can still use the install tool to select a configuration preset for "Production" or "Development" context. The goal is to configure a production instance with maximum performance and no debug output that is possibly shown to users, while development instances should enable error output. The configuration preset for "Production" is set by default. As a third alternative, you can enter a custom configuration.

Production [Active]
Production settings turn off debug output, deprecation logs and set logging to warnings and errors only.

Development
Development settings enable debug output, deprecation logs and set logging to info level.

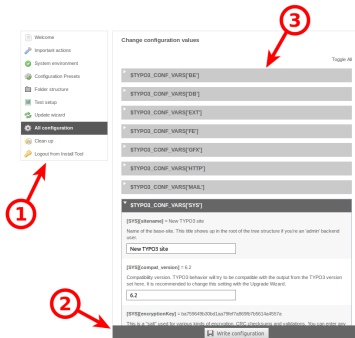
Custom configuration
Custom configuration mixture if no other preset fits.

<input type="text"/>	BE/debug
<input type="text"/>	FE/debug
<input type="text"/>	SYS/devIPmask
<input type="text"/>	SYS/displayErrors
<input type="text"/>	SYS/enableDeprecationLog
<input type="text" value="0"/>	SYS/sqlDebug
<input type="text" value="2"/>	SYS/systemLogLevel

Install Tool

Poboljšana upotrebljivost

- Fiksirana pozicija levog menija kada se skroluje (1)
- Fiksirana pozicija dugmeta "Write configuration" na dnu (2)
- Unosi u "All Configuration" su grupisani (sekcije se otvaraju klikom na naslov) i sortirani (3)



Install Tool

Kodovi gresaka citljivi ljudima

- Ključne reči sa značenjem mogu da se koriste za sledeće opcije: (TYPO3 < 6.2: samo numeričke vrednosti)

```
[SYS] [errorHandlerErrors]
```

```
[SYS] [exceptionalErrors]
```

```
[SYS] [syslogErrorReporting]
```

```
[SYS] [belogErrorReporting]
```

```
[SYS][errorHandlerErrors] = 30466
```

Integer: The E_* constant that will be handled by the errorhandler. Not all PHP error types can be handled! Default is E_ALL & ~(E_STRICT | E_NOTICE | E_COMPILE_WARNING | E_COMPILE_ERROR | E_CORE_WARNING | E_CORE_ERROR | E_PARSE | E_ERROR).

```
30466
```

Current PHP error code **30466** represents:

```
E_WARNING | E_USER_ERROR | E_USER_WARNING | E_USER_NOTICE |  
E_RECOVERABLE_ERROR | E_DEPRECATED | E_USER_DEPRECATED
```

- Extbase ViewHelper **format.phpErrorCode** se brine za prevodjenje u PHP kodove gresaka

Install Tool

Greske u strukturi foldera

- Grečke u "Folder Structure" su izlistane kao bedzevi (zaokružen broj)

- Welcome
- Important actions
- System environment
- Configuration Presets
- Folder structure** 3
- Test setup
- Update wizard
- All configuration
- Clean up
- Logout from Install Tool

These files or folders have errors and may be automatically fixable:

- ❗ Path /index.php is not a link**
The target /index.php should be a link, but is of type file. This can not be fixed. Please investigate.
- ❗ Path /typo3 is not a link**
The target /typo3 should be a link, but is of type dir. This can not be fixed. Please investigate.
- ❗ /typo3_src should be a link, but it does not exist**
Links can not be fixed by this system
- ⚠ /typo3temp has wrong permission**
Target permission are 2770 but current permission are 0777

Install Tool

Core unapredjenja

- Unapredjenje TYPO3 core-a na poslednju manju verziju sa samo jednim klikom
- Promenjiva okruzenja `TYPO3_DISABLE_CORE_UPDATER=1` onemogucava ovu funkcionalnost

Core update

The install tool can automatically update the TYPO3 CMS core to its latest minor release if certain criteria are met.

Check for core updates

Fetching list of released versions from typo3.org

Fetched list of released versions

Update to release 6.2.1 is available!

Update now

Install Tool

Ostalo

- Sve forme su zasticene sa CSRF (*cross-site request forgery*)
- Install Tool koristi uprosćen Fluid Standalone View
- Samo neophodne TYPO3 funkcije se učitavaju (ostecen `ext_localconf.php` ili `ext_tables.php` ili neko proširenje ne mogu više da ostete Install Tool)
- Nova početna tačka:
Pre: `typo3/sysext/install/Start/Install.php`
`typo3/install/index.php`
(postoji redirekcija sa starog URL-a na novi)
- Isključeno kesiranje obezbeđuje da se Install Tool može koristiti, iako kes sadrži nevazeci PHP code

Install Tool

Ostalo

- Proverite da li PHP podesavanje `xdebug.max_nesting_level` pokazuje vrednost 250 ili visu (podrazumevana vrednost "100" moze da stvara probleme)
- "Relaxed permission check":
Ukoliko direktorijum sajta nema ispravne permisije (na primer "2770"), i ovo ne moze da se resi, na primer iz razloga sto direktorijum ne pripada korisniku koji je pokrenuo Install Tool, prvi korak instalacije puca. Opcija "targetPermissionRelaxed" smanjuje vaznost permisija i dozvoljava nastavak instalacije dokle god podfolderi mogu biti kreirani.

Install Tool

Ostalo

- Uklonjene opcije (kljucevi) iz Install Tool-a
(a samim tim i iz fajla LocalConfiguration.php):

BE/loginLabels

BE/loginNews

BE/useOnContextMenuHandler

EXT/em_mirrorListURL

EXT/em_wsdlURL

EXT/extList

EXT/extList_FE

EXT/noEdit

FE/defaultTypoScript_editorcfg

FE/simulateStaticDocuments

GFX/noIconProc

GFX/TTFLocaleConv

SYS/additionalAllowedClassPrefixes

SYS/caching/cacheBackends

SYS/caching/cacheFrontends

SYS/extCache

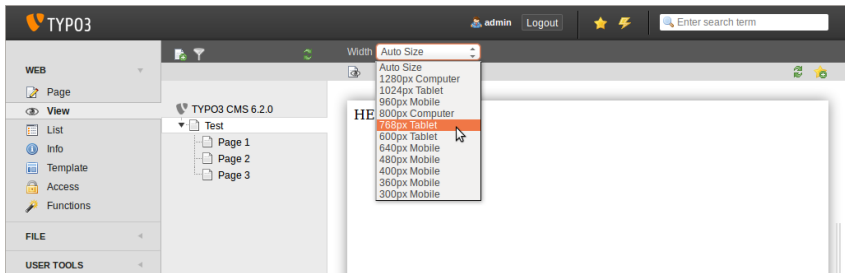
SYS/T3instID

Poglavlje 2: Risponsiv slike

Responsiv slike

Izbor velicine ekrana u Page Preview

- Urednici mogu odabrati razlicite velicine ekrana pomocu modula "View" da testiraju responsiv sajtove



Risponsiv slike

Prilagodjavanje postojećih velicina ekrana

- Velicine ekrana se mogu podesiti preko PageTSconfig:

```
mod.web_view.previewFrameWidths {  
    1780.label = <any LLL or string>  
    1780.height = 145  
}
```

- Sirina se određuje pomoću ključa (ovde: 1780), visina je opcionalna
- Predefinisane velicine se mogu naci u fajlu:
typo3/sysext/core/Configuration/DefaultConfiguration.php
- Naslovi se mogu definisati preko PageTSconfig:

```
mod.web_view.previewFrameWidths {  
    1280.label = LLL:EXT:viewpage/Resources/Private/Language/locallang.xlf:computer  
    1024.label = LLL:EXT:viewpage/Resources/Private/Language/locallang.xlf:tablet  
}
```

Risponsiv slike

Risponsiv galerije slika

- Dodate su nove osobine za implementaciju risponsiv galerija slika
- "CSS styled content" je prosiren da bi se ovo postiglo
- Primer: HTML5 (zahteva `config.doctype = html5`)

TYPO3 CMS < 6.2:

```
<div class="csc-textpic-imagewrap">...</div>
```

TYPO3 CMS >= 6.2:

```
<div class="csc-textpic-imagewrap"  
  data-csc-images="{register:imageCount}"  
  data-csc-cols="{field:imagecols}">...</div>
```

Risponsiv slike

Renderanje risponsiv slika

- cObject IMAGE rendera takozvani "sourceCollection" da bi podrzao razlicite dimenzije
- Renderanje risponsiv slika za cObject-e "text/image" i "image" zahteva dva podesavanja u Constant Editor:
`styles.content.imgtext.responsive`
`styles.content.imgtext.layoutKey`
- Prihvatljive ("out of the box") opcije su:
 - `default:` podrazumevani ``-tag
 - `srcset:` ``-tag sa dodatnim izvorima kao `srcset`-atribut
 - `picture:` `<picture>`-tag sa `source-child`-tagovima
 - `data:` ``-tag sa dodatnim izvorima kao `data`-atributi

Risponsiv slike

Osobina: layoutKey

- layoutKey definise renderanje layout-a (ovo je HTML kod, koji se koristi za -tag)
- Svaka opcija ima jedinstveno ponasanje za renderanje HTML-a
- Opcija podrazumevana rendera -tag standardno (ovo treba da se koristi ako sajt nije risponsiv)
- Implementiranje risponsiv layout-a zahteva razlicite dimenzije slika za razlicite rezolucije i velicine ekrana
- U zavisnosti od HTML framework-a, mogucnosti pretrazivaca i JavaScript biblioteka (za napredna poboljsanja):
 - koristiti jedan od unapred definisanih layout-a
 - definisati sopstveni layout

Responsiv slike

Osobina: layout

```
layoutKey = {$styles.content.imgtext.layoutKey}
layout {
  default {
    element = 
  }
  srcset {
    element = 
    source = |*|###SRC### ###SRCSETCANDIDATE###,|*|###SRC### ###SRCSETCANDIDATE###
  }
  picture {
    element = <picture>###SOURCECOLLECTION###</picture>
    source = <source src="###SRC###" media="###MEDIAQUERY###"###SELCLOSINGTAGSLASH###>
  }
  data {
    element = 
    source = data-###DATAKEY###="###SRC###"
  }
}
```

Risponsiv slike

Osobina: `layout.[layoutKey].element`

- `###SRC###`

Atribut za URL: `src`

- `###WIDTH###`

Atribut za sirinu slike (u pikselima): `width`

- `###HEIGHT###`

Atribut za visinu slike (u pikselima): `height`

- `###PARAMS###`

Dodatni parametri kao sto su definisani u `cObject IMAGE`

- `###ALTPARAMS###`

Dodatni alternativni parametri kao sto su definisani u `cObject IMAGE`

Risponsiv slike

Osobina: `layout.[layoutKey].element`

- **###BORDER###**

Atribut za ivicu (u pikselima): `border`

- **###SELCLOSINGTAGSLASH###**

Zatvarajuci tag, na primer `` nasuprot ``
(zavisi od `config.xhtmlDoctype` ili `config.doctype`)

- **###SOURCECOLLECTION###**

Dodatni izvor slike, zavisi od koriscenja risponsiv dizajna. Tacne vrednosti su definisane u: `layout.[layoutKey].source`

Risposiv slike

Osobina: sourceCollection.[dataKey]

- Podrazumevan sourceCollection iz EXT:css_styled_content
- Pisanje sopstvenih sourceCollection-a je preporuceno

```
sourceCollection {  
  small {  
    width = 200  
    srcsetCandidate = 600w  
    mediaQuery = (max-device-width: 600px)  
    dataKey = small  
  }  
  smallRetina {  
    if.directReturn = 1  
    width = 200  
    pixelDensity = 2  
    srcsetCandidate = 600w 2x  
    mediaQuery = (max-device-width: 600px) AND (min-resolution: 192dpi)  
    dataKey = smallRetina  
  }  
}
```

Risponsiv slike

Dodatni resursi

- Primeri koda:

http://wiki.typo3.org/Responsive_Image_Rendering

- Artikl Sven Wolfermann-a na typo3.org:

<http://typo3.org/news/article/responsive-image-rendering-in-typo3-cms-62/>

- W3C specification:

<http://www.w3.org/html/wg/drafts/srcset/w3c-srcset/>
<http://www.w3.org/TR/html-picture-element/>

- Working-Draft "Responsive Image Community Group":

<http://responsiveimages.org>

Poglavlje 3: Promene administratorskog dela

Promene administratorskog dela

Logovanje na administratorski deo

- Autofokus na korisnicko ime u formi za logovanje na administratorski deo
(HTML5 atribut: `autofocus="autofocus"`)

TYPO3

Login to the TYPO3 CMS Backend on TYPO3 CMS 6.2.0

Username

Password

Login

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Promene administratorskog dela

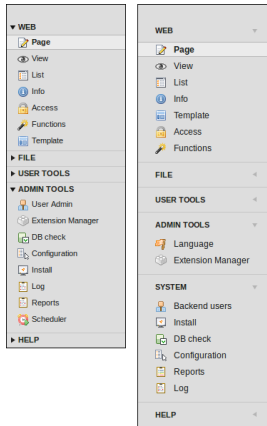
Vizualni prikaz

- Poboljšana upotrebljivost uz pomoc osvezenog layout-a
- Margine izmedju stavki modula (leva kolona) su povecane
- Baziran na mrezi od 12 piksela, koji je udvostucen

Levo: TYPO3 4.5

Desno: TYPO3

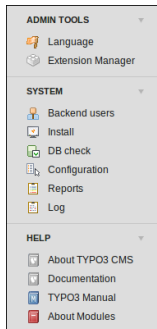
6.2



Promene administratorskog dela

Vizualni prikaz

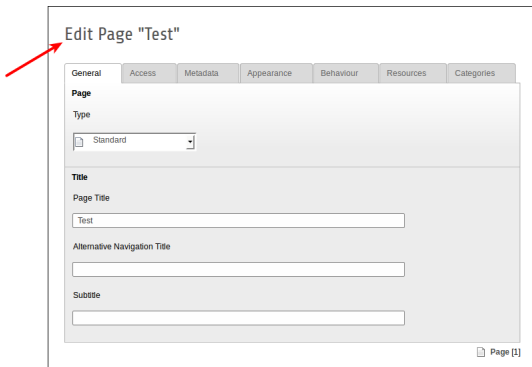
- Moduli u levoj koloni su restrukturisani
- Modul "ADMINTOOLS" je podeljen u dva dela:
 - **ADMINTOOLS** ("Languages" i "Extension Manager")
 - **SYSTEM** (alatke koje ne prikazuju kolonu sa stablom strana)
- Modul "TypoScript Help" sklonjen (zastareo)



Promene administratorskog dela

Vizualni prikaz

- `<h1>`-naslovi u glavnom delu koriste TYPO3 font "Share"

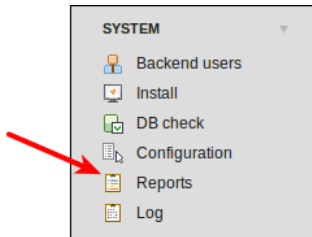


The screenshot shows the 'Edit Page' interface for a page titled 'Test'. The title 'Edit Page "Test"' is highlighted with a red arrow. The interface includes a tabbed menu with 'General' selected, and a 'Page' section with a 'Type' dropdown set to 'Standard'. The 'Title' section contains three input fields: 'Page Title' (containing 'Test'), 'Alternative Navigation Title', and 'Subtitle'. A 'Page [1]' label is visible in the bottom right corner.

Promene administratorskog dela

Vizualni prikaz

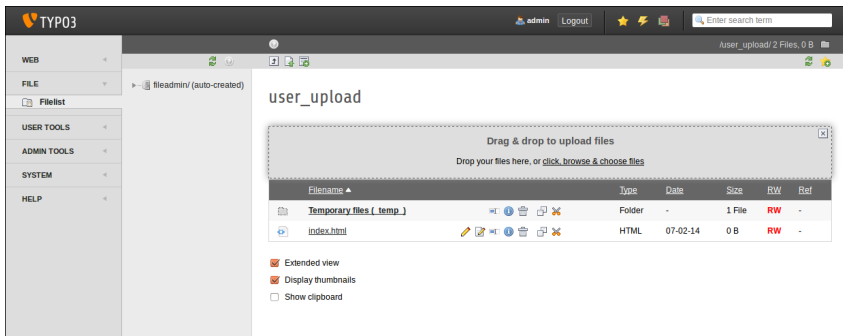
- Modul "Reports" ima novu ikonicu



Promene administratorskog dela

Drag&Drop slanje fajlova (1)

- HTML5 Drag&Drop funkcionalnost za slanje fajlova implementirana u filelist



The screenshot displays the TYPO3 CMS administrator interface. The top navigation bar includes the TYPO3 logo, the user 'admin', a 'Logout' button, and a search input field. The left sidebar contains a menu with categories: WEB, FILE, USER TOOLS, ADMIN TOOLS, SYSTEM, and HELP. The main content area shows the 'user_upload' directory. A prominent message box states: 'Drag & drop to upload files. Drop your files here, or [click, browse & choose files](#).' Below this is a table listing files and folders:

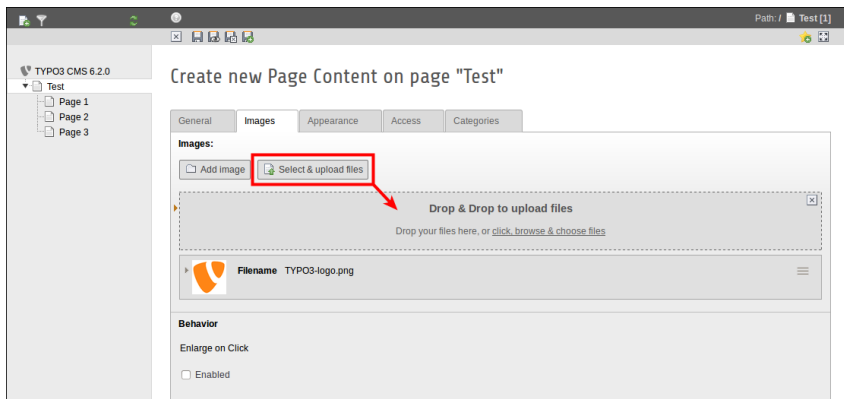
Filename	Type	Date	Size	RW	Ref
Temporary files (temp)	Folder	-	1 File	RW	-
index.html	HTML	07-02-14	0 B	RW	-

At the bottom of the interface, there are three checkboxes: 'Extended view' (checked), 'Display thumbnails' (checked), and 'Show clipboard' (unchecked).

Promene administratorskog dela

Drag&Drop slanje fajlova (2)






















- ...i kod sadrzaja (dugme: "Select & upload files")



Promene administratorskog dela

Upotrebljivost: lista korisnika administratorskog dela

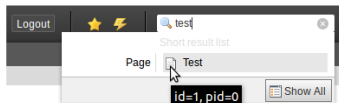
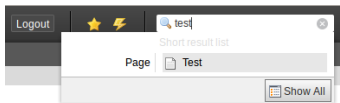
- Korisnicko ime i pravo ime su prikazani (prva kolona u list view)
- Klikom na korisnicko ime (pravo ime) otvara se link za uredjivanje korisnickog naloga
- Dugme delete dodato je u list view

Username / Real Name		Last login	
 administrator Firstname Lastname	 Compare	  	22-02-14 03:56
 ajolie Angelina Jolie	 Compare	     	Never
 bpitt Brad Pitt	 Compare	     	Never
3 Users			

Promene administratorskog dela

Live Search

- Tooltip pokazuje UID kao i PID u "livesearch"
- Kada se, nakon pretrage, uredjena forma zatvori, bice prikazan list view (a ne prazna strana)



Promene administratorskog dela

Live Search

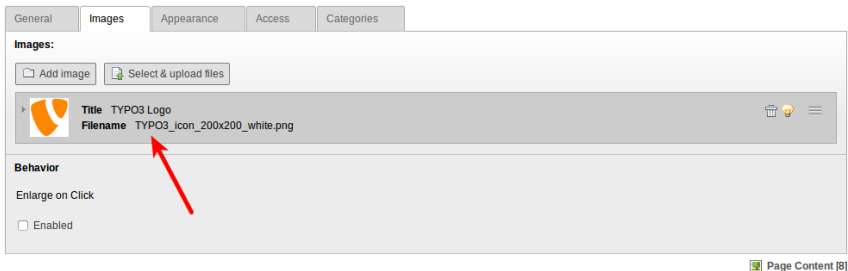
- U TYPO3 < 6.2, za strane su uzimana u obzir samo polja iz baze title i uid
- U TYPO3 >= 6.2, polje alias moze biti dodato u pretragu (zahteva UserTSconfig: `options.pageTree.searchInAlias = 1`)

The screenshot displays the TYPO3 CMS 6.2.0 administrator interface. The top navigation bar includes the TYPO3 logo, user information (admin), and a search bar. The search bar contains the text 'typo3' and shows a dropdown menu with results for 'Page' and 'Test'. A red arrow points from the search dropdown to the 'URL Alias' field in the 'Edit Page "Test"' configuration. The 'URL Alias' field is highlighted with a red box and contains the text 'typo3'. The interface also shows a sidebar with navigation options and a main content area with tabs for 'General', 'Access', 'Metadata', 'Appearance', 'Behaviour', 'Resources', and 'Categories'. The 'Links to this Page' section is visible, with 'URL Alias' and 'Link Target' fields.

Promene administratorskog dela

File Abstraction Layer

- Naslov i ime fajla se prikazuju u zaglavlju FAL-a



The screenshot displays the TYPO3 CMS administrator interface for configuring a File Abstraction Layer (FAL) entry. The interface is divided into several tabs: General, Images, Appearance, Access, and Categories. The 'Images' tab is currently selected. Under the 'Images:' section, there are two buttons: 'Add image' and 'Select & upload files'. Below these buttons, a list of image entries is shown. The first entry is highlighted and has a red arrow pointing to its 'Filename' field. The entry details are:

Title	Filename	Actions
TYPO3 Logo	TYPO3_icon_200x200_white.png	Trash, Lightbulb, Menu

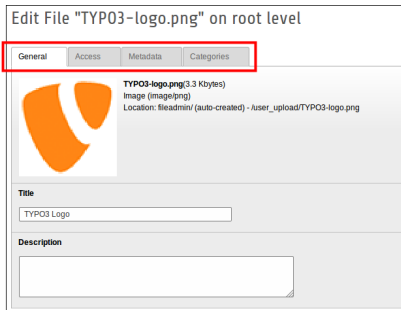
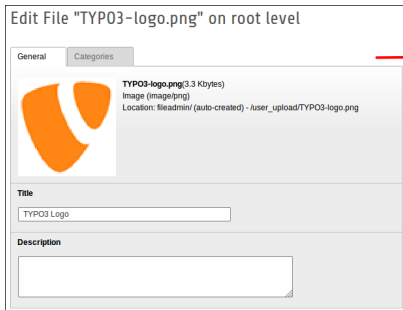
Below the image list, the 'Behavior' section is visible, featuring the 'Enlarge on Click' option, which is currently disabled (checkbox is unchecked).

Page Content [8]

Promene administratorskog dela

File Abstraction Layer (EXT:filemetadata)

- Sistemsko proširenje "filemetadata" dodaje kartice koje prikazuju meta podatke (proširenje se nalazi u instalaciji sistema, ali nije instalirano)



Promene administratorskog dela

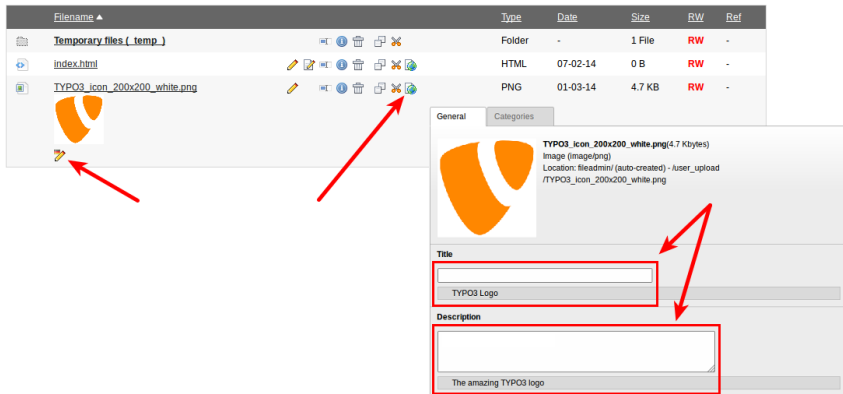
File Abstraction Layer (EXT:filemetadata)

General	Access	Metadata	Categories
Creator			
<input type="text"/>			
Creator Tool	Publisher	Source	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
Geo Location			
Country	Region	City	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
Latitude	Longitude		
<input type="text" value="0.0000000000000000"/>	<input type="text" value="0.0000000000000000"/>		
Metrics			
Width	Height	Unit	Color Space
<input type="text" value="68"/>	<input type="text" value="68"/>	<input type="text"/>	<input type="text"/>

Promene administratorskog dela

File Abstraction Layer

- Sada je moguće je prevesti FAL meta podatke



The screenshot displays the TYPO3 CMS file manager interface. On the left, a file list shows three items: a folder named 'Temporary files (.temp_)', an 'index.html' file, and a 'TYPO3_icon_200x200_white.png' file. The 'TYPO3_icon_200x200_white.png' file is selected, and its metadata editor is open on the right. The metadata editor has two tabs: 'General' and 'Categories'. The 'General' tab is active, showing the file's name, type, location, and a preview of the logo. Below the preview, there are two red-bordered input fields: one for 'Title' containing 'TYPO3 Logo' and one for 'Description' containing 'The amazing TYPO3 logo'. Red arrows point from the file list to the metadata editor, and from the 'Title' and 'Description' fields back to the file list, indicating the flow of metadata updates.

Filename	Type	Date	Size	RW	Ref
Temporary files (.temp_)	Folder	-	1 File	RW	-
index.html	HTML	07-02-14	0 B	RW	-
TYPO3_icon_200x200_white.png	PNG	01-03-14	4.7 KB	RW	-

General | Categories

TYPO3_icon_200x200_white.png (4.7 Kbytes)
Image (image/png)
Location: fileadmin/ (auto-created) - User_upload
/TYPO3_icon_200x200_white.png

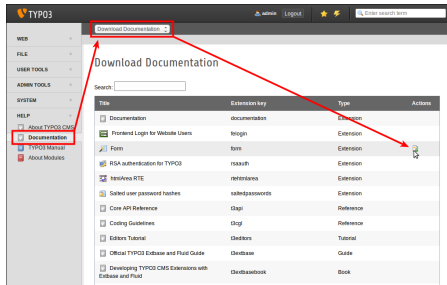
Title

Description

Promene administratorskog dela

Modue: Documentation

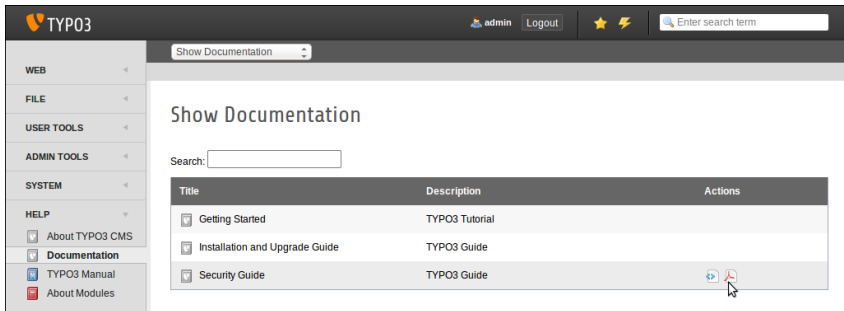
- Modul "Documentation" dozvoljava administratorima da preuzimaju i pregledavaju uputstva
- Nova TYPO3 instalacija podrazumeva prisustvo ovog modula
- Funkcija "Manage Documentation" preuzima uputstva (pogledati ilustraciju)
- Preko Extension Manager-a moguće je uključiti ovaj modul





Promene administratorskog dela

Modul: Documentation

- Funkcija "Show Documentation" prikazuje preuzeta uputstva



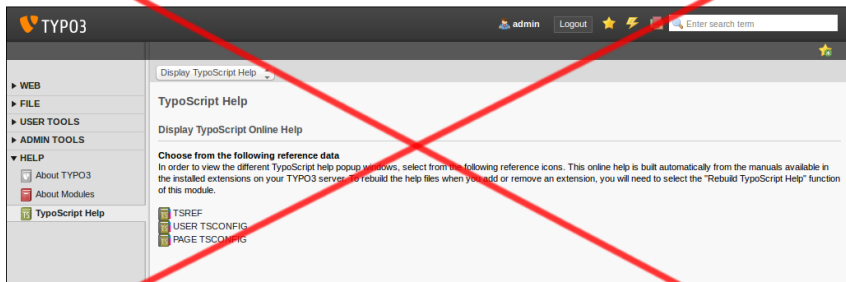
The screenshot displays the TYPO3 administrator interface. At the top, the TYPO3 logo is on the left, and the user 'admin' is logged in. A search bar is present in the top right. The main content area is titled 'Show Documentation' and includes a search input field. Below this is a table with the following data:

Title	Description	Actions
Getting Started	TYPO3 Tutorial	
Installation and Upgrade Guide	TYPO3 Guide	
Security Guide	TYPO3 Guide	 

Promene administratorskog dela

Uklonjeno: TypoScript Help

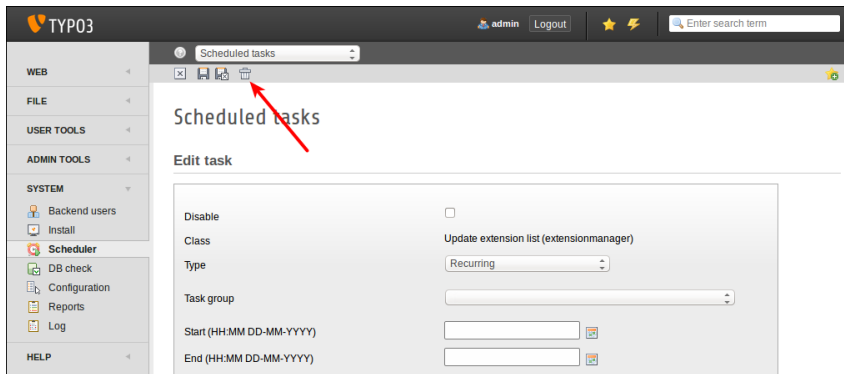
- EXT:tsconfig_help ("TSconfig Quick Reference") uklonjeno (zastarele informacije koje nisu menjane jos od TYPO3 CMS 4.1)



Promene administratorskog dela

Scheduler

- Brisanje scheduler task-a pregledu za izmenu (U TYPO3 < 6.2, opcija za brisanje bila je dostupna samo u list view)



The screenshot displays the TYPO3 Scheduler administration interface. The top navigation bar includes the TYPO3 logo, the user 'admin', a 'Logout' button, and a search input field. The left sidebar contains a menu with categories: WEB, FILE, USER TOOLS, ADMIN TOOLS, SYSTEM, and HELP. Under the SYSTEM category, the 'Scheduler' option is selected. The main content area shows the 'Scheduled tasks' page with a breadcrumb 'Scheduled tasks' and a toolbar containing icons for back, forward, and delete. A red arrow points to the delete icon. Below the toolbar is the 'Edit task' form, which includes fields for 'Disable' (checkbox), 'Class' (Update extension list (extensionmanager)), 'Type' (Recurring), 'Task group', 'Start (HH:MM DD-MM-YYYY)', and 'End (HH:MM DD-MM-YYYY)'.

Promene administratorskog dela

Scheduler

- Scheduler zadaci mogu sadrzati opise koji se prikazuju kao podnaslovi u list pregledu, ili kao tultipovi (pogledati sledeci slajd)

Edit task

Disable	<input type="checkbox"/>
Class	Update extension list (extensionmanager)
Type	Recurring
Task group	
Start (HH:MM DD-MM-YYYY)	<input type="text"/>
End (HH:MM DD-MM-YYYY)	<input type="text"/>
Frequency (seconds or cron command)	86400
Allow Parallel Execution	<input type="checkbox"/>
Description	This task updates the extension list once a day

Promene administratorskog dela

Scheduler

- Opis zadatka kao podnaslov
(ova opcija mora biti aktivirana u konfiguraciji prosirenja)

	ID	Task	Type	Frequency	Parallel Execution	Last Execution	Next Execution
<input type="checkbox"/>	1	Update extension list (extensionmanager) This task updates the extension list once a day	Recurring	86400	No	-	24-02-14 00:00

Execute selected tasks

- Opis zadatka se prikazuje kao tultip ("hover")

	ID	Task	Type	Frequency	Parallel Execution	Last Execution	Next Execution
<input type="checkbox"/>	1	Update extension list (extensionmanager)	Recurring	86400	No	-	24-02-14 00:00

Execute selected tasks

This task updates the extension list once a day

Promene administratorskog dela

Scheduler

- Sada je moguće grupisanje scheduler task-ova
- Dodati "scheduler task group" rut strani (UID: 0) i izabrati grupu

The image displays two screenshots from the TYPO3 CMS administrator interface. The left screenshot, titled "New record", shows a tree view of the CMS structure. The "Scheduler" folder is highlighted with a red box, and a red arrow points from it to the right screenshot. The right screenshot, titled "Edit task", shows the configuration for a scheduler task. The "Task group" dropdown menu is highlighted with a red box, and a red arrow points from the "Scheduler" folder in the left screenshot to this dropdown. The "Task group" is currently set to "System Maintenance Tasks".

New record

- TYPO3 CMS 6.2.0
 - Create a new page
 - Page (inside)
 - Page (after)
 - Page (select position)
 - Scheduler**
 - Scheduler task group
 - System Records
 - Backend usergroup
 - Backend user
 - Category
 - Record Collection
 - File Storage
 - Filemount
 - Website Language
 - System News

Edit task

Disable

Class Update extension list (extensionmanager)

Type Recurring

Task group System Maintenance Tasks

Start (HH:MM DD-MM-YYYY) 00:00 01-01-2014

End (HH:MM DD-MM-YYYY)

Frequency (seconds or cron command) 86400

Allow Parallel Execution

Description This task updates the extension list once a day

Promene administratorskog dela

Sistemska prosirenje: Form

- Novi post-processor za cObject
FORM: **redirect**
(redirekcija nakon postavljanja forme)
- Vrednost parsira `typolink`
(TypoScript funkcija),
sto znaci da vrednost moze biti
ID strane ili URL

The screenshot shows the 'Form' configuration interface in TYPO3. It features three tabs: 'Elements', 'Options', and 'Form'. Under the 'Form' tab, there are sections for 'BEHAVIOUR', 'PREFIX', and 'ATTRIBUTES PROPERTIES'. The 'POST PROCESSORS' section is expanded, showing a dropdown menu with 'Redirect' selected. Below this, there is a 'Send email' section with fields for 'Email address of the recipient' (recipient@test.com), 'Email address of the sender' (sender@test.com), and 'Subject' (test subject). A 'Remove' button is present below the email settings. At the bottom, there is a 'Redirect' section with a 'Destination to' field containing '123' and another 'Remove' button. Two red arrows point to the 'POST PROCESSORS' dropdown and the 'Redirect' section.

Promene administratorskog dela

List Modul

- Dodatne kolone "UID" i "PID" kod list view-a za uredjivace

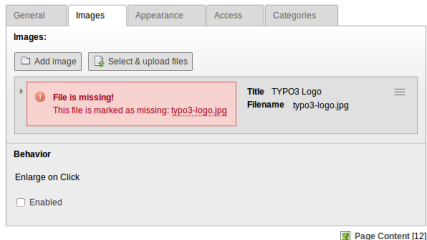
The screenshot displays the TYPO3 List Module interface. At the top, there is a header bar labeled "Template (1)". Below it, a table lists the content items. The first row is "NEW SITE". The table has columns for "Template Title", "[Ref]", "[uid]", and "[pid]". The values for "NEW SITE" are: "NEW SITE", "-", "1", and "1". The "[uid]" and "[pid]" columns are highlighted with a red box, and a red arrow points to the "1" value in the "[uid]" column.

Below the table, there is a "Set fields" dropdown menu. The menu is open, showing a list of fields: "Include Static Templates After Basis Templates", "Setup", "Description", "Static Template Files from TYPO3 Extensions", "Versioning Label", "[uid]", "[pid]", "[tstamp]", "[crdate]", and "[cruser_id]". A red arrow points to the "[uid]" field in this list.

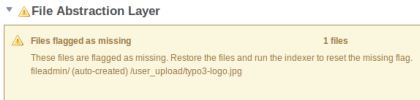
Promene administratorskog dela

File Abstraction Layer

- Ako indexer uoci da neki fajl nedostaje prikazuje se poruka i upisuje se u bazi podataka da fajl nedostaje
- Modul "Reports" takodje prikazuje ovaj problem
- Kada se fajl vrati, poruka i zapis u bazi podataka se brisu



The screenshot shows the 'Images' configuration page in the TYPO3 CMS administrator. The 'Images' section is active, and a red warning box is displayed. The warning message reads: 'File is missing! This file is marked as missing: typo3-logo.jpg'. To the right of the warning, the file's metadata is shown: 'Title TYPO3 Logo' and 'Filename typo3-logo.jpg'. Below the warning, the 'Behavior' section is visible, with the 'Enlarge on Click' option checked and 'Enabled'.



The screenshot shows a report titled 'File Abstraction Layer' with a warning icon. The report indicates that 1 file is flagged as missing. The message reads: 'Files flagged as missing' and 'These files are flagged as missing. Restore the files and run the indexer to reset the missing flag. fileadmin/ (auto-created) user_upload/typo3-logo.jpg'.

Promene administratorskog dela

Meniji kategorija (1)

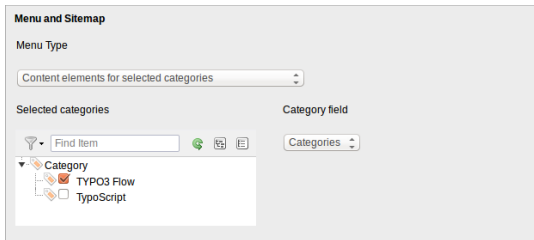
- Element sadržaja "Menu/Sitemap" može da napravi meni u zavisnosti od kategorija

The screenshot displays the TYPO3 CMS administrator interface. On the left, a sidebar contains several content element options: 'File Links', 'Media', 'Special Menu', 'Plain HTML', 'Divider', and 'Insert records'. The 'Special Menu' option is highlighted with a red rectangular box. A red arrow points from this box to a detailed configuration window titled 'Menu and Sitemap'. This window includes a 'Menu Type' dropdown menu set to 'Pages for selected categories', a 'Selected categories' section with a search input and a list of categories (TYPO3 Flow and TypoScript), and a 'Category field' dropdown menu.

Promene administratorskog dela

Meniji kategorija (2)

- Novi tip menija: "Element sadržaja za selektovane kategorije"



Promene administratorskog dela

Sortiranje kategorija

- Sada kategorije mogu biti sortirane
(u TYPO3 < 6.2, kategorije su uvek sortirane abecednim redosledom)



Category (2)	
Title	[Ref]
TYPO3 Flow	1
TypoScript	-

The screenshot shows a table with two rows. The first row is 'TYPO3 Flow' with a count of '1'. The second row is 'TypoScript' with a count of '-'. Each row has a set of icons for editing, information, and deleting. A red arrow points to the sort icon (a small square with a downward arrow) in the 'TypoScript' row.

Promene administratorskog dela

Vidljivost kategorija

- Vidljivost kategorija može biti zabranjena za uredjivace i grupe uredjivaca

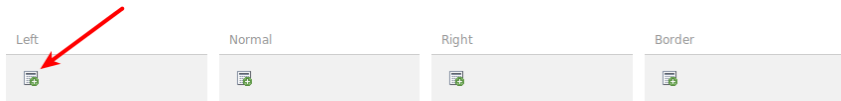
The screenshot shows the 'Mounts and Workspaces' tab in the TYPO3 administration interface. At the top, there are five tabs: 'General', 'Access Rights', 'Mounts and Workspaces', 'Options', and 'Access'. Below the tabs, the 'Workspace permissions:' section is visible, containing a single checked checkbox labeled 'Edit Live (Online)'. A vertical ellipsis (three dots) is positioned below this section. The 'Category Mounts:' section is also visible, showing a tree view with a 'Category' folder expanded to show two sub-items: 'TYPO3 Flow' and 'TypoScript', each with a checkbox. In the bottom right corner of the interface, there is a user icon and the text 'Backend user [2]'.

Promene administratorskog dela

Korisnost

- Ikonica "new content" je uvek vidljiva ako je kolona prazna (ovo pomaze uredjivacima da razumeju sta mogu da urade)

Test Page






Promene administratorskog dela

Functions

- Kada se kreira vise strana odjednom u modulu "functions", novi cek boks omogucava uredjivacima da sakriju ove strane u meniju (very useful, when creating a number of pages at a time)

Create multiple pages

Create new pages:

Page 1:	<input type="text"/>	Type:  Standard
Page 2:	<input type="text"/>	Type:  Standard
Page 3:	<input type="text"/>	Type:  Standard

Place new pages after the existing subpages

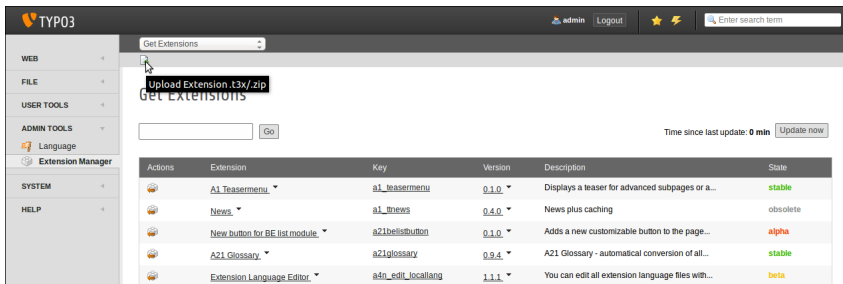
Hide new pages

Hide new pages in menus

Promene administratorskog dela

Extension Manager

- Snimanje prosirenja pomocu funkcije "Get Extensions"



The screenshot displays the TYPO3 Extension Manager interface. At the top, there is a search bar with the text "Get Extensions" and a dropdown arrow. Below this, a tooltip indicates "Upload Extension .t3x/.zip" and "Get Extensions". A search input field with a "Go" button is visible. On the right, it shows "Time since last update: 0 min" and an "Update now" button. The main content is a table listing installed extensions.

Actions	Extension	Key	Version	Description	State
	A1 Teasermenu	a1_teasermenu	0.1.0	Displays a teaser for advanced subpages or a...	stable
	News	a1_tnews	0.4.0	News plus caching	obsolete
	New button for BE list module	a21belistbutton	0.1.0	Adds a new customizable button to the page...	alpha
	A21 Glossary	a21glossary	0.9.4	A21 Glossary - automatical conversion of all...	stable
	Extension Language Editor	adn_edit_loclang	1.1.1	You can edit all extension language files with...	beta

Promene administratorskog dela

Recycler

- Zapisi iz Recycler-a mogu biti sortirani po datumu (Ovo pomaze uredjivacima da odluče da li da povrate odredjeni fajl ili ne)

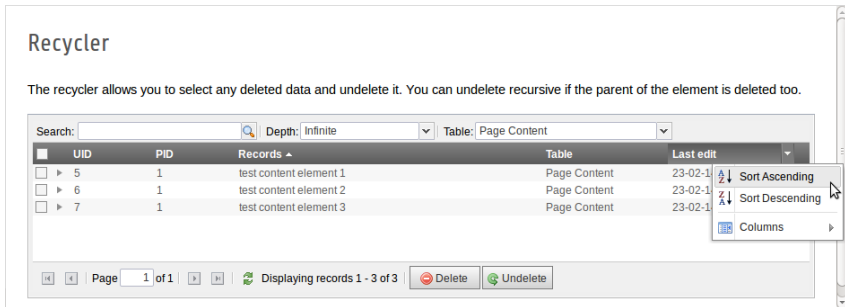
Recycler

The recycler allows you to select any deleted data and undelete it. You can undelete recursive if the parent of the element is deleted too.

Search: Depth: Infinite Table: Page Content

<input type="checkbox"/>	UID	PID	Records	Table	Last edit	
<input type="checkbox"/>	▶ 5	1	test content element 1	Page Content	23-02-1	Sort Ascending
<input type="checkbox"/>	▶ 6	1	test content element 2	Page Content	23-02-1	Sort Descending
<input type="checkbox"/>	▶ 7	1	test content element 3	Page Content	23-02-1	Columns

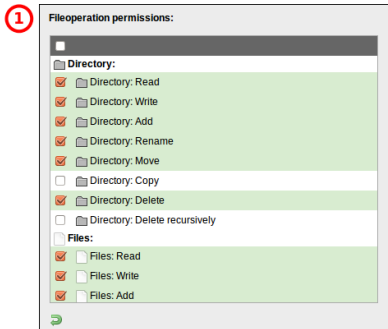
Page 1 of 1 | Displaying records 1 - 3 of 3 | Delete | Undelete

The screenshot shows the Recycler interface in a web browser. At the top, there's a search bar and filters for 'Depth: Infinite' and 'Table: Page Content'. Below is a table with columns for selection, UID, PID, Records, Table, and Last edit. Three records are listed with IDs 5, 6, and 7. A context menu is open over the 'Last edit' column, showing options for 'Sort Ascending', 'Sort Descending', and 'Columns'. At the bottom, there are navigation controls, a page indicator 'Page 1 of 1', and a status bar 'Displaying records 1 - 3 of 3' with 'Delete' and 'Undelete' buttons.

Promene administratorskog dela

Permisije za fajlove i direktorijume

- Više opcija kod postavljanja permisija fajlova i direktorijuma za uredjivace i grupe uredjivaca (1)
- Ovo je moguće od TYPO3 6.0, ali samo preko UserTSconfig (2)



Promene administratorskog dela

OpenID (1)

- OpenID za autentifikaciju uredjivaca moze biti postavljen preko carobjaka
- EXT:openid (sistemsko prosirenje) je neophodno za ovo

Edit Backend user "brad.pitt" on root level

General | Access Rights | Mounts and Workspaces | Options

Disable:

Username:

OpenID identifier:

Password:

OpenID registration

Add an OpenID to your backend user. This OpenID can then be used to log in the TYPO3 backend.

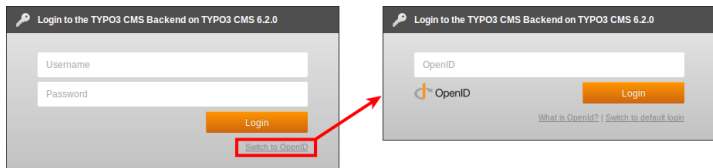
OpenID Identifier



Promene administratorskog dela

OpenID (2)

- OpenID za autentifikaciju uredjivaca moze biti postavljen preko carobjaka
- EXT:openid (sistemsko prosirenje) je neophodno za ovo

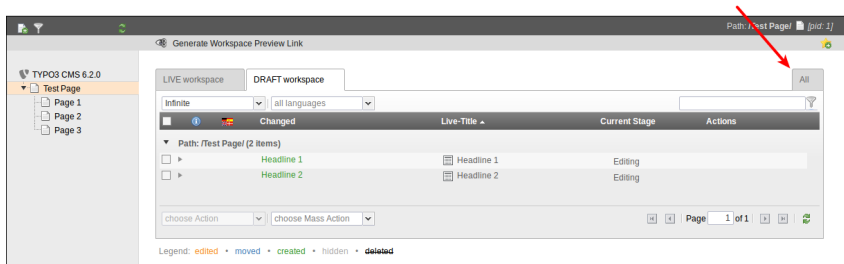


- Further details about OpenID:
<http://openid.net>

Promene administratorskog dela

Workspaces

- Uredjivaci mogu da definisu koga da obaveste, bez ogranicenja sistema
- Tab "All" je od sada vidljiv svim korisnicima



Legend: edited • moved • created • hidden • deleted

Poglavlje 4: TSconfig i TypoScript

TSconfig i TypeScript

Uključiti TypeScript

- Uključiti sve TypeScript fajlove iz direktorijuma (rekurzivno)
`<INCLUDE_TYPOSCRIPT: source="DIR:directory">`
`<INCLUDE_TYPOSCRIPT: source="DIR:EXT:myextension/res/setup">`
- Redosled uključivanja fajlova:
abecedno, prvo fajlovi a zatim direktorijumi
- Ograniciti koji fajlovi će biti uključeni uz pomoć `extensions="..."`
`<INCLUDE_TYPOSCRIPT: source="DIR:directory" extensions="ts">`
- Podrazumevano samo fajlovi sa ekstenzijama `ts`, `t3`, `t3s`, `t3c`, `txt` se mogu uključiti
- Ova lista se može konfigurirati preko Install Tool-a:
`$TYPO3_CONF_VARS['SYS']['tsfile_ext']`

TSconfig i TypoScript

Uključiti TypoScript

- Relativne putanje se mogu proslediti preko INCLUDE_TYPOSCRIPT, ako se poziv vrsi rekurzivno iz fajla
- Prvo uključenje **mora biti** apsolutno
- ./ oznacava direktorijum u kojem se nalazi poslednji uključen fajl
- ../ oznacava roditeljski direktorijum poslednjeg uključenog fajla
- Primeri:

```
<INCLUDE_TYPOSCRIPT: source="FILE:directory/typoscript/setup.ts">
```

```
<INCLUDE_TYPOSCRIPT: source="FILE:./filename.ts">
```

```
<INCLUDE_TYPOSCRIPT: source="FILE:../filename.ts">
```

```
<INCLUDE_TYPOSCRIPT: source="FILE:../directory/filename.ts">
```

TSconfig i TypeScript

strPad

- Opcija stdWrap je dodata strPad svojstvu

```
page = PAGE
page.10 = TEXT
page.10 {
  value = Hello World!
  strPad {
    length = 5
    length {
      current = 1
      setCurrent.data = TSFE:page|uid
      setCurrent.wrap = | + 80
      prioriCalc = 1
    }
    padWith = .
  }
}
```

TSconfig i TypoScript

`_DEFAULT_PI_VARS`

- `stdWrap` je dodata za `_DEFAULT_PI_VARS`
- `_DEFAULT_PI_VARS` se koristi kako bi se postavile osnovne vrednosti za `piVars` (GET/POST promenljive u prosirenjima)
- TYPO3 < 6.2

```
plugin.tt_news._DEFAULT_PI_VARS {  
    year = 2013  
}
```

- TYPO3 >= 6.2

```
plugin.tt_news._DEFAULT_PI_VARS {  
    year.stdWrap.data = date:Y  
}
```

TSconfig i TypoScript

Debug Output

- Debug output za registar i promenljive stranice:

```
$GLOBALS['TSFE']->register
```

```
$GLOBALS['TSFE']->page
```

- Primeri:

```
10 = LOAD_REGISTER
```

```
10.variable = value
```

```
20 = TEXT
```

```
20.data = debug:register
```

```
30 = TEXT
```

```
30.data = debug:page
```

SYS_LASTCHANGED	1376804898
variable	wert
uid	1
pid	0
t3ver_old	0
t3ver_id	0
t3ver_wsid	0
t3ver_label	
t3ver_state	0
t3ver_stage	0
t3ver_count	0
t3ver_tstamp	0
t3ver_move_id	0
t3_origuid	0
tstamp	1376804898
sorting	256
deleted	0

TSconfig i TypoScript

Fajl linkovi

- Fajl linkovi imaju opis, naslov i labelu za alternativni tekst za svaki fajl. Može im se pristupiti preko registara:

- `register:description`
- `register:titleText`
- `register:altText`

- Primer:

```
# filelinks
tt_content.uploads.20 {
    # link description instead of filename
    labelStdWrap.data = register:description
    # output alternative text
    itemRendering.20.data = register:titleText
}
```

TSconfig i TypeScript

stdWrap funkcija: replacement (1)

- Opcija replace u stdWrap-funkciji replacement sada podrzava optionSplit
- Primer 1:

```
10 = TEXT
10.value = TYPO3_inspires_people_to_share
10.replacement.10 {
    search = _
    replace = 1 || 2 || 3
    useOptionSplitReplace = 1
}
```

Ishod:

TYPO31inspires2people3to3share

TSconfig i TypoScript

stdWrap funkcija: replacement (2)

- Opcija replace u stdWrap-funkciji replacement sada podrzava optionSplit
- Primer 2:

```
10 = TEXT
10.value = TYPO3 inspires people to share
10.replacement.10 {
    search = #(TYPO3|people|share)#i
    replace = ${1} CMS || all ${1} || collaborate and ${1}
    useOptionSplitReplace = 1
    useRegExp = 1
}
```

Ishod:

TYPO3 CMS inspires all people to collaborate and share

TSconfig i TypeScript

cObject FILE

- Dodata su dva registra u cObject FILES:
FILE_NUM_CURRENT i FILES_COUNT
- Primer:

```
10 = FILES
10 {
  references {
    table = tt_news
    uid.field = uid
    fieldName = media
  }
  renderObj = COA
  renderObj {
    10 = TEXT
    10.value = Renders first file twice
    10.if.isFalse.data = register:FILE_NUM_CURRENT
    20 = TEXT
    20.value = file {register:FILE_NUM_CURRENT} of {register:FILES_COUNT}
    20.insertData = 1
  }
}
```

TSconfig i TypoScript

Category Menu

- Generise meni kategorija u TypoScript-u
- Primer:

```
page.20 = HMENU
page.20 {
    special = categories
    special {
        # comma-separated list of categories
        value = 1
        # sort by title (stdWrap)
        sorting = title
        # sorting "asc" or "desc" (stdWrap)
        order = desc
        1 = TMENU
        1.NO {
            allWrap = <li> | </li>
        }
    }
}
```

TSconfig i TypoScript

pristup kategorijama

- Osobina `categories` dozvoljava pristup kategorijama za cObject RECORDS
- Primer:

```
# menu of categorized content elements
categorized_content = RECORDS
categorized_content {
    categories.field = selected_categories
    categories.relation.field = category_field
    tables = tt_content
    conf.tt_content = TEXT
    conf.tt_content {
        field = header
        typolink.parameter = {field:pid}#{field:uid}
        typolink.parameter.insertData = 1
        wrap = <li>|</li>
    }
    wrap = <ul>|</ul>
}
```

TSconfig i TypeScript

CSS i JavaScript fajlovi

- `splitChar` se sada može definisati za `allWrap` osobine
- `Wrap` sada funkcioniše kao standardna `stdWrap.wrap` metoda
- Podrazumevani `splitChar`-karakter je simbol uspravne crte: |
- Ova promena utiče na:
 - `includeCSS`
 - `includeJSlibs`
 - `includeJSFooterlibs`
 - `includeJS`
 - `includeJSFooter`

TSconfig i TypeScript

Uslovi

- Uslov userFunc sada prihvata vise argumenata

- TYPO3 < 6.2

```
[userFunc = user_function(argument1)]
```

- TYPO3 >= 6.2

```
[userFunc = user_function(argument1, argument2, ...)]
```

- Primer:

```
[userFunc = user_match(checkSubnet, 192.168)]
```

```
function user_match($command, $subnet) {  
    switch($command) {  
        case 'checkSubnet':  
            if (strstr(getenv('REMOTE_ADDR'), $subnet)) { ... }  
    }  
}
```


TSconfig i TypeScript

Uslovi

- Application context se moze odrediti uz pomoc uslova
- Wildcards "+" i "*" i regular expressions su podrzani
- Primeri:

```
[applicationContext = Development/Debugging, Development/Profiling]  
# TYPO3 site in development stage  
[global]
```

```
[applicationContext = Production*]  
# TYPO3 site in production stage  
# for example "Production/Live" or "Production/Staging"  
[global]
```

```
[applicationContext = /^TestServer\d+$/]  
# TYPO3 site on TestServer1 or TestServer2 or TestServer3, etc.  
[global]
```

TSconfig i TypoScript

Uslovi

- Prilikom koriscenja IP sulova, ključna rec `devIP` se može koristiti kako bi se proverilo da li se IP adresa korisnika podudara sa `devIpMask` podesavanjima u Install Tool-u
- Primer:

```
[IP = devIP]
  page.10 = TEXT
  page.10.value = Hello Developer!
[global]
```

TSconfig i TypeScript

Zapisi bez podrazumevanog prevoda

- Nova opcija `includeRecordsWithoutDefaultTranslation` vraća zapise bez lokalizovanog roditeljskog zapisa (ali `languageField` se podudara sa trenutnim jezikom)
- Primer:

```
pageContent = CONTENT
pageContent {
    table = tt_content
    select.includeRecordsWithoutDefaultTranslation = 1
    ...
}
```

TSconfig i TypoScript

cObject FILES

- cObject FILES sada podrzava begin i maxItems kao osobine
- Primer:

```
page.10 = FILES
page.10 {
    references {
        table = pages
        uid.data = page:uid
        fieldName = media
    }

    # retrieve up to 5 files, beginning at the first (0):
    begin = 0
    maxItems = 5

    renderObj = TEXT
    renderObj {
        data = file:current:size
        wrap = <p>File size:<strong>|</strong></p>
    }
}
```

TSconfig i TypoScript

Isključiti doktypes iz stabla sa stranicama

- Specifični doktypes se mogu isključiti iz stabla sa stranicama
- Konfigurise se u UserTSconfig (stoga utiče na specifičnog korisnika ili grupu)
- Primeri:

```
# exclude "folder" pages  
options.pageTree.excludeDoktypes = 254
```

```
# exclude "folder" and "standard" pages  
options.pageTree.excludeDoktypes = 254,1
```

TSconfig i TypoScript

Sakriti module u administrativnom panelu

- Moduli se mogu sakriti
- Ovo ne utice na pristup modulu
(koristiti ACL za administratore ili grupe kako bi se zabranio pristup)
- Primeri:

```
options.hideModules = file, help
```

```
options.hideModules.web := addToList(func,info)
```

```
options.hideModules.system = BelogLog
```

TSconfig i TypoScript

Preview Domain

- Može se podesiti alternativni domen za pregled stranice/sajta u PageTS
- Korisno za sajtove sa više domena
- Primer:

```
TCEMAIN.viewDomain = example.com
```

TSconfig i TypoScript

Uslovi u Backend Layouts

- Backend layouts sada podrzava uslove
- Primer:

```
backend_layout {
  colCount = 2
  rowCount = 1
  rows {
    1 {
      columns {
        1.name = Main
        1.colPos = 0
        2.name = Right
        2.colPos = 1
      }
    }
  }
}
```

```
[PIDupinRootline = 123]
# remove right column in branch of page ID 123
backend_layout.rows.1.columns.2 >
[global]
```


TSconfig i TypoScript

Razno

- Omoguciti/onemoguciti "forgot password" link uz pomoc opcije `showForgotPassword`
(korisno ukoliko je ukljuceno vise login formi preko EXT:feligin na jednoj strani)
- HTTP response je sada ukljucen u zaglavlje `Content-length`
 - Ubrzava renderovanje ukoliko je pipelining omogucen u Apache-u
 - moze se konfigurisati kroz `config.enableContentLengthHeader`
- Result lista `EXT:indexed_search` ima `stdWrap-properties`
(opcija: `plugin.tx_indexedsearch.resultlist_stdWrap`)

Poglavlje 5: Package Management

Package Management

Package Manager

- **Package Manager** iz Typo3 Flow je uveden u Typo3 CMS
- Razvoj/istrazivanje zapoceto je za vreme razvijanja TYPO3 CMS 6.1 verzije
- Ovaj projekat ima za cilj da uskladi formate razlicitih paketa
- Prosirenja u TYPO3 CMS su samo specifični tipovi paketa ("Packages")
- Glavni ciljevi projekta:
 - Odgovarajući API za Package Management
 - Vendor Namespace podrška
 - Composer Package podrška
 - Flow Package podrška
 - Autoloader Re-factoring

Package Management

Implementacija Package Manager-a

- Uklonjen je `$TYPO3_CONF['EXT']['extListArray']` iz fajla:
`typo3conf/LocalConfiguration.php`
- Stari sadržaj fajla `typo3conf/LocalConfiguration.php` prekopiran je u
`typo3conf/LocalConfiguration.beforePackageStatesMigration.php`
- Fajl `typo3conf/PackageStates.php` sadrži:
 - stanje paketa (aktivno/neaktivno)
 - lokacija prosirenja u fajl sistemu
- Prosirenja iz sledećih direktorijuma se prepoznaju automatski:
 - `typo3/sysex/`
 - `typo3/ext/`
 - `typo3/contrib/`
 - `typo3conf/ext/`
 - `Packages/` (*rekurzivno*)

Package Management

Implementacija Package Manager-a

- Dva nova (dodatna) fajla u direktorijumu prosirenja:
 - `composer.json`
 - `Classes/Package.php`
- Ukoliko je prosirenje neophodno, oznaka `protected` se postavlja u fajlu `composer.json`
- Ukoliko fajl `PackageStates.php` on ce biti (ponovno) kreiran i sadrzace sva prosirenja kojima je gore navedena osobina podesena na `TRUE`
- Autoloader dobija sopstveni administrativni panel koji se kesira
- Dodatne informacije:
<http://wiki.typo3.org/Blueprints/Packagemanager>

Package Management

Implementacija Package Manager-a

Primer: typo3conf/PackageManager.php

```
return array ('packages' =>
    array (
        'core' =>
            array (
                'manifestPath' => '',
                'composerName' => 'typo3/cms/core',
                'state' => 'active',
                'packagePath' => 'typo3/sysexst/core/',
                'classesPath' => 'Classes/',
            ),
        'workspaces' =>
            array (
                'manifestPath' => '',
                'composerName' => 'typo3/cms/workspaces',
                'state' => 'inactive',
                'packagePath' => 'typo3/sysexst/workspaces/',
                'classesPath' => 'Classes/',
            ),
        ...
    ),
    'version' => 4,
);
```

Package Management

Implementacija Package Manager-a

Primer: composer.json

```
{
  "name": "typo3/cms-indexed-search",
  "type": "typo3-cms-framework",
  "description": "TYPO3 Core",
  "homepage": "http://typo3.org",
  "license": ["GPL-2.0+"],
  "version": "6.2.0",
  "require": {
    "typo3/cms-core": "*"
  },
  "replace": {
    "indexed_search": "*"
  }
}
```

Package Management

Implementacija Package Manager-a

- Paketi se takodje mogu aktivirati za vreme rada uz pomoc kljuca:
`$GLOBALS['TYPO3_CONF_VARS']['EXT']['runtimeActivatedPackages'] = array(packageKey);`
- Ovaj kljuc se aktivira odmah nakon inicijalizacije Package Management-a

Poglavlje 6: Konceptualne izmene

Konceptualne izmene

Normalize.css

- Administrativni deo koristi `normalize.css`, koji pomaze pretraživačima da sve elemente prikazuju konzistentnije i u skladu sa modernim standardima
- Moderan, HTML5-ready, alternativa na tradicionalni CSS reset
- Ciljevi `normalize.css` su:
 - sacuvati korisna standardna podesavanja pretraživača, a ne izbrisati ih
 - normalizovati stilove za široki spektar HTML elemenata
 - ispraviti greske i ceste nedoslednosti pretraživača
 - poboljšati upravljanje novim unapredjenjima
 - pojasniti kod uz pomoc komentara i detaljne dokumentacije

Konceptualne izmene

TCA: displayCond Options BIT i !BIT

- Cek boks sa vise vrednosti u displayCond (bitwise)
BIT: setovan je bit, !BIT: nije setovan bit

Podrazumevani TCA:

```
'content' => array(  
  'label' => '...',  
  'config' => array(  
    'type' => 'check',  
    'items' => array(  
      array('Content A', ''),  
      array('Content B', ''),  
      array('Content C', ''),  
    ),  
  ),  
)
```

Primeri:

```
'content_a' => array(  
  'label' => '...',  
  'displayCond' => 'FIELD:content:BIT:1',  
  'config' => array(  
    'type' => 'text',  
  )  
)  
  
'content_b' => array(  
  'label' => '...',  
  'displayCond' => 'FIELD:content:!BIT:2',  
  'config' => array(  
    'type' => 'text',  
  )  
)
```

Konceptualne izmene

Azuriranje Jezika

- Extbase Command Controller dozvoljava azuriranje jezika za prosirenja(ekstenzije):

```
$GLOBALS['TYPO3_CONF_VARS']['SC_OPTIONS']['extbase']  
  ['commandControllers'][] =  
  'TYPO3\\CMS\\Lang\\Command\\LanguageCommandController';
```

- Primer poziva:
typo3/cli_dispatch.phpsh extbase language:update de,en,fr
- Lista lokalnih jezickih promenljivih odvojena zarezima (npr. de,en,fr) ogranicava azuriranje na samo te jezike
- Bez ovih argumenata azuriraju se svi jezici odredjeni u "Languages" modulu

Konceptualne izmene

Sistemska prosirenja: ReST uputstva

- Sva uputstva koja se ticu sistemskog prosirenja(ekstenzije) su prebacena u reStructuredText
- OpenOffice uputstva se vise ne koriste i uklonjena su
- ReST je lak za citanje i pracenje, uradjen po principu "dobijes ono sto vidis", sa jednostavnim sistemom za markiranje sintakse i sistemom za parsiranje
- ReST fajlovi sistemskog prosirenja nalaze se na:
typo3/sysexst/<extensionkey>/Documentation/*
- Dodatne informacije:
 - <http://de.wikipedia.org/wiki/ReStructuredText>
 - <http://wiki.typo3.org/ReST>

Konceptualne izmene

Custom Translation Servers

- Implementirana custom translation servers podrška za proširenja
- Upotrebom XLIFF i novog Signal/Slot, korišćenje postaje vrlo jednostavno (primer na sledecem slajdu)
- Moguce translation server resenje: **Pootle**
 - Online alat za upravljanje prevodima sa interfejsom za prevode
 - napisan u Python/Django
 - razvijeno i objavljeno: translate.org.za
 - GNU GPL licenca

Konceptualne izmene

Custom Translation Servers

Primer: EXT:myextension/localconf.php

```
/**
 * @var \TYPO3\CMS\Extbase\SignalSlot\Dispatcher $signalSlotDispatcher
 */
$signalSlotDispatcher =
    \TYPO3\CMS\Core\Utility\GeneralUtility::makeInstance(
        'TYPO3\CMS\Extbase\SignalSlot\Dispatcher');

$signalSlotDispatcher->connect(
    'TYPO3\CMS\Lang\Service\UpdateTranslationService',
    'postProcessMirrorUrl',
    'Company\Extension\Slots\CustomMirror',
    'postProcessMirrorUrl'
);
```

Konceptualne izmene

Custom Translation Servers

Primer: EXT:myextension/Classes/Slots/CustomMirror.php

```
<?php
namespace Company\Extensions\Slots;
class CustomMirror {

    /**
     * @var string
     */
    protected static $extKey = 'myextension';

    public function postProcessMirrorUrl($extensionKey, &$mirrorUrl) {
        if ($extensionKey === self::$extKey) {
            $mirrorUrl = 'http://example.com/typo3-packages/';
        }
    }
}
```


Konceptualne izmene

Custom Translation Servers

Ocekivana struktura fajlova/direktorijuma na serveru:

```
http://example.com/typo3-packages/  
  '-- <first-letter-of-extension-key>  
    '-- <second-letter-of-extension-key>  
      '-- <extension-key>-l10n  
        |-- <extension-key>-l10n-de.zip  
        |-- <extension-key>-l10n-fr.zip  
        |-- <extension-key>-l10n-it.zip  
        '-- <extension-key>-l10n.xml
```

Na primer:

```
http://example.com/typo3-packages/m/y/myextension-l10n/myextension-l10n.xml
```

Konzeptualne izmene

Custom Translation Servers

Primer: <extension-key>-l10n.xml

```
<?xml version="1.0" standalone="yes" ?>
<TERlanguagePackIndex>
  <meta>
    <timestamp>1374841386</timestamp>
    <date>2013-07-26 14:23:06</date>
  </meta>
  <languagePackIndex>
    <languagepack language="de">
      <md5>1cc7046c3b624ba1fb1ef565343b84a1</md5>
    </languagepack>
    <languagepack language="fr">
      <md5>f00f73ae5c43cb68392e6c508b65de7a</md5>
    </languagepack>
    <languagepack language="it">
      <md5>cd59530ce1ee0a38e6309544be6bcb3d</md5>
    </languagepack>
  </languagePackIndex>
</TERlanguagePackIndex>
```

Konceptualne izmene

Automatski t3d uvoz

- Prosirenja sada automatski mogu uvesti osnovne **t3d pakete** nakon instalacije
- fajlovi sadrže stvari kao što su podaci, relacije, fajlovi, itd.
- t3d fajl se mora zvati `data.t3d` i nalaziti na:
`EXT:myextension/Initialisation/`
- Uvoz je potrebno uraditi samo jednom (čak iako se prosirenje kasnije reinstalira)

Konceptualne izmene

Automatski uvoz fajla

- Prosirenja sada automatski mogu uvesti osnovne **fajlove** nakon instalacije
- Fajlovi se moraju nalaziti na:
`EXT:myextension/Initialisation/Files/...`
- Fajlovi se kopiraju na sledecu lokaciju:
`fileadmin/<extensionkey>/`
- Uvoz je potrebno uraditi samo jednom
((cak iako se prosirenje kasnije reinstalira))

Konceptualne izmene

Koriscenje prosirenja u ulozi repozitorijuma

- Cesto prosirenja zavise od prilagodjenih verzija drugih prosirenja ili onih prosirenja koja nisu objavljena od strane zvanicnog TYPO3 Extension Repository (TER)
- Kako bi se resio ovaj problem, prosirenja sada mogu biti prebacena uz neko drugo prosirenje
- Ovakva prosirenja se (neraspakovana) moraju nalaziti na:
`EXT:myextension/Initialisation/Extensions/...`
- Nakon instalacije, kopiraju se na:
`typo3conf/ext/`
- Na ovaj nacin, medjusobna zavisnost prosirenja je razresena

Konceptualne izmene

Instalacija/deinstalacija prosirenja preko CLI

- Instalacija i deinstalacija prosirenja preko command line interface (CLI)
- Primeri:

```
typo3/cli_dispatch.phpsh extbase extension:install <extensionkey>
```

```
typo3/cli_dispatch.phpsh extbase extension:uninstall <extensionkey>
```
- Napomena: potreban je administrator **`_cli_lowlevel`**

Konceptualne izmene

Kaskadno brisanje dece elemenata

- TCA sada sadrzi podesavanja da omoguci/onemoguci kaskadno brisanje dece elemenata
- Relacija mora biti tipa **"inline"**
- Podrazumevana vrednost je TRUE (brisanje zapisa je omoguceno)
- Primer (onemoguciti brisanje zapisa):

```
...
'type' => 'inline',
'foreign_table' => ...,
  'behaviour' => array(
    'enableCascadingDelete' => 0
  )
...
)
...
```

Konceptualne izmene

Visestruka polja za kategoriju po tabeli

- U TYPO3 < 6.2 moguće je pozvati `makeCategorizable()` samo jednom po tabeli (visestruki pozivi bi pregazili prethodne deklaracije koje se ticu kategorija polja)
- Od TYPO3 >= 6.2, postoji mogućnost visestrukih polja za kategoriju po tabeli
- Primer:

```
\TYPO3\CMS\Core\Utility\ExtensionManagementUtility::makeCategorizable(  
    $extensionKey,  
    $tableName,  
    $fieldName = 'categories',  
    $options = array(  
        'label' => 'my category'  
    )  
);
```

- Različne prilagodjene labele za svako polje kategorije moguće

Konceptualne izmene

Backend Layout Data Providers

- U TYPO3 < 6.2, backend layouts smesteni su u bazu podataka kao obicni zapisi
- Od TYPO3 >= 6.2, takozvani *data providers* mogu se definisati (na primer, kako bi se omogucilo da prosirenja prenesu svoj backend layout iz staticnog fajla)
- Data providers moraju implementovati interfejs:

`TYPO3\CMS\Backend\View\BackendLayout\DataProviderInterface`

- i mogu se registrovati na sledeci nacin:

```
$GLOBALS['TYPO3_CONF_VARS']['SC_OPTIONS']  
    ['BackendLayoutDataProvider'][$_EXTKEY] = 'Classname';
```

Konceptualne izmene

Backend Layout Data Providers

- Nove API funkcionalnosti za upravljanje backend layout data providers:

```
'itemsProcFunc' => 'TYPO3\CMS\Backend\View\
BackendLayoutView->addBackendLayoutItems'
```

```
getBackendLayoutView()->getSelectedCombinedIdentifier($id);
getBackendLayoutView()->getSelectedBackendLayout();
```

- Nova PageTSconfig opcija za izostavljanje backend layouts:

```
options.backendLayout.exclude = default_1, my_extension__headerLayout
```

Konceptualne izmene

Multiple Value Selector (1)

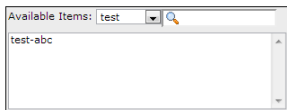
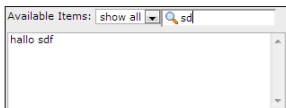
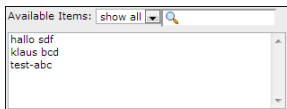
- Omoguceno filtriranje dostupnih stavki kod elementa sa vise opcija selektovanja (TCA podesavanja)
- Na primer: omoguciti tekstualno polje za filtriranje pojedinačnih reci i predefinisana pretraga reci koje korisnik moze odabrati iz padajućeg menija
- Kako bi se koristila ova nova opcija, potrebno je ispravno podesiti TCA (npr. u fajlu `typo3conf/extTables.php`):

```
$GLOBALS['TCA']['fe_users']['columns']['usergroup']['config']  
    ['enableMultiSelectFilterTextfield'] = TRUE;  
  
$GLOBALS['TCA']['fe_users']['columns']['usergroup']['config']  
    ['multiSelectFilterItems'] = array(  
  
    array('', 'show all'), // no filter  
    array('test', 'test'), // first value: filter, second value: label  
  
    array(  
        'type' =>
```

Konceptualne izmene

Multiple Value Selector (2)

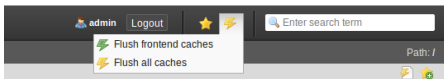
- Dostupne su dve opcije:
 - Odabrati predefinisane opcije iz padajućeg menija
 - Uneti ključne reči za pretragu u polje za pretragu
- Rezultat bi izgledao:



Konceptualne izmene

Kes grupe (1)

- TYPO3 core koristi dva tipa kesiranja:
 - **system-related caches**: class loading cache, configuration cache, l10n_cache, extbase_object, extbase_reflection etc.
 - **frontend-related caches**: cHash cache, page cache, page section cache
- U TYPO3 < 6.2, *clear all caches* prazni sav kes, sto nije idealno
- U TYPO3 >= 6.2, core koristi dve kes grupe:
"pages" sav kes koji se odnosi na kesiranje na strani i "**system**", kes koji se tice vremena za kompajliranje i konfigurisanje



Konceptualne izmene

Kes grupe (2)

- Znacajna opcija za konfigurisanje:

(u fajlovima: LocalConfiguration.php/DefaultConfiguration.php)

```
'cache_hash' => array(  
    'frontend' => 'TYPO3\CMS\Core\Cache\Frontend\VariableFrontend',  
    'backend' => 'TYPO3\CMS\Core\Cache\Backend\Typo3DatabaseBackend',  
    'options' => array(),  
    'groups' => array('pages', 'all')  
),
```

- Komanda "*Flush all caches*" vise ne brise system-related caches (samo "Clear Configuration Cache" ili Install Tool prazni ovakav tip kesa)
- Nova userTSconfig opcija omogućava da i neadministratori imaju mogucnost da ociste sistemski kes:

```
options.clearCache.system = 1
```

THIS IS A BREAKING CHANGE!

Konceptualne izmene

TCA: Number of Ticked Checkboxes

- TCA dozvoljava validaciju broja selektovanih cek boksova
 - `maximumRecordsChecked`:
ogranicava broj zapisa system-wide
 - `maximumRecordsCheckedInPid`:
ogranicava broj zapisa PID-wide (parent ID)
- Ukoliko administrator prekorači maksimalni broj, dodatno cekiranje se ponistava sve dok se neki drugi zapis ne odcekira
- Primer:

```
$tcaConfiguration = array(  
    'type' => 'check',  
    'eval' => 'maximumRecordsChecked',  
    'validation' => array(  
        'maximumRecordsChecked' => 5  
    )  
);
```

Konceptualne izmene

TCA: MM_oppositeUsage osobina

- Prilikom kopiranja zapisa `sys_category`, kreira se nova MM referenca, ali se tom prilikom ne postavlja "fieldname"
- Ova vrednost se u odnosu na suprotni entitet prosto definise sa `MM_match_fields`, ali joj se ne moze pristupiti
- Kako bi se razresio ovaj problem, uvodi se novi properti `MM_oppositeUsage` za TCA:

```
'config' => array(  
    'allowed' => '*',  
    'MM' => 'tx_myextension_first_second_mm',  
    'MM_oppositeUsage' => array(  
        'tt_content' => array('somefield'),  
        'tx_myextension_domain_model' => array('some_property'),  
    ),  
)
```


Konceptualne izmene

Razno

- **Posebno prilagodjena lista rekorda:**

Posebno prilagodjena lista rekorda se može koristiti u pretraživaču elemenata i da pregazi pretpostavljenu listu

- **Vise subgroups:**

Atribut subgroup u tabeli `be_groups` promenjen je iz `varchar(250)` u `text`, što omogućava više podgrupa (administratori/administratorske grupe)

- **Prosirenja TS/Template su integrisana:**

"WEB > Template" je bio podeljen u nekoliko prosirenja (`tstemplate_ceditor`, `tstemplate_info`, `tstemplate_objbrowser` i `tstemplate_analyzer`). Sada su ta prosirenja spojena u jedno pod nazivom "tstemplate"

Konceptualne izmene

Razno

- **label_userFunc_options:**

Dodata podrška za `label_userFunc_options` u `BackendUtility`

- **Naziv prosirenja:**

Kada se prosirenje preuzima iz Extension Manager-a, naziv prosirenja sadrži timestamp (godina, mesec, dan i vreme):

```
<extensionKey>_<version>_<timestamp>.zip  
myextension_1.0.0_201312102359.zip
```

- **EXT:saltedpasswords:**

Prosirenje `EXT:saltedpasswords` je sada obavezno sistemsko prosirenje i odmah je aktivirano. Ovo forsira salted heširanje za autentifikaciju administratora. Install Tool proverava podesavanja i prilagodjava ih ukoliko je to neophodno.

Konceptualne izmene

Razno

■ **SignalSlots za modifikovanje argumenata:**

Argument prosledjen SignalSlots dispatcher-u može da se izmeni i sada dispatcher vraća (izmenjen) argument kao što ga je i primio da ne bi narušio uvezivanje.

■ **Workspace pregled:**

Parametri upita sada se prosledjuju workspace pregledu. Ovo je bio problem u TYPO3 < 6.2, gde su prosirenja prosledjivala posebno prilagodjene parametre koji nisu radili kako valja.

■ **TCEforms Placeholder funkcija:**

Uvedena u TYPO3 CMS 4.7, TCEforms funkcija, Placeholder, sada radi rekurzivno (npr. `__row|uid_foreign|field`).

Konceptualne izmene

Razno

■ **Ikonicе u duploj rezoluciji:**

SpriteManager sada podrzava ikonice u visokoj rezoluciji: generise drugi sprite sa ikonicama u duploj velicini (drugi fajl sa sufiksom "@x2.png"). CSS3 se stara o tome da ikonice u visokoj rezoluciji budu prikazane na uređajima koji ovo podrzavaju (ne utice na performanse drugih uređaja).

■ **Proxy NTLM autentifikacija:**

Dodata podrška za proxy NTLM autentifikaciju (**NT LAN Manager**: paket Microsoft sigurnosnih protokola) Ova mogućnost se može aktivirati preko Install Tool-a:

```
$GLOBALS['TYPO3_CONF_VARS']['SYS']['curlProxyNTLM']
```

(mogućnost koja je zahtevana pre više od 8 godina)

Konceptualne izmene

Razno

- **cookieHttpOnly kao osnovno podesavanje:**

Kako bi se session kolacicu moglo pristupiti samo kroz HTTP protokol, `cookieHttpOnly` je omoguceno kao osnovno podesavanje.

Ovo znaci da kolacicima, "fe_typo_user" i "be_typo_user" se vise nece moci pristupiti preko skript jezika (npr. JavaScript), sto pojacava zastitu protiv XSS napada (*cross site scripting*). Neki stariji pretrazivaci ne podrzavaju ovu tehniku.

- **Prociscene tabele u bazi podataka:**

Sledeci atributi su izbaceni iz tabela u bazi `tt_content` (ne koristi se od TYPO3 4.0): `text_align`, `text_face`, `text_size`, `text_color`, `text_properties`.

Konceptualne izmene

Razno

- **HTML Tidy uklonjeno:**

Funkcionalnost *HTML Tidy* je uklonjena iz TYPO3 core. Moze se lako ponovo pokrenuti instalacijom `EXT:tidy` iz TER.

- **dontSetCookie uklonjeno:**

Zbog cinjenice da se kolacic "fe_typo_user" podesava samo ako je potreban (ne uvek), the Install Tool opcija `dontSetCookie` je postala suvisna i samim tim je uklonjena.

- **"Wizard" scripts uklonjeno:**

Sledeci "wizard" scripts su uklonjeni: `typo3/wizard_add.php`, `typo3/wizard_colorpicker.php`, `typo3/wizard_edit.php`, `typo3/wizard_forms.php`, `typo3/wizard_list.php`, `typo3/wizard_rte.php`, `typo3/wizard_table.php`

Poglavlje 7:

Application Programming Interface (API)

Application Programming Interface

Hook: `tsfe::checkEnableFields`

- U TYPO3 < 6.2, "extend to subpages" se ne može koristiti u proširenjima koja imaju dodatna pravila o vidljivosti strane (lista polja koja se mogu čekirati su kodovana u `tsfe::checkEnableFields()`)
- U TYPO3 >= 6.2, novi hook omogućava proširenjima da dodaju nova pravila koja se tiču vidljivosti strane, onda kada nadstrana ima aktivirano "extend to subpages"

■ Klasa:

```
\TYPO3\CMS\Frontend\Controller\TypoScriptFrontendController
$GLOBALS['TYPO3_CONF_VARS']['SC_OPTIONS']
    ['tslib/class.tslib_fe.php']['hook_checkEnableFields']
```


Application Programming Interface

Hook: `checkFlexFormValue` u `DataHandler-u`

- U TYPO3 < 6.2 kada se azuriraju vrednosti iz Flexform-e ne postoji provera da li je postojeća vrednost u bazi podataka zapravo obrisana.
- Ovo postaje problem, npr. pri pokušaju snimanja switchable controller actions (Extbase) u Flexform-i: stare akcije koje možda više nisu prisutne morale su se ukloniti ručno
- U TYPO3 >= 6.2 novi hook dozvoljava da se podaci stare Flexform-e prilagode pre nego što se integrišu sa novim
- Klasa:

```
\TYPO3\CMS\Core\DataHandling\DataHandler  
$GLOBALS['TYPO3_CONF_VARS']['SC_OPTIONS']  
    ['t3lib/class.t3lib_tcemain.php']['checkFlexFormValue']
```
- Metoda:
`checkFlexFormValue_beforeMerge()`

Application Programming Interface

Hook za prilagodjavanje zaglavlja

- U TYPO3 >= 6.2 novi hook dozvoljava modifikovanje zaglavlja strane u page modulu (Module: "Web > Page")
- Ovaj hook se poziva pre nego sto se izrendera sadrzaj strane
- Klasa:
`\TYPO3\CMS\Backend\Controller\PageLayoutController`
`$GLOBALS['TYPO3_CONF_VARS']['SC_OPTIONS']`
`['cms/layout/db_layout.php']['drawHeaderHook']`
- Metoda:
`callUserFunction()`

Application Programming Interface

IRRE: osnovne vrednosti za napravljene zapise

- Novi TCA omogućava konfigurisanje "inline" polja
- Ključ `foreign_record_defaults` dozvoljava da (osnovne) vrednosti budu postavljene u novokreiranom zapisu

```
'config' => array(  
  'type' => 'inline',  
  'foreign_table' => 'tt_content',  
  'foreign_record_defaults' => array(  
    'CType' => 'image'  
  ),  
)
```

Primer iznad: `tt_content` elementi kreirani za ovo IRRE polje ce biti **image content elements**. Urednik moze podesiti neki drugi tip pre snimanja.

Application Programming Interface

Workspaces (1)

- U TYPO3 < 6.2 modul workspace mogao se proširiti samo ukoliko se pregaze PHP i JavaScript komponente
- U TYPO3 >= 6.2 sada je moguće proširiti definisanost i ponašanje prikazanih kolona u modulu
- Neki od primera su na sledecim slajdovima...

Application Programming Interface

Workspaces (2)

Primer (fajl ext_localconf.php):

```
$GLOBALS['TYPO3_CONF_VARS']['SC_OPTIONS']  
    ['t3lib/class.t3lib_tcemain.php']['processCmdmapClass']['workspaces_logger'] =  
    'Vendor\\WorkspacesLogger\\Hook\\DataHandlerHook';
```

Primer (fajl ext_tables.php):

```
\TYPO3\CMS\Workspaces\Service\AdditionalColumnService::getInstance()->register(  
    'WorkspacesLogger_StageChange',  
    'Vendor\\WorkspacesLogger\\DataProvider'  
);  
  
\TYPO3\CMS\Workspaces\Service\AdditionalResourceService::getInstance()->addJavaScriptResource(  
    'WorkspacesLogger',  
    'EXT:myextension/Resources/Public/JavaScript/StageChange.js'  
);
```

Application Programming Interface

Workspaces (3)

Primer (fajl Vendor\WorkspacesLogger\Hook\DataHandlerHook):

```
<?php
namespace Vendor\WorkspacesLogger\Hook;
use TYPO3\CMS\Core\SingletonInterface;

class DataHandlerHook implements SingletonInterface {

    const TABLE_Name = 'tx_workspaceslogger_event';
    const EVENT_SetStage = 91;

    /**
     * hook that is called when no prepared command was found
     */
    public function processCmdmap($command, $table, $id, $value, &$commandIsProcessed,
        \TYPO3\CMS\Core\DataHandling\DataHandler $tcemainObj) {
        ...
        $action = (string) $value['action'];
        if ($command === 'version' && $action === 'setStage' && $commandIsProcessed) {
            ...
        }
    }
}
```

Application Programming Interface

Kompatibilni PSR-3 Logger

- TYPO3 CMS 6.2 API za kreiranje logova sada je PSR-3 kompatibilan
- PSR-3 ima za cilj da napravi standard za belezenje logova u PHP-u (standard za PHP Framework Interop Group)
- Glavni zadatak PSR-3 je *"omoguciti da biblioteke sadrze LoggerInterface objekte, kako bi se logovi zapsivali na jednostavan i univerzalan nacin"*
- Logger interfejs sadrzi kratke log metode kao sto su `debug()`, `warning()`, `notice()`, `alert()`, `error()`, etc.
- Dodatne informacije:
<http://www.php-fig.org/psr/3/>

Application Programming Interface

CSRF zastitjeni Ajax pozivi

- Ajax pozivi u TYPO3 administratorskom panelu mogu se zastititi od CSRF (*cross-site request forgery*) ako se registruju njihovi hendleri

```
\TYPO3\CMS\Core\Utility\ExtensionManagementUtility::registerAjaxHandler(  
    'TxMyExt::process',  
    '\Vendor\MyExt\AjaxHandler->process'  
);
```

- URL za dati Ajax ID sadrzi CSRF zastitni token, koji ce biti proveren od strane `ajax.php` dispecera

```
$ajaxUrl = \TYPO3\CMS\Core\Utility\BackendUtility::getAjaxUrl('TxMyExt::process');
```

- Ovim podesavanjima se moze pristupiti u JavaScript context-u strane

```
var ajaxUrl = TYPO3.settings.MyExt.ajaxUrl;
```


Application Programming Interface

Razno

- Nova metoda `canBeInterpretedAsFloat()` u klasi: `MathUtility` (analogno metodi: `canBeInterpretedAsInteger()`)
- Novi tip za nabranjanje (nije u relaciji sa nekim drugim PHP modulima):
`\TYPO3\CMS\Core\Type\Enumeration`

Na primer korisceno kod:

```
\TYPO3\CMS\Core\Versioning\VersionState
```

...a zatim kao:

```
new VersionState(VersionState::DEFAULT_STATE);
```

Poglavlje 8: Extbase i Fluid

Extbase i Fluid

ObjectManager->getScope()

- Metod ObjectManager->getScope() proverava, da li je tip klase **prototype** ili **singleton**

```
/**
 * @var \TYPO3\CMS\Extbase\Object\ObjectManagerInterface
 * @inject
 */
protected $objectManager;

$this->objectManager->getScope($propertyTargetClassName) === \TYPO3\CMS
\Extbase\Object\Container\Container::SCOPE_PROTOTYPE

$this->objectManager->getScope($propertyTargetClassName) === \TYPO3\CMS
\Extbase\Object\Container\Container::SCOPE_SINGLETON
```

Extbase i Fluid

Tip strane za URI

- Page type atribut vise nije neophodan u linkovima kada se rendera specijalni format

TYPO3 < 6.2:

```
<f:link.action arguments="{blog: blog}" pageType="{settings.plaintextPageType}"
  format="txt">[plaintext]</f:link.action></li>
```

- Nova opcija u TypoScript-u formatToPageTypeMapping dozvoljava globalno mapiranje:

```
plugin.tx_myextension {
  view.formatToPageTypeMapping {
    txt = 99
    pdf = 123
  }
}
```

TYPO3 >= 6.2:

```
<f:link.action arguments="{blog: blog}"
  format="txt">[plaintext]</f:link.action></li>
```

Extbase i Fluid

Object Type Converter (1)

- Mapira izvore nizova na neperzistentne objekte
- Koristan kada Vam treba prelazni objekat iz argumenata
- Primeri su na sledecim slajdovima...

Extbase i Fluid

Object Type Converter (2)

GET request

```
http://example.com/index.php?id=299
&tx_myextension[action]=list
&tx_myextension[controller]=Entity
&tx_myextension[demand][title]=foo
&tx_myextension[demand][relation]=1
```

Entity controller: initializeListAction()

```
use [Vendor]\myextension\Domain\Dto\Demand;
public function initializeListAction() {
    /**
     * @var PropertyMappingConfiguration $demandConfiguration
     */
    $demandConfiguration = $this->arguments['demand']->getPropertyMappingConfiguration();
    $demandConfiguration->allowAllProperties()->forProperty('relation')->allowAllProperties()->
        setTypeConverterOption(
            'TYPO3\CMS\Extbase\Property\TypeConverter\PersistentObjectConverter',
            PersistentObjectConverter::CONFIGURATION_CREATION_ALLOWED,
            TRUE
        );
}
```

Extbase i Fluid

Object Type Converter (3)

Entity controller: listAction()

```
use [Vendor]\myextension\Domain\Dto\Demand;
/**
 * @var PropertyMappingConfiguration $demandConfiguration
 */
public function listAction(Demand $demand = NULL) {
    $entities = $this->entityRepository->findAll();
    $this->view->assign('entities', $entities);
}
```

Model: [Vendor]\myextension\Domain\Dto\Demand.php

```
namespace [Vendor]\myextension\Domain\Dto;
use [Vendor]\myextension\Domain\Model\Relation;
class Demand {
    protected $relation;
    /**
     * @param \TYPO3Friends\MapperExample\Domain\Model\Relation $relation
     */
    public function setRelation($relation) {
        $this->relation = $relation;
    }
}
```

Extbase i Fluid

Izmene na set* funkcijama

- set* metode mogu biti uvezane sa QuerySettings API-jem
- Iuključuje nove opcije koje su prvi put uvedene sa TYPO3 CMS 6.0:
setIncludeDeleted i setIgnoreEnableFields

```
$query->getQuerySettings()  
->setRespectStoragePage(FALSE)  
->setRespectSysLanguage(FALSE)  
->setIgnoreEnableFields(TRUE)  
->setIncludeDeleted(TRUE);
```


Extbase i Fluid

returnRawQueryResult kao argument

- Raw query result vise nije centralni metod, vec argument u metodu: `execute()`

TYPO3 < 6.2:

```
$query->getQuerySettings()->setReturnRawQueryResult(TRUE);
```

TYPO3 >= 6.2:

```
$query->execute(TRUE);
```

Extbase i Fluid

Rekurzivna validacija

- Extbase sada koristi rekurzivnu validaciju (poznatu iz TYPO3 Flow)
- Ovo znaci da kada preko Property-Mapper-a napravite ugnedene objekte, objekti u osobinama , kao i spoljni objekti se validiraju (u TYPO3 CMS < 6.2, samo se ppoljni objekti validiraju)
- Dodatno, validatori sada dozvoljavaju prazne vrednosti

THIS IS A BREAKING CHANGE!

Da biste napravili neophodnu osobinu, morate da dodate eksplicitno **NotEmptyValidator!**

Extbase i Fluid

Kontekst aplikacije

- Pristup trenutnom kontekstu aplikacije u Extbase-u (postavljena kao promenjiva okruzenja TYPO3_CONTEXT ili u Install Tool-u)

```
\TYPO3\CMS\Core\Core\Bootstrap::getInstance()->getContext();
```

```
\TYPO3\CMS\Core\Utility\GeneralUtility::getContext();
```

Extbase i Fluid

ViewHelper: image

- Fluid ViewHelper **image** sa opcijom `title` atributom

Primer:

```
<f:image src="background.jpg" alt="Text" />
```

TYPO3 < 6.2:

```

```

TYPO3 >= 6.2:

```

```

Extbase i Fluid

ViewHelpers: textfield i textarea

- Argumenti autofocus i placeholder (validni HTML5 argumenti) za Fluid ViewHelper-e **form.textarea** i **form.textfield**

Primer ("placeholder"):

```
<f:form.textfield
  id="powermail_field_{field.marker}"
  ...
  placeholder="{field.title -> vh:string.RawAndRemoveXss()}"
  ...
  name="field[{"field.uid}]"
  required="{field.mandatory}" />
```

Extbase i Fluid

ViewHelper: switch

- Novi Fluid ViewHelper **switch** rendera sadržaj u zavisnosti od zadate vrednosti ili izraza
- Ponasa se slicno kao `switch()` u PHP-u

```
<f:switch expression="{person.gender}">
  <f:case value="male">Mr.</f:case>
  <f:case value="female">Mrs.</f:case>
  <f:case default="TRUE">Mrs. or Mr.</f:case>
</f:switch>
```

- **Napomena:** prevelika upotreba ovog ViewHelper-a je indikator loseg dizajna. Primer od gore moze da se napise i sa parsalima "title.male.html" i "title.female.html" na ovaj nacin:

```
<f:render partial="title.{person.gender}" />
```

Extbase i Fluid

ViewHelper: fileSize

- Konvertuje velicinu fajla (integer) u ljudima citljiv string

Primer 1 (fileSize = 1263616):

```
fileSize -> f:format.bytes()
```

Ispis: "1234 KB"

Primer 2 (fileSize = 1263616):

```
fileSize -> f:format.bytes(  
    decimals: 2,  
    decimalSeparator: '.',  
    thousandsSeparator: ',',  
)
```

Ispis: "1,234.00 KB"

Extbase i Fluid

ViewHelper: format.date

- Podrazumevana vrednost ViewHelper-a **format.date** je vrednost koja je konfigurisana u Install Tool-u
`$GLOBALS['TYPO3_CONF_VARS']['SYS']['ddmmyy']`
- Ako vrednost nije konfigurisana, "Y-m-d" se koristi (godina, mesec, dan)

Extbase i Fluid

ViewHelper: Backend Container

- Fluid ViewHelper backend container (`be.container`) je preradjen:
`typo3/sysext/fluid/Classes/ViewHelpers/Be/ContainerViewHelper.php`

Zastarelo:

- `$addCssFile` (use `$includeCssFiles` instead)
- `$addJsFile` (use `$includeJsFiles` instead)

Novo:

- `$loadJQuery`
- `$includeCssFiles`
- `$includeJsFiles`
- `$addJsInlineLabels`

Extbase i Fluid

ViewHelper: button.icon

- Fluid ViewHelper **button.icon** je završen (bio je "experimental")
- Kreira ikonicu dugmeta (opciono sa linkom)

```
<f:be.buttons.icon uri="{f:uri.action(action:'new')}"  
    icon="actions-document-new" title="Create new Foo" />
```

```
<f:be.buttons.icon  
    icon="actions-document-new" title="Create new Foo" />
```

- Atribut `icon` prihvata više od 310 vrednosti!

Trazite:

```
$GLOBALS['TBE_STYLES']['spriteIconApi']['coreSpriteImageNames']
```

...u fajlu:

```
typo3/systext/core/ext_tables.php
```

Extbase i Fluid

Opcija `addQueryStringMethod`

- Opcija `addQueryString` podrzava samo **GET**-argumente (koji se onda dodaju u generisani link)
- Ova opcija ne radi sa **POST**-argumentima (iz `Widget`-a)
- Nova opcija `addQueryStringMethod` resava ovaj problem i dozvoljava da se definise koji metodi se uzimaju u obzir: GET (podrazumevan), POST, GET/POST ili POST/GET
- Ovi Fluid `ViewHelper`-i podrzava ovu novu opciju:
 - `link.action`
 - `link.page`
 - `uri.action`
 - `uri.page`
 - `widget.link`
 - `widget.uri`
 - `widget.paginate`

Extbase i Fluid

Fluid: Rezervna putanja za sablone

- Fluid sada podrzava "rezervne" putanje za sablone, parsale i lejaute::
templateRootPaths, partialRootPaths, layoutRootPaths
- Krece se od najveceg indeksa, pa se zatim prolazi kroz sve manje indekse dok se ne nadje sablon

```
plugin.tx_myextension {
    view {
        templateRootPath = EXT:myextension/Resources/Private/Templates/
    }
}
```

```
plugin.tx_myextension {
    view {
        templateRootPath >
        templateRootPaths {
            10 = fileadmin/myextension/Templates/
            20 = EXT:myextension/Resources/Private/Templates/
        }
    }
}
```

Poglavlje 9:

Unapredjenje na Typo3 CMS 6.2 LTS

Unapredjenje na TYPO3 CMS 6.2 LTS

Opste instrukcije za unapredjivanje

- Instrukcije za unapredjivanje:

http://wiki.typo3.org/Upgrade#Upgrading_to_6.2

- Zvanicno TYPO3 uputstvo "TYPO3 Instalacija i unapredjivanje":

<http://docs.typo3.org/typo3cms/InstallationGuide>

- Opsti pristup:

- Proverite da li vas sistem zadovoljava sistemske zahteve (PHP, MySQL, itd.)
- Koristite **deprecation_*.log** u staroj TYPO3 verziji
- Azurirajte sva prosirenja na najnovije verzije (proveriti TYPO3 6.2 kompatibilnost)
- Pogledajte poglavlje "Instalacioni alat", slajdovi "Instalacija" u ovoj prezentaciji

Unapredjenje na TYPO3 CMS 6.2 LTS

Unapredjenje sa TYPO3 CMS 4.5 LTS

- Mnogi TYPO3 sajтови ce prelaziti sa LTS na novu LTS verziju
- Projekat glatke migracije:
 - Cilj je da migracija sa verzije 4.5 na 6.2 bude sto laksa
 - Dokumentacija, identifikacija problema u prosirenjima, itd.
 - <http://forge.typo3.org/projects/typo3cms-smoothmigration>
- EXT:typo3-upgradereport:
 - Razvijen najvise od strane Stfana Ritera
 - Instalirajte u TYPO3 CMS 4.5 LTS verziji i pokrenite testove
 - Ucestvujte u razvoju
 - <https://github.com/nxpthx/typo3-upgradereport>

Unapredjenje na TYPO3 CMS 6.2 LTS

Sta je novo za uredjivace

- Sumira glavne promene izmedju TYPO3 CMS 4.5 and 6.2
- Ciljna publika: najvise uredjivaci (ne tehnicki ili manje tehnicki korisnici)
- Takodje ima za cilj da pruzi pomoc agencijama:
 - u pripremama za odgovaranje na zahteve za podrsku
 - sprovedjenju radionica, seminara, treninga, itd.
- Preuzmite dokument "**Sta je novo za uredjivace**":
<http://typo3.org/download/release-notes/whats-new>

Poglavlje 10: **TYPO3 CMS 6.2 LTS – MythBuster**

Mitovi o TYPO3 CMS 6.2

- TYPO3 CMS 6.2 LTS ce biti poslednja TYPO3 CMS verzija

→ **nije tacno!**

Istina je, uprkos izbacivanju [TYPO3 Neos](#), razvoj TYPO3 CMS ce se nastaviti i videcemo nova izdanja u buducnosti.

- The TYPO3 core je potpuno preradjenu 6.x

→ **nije tacno!**

Istina je, da smo predstavili koncept PHP namespaces sa TYPO3 CMS 6.0, koji rezultira novim nazivima klasa. Medjutim, kompatibilni lejerosigurava, da programeri i dalje mogu da koristenazive starih klasa u njihovim prosirenjima.

- Prosirenja razvijena za 4.5 nece raditi na 6.2

→ **nije tacno!**

Istina je, da se core API-ja nije promenilo potpuno i karakterise ga kompatibilnost unazad, ako je u skladu sa nasom [deprecation strategy](#). Core TYPO3 CMS 6.2 i dalje podrzava najveći broj prosirenja koja su pisana za 4.5 bez ili sa malo modifikacija.

MythBuster

Mitovi o TYPO3 CMS 6.2

- **TemplaVoila se ne može koristiti u TYPO3 6.2 više** → **nije tačno!**
Istina je, zajednica radi na kompatibilnoj verziji, koja će vam omogućiti da koristite TemplaVoila u TYPO3 CMS 6.2. Međutim, TemplaVoila se neće dalje razvijati i integratori se ohrabruju da istražuju alternative za buduće projekte.
- **tslib_pibase-proširenja ne rade** → **nije tačno!**
Istina je, klasa tslib_pibase i dalje postoji u 6.2, ali ima novo ime zbog namespace konvencije: \TYPO3\CMS\Frontend\Plugin\AbstractPlugin.
Alias klase osigurava, da staro ime i dalje radi (kompatibilni sloj).
- **Nema načina za migraciju DAM records na 6.2 sa FAL** → **nije tačno!**
Činjenica je, da DAM ne radi sa TYPO3 6.x. Međutim, FAL je trebalo da obezbedi API koji omogućava da se ponovo kreira sve što je bilo moguće sa DAM. Takođe je omogućena [DAM-to-FAL-migration extension](#).

Mitovi o TYPO3 CMS 6.2

- Mozete unaprediti 4.5 na 6.2 koristeći upgrade wizard

→ **nije tacno!**

Glasine kazu, da projekat "Glatka Migracija" obezbedjuje veliki upgrade wizard koji automatski unapredjuje TYPO3 4.5 u 6.2. Istina je, da je cilj projekta da obezbedi informacije, dokumentaciju, otkrije nekompatibilnosti, npr. da pruži podršku integritetima u procesu migracije.

- TYPO3 6.2 zahteva mnogo jaci hardver

→ **nije tacno!**

Glasine kazu, daje verzija 6.2 10 puta sporija od verzije 4.5. Istina je, da je u vecini slucajevabrзина izvršavanja slicnaprethodnim verzijama. [minimum requirements](#) za pokretanje TYPO3 se nisu promenili. Medjutim, zbog prirode arhitekturnih promena i novih modernih tehnologija, sistem administratorima trebalo da imaju u vidu unapredjenje hardvera (imajte na umu: TYPO3 4.5 je pusten u Januaru 2011, skoro pre 3 godine)

Poglavlje 11: Izvori i autori

Izvori i autori

Izvori (1)

TYPO3 vesti:

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

Beleske povodom izlaska nove verzije:

- http://wiki.typo3.org/TYPO3_6.2
- <http://typo3.org/download/release-notes/typo3-6-2-release-notes/>
- NEWS.txt and ChangeLog

TYPO3 Git repozitorijumi:

- <https://git.typo3.org/TYPO3v4/Core.git>
- <https://git.typo3.org/TYPO3v4/CoreProjects/MVC/extbase.git>
- <https://git.typo3.org/TYPO3v4/CoreProjects/MVC/fluid.git>

Izvori i autori

Izvori (2)

TYPO3 Bug-/Issuetracker:

- <http://forge.typo3.org/projects/typo3v4-core/issues>

Ostali izvori:

- Responsive Image Community Group
<http://responsiveimages.org>
- Package Manager (Blueprint)
<http://wiki.typo3.org/Blueprints/Packagemanager>
- Normalize.css
<http://nicolas.github.io/normalize.css/>
- PHP Logging standard PSR-3
<http://www.php-fig.org/psr/psr-3/>
- "LTS Smooth Migration" project
<http://forge.typo3.org/projects/typo3cms-smoothmigration>
- TYPO3 CMS 4.5 to 6.2 upgrade report
<https://github.com/nxpthx/typo3-upgradereport>

TYPO3 CMS What's New Slides:

Patrick Lobacher (Istrazivanje i skupljanje informacija)

Michael Schams (Engleska verzija i Project Leader)

Preveli:

Nena Jelena Radovic, Danijela Nedimovic

Sinisa Mitrovic, Milos Popovic

Dark Forest Web

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

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