

**Die Migration von  
DepositOnce auf  
DSpace 7**

# Die Migration von DepositOnce auf DSpace 7

DSpace Praxistreffen 2023

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# Die Migration von DepositOnce auf DSpace 7

- September 2022 mit DSpace 7.3
- Seitdem 24 Releases
- Updates auf DSpace 7.4 & 7.5
- <https://depositonce.tu-berlin.de>

**Himits &**

**Misses**

# Hits & Misses

- Migration der Daten
- Migration der Datenbank
- Migration der Formulare
- Migration von vorhandenen Anpassungen
- Anpassung der Benutzeroberfläche
- Angular & Bootstrap
- Anfängliche Bugs
- Anfänglich unvollständige Funktionalität

# Performance

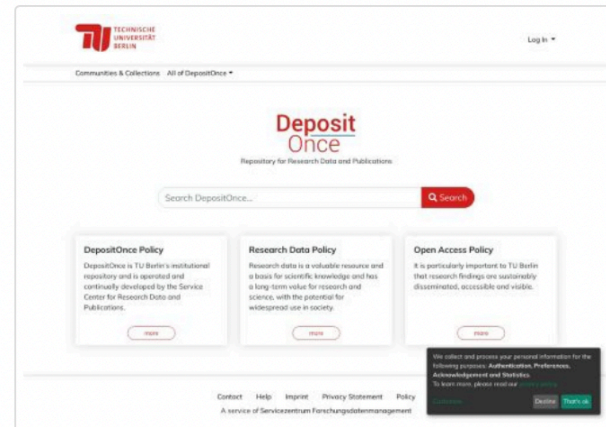
# Speedtest DepositOnce #8 und #24



Performance

Values are estimated and may vary. The [performance score is calculated](#) directly from these metrics. [See calculator.](#)

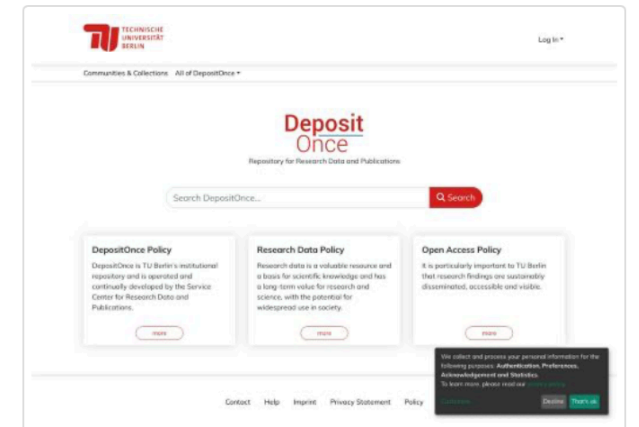
▲ 0–49   ■ 50–89   ● 90–100



Performance

Values are estimated and may vary. The [performance score is calculated](#) directly from these metrics. [See calculator.](#)

▲ 0–49   ■ 50–89   ● 90–100



## METRICS

Expand view

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Expand view

● First Contentful Paint  
**0.4 s**

▲ Speed Index  
**4.9 s**

▲ Largest Contentful Paint  
**3.5 s**

■ Time to Interactive  
**3.5 s**

▲ Total Blocking Time  
**1,410 ms**

● Cumulative Layout Shift  
**0.03**

● First Contentful Paint  
**0.3 s**

▲ Total Blocking Time  
**970 ms**

● Speed Index  
**0.6 s**

▲ Largest Contentful Paint  
**2.8 s**




● Cumulative Layout Shift  
**0.026**

# DepositOnce Server Setup

<b>Server</b>	<b>Cores</b>	<b>RAM</b>
Backend	16	64 GB
Frontend	8	32 GB
PostgreSQL	4	16 GB
SOLR	2	8 GB



# Optimierungsmöglichkeiten

- Angular Universal for server-side rendering 
-  Mehrere Frontend Instanzen
- Sehr großes main.js
  -  main.js verkleinern
- Caching auf Proxy Ebene (javascript, fonts, svg, ~~css~~)
- Caching auf Angular Ebene (neu in 7.5)

# Size of main.js

Release	browser/main.js	browser/main.js.gz	server/main.js
#11-dspace-7.4	4.344.554 bytes	1.023.907 bytes	10.331.896 bytes
#12-dspace-7.5-snapshot	3.593.987 bytes	831.695 bytes	9.555.910 bytes
#18-dspace-7.5-snapshot	3.362.369 bytes	772.184 bytes	9.265.434 bytes
#21-dspace-7.5-snapshot	2.101.194 bytes	526.900 bytes	7.193.333 bytes
#23-dspace-7.5	2.324.591 bytes	572.348 bytes	7.595.167 bytes

# Themes & Modules

vs.

`git diff`

— **Fragen:**

Wo bringt man am besten eigene Anpassungen unter?

Wie erkennt man eigene Anpassungen in der Code Base?

Wie merged man effizient das Open Source Projekt?

— **Antwort 1:**

Themes (Frontend) & Modules (Backend)

— **Antwort 2:**

Die Originaldateien editieren und ergänzen,  
von *git diff* und *git merge* profitieren

— **Große Erleichterung beim Mergen des OpenSource Projekts** 😎

— **Große Erleichterung beim Lesen des Source Codes**

# Themes & Modules vs. git diff

```
depositonce-backend % git diff main..depositonce-dev --shortstat  
97 files changed, 12682 insertions(+), 226 deletions(-)
```

```
depositonce-angular % git diff main..depositonce-dev --shortstat  
125 files changed, 5283 insertions(+), 359 deletions(-)
```

# Themes & Modules vs. git diff

```
depositonce-angular % git diff main..depositonce-dev --name-only
.gitlab-ci.yml
Dockerfile
angular.json
config-pm2/zecm-production.dspace-ui.json
config-pm2/zecm-test.dspace-ui.json
config/config.yml
package.json
src/app/info/depositonce-contact/contact-content/contact-content.component.html
src/app/info/depositonce-contact/contact-content/contact-content.component.scss
src/app/info/depositonce-contact/contact-content/contact-content.component.spec.ts
src/app/info/depositonce-contact/contact-content/contact-content.component.ts
src/app/info/depositonce-contact/depositonce-contact.component.html
src/app/info/depositonce-contact/depositonce-contact.component.scss
src/app/info/depositonce-contact/depositonce-contact.component.ts
...
```

# Themes & Modules vs. git diff

```
depositonce-angular % git diff main..depositonce-dev --compact-summary
.gitlab-ci.yml (new) | 42 ++
Dockerfile | 16 +-
angular.json | 13 +-
config-pm2/zecm-production.dspace-ui.json (new) | 19 +
config-pm2/zecm-test.dspace-ui.json (new) | 18 +
config/config.yml | 219 ++++++++
package.json | 2 +-
src/app/info/depositonce-contact/contact-content/contact-content.component.html (new) | 56 ++
src/app/info/depositonce-contact/contact-content/contact-content.component.scss (new) | 1 +
src/app/info/depositonce-contact/contact-content/contact-content.component.spec.ts (new) | 27 +
src/app/info/depositonce-contact/contact-content/contact-content.component.ts (new) | 12 +
src/app/info/depositonce-contact/depositonce-contact.component.html (new) | 3 +
src/app/info/depositonce-contact/depositonce-contact.component.scss (new) | 0
src/app/info/depositonce-contact/depositonce-contact.component.ts (new) | 12
...
```

**Features im  
OpenSource  
Projekt unterbringen**



# Features im OpenSource Projekt unterbringen

— Support for type-based submission forms (<type-bind> configuration)

**DSpace 7.3 ✓**

— Duplicate detection

**DSpace 8 🙄**

# Features im OpenSource Projekt unterbringen

*Generally, the way anything gets into DSpace is to promote the work & gain support for it from others. The more support, the higher priority it will naturally become. Support can be gained by having someone bring the idea to a Dev Mtg, to a DCAT meeting or even (if it's a really large feature) to a Steering meeting. The key point is that it's MUCH easier to find reviewers/supporters if the feature is discussed publicly, ideally even before it's fully implemented.*

Tim Donohue, Technical Lead for DSpace

**Entities?**

- Entities ermöglichen es unsere Domain besser abzubilden
- Aber DSpace wird auf allen Ebenen komplexer
  - im technischen Betrieb
  - für die Redaktion
  - für Publizierende
- Implementierung noch unvollständig und fehlerhaft
- Wir testen und überlegen zurückhaltend Entities einzuführen
  - Person (ermöglicht ORCID Integration)
  - Zeitschriften & Schriftenreihen?
  - Research Funding?

**Vielen Dank**

**für Ihre Aufmerksamkeit**

# Fragen & Diskussion