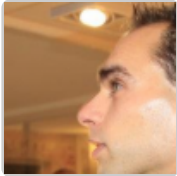


RFC: Integrate Doctrine2 into TYPO3 CMS

Classic List Threaded

14 messages [Options](#) ▾**Oliver Hader-4**▶ Jan 26, 2013; 11:30am **RFC: Integrate Doctrine2 into TYPO3 CMS** [Reply](#) | [Threaded](#) | [More](#) ▾

400 posts

Hi everybody,

currently there are some discussions out in the wild on integrating Doctrine2 into TYPO3 CMS. Since this step has advantages, but maybe also some disadvantages, I'd like to bring up the topic here in the list and hope that some experts could give their feedback and statements.

The current persistence layer in Extbase is a self-made way to store data, the various types of relations and any other combinations and aggregates. By using Doctrine as persistence layer, the part of maintaining and extending our custom solution would be drastically reduced - however it's still some work to get there [sic!].

In general it can be summarized to the following goals:

- * lower the effort to maintain our custom persistence layer
- * add the possibility to have better support for translation and workspaces
- * use a standard that has been proven to be good and flexible
- * and thus get a bit more in sync with TYPO3 Flow again which utilizes Doctrine already for quite some time

Since the new/alternative persistence layer for Doctrine is not only helpful for Extbase components, it might be included on a more prominent level in the Core and be available for "regular" parts as well - those, that are not based on Extbase.

That being said, one might think about t3lib_TCEmain/DataHandler, which takes care of persisting data, handling workspaces and translations and puts everything into (non-transactional) SQL statements. Thus, this part needs to be considered as well to be working with the current/legacy structures and the new flexible possibilities - so, I see both "persistence layers" existing side-by-side for some time.

Thomas Maroschik already created a first draft concerning Doctrine integration [1].

Besides that, as a historic look-up, there was a discussion about 2 years ago with the subject "The Extbase dilemma" [2]. You'll find some references on Doctrine and the custom ORM part in Extbase there as well.

So, now it's up to you to give feedback and your experience on using Doctrine with components in the Core of the TYPO3 CMS. Thanks in advance!

Cheers,
Olly

[1]

<http://git.typo3.org/TYPO3v4/Core.git/commit/b0a64733d2de2396c1f91dd559b37f0a4b652766>

[2] <http://lists.typo3.org/pipermail/typo3-dev/2011-May/043180.html>

--

Oliver Hader
TYPO3 CMS Core Team Leader

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[Remove Ads](#)**Christian Kuhn-2**Jan 26, 2013; 11:59am **Re: RFC: Integrate Doctrine2 into TYP** [Reply](#) | [Threaded](#) | [More](#) ▾

1372 posts

Hey.

I think it would be great to get doctrine as persistence layer in the core. Maybe only as optional feature for some versions, similar to what was done with the caching framework (parallel to the old code).

On 01/26/2013 11:30 AM, Oliver Hader wrote:

- > In general it can be summarized to the following goals:
- > * lower the effort to maintain our custom persistence layer
- > * add the possibility to have better support for translation and
- > workspaces
- > * use a standard that has been proven to be good and flexible
- > * and thus get a bit more in sync with TYPO3 Flow again which utilizes
- > Doctrine already for quite some time

* solve dbal once and for all

There are two special parts in current core that should be considered to be dropped along the way (with bullet proof migration wizards). They could save us tons of headaches.

Without going to deep into details:

* Drop comma separated id list feature and adapt be_user<->be_group and fe_user<->fe_group to use real mm.

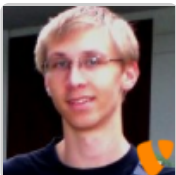
* Drop 'localization overlay in different table' feature. In the core, this is only done for pages<->pages_language_overlay, the code is hardcoded at multiple parts throughout the core, so the features probably only works for *this* table anyway and is probably not used by extensions (at least I know none, and I've also not seen any bug reports in this area for a long time).

Regards
Christian

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Philipp Gampe-5Jan 26, 2013; 2:18pm **Re: RFC: Integrate Doctrine2 into TYP** [Reply](#) | [Threaded](#) | [More](#) ▾

1593 posts

Hi Christian,

Christian Kuhn wrote:

- > Hey.
- >
- > I think it would be great to get doctrine as persistence layer in the
- > core. Maybe only as optional feature for some versions, similar to what
- > was done with the caching framework (parallel to the old code).
- >
- > On 01/26/2013 11:30 AM, Oliver Hader wrote:
- >> In general it can be summarized to the following goals:
- >> * lower the effort to maintain our custom persistence layer
- ... [\[show rest of quote\]](#)

+1

I guess it will take some major efforts to change all places in core to the

new code, but I really think this is worth it.

We must also consider that the mysql extension in PHP will not be supported for very long time any more. That means we will have to get our hands dirty anyway?

How about integrating a development preview into 6.1, hopefully stabilize it with 6.2 LTS and drop the old DB stuff with 6.3?

I guess porting the extbase layer will be the easiest part?!?

Best regards

--

Philipp Gampe – PGP-Key 0AD96065 – TYPO3 UG Bonn/Köln
Documentation – linkvalidator
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Daniel Hürtgen



1 post

Jan 26, 2013; 8:04pm **Re: RFC: Integrate Doctrine2 into TYP** [Reply](#) | [Threaded](#) | [More](#) ▾

Hey Oliver, Christian & Philipp,

first, i hate my english, but i'll try. :D

I also thing it would be really great to have doctrine right in the core. I've just started an public GIT repo upon Github[1].

I think Doctrine is a modern way to persist data to different storages. First i started with an implementation of the doctrine-dbal package, because i think that the part the core should serve.

The second part will to integrate and replace the extbase persistence with the doctrine-orm. I'm not sure if it is the right place, so we should discuss this here. What do you think?

[1] <https://github.com/higidi/TYPO3v4-Core-Doctrine/>

Am 26.01.2013 14:18, schrieb Philipp Gampe:

```
> Hi Christian,
>
> Christian Kuhn wrote:
>
>> Hey.
>>
>> I think it would be great to get doctrine as persistence layer in the
>> core. Maybe only as optional feature for some versions, similar to what
>> was done with the caching framework (parallel to the old code).
... [show rest of quote]
```

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Kay Strobach-2

Jan 26, 2013; 8:40pm **Re: RFC: Integrate Doctrine2 into TYP** [Reply](#) | [Threaded](#) | [More](#) ▾



1784 posts

Inspired from A discussion on the german list i would say:

+1

to anything, that lowers the differences between extbase and flow!

This way TYPO3 CMS as package can be possible some day ;) (or better flow as extension?! ;))

Regards
Kay

--

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Stefan Neufeind, Ty Jan 27, 2013; 1:11am **Re: RFC: Integrate Doctrine2 into TYPC** [Reply](#) | [Threaded](#) | [More](#) ▾



246 posts

On 01/26/2013 08:40 PM, Kay Strobach wrote:

> Inspired from A discussion on the german list i would say:

>

> +1

>

> to anything, that lowers the differences between extbase and flow!

>

> This way TYPO3 CMS as package can be possible some day ;) (or better
> flow as extension?! ;))

I can't fully judge the dirty technical implications or how rocky our road might become. But from the code I've looked at and the arguments lately exchanged during meetings, in chats and this thread I think it would be really great to get Doctrine integrated (if possible). And imho it might make sense to get it integrated for core as well, not just for the extbase-parts.

For all the nice points mentioned in this thread there is a lot to gain from a Doctrine-integration imho, we can get rid of some now reinvented stuff (in extbase, dbal, ...) and it would lower one more barrier towards Flow.

Kind regards,
Stefan

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Jigal van Hemert-4 Jan 27, 2013; 8:49am **Re: RFC: Integrate Doctrine2 into TYPC** [Reply](#) | [Threaded](#) | [More](#) ▾



758 posts

In reply to [this post](#) by Oliver Hader-4

Hi,

On 26-1-2013 11:30, Oliver Hader wrote:

- > currently there are some discussions out in the wild on integrating
- > Doctrine2 into TYPO3 CMS. Since this step has advantages, but maybe also
- > some disadvantages, I'd like to bring up the topic here in the list and
- > hope that some experts could give their feedback and statements.

I'm not an expert, but there are some aspects I'd like to mention.

Doctrine has some advantages which we can use. It knows how to talk to various DBMS and this means that we use it to replace part of dbal. Some features of dbal I couldn't find in doctrine:

- rewriting queries to make them compatible with a DBMS
- mapping of tables and columns

These two features saved me on a few projects where I could simply use data from other applications inside TYPO3.

tce_main / TYPO3\CMS\Core\DataHandling\DataHandler has been cursed often, but it is a nice central place for handling records inside TYPO3. It has a lot of hooks you can use to monitor or influence actions taken on records.

An example of its usage is EXT:solr. If a BE user modifies/creates/deletes a record solr will notice it and adds information to its indexing queue. This means that not the entire site needs to be re-indexed, only the modified parts. Changes in content can be in the search results within minutes.

My wishes:

- use doctrine inside TYPO3\CMS\Core\Database\DatabaseConnection (we can get rid of using the mysql PHP module before it's EOL)
- still use dbal for rewriting and mapping
- use tce_main in Extbase (so it uses doctrine and the bonus of the DataHandler features)

--

Jigal van Hemert
TYPO3 Core Team member

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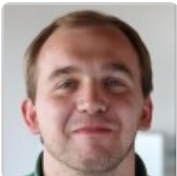
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Tolleiv Nietsch-2Jan 27, 2013; 9:23am **Re: RFC: Integrate Doctrine2 into TYPC** [Reply](#) | [Threaded](#) | [More](#) ▾

98 posts

In reply to [this post](#) by Oliver Hader-4

Hi,

I doubt that this could be integrated in 6.x without losing all existing hooks in tce_main/DataHandler or any other data-related Core class.

The benefit to have a solid ORM layer in the core would be big, but at the same time this reads for me like rewriting tons of extremely important "enterprise" extensions like workspaces, l10nmgr, languagevisibility, ... to name a few. Somebody would have to take care of the record history / rollback handling and fully rewrite that too. Writing good and solid migration scripts would take very long and with the dropped support for "ext_upgrade" in the new EM, extensions wouldn't even have the chance to ship any migrations.

I'd suggest to not put that on the 6.x agenda for Core integration and rather think of it for 7.x or later versions. In general the effort seems very big ("integrating" it might be done fast but that's only the first 10% of the work) and without a proper general product agenda ...

nevermind.

Why exactly did we start rewriting the entire system 7 years ago?

Cheers,
Tolleiv

Oliver Hader schrieb:

> Hi everybody,
>
> currently there are some discussions out in the wild on integrating
> Doctrine2 into TYPO3 CMS. Since this step has advantages, but maybe also
> some disadvantages, I'd like to bring up the topic here in the list and
> hope that some experts could give their feedback and statements.
>
> The current persistence layer in Extbase is a self-made way to store
> data, the various types of relations and any other combinations and
... [show rest of quote]

--
Tolleiv Nietsch
TYPO3 Core Developer

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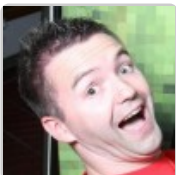
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Michael Stucki-3

Jan 28, 2013; 12:20am **Re: RFC: Integrate Doctrine2 into TYP** [Reply](#) | [Threaded](#) | [More](#) ▾



161 posts

Hi Tolleiv,

> The benefit to have a solid ORM layer in the core would be big, but at
> the same time this reads for me like rewriting tons of extremely
> important "enterprise" extensions like workspaces, l10nmgr,
> languagevisibility, ... to name a few. Somebody would have to take care
> of the record history / rollback handling and fully rewrite that too.
> Writing good and solid migration scripts would take very long and with
> the dropped support for "ext_upgrade" in the new EM, extensions wouldn't
> even have the chance to ship any migrations.

That's true, we should think about that for a minute. I would like to
have someone identify those consequences and their costs.

Right now it might look like a nice thing to implement this feature,
however if you consider all the consequences this will add, then you'd
probably better leave it...

> I'd suggest to not put that on the 6.x agenda for Core integration and
> rather think of it for 7.x or later versions. In general the effort
> seems very big ("integrating" it might be done fast but that's only the
> first 10% of the work) and without a proper general product agenda ...
> nevermind.

I like Christians suggestion to make this an optional add-on feature in
the beginning, so we can slowly make it grow in parallel to the existing
functionality. I see no problems with this approach, even if it fails.

> Why exactly did we start rewriting the entire system 7 years ago?

Extbase has a lot of features missing right now. Most of them will be (or already have been) implemented in Flow. Having Doctrine2 in TYPO3 could allow us to reuse Flow instead of having to reimplement everything.

If this change will make Extbase forward-compatible with Flow again, then that's a big reason to give it a try...

Greetings, Michael

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Thomas Maroschik Jan 28, 2013; 2:17pm **Re: RFC: Integrate Doctrine2 into TYPC** [Reply](#) | [Threaded](#) | [More](#) ▾



50 posts

Am 28.01.13 00:20, schrieb Michael Stucki:

>> The benefit to have a solid ORM layer in the core would be big, but at
 >> the same time this reads for me like rewriting tons of extremely
 >> important "enterprise" extensions like workspaces, l10nmgr,
 >> languagevisibility, ... to name a few. Somebody would have to take care
 >> of the record history / rollback handling and fully rewrite that too.
 >> Writing good and solid migration scripts would take very long and with
 >> the dropped support for "ext_upgrade" in the new EM, extensions wouldn't
 >> even have the chance to ship any migrations.

>

... [\[show rest of quote\]](#)

Hey Guys,

I started that one hour proof of concept with this in mind. Doctrine is split into DBAL and Doctrine ORM. What I integrated into the DatabaseConnection was Doctrine DBAL. So basically nothing changes to the outside. Everyone can still use SQL like they're used to. But Extbase/Flow ORM can use Doctrine ORM on top of that, and also here the changes aren't that big.

So this strategy enforces incremental refactoring and improvement in a way that newly built/rebuilt components can use ORM and older ones still SQL. The cost of this becomes much smaller.

Sounds like a solid roadmap to me, do you agree?

Greetings,

Tom

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Robert Lemke Jan 28, 2013; 2:32pm **Re: RFC: Integrate Doctrine2 into TYPC** [Reply](#) | [Threaded](#) | [More](#) ▾



341 posts

In reply to [this post](#) by Oliver Hader-4

Hi folks,

On 26.01.2013, at 11:30, Oliver Hader <[\[hidden email\]](#)> wrote:

> currently there are some discussions out in the wild on integrating
 > Doctrine2 into TYPO3 CMS.

just to make sure: has anyone of you been in touch with Benjamin Eberlei (Doctrine core dev) regarding this topic? As far as I know, he has been at least experimenting with integrating Doctrine into Extbase as his employer is using TYPO3 for customer projects.

Cheers,
Robert

--

Robert Lemke
Lead Developer TYPO3 Neos and TYPO3 Flow
Co-Founder TYPO3 Association

Blog: robertlemke.com/blog
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Thomas Maroschik Jan 28, 2013; 3:52pm **Re: RFC: Integrate Doctrine2 into TYP3** [Reply](#) | [Threaded](#) | [More](#) ▾ 



50 posts

Am 28.01.13 14:32, schrieb Robert Lemke:

> just to make sure: has anyone of you been in touch with Benjamin Eberlei
> (Doctrine core dev) regarding this topic? As far as I know, he has been at
> least experimenting with integrating Doctrine into Extbase as his employer
> is using TYPO3 for customer projects.

Hey Robert,

I was talking to him during the last Devdays and he explained me what and how they've done. Their pitfall was the missing Doctrine behaviour support. This is solved since some Doctrine versions now and we can try to do so. He said, that he won't continue on that as they struggled with integrating it into former extbase.

Cheers,

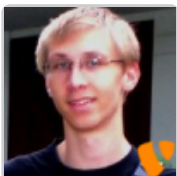
Tom

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Philipp Gampe-5 Jan 28, 2013; 7:07pm **Re: RFC: Integrate Doctrine2 into TYP3** [Reply](#) | [Threaded](#) | [More](#) ▾ 



1593 posts

In reply to [this post](#) by Thomas Maroschik

Hi Thomas,

Thomas Maroschik wrote:

> Sounds like a solid roadmap to me, do you agree?

Yes.

I have no insight into doctrine and trust your research, but that sounds really good.

Best regards

--

Philipp Gampe – PGP-Key 0AD96065 – TYPO3 UG Bonn/Köln
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Stefan Neufeind, Ty Jan 28, 2013; 8:11pm **Re: RFC: Integrate Doctrine2 into TYPC** [Reply](#) | [Threaded](#) | [More](#) ▾



246 posts

In reply to [this post](#) by Robert Lemke

On 01/28/2013 02:32 PM, Robert Lemke wrote:

>
> On 26.01.2013, at 11:30, Oliver Hader <[\[hidden email\]](#)>
> wrote:
>
>> currently there are some discussions out in the wild on
>> integrating Doctrine2 into TYPO3 CMS.
>
> just to make sure: has anyone of you been in touch with Benjamin
> Eberlei (Doctrine core dev) regarding this topic? As far as I know,
... [\[show rest of quote\]](#)

Hi,

good point. Since I know Benjamin a bit I've contacted him about this today. He replied that he does not / can not follow the TYPO3-core-list as well. But he thinks the problem is doable.

The biggest problems, to what he said, have meanwhile been "fixed in the Extbase interface" according to what he saw from the tickets he opened "back then".

> Hier ist ein Prototyp, den ich bei meiner alten Firma SimpleThings
> umgesetzt habe:
> <https://github.com/simplethings/typo3-extbase-doctrine2-extension> Den
> kannst du ja gerne in die Runde werfen.

That's a prototype for his old company.

He won't find time to finish the work himself but will gladly assist developers. So he proposed to reach him on the #doctrine-dev on Freenode IRC.

Kind regards,
Stefan

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