



Extension Development

The cloud is the limit!



- 
- **Introduction**
 - **Extension Development**
 - **Travis CI**
 - **Scrutinizer**
 - **Examples**



Tomas Norre Mikkelsen

- 35 Years
- TYPO3 - 2004 (Version: 3.6)
- AOE - June 2013
- TYPO3.org, Crawler, PHPUnit
- Golf, #t3runners
- @tomasnorre 



»» Some people might think that extension development is hard, but it does not need to be!



Working with Open Source



- Pull request (patches)
- Code Reviews
- Code Tests / Validation



Toolset



- PHP Unit (Unit / Functional tests)
- PHP Linting
- JavaScript Linting
- TypeScript Linting
- XML Linting



 **Developers are lazy**



How can this be solved?



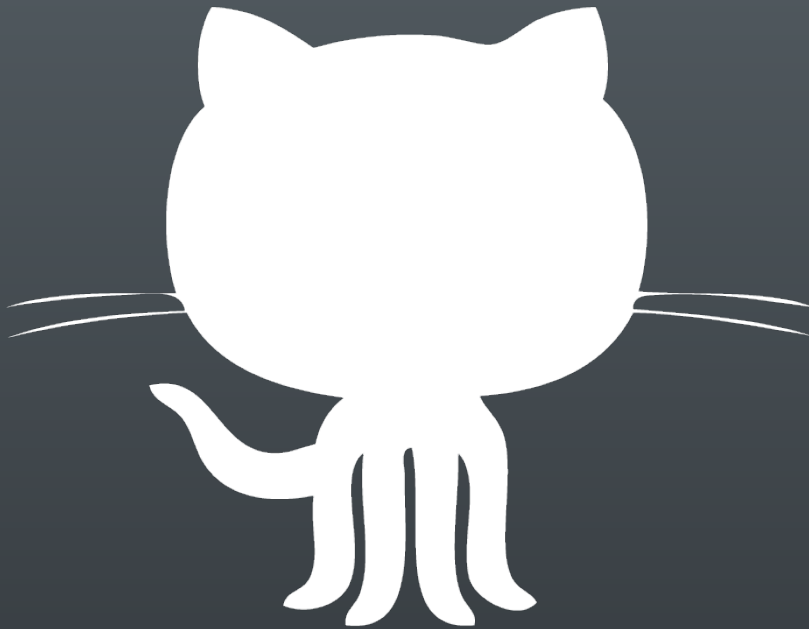
**Client-specific
Extensions**



**Open Source
Extensions**



The benefits of using Github



- “All” have an account
- Public code
- Pull requests
- Get feedback
- Issue tracking
- Wiki page
- Travis CI integration (free)
- Scrutinizer integration (free)



Travis



Tomas Norre Mikkelsen

Sync

last synced less than a minute ago

We're only showing your public repositories. You can find your private projects on travis-ci.com.



1
Click the repository
switch on



2
Add .travis.yml file to
your repository



3
Trigger your first build
with a git push



tomasnorre/alfredworkflows



tomasnorre/blog-flow-app



tomasnorre/blog-flow-base



tomasnorre/chef-pptpd_vpn



General Settings

ON

Build only if .travis.yml is present

OFF

Limit concurrent jobs ?

ON

Build pushes

ON

Build pull requests



tomasnorre / t3ee_example build error

Current Branches Build History Pull Requests > Build #93

**master** Updated README.md



 Tomas Norre Mikkelsen authored and committed

93 started
 Commit bb41e35
 Compare 39e84ea..bb41e35
 running for 4 min 14 sec
 -

Build Jobs

✓	# 93.1		</> PHP: 5.4	 TYPO3_VERSION=6.2.15 COVERAGE=0	 2 min 3 sec
✓	# 93.2		</> PHP: 5.5	 TYPO3_VERSION=6.2.15 COVERAGE=0	 1 min 49 sec
✓	# 93.3		</> PHP: 5.5	 TYPO3_VERSION=7.5.0 COVERAGE=0	 1 min 31 sec



```
▶ 152 $ composer self-update
▶ 156 $ composer --version
▼ 158 $ composer require typo3/cms=$TYPO3_VERSION
159 ./composer.json has been updated
160 Loading composer repositories with package information
161 Updating dependencies (including require-dev)
162 - Installing typo3/cms-composer-installers (1.1.4)
163   Loading from cache
164
165 - Installing helhum/class-alias-loader (1.1.5)
166   Loading from cache
167
168 - Installing typo3/cms (6.2.15)
169   Loading from cache
170
171 - Installing sebastian/version (1.0.6)
172   Loading from cache
```



Scrutinizer CI





Add Repository

[Home](#) / [Add GitHub Repository](#) [GitHub](#) [Bitbucket](#) [Self-Hosted Git Repository](#)

At the moment, you can only add **public** repositories. If you also would like to add **private** repositories, we first need to redirect you to GitHub to request the "repo" permission for your account. You can try Scrutinizer 14-days for free on private repositories.

[Request Private Repo Access](#)

GitHub Repository

Default Config *

You can change this later, and also use multiple languages in one repository.

Tests ☐

Should Scrutinizer run your tests?

[Add Repository](#)

tomasonorre / t3ee_example



5 days ago

Inspected [Merge pull request #3 from tom...](#)



5 new patches (Indentation) are available.



2 added classes/operations

from



[TalkRepository::initializeObject\(\)](#) added

from



[SpeakerRepository::initializeObject\(\)](#) added



15 days ago

Inspected [\[CGL\] Removed a space between...](#)



1 new patch (Indentation) is available.



15 days ago

Inspected [\[CGL\] Added spaces after class...](#)



2 new patches (Indentation, Spacing) are available.



Badges

Scrutinizer 10.00

coverage 100 %

build passed

Latest Alerts

Good job, no alerts here.





Completed

Push — bb41e3...ca2e9d

passed — Build

Summary

Code

Patches 7

Log

Status

All Patches 7

New 0

Category

Indentation 7

Classes/Controller/TalkController.php 1 patch

Indentation +12 added lines, -12 removed lines

```
@@ -7,17 +7,17 @@
7 7  */
8 8  class TalkController extends \TYPO3\CMS\Extbase\Mvc\Controller\ActionC
9 9
10 -  /**
11 -   * @var \TNM\T3eeExample\Domain\Repository\TalkRepository
12 -   * @inject
13 -   */
14 -  protected $talkRepository;
10 +  /**
11 +   * @var \TNM\T3eeExample\Domain\Repository\TalkRepository
12 +   * @inject
13 +   */
14 +  protected $talkRepository;
```



How to use it?

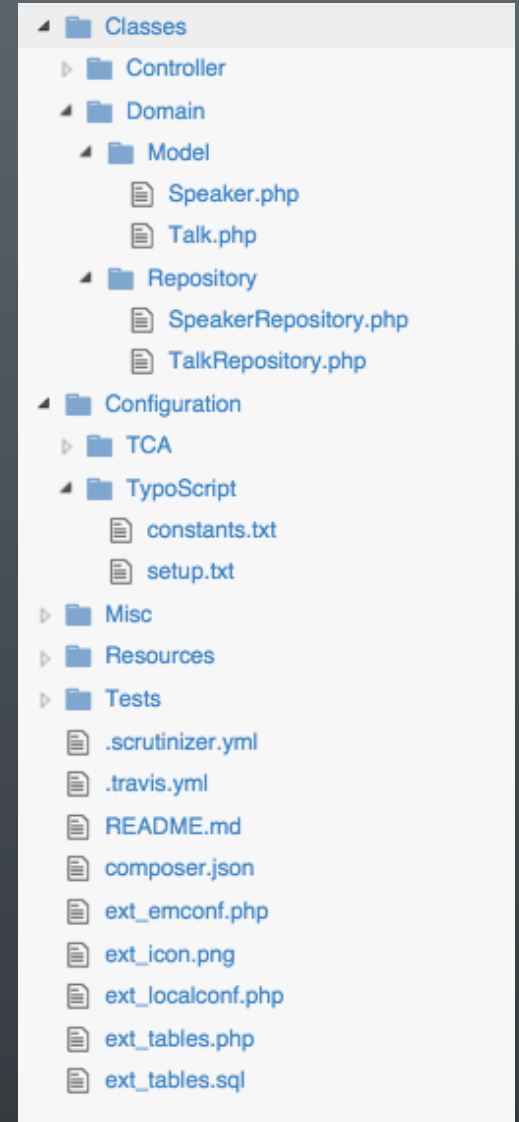


Extension t3ee_example



https://github.com/tomasnorre/t3ee_example

- Simple Domain Model
- Unit / Functional Test Coverage
- Xliff, TypeScript, JavaScript
- Travis CI
- Scrutinizer



Version Metrics

PHP/ TYPO3	6.2.15	7.6 (LTS)	dev-master
5.4	x	-	-
5.5	x	x (c)	?
5.6	x	x	?
7.0	?	?	?
hhvm	x	x	?



Build Jobs

✓	# 97.1	 </> PHP: 5.4	 TYPO3_VERSION=6.2.15 COVERAGE=0	🕒 1 min 17 sec
✓	# 97.2	 </> PHP: 5.5	 TYPO3_VERSION=6.2.15 COVERAGE=0	🕒 1 min 30 sec
✓	# 97.3	 </> PHP: 5.5	 TYPO3_VERSION=7.6 COVERAGE=0	🕒 1 min 35 sec
✓	# 97.5	 </> PHP: 5.6	 TYPO3_VERSION=6.2.15 COVERAGE=0	🕒 1 min 22 sec
✓	# 97.6	 </> PHP: 5.6	 TYPO3_VERSION=7.6 COVERAGE=0	🕒 48 sec
✓	# 97.11	 </> PHP: hhvm	 TYPO3_VERSION=6.2.15 COVERAGE=0	🕒 2 min 35 sec
✓	# 97.12	 </> PHP: hhvm	 TYPO3_VERSION=7.6 COVERAGE=0	🕒 1 min 50 sec
✓	# 97.14	 </> PHP: 5.5	 TYPO3_VERSION=7.6 COVERAGE=1	🕒 2 min 29 sec



Allowed Failures ?

✓	# 97.4	 </> PHP: 5.5	 TYPO3_VERSION=dev-master COVERAGE=0	🕒 1 min 37 sec
✓	# 97.7	 </> PHP: 5.6	 TYPO3_VERSION=dev-master COVERAGE=0	🕒 1 min 13 sec
✓	# 97.8	 </> PHP: 7	 TYPO3_VERSION=6.2.15 COVERAGE=0	🕒 1 min 39 sec
✓	# 97.9	 </> PHP: 7	 TYPO3_VERSION=7.6 COVERAGE=0	🕒 1 min 13 sec
✓	# 97.10	 </> PHP: 7	 TYPO3_VERSION=dev-master COVERAGE=0	🕒 1 min 41 sec
✓	# 97.13	 </> PHP: hhvm	 TYPO3_VERSION=dev-master COVERAGE=0	🕒 1 min 53 sec



.travis.yml



Which versions to use?

php:

- 5.4
- 5.5
- 5.6
- 7.0
- hhvm

env:

- TYPO3_VERSION=6.2.15 COVERAGE=0
- TYPO3_VERSION=7.6 COVERAGE=0
- TYPO3_VERSION=dev-master COVERAGE=0



Exclude/Include matrix

```
matrix:
  exclude:
    - env: TYPO3_VERSION=7.6 COVERAGE=0
      php: 5.4
    - env: TYPO3_VERSION=dev-master COVERAGE=0
      php: 5.4
  include:
    - php: 5.5
      env: TYPO3_VERSION=7.6 COVERAGE=1
  allow_failures:
    - env: TYPO3_VERSION=dev-master COVERAGE=0
    - php: 7.0
```



What do we need to run the planned test? 1/3

```
addons:  
  apt:  
    packages:  
      - parallel  
      - libxml2-utils  
      - nodejs  
      - npm  
  cache:  
    directories:  
      - $HOME/.composer/cache  
  
before_install:  
  - composer self-update  
  - composer --version
```



What do we need to run the planned test? 2/3

```
before_script:
  - composer require typo3/cms=$TYPO3_VERSION
  # Install TypeScript Linter
  - mkdir -p scripts
  - cd scripts
  - git clone https://github.com/tomasnorre/
  typo3-typoscript-lint.git tslint
  - cd tslint
  - composer install
  - cd ../../
  # Restore composer.json
  - git checkout composer.json
  - export TYPO3_PATH_WEB=$PWD/.Build/Web
```



What do we need to run the planned test? 3/3

```
# Before-script continued
# Locating UnitTests.xml
- export "UNIT_XML"=`find . -name
'UnitTests.xml' -type f`
# Location FunctionalTests.xml
- export "FUNCTIONAL_XML"=`find . -name
'FunctionalTests.xml' -type f`
```



Still awake?



Linting | Xliff

```
echo;  
echo "Running xmllint (Xliff)";  
find Resources/Private/Language/ -name '*.xlf'  
-type f | xargs xmllint --noout --schema Misc/  
Validation/Xliff.xsd
```

```
352 Running xmllint (Xliff)  
353 Warning: program compiled against libxml 208 using older 207  
354 Resources/Private/Language/Backend/Locallang_db.xlf validates  
355 Resources/Private/Language/Backend/Tca.xlf validates  
356  
357 The command "echo; echo "Running xmllint (Xliff)"; find Resources/Private/Language/ -name '*.xlf' -type f |  
xargs xmllint --noout --schema Misc/Validation/Xliff.xsd  
358 " exited with 0.
```



Linting | PHP

```
echo;  
echo "Running php lint";  
find . -name \*.php ! -path "./.Build/*" ! -  
path "./scripts/*" ! -path "./typo3_src/*" |  
parallel --gnu php -d display_errors=stderr -l  
{ } > /dev/null \;
```

```
362 Running php lint  
363  
364 The command "echo; echo "Running php lint"; find . -name \*.php ! -path "./.Build/*" ! -path "./scripts/*" !  
-path "./typo3_src/*" | parallel --gnu php -d display_errors=stderr -l { } > /dev/null \;"  
365 " exited with 0.
```



Linting | JavaScript

```
echo;  
echo "Running JavaScript lint";  
npm install -g jslint;  
find Resources/Public/JavaScript/ -name '*.js'  
-type f | xargs jslint
```

```
369 Running JavaScript lint  
370 -e/travis/.nvm/v0.10.36/bin/jslint -> /home/travis/.nvm/v0.10.36/lib/node_modules/jslint/bin/jslint.js  
371 jslint@0.9.5 /home/travis/.nvm/v0.10.36/lib/node_modules/jslint  
372 |— exit@0.1.2  
373 |— nopt@3.0.4 (abbrev@1.0.7)  
374 |— readable-stream@1.0.33 (inherits@2.0.1, isarray@0.0.1, string_decoder@0.10.31, core-util-is@1.0.1)  
375 |— glob@4.5.3 (inherits@2.0.1, once@1.3.2, inflight@1.0.4, minimatch@2.0.10)  
376  
377 Resources/Public/JavaScript/example.js is OK.  
378  
379 The command "echo; echo "Running JavaScript lint"; npm install -g jslint; find Resources/Public/JavaScript/  
-name '*.js' -type f | xargs jslint  
380 " exited with 0.
```



Linting | TypeScript

```
384 Running TypeScript lint
385 Linting input file Configuration/TypeScript/constants.txt.
386 => Executing sniff Helmich\TypeScriptLint\Lint\Sniff\IndentationSniff.
387 => Executing sniff Helmich\TypeScriptLint\Lint\Sniff\DeadCodeSniff.
388 => Executing sniff Helmich\TypeScriptLint\Lint\Sniff\OperatorWhitespaceSniff.
389 => Executing sniff Helmich\TypeScriptLint\Lint\Sniff\RepeatingRValueSniff.
390 => Executing sniff Helmich\TypeScriptLint\Lint\Sniff\DuplicateAssignmentSniff.
391 => Executing sniff Helmich\TypeScriptLint\Lint\Sniff\NestingConsistencySniff.
392 Linting input file Configuration/TypeScript/setup.txt.
393 => Executing sniff Helmich\TypeScriptLint\Lint\Sniff\IndentationSniff.
394 => Executing sniff Helmich\TypeScriptLint\Lint\Sniff\DeadCodeSniff.
395 => Executing sniff Helmich\TypeScriptLint\Lint\Sniff\OperatorWhitespaceSniff.
396 => Executing sniff Helmich\TypeScriptLint\Lint\Sniff\RepeatingRValueSniff.
397 => Executing sniff Helmich\TypeScriptLint\Lint\Sniff\DuplicateAssignmentSniff.
398 => Executing sniff Helmich\TypeScriptLint\Lint\Sniff\NestingConsistencySniff.
399
400 CHECKSTYLE REPORT
401
402 SUMMARY
403 0 warnings in total.
404
405 The command "echo; echo "Running TypeScript lint"; find Configuration/TypeScript/ -name '*.txt' -type f |
    xargs scripts/tslint/./typescript-lint -e -c Misc/Validation/tslint.yml
406 " exited with 0.
```



Dreaming?



PHPUnit (Unit)

```
if [[ "$COVERAGE" == "1" ]]; then
    echo;
    echo "Running unit tests";
    .Build/bin/phpunit
        --coverage-clover=unittest-coverage.clover
        --colors -c $UNIT_XML Tests/Unit/
fi
```



PHPUnit (Functional)

```
if [[ "$COVERAGE" == "1" ]]; then
    echo;
    echo "Running functional tests";
    export typo3DatabaseName="typo3";
    export typo3DatabaseHost="localhost";
    export typo3DatabaseUsername="root";
    export typo3DatabasePassword="";
    find 'Tests/Functional' -wholename '*Test.php' |
    parallel --gnu 'echo; echo "Running functional test
suite {}"; .Build/bin/phpunit --coverage-clover={}
functionaltest-coverage.clover --colors -c
$FUNCTIONAL_XML {}'
fi
```



Scrutinizer Upload

```
if [[ "$COVERAGE" == "1" ]]; then
    echo;
    echo "Uploading code coverage results";
    wget https://scrutinizer-ci.com/ocular.phar
    php ocular.phar code-coverage:upload --
    format=php-clover unittest-coverage.clover
    find 'Tests/Functional' -wholename '*Test.php'
    -exec php ocular.phar code-coverage:upload --
    format=php-clover {}functionaltest-
    coverage.clover \;
fi
```



`.scrutinizer.yml`



Scrutinizer (.scrutinizer.yml)

```
tools:  
  external_code_coverage:  
    timeout: 700  
    runs: 1  
  php_code_sniffer:  
    enabled: true  
    config:  
      standard: TYPO3CMS  
  php_cs_fixer:  
    enabled: true  
  php_mess_detector:  
    enabled: true  
    config:  
      controversial_rules:  
        superglobals: false
```



 Branch: **master**  **t3ee_example** / 

 **tomasnorre** Updated README.md

Latest commit **bb41e35** 30 minutes ago

 Classes	[TASK] Setup frontend rendering etc.	5 days ago
 Configuration	[TASK] Setup frontend rendering etc.	5 days ago
 Misc/Validation	[TASK] Add TypoScript Linting	12 days ago
 Resources	[TASK] Setup frontend rendering etc.	5 days ago
 Tests	[TASK] Setup frontend rendering etc.	5 days ago
 .scrutinizer.yml	[TASK] Setting up the initials for the extension and Travis-CI	15 days ago
 .travis.yml	[TASK] Setup frontend rendering etc.	5 days ago
 README.md	Updated README.md	30 minutes ago
 composer.json	[TASK] Changed composer Dependencies from typo3/cms-core to typo3/cms	15 days ago
 ext_emconf.php	[TASK] Setting up the initials for the extension and Travis-CI	15 days ago
 ext_icon.png	[TASK] Setting up the initials for the extension and Travis-CI	15 days ago
 ext_localconf.php	[TASK] Setup frontend rendering etc.	5 days ago
 ext_tables.php	[TASK] Setup frontend rendering etc.	5 days ago
 ext_tables.sql	[TASK] Setup frontend rendering etc.	5 days ago

 **README.md**

t3ee_example

build **passing**

Scrutinizer **10.00**

coverage **100 %**

This is a small example "extension", for demonstration of the possibilities with Travis CI and Scrutinizer.



[TASK] Updated .travis.yml to TYPO3 7 LTS #5

 **Open** tomasnorre wants to merge 1 commit into `master` from `TYP037LTS`

 Conversation **0**  Commits **1**  Files changed **1**



tomasnorre commented 18 minutes ago

Owner 

No description provided.

  [TASK] Updated .travis.yml to TYPO3 7 LTS ✓ d84bb44

Add more commits by pushing to the `TYP037LTS` branch on `tomasnorre/t3ee_example`.



✓ **All checks have passed**
3 successful checks

[Hide all checks](#)

✓ **Scrutinizer** — No new issues [Details](#)

✓ **continuous-integration/travis-ci/pr** — The Travis CI build passed [Details](#)

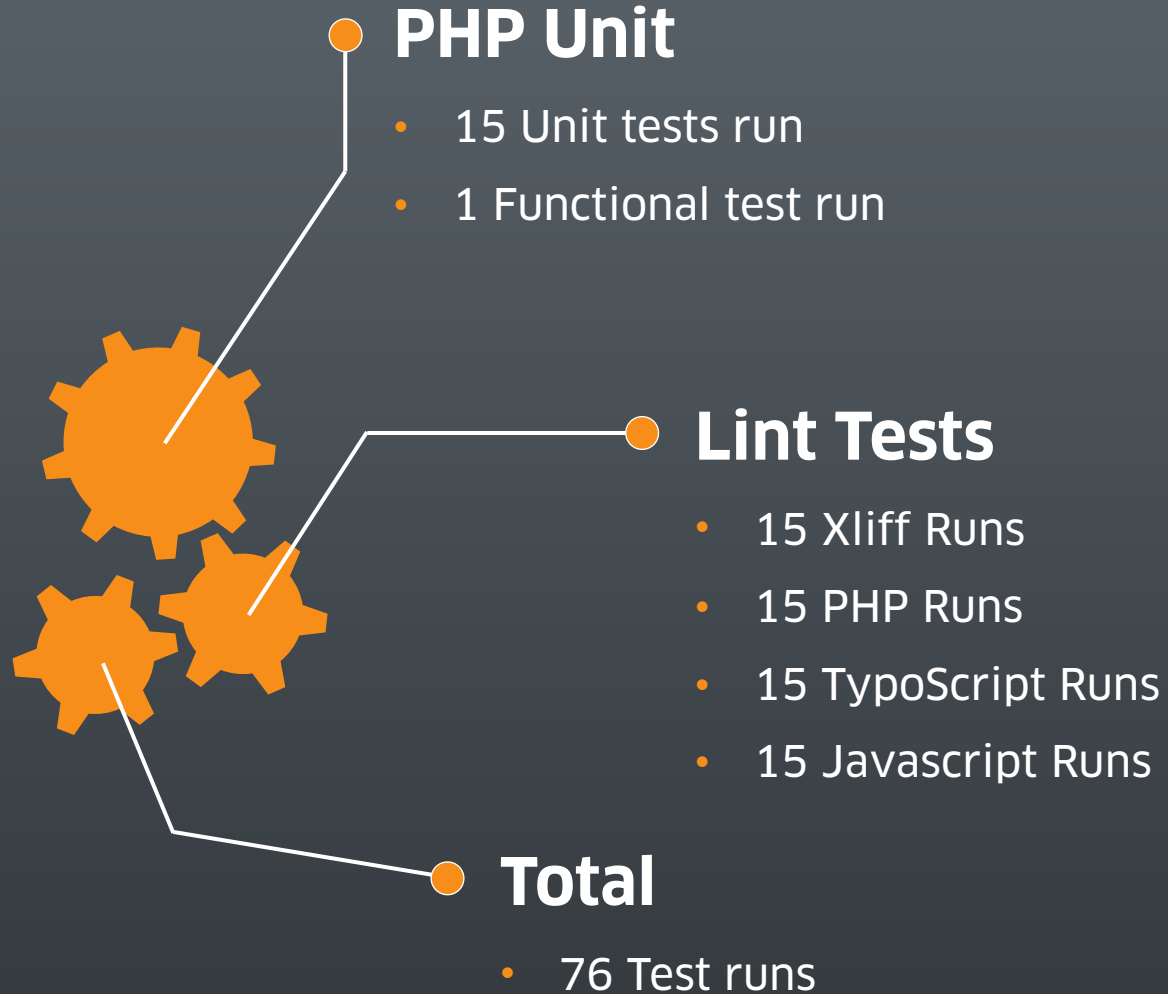
✓ **continuous-integration/travis-ci/push** — The Travis CI build passed [Details](#)

✓ **This branch is up-to-date with the base branch**
Merging can be performed automatically.

 **Merge pull request** You can also [open this in GitHub Desktop](#) or view [command line instructions](#).



Test coverage



Scrutinizer

- Code Coverage
- Code Sniffer
- Mess Detection





The cloud is the limit!



Questions?



@tomasnorre



tomas.mikkelsen@aoe.com



Links

- https://github.com/tomasnorre/t3ee_example
- <https://travis-ci.org/>
- <https://scrutinizer-ci.com/>
- <https://github.com/tomasnorre/typo3-typoscript-lint>

Done by: Martin Helmich

