

Extension: mv_typo3_load_control

(Backend module to prevent request overload of your server!)

Extension Key: **mv_typo3_load_control**

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The content of this Tutorial is related to the Open Source Content Management System called „TYPO3“

<http://typo3.org>

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Disclaimer

- This document is **NOT** an official document from the TYPO3 association.
- The use of this extension, as mentioned in this document, is on your own risk. The author and the TYPO3 association cannot be responsible for anything that results out of this.
- Please also check the official publications on typo3.org, the relevant change logs and forums.
- If you feel insecure or you do not have the specific knowledge to perform the necessary steps please contact a TYPO3 consulting partner.
- There is no free consulting given by the author for this tutorial or the use of this extension!

Introduction

What is this document for?

This tutorial belongs to the TYPO3 extension „mv_typo3_load_control“. This extension allows you to control the number of requests sent to your site, before TYPO3 has been executed. It makes sense, if you have a website with many SQL queries or a low performance server (like many public webhosting provider do have). This extension consists of a backend module and a frontend PHP-file. I had to develop this extension for my own, because my site generated too much traffic. After a trace i found out, that TYPO3 generated over 100 SQL-queries, which were the reason for the low performance. Now there is a check of how many requests TYPO3 will execute, which is only about 3 SQL-queries. After using this extension now for about 1 month I never had problems again.

What is the target group?

This document is addressed to TYPO3 administrators and developers. But it is quite simple to use it – so almost everyone will be able to use it.

Any Hints or Suggestions?

If you have any hints or suggestions (not basic questions), you may send them to me (see contact data in the document header) or: <http://contact.voegeli.li>

Requirements

Before you start, be sure that your installation meets the following requirements:

- TYPO3 installed & running
- FTP-access to the TYPO3 root directory

Architecture

Here you can find the architecture of this solution in a picture and explained:

Configuration in Backend

You can easily configure the Load Control in a backend module, delivered with the extension. Further configuration can be done with records.

Standard Typo3

Load Control

Load Control Functionality

Usually Typo3 receives requests directly from the web – without a load control.

With this extension the first receiver of the requests is not Typo3, but the load control frontend part. This will be executed quicker than Typo3 and will decide if the request can be forwarded to Typo3 or not. Here the server overload is being prevented.

Installation & Configuration

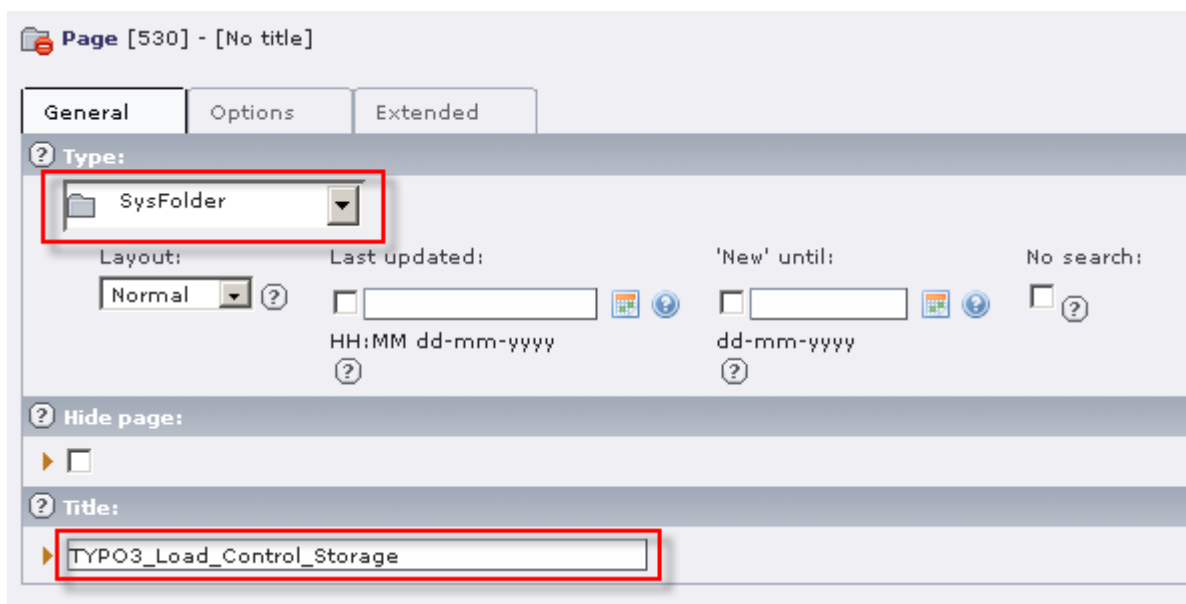
Here you find the detailed tutorial, how to install and configure the extension.

1. Installation

Import the extension „mv_typo3_load_control“ from Typo3 extension repository and install the extension (with your extension manager in your backend).

2. Create a system storage folder

Go to your backend and create a new page of type „SysFolder“.



3. Create Configuration Record

Go to your backend, go to „List“ module, select your created folder „TYPO3_Load_Control_Storage“. Create a new record of type „TYPO3 Load Control – Configuration“.



Fill in the configuration parameters.

TYPO3 Load Control - Configuration NEW - [PID: 530] TYPO3_Load_Control_Storage	
Load Control Active?	<input checked="" type="checkbox"/>
Maximum number of current visitors	15
Session Lifetime in Seconds	60
Min. Interval reload 1 to 2 in sec.	2
Min. Interval reload 1 to N in sec.	4
Storage folder ID	530

Load Control Active?

If checked, the logic is active. If not, Typo3 will be executed as normal, without a load control check first.

Maximum number of current visitors

How many different visitors do you want to allow on your site at the same time? If you just want to control reload intervals and not maximum number of users, then simply set this to very high.

Session Lifetime in seconds

How long should a visitor session be kept alive?

Min. Interval reload 1 to 2 in sec.

Minimum time interval in seconds from the first page load of a visitor to the second. (Only used once per visitor)

Min. Interval reload 1 to N in sec.

Minimum time interval in seconds from first load to load 3 and every following, with one reload interval.

Storage folder ID

The number of the storage folder you have created.

IMPORTANT

Create only 1 record of this type within 1 Typo3 installation!



4. Create Exclude Records

You can exclude specific visitors, such as google bot. If you define them to be excluded, the load control logic won't be active for them and they can load as much as they want.

Exclude high traffic bots before, via htaccess

Most of the traffic to my site was generated by yahoo bots! This was really terrible. So the best way to exclude „bad“ robots is to place something like the following to your „.htaccess“ file. This will not even let them to the load control.

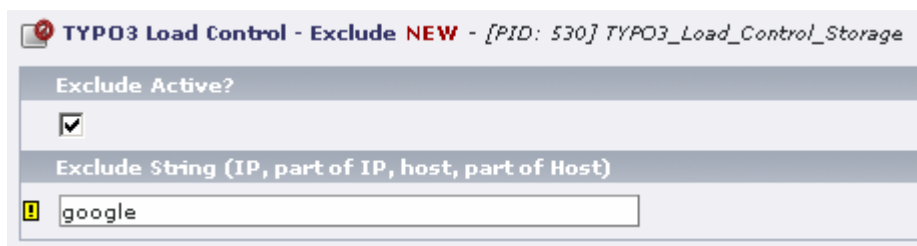
```
order allow,deny
deny from .yahoo.net
deny from .yahoo.com
deny from .live.com
deny from .crawl.yahoo.net
deny from .search.live.com
deny from internetserviceteam.com
deny from .internetserviceteam.com
deny from crawl.yahoo.net
deny from crawl.yahoo.com
deny from search.live.com
deny from *yahoo.net
deny from *yahoo.com
deny from *live.com
deny from 65.55.
deny from 74.6.
deny from 67.195.
allow from all
```

Hint: Do allow google bots to visit your site. The don't generate such a high traffic and indexing is important to keep your site in the search results. So create an exclude record for google.



Go to the list module, to your storage folder and create a new record of type „TYPO3 Load Control – Exclude“.

Fill in the parameters as follows.



The screenshot shows a configuration window titled "TYPO3 Load Control - Exclude NEW - [PID: 530] TYPO3_Load_Control_Storage". It contains two sections: "Exclude Active?" with a checked checkbox, and "Exclude String (IP, part of IP, host, part of Host)" with a text input field containing the word "google".

Exclude Active?

If checked, exclude will work. If not checked, exclude is not taken into the logic.

Exclude String

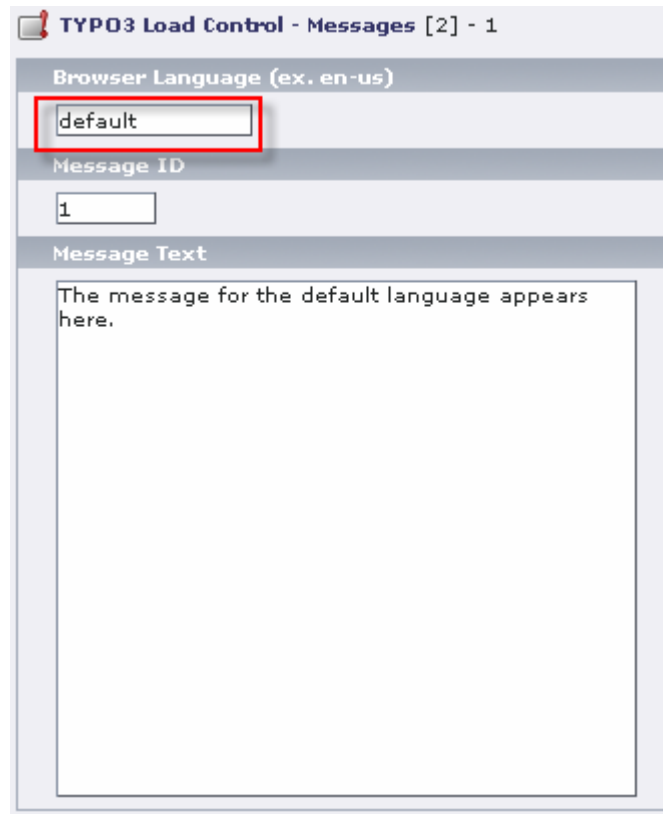
A whole host name, part of a hostname, a whole IP or a part of a IP.

(ex. „google“ -> will exclude all hosts containing %google%)

5. Create Frontend Message Records

When visitors exceed their reload limits or too many visitors try to load your site, then these messages appear, instead of your Typo3 site. The messages can be maintained in different languages.

Go to the list module, to your storage folder and create a new record of type „TYPO3 Load Control – Messages“.



The screenshot shows a web form titled "TYPO3 Load Control - Messages [2] - 1". It has three main sections: "Browser Language (ex. en-us)", "Message ID", and "Message Text". The "Browser Language" field contains the text "default" and is highlighted with a red rectangle. The "Message ID" field contains the number "1". The "Message Text" field is a large text area containing the text "The message for the default language appears here."

Browser Language

This is not the Typo3 browser language! This is the PHP browser accept language. Examples are:

- „en-us“ english american
- „en-gb“ english british
- „de-ch“ swiss german
- „de“ german
- ...

You can set 1 record with language = „default“. This one then will be taken, if the specific language message record is not set. You can also just maintain 1 record with language = „default“ and put an english and german message into the same record.

In the folder res/test you find the script test.language.ph, which shows your browsers accept languages.

Message ID

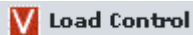
Not used now. Set always to 1!

Message Text

The message, which is shown. You can use HTML if you want.

6. Settings in your backend module

Now go to your backend and open the backend module „Load Control“:



Choose „2) Edit and check external DB connection“.

The screenshot shows the "Load Control" interface for "SWISSROUTE.com". The selected menu item is "2) Edit and check external DB Connection". The main area is titled "EDIT EXTERNAL DB CONNECTION" and contains a PHP code editor with the following code:

```
<?php
// TYPO3 LOAD CONTROL
// ---> Settings for external database connection
$this->host = "localhost"; // Host name ex. localhost
$this->password = "password"; // MySQL Password
$this->user = "user"; // MySQL User
$this->database = "database"; // MySQL Database
?>
```

Below the code editor are two buttons: "Save Configuration" and "Reset". A red arrow points from the code editor to the "Save Configuration" button. Below the buttons is a "Check DB Connection:" section with a red arrow pointing to it. The output of the check is displayed in green text:

```
Success: Connected to MySQL host localhost.
Success: Database usr web361 4 selected.
```

Edit the parameters host, password, user and database and press button „Save Configuration“. After you have pressed that button, the backend module tries to establish a database connection with your parameters and shows the protocol right below the editable box. If the two lines are green, the settings are okay!

Why an external database connection and not the one of Typo3?

Because the frontend part is being executed before Typo3 establishes a DB connection!

The only manual step:

Now download the Typo3 index.php file from your Typo3-root-Directory (via FTP).

```
<?php  
include_once("typo3conf/ext/mv_typo3_load_control/res/typo3_load_control.php");
```

Place the line...

```
include_once("typo3conf/ext/mv_typo3_load_control/res/typo3_load_control.php");
```

...directly after the „<?php“ tag in the index.php file.

Then upload this index.php to your Typo3-root-directory (via FTP.)

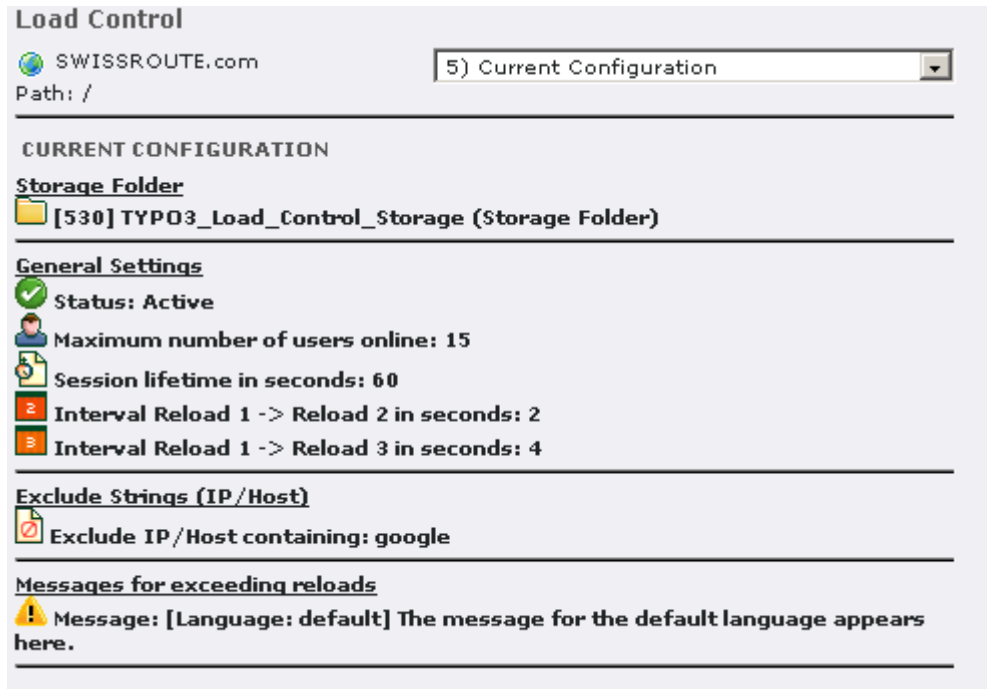
Check the inclusion over your backend module „Load Control“ -> point „3) Check index.php“

Now your installation and Configuration is done. Proceed to the next chapter to see how to check if it works or not!

Check Installation & Configuration

Check current configuration

Go to your backend module „Load Control“ and select point „5) Current configuration“:



Load Control

SWISSROUTE.com

Path: /

5) Current Configuration

CURRENT CONFIGURATION

Storage Folder

[530] TYPO3_Load_Control_Storage (Storage Folder)

General Settings

✓ Status: Active

👤 Maximum number of users online: 15

🕒 Session lifetime in seconds: 60

🔄 Interval Reload 1 -> Reload 2 in seconds: 2

🔄 Interval Reload 1 -> Reload 3 in seconds: 4

Exclude Strings (IP/Host)

🚫 Exclude IP/Host containing: google

Messages for exceeding reloads

⚠ Message: [Language: default] The message for the default language appears here.

Check if records are available and parameters are set right.

Create Loads

Call your Typo3 site several times with your browsers refresh button. If you reload too fast now, your messages should appear!

Check if loads are recorded

Go to your backend module „Load Control“ and select point „4) Current online user“.

Load Control

SWISSROUTE.com Path: /
















4) Current online user

CURRENT USER ONLINE:

Typo3_Domain	Visitor_IP	Visitor_Host	Last Load TS	Load Count Session	Session Start Date	Session Start Time	Session since sec.
voegeli.li	91.138.104.105		1211623321	2	24.05.2008	12:02:01	6774

Here you see a report of all current users on your websites. You can also see the visitors as records in your storage folder:

TYPO3 Load Control - Runtime Data (3)

Visitor Host IP Address	
91.138.104.105	     
91.138.104.105	     
91.138.104.105	     

That's it. I hope this extension works for you as well as it does for me. It prevented that I had to move my web account to another provider!

:-) Open source forever!