

# Optimizing TYPO3 performance

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# TYPO3 performance

Performance optimization areas:

- TYPO3 code
- TYPO3 installation
- Server hardware
- Server software
- Apache
- MySQL

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## Optimizing TYPO3 code

Hardly possible unless you are familiar with TYPO3 internal and customer agrees to use unofficial version.

If you tuned something, submit a patch to <http://bugs.typo3.org/> !

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## Optimizing TYPO3 installation

- Place uploads/ and typo3temp/ to striped RAID
- Regularly clean typo3temp/
- Regularly clean typo3temp/cache\_pages if you use file-based page cache (TYPO3 <= 4.2)
- Use .htaccess (see NEWS.txt) to improve client-side caching of images
- Disable sys\_stat and use Webalizer if you want statistics!
- Do not use indexed\_search unless you really need search on your site

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## Optimizing server hardware

- 512MB on server? This is not a server! At least 2GB is necessary
- Multiple CPUs
- Use RAID-5 if you can (do not forget about backups!)
- Use faster disks and configure them appropriately in Linux

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## Optimizing server software

- Place database and web server to separate computers if you can
- Use RAID-5 if you can (do not forget about backups!)
- Use native Linux file system, preferably ReiserFS
- Stop unnecessary services (you do not need X or Samba on the web server!)

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## Optimizing Apache

- Remove unnecessary Apache modules (proxy, auth\_idap, DAV, etc)
- Disable logging if you do not need statistics
- Use PHP as module (may be as FastCGI), never as CGI!
- Install eAccelerator (up to 10x improvement!)
- Use appropriate MPM module
- Search web for tips!
- Do not use persistent MySQL connections in PHP

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## Optimizing MySQL

- Enable query cache (!)
- Enable thread cache (!!!)
- Enable concurrent inserts
- Increase buffers (`key_buffer` / `key_buffer_size`)
- Disable error and slow query logs
- Set `max_connections` to high value and `wait_timeout` to low
- Set table cache to high value
- Use InnoDB



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## Optimizing MySQL, cont'd

### Example configuration:

<code>skip-locking</code>	<code>&lt;- do not use file locks</code>
<code>concurrent_insert = 1</code>	<code>&lt;- my_isam only, not always</code>
<code>key_buffer = 56M</code>	<code>&lt;- memory for keys</code>
<code>max_allowed_packet = 16M</code>	<code>&lt;- network data size</code>
<code>max_connections = 300</code>	<code>&lt;- max clients</code>
<code>max_connect_errors = 2000000</code>	<code>&lt;- need for next parameter</code>
<code>wait_timeout = 15</code>	<code>&lt;- close connections quickly</code>
<code>max_tmp_tables = 200</code>	<code>&lt;- keep this number of tables</code>
<code>query_cache_size = 64M</code>	<code>&lt;- maximum query size</code>
<code>query_cache_limit = 10M</code>	<code>&lt;- always on</code>
<code>query_cache_type = 1</code>	<code>&lt;- read this amount in one turn</code>
<code>read_buffer_size = 8M</code>	<code>&lt;- same as above, random reads</code>
<code>read_rnd_buffer_size = 8M</code>	<code>&lt;- used while sorting data</code>
<code>sort_buffer_size = 16M</code>	<code>&lt;- keep this number of tables open</code>
<code>table_cache = 1000</code>	
<code>tmp_table_size = 64M</code>	
<code>thread_cache_size = 200</code>	<code>&lt;- keep this number of threads</code>
<code>thread_concurrency = 8</code>	<code>&lt;- up to 4xCPU (manual says 2xCPU)</code>
<code>innodb_thread_concurrency = 1000</code>	<code>&lt;- &gt;=500 - no concurrency checking</code>

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## Tips:

- Monitor your site load

<http://www.labradordata.ca/home/37>

- Optimization does not stop!