Apache Module mod_mem_cache

Description:	Content cache keyed to URIs
Status:	Experimental
Module Identifier:	mem_cache_module
Source File:	mod_mem_cache.c

Summary

This module is experimental. Documentation is still under development...

This module *requires* the service of `mod_cache`. It acts as a support module for `mod_cache` and provides a memory based storage manager. `mod_mem_cache` can be configured to operate in two modes: caching open file descriptors or caching objects in heap storage. `mod_mem_cache` is most useful when used to cache locally generated content or to cache backend server content for `mod_proxy` configured for `ProxyPass` (aka *reverse proxy*).

Content is stored in and retrieved from the cache using URI based keys. Content with access protection is not cached.

Directives

See also

- `mod_cache`
- `mod_disk_cache`

MCacheMaxObjectCount Directive

Description:	The maximum number of objects allowed to be placed in the cache
Syntax:	`MCacheMaxObjectCount` *`value`*
Default:	`MCacheMaxObjectCount 1009`
Context:	server config
Status:	Experimental
Module:	mod_mem_cache

The `MCacheMaxObjectCount` directive sets the maximum number of objects to be cached. The value is used to create the open hash table. If a new object needs to be inserted in the cache and the maximum number of objects has been reached, an object will be removed to allow the new object to be cached. The object to be removed is selected using the algorithm specified by `MCacheRemovalAlgorithm`.

Example

```
MCacheMaxObjectCount 13001
```

MCacheMaxObjectSize Directive

Description:	The maximum size (in bytes) of a document allowed in the cache
Syntax:	`MCacheMaxObjectSize` *`bytes`*
Default:	`MCacheMaxObjectSize 10000`
Context:	server config
Status:	Experimental
Module:	mod_mem_cache

The `MCacheMaxObjectSize` directive sets the maximum allowable size, in bytes, of a document for it to be considered cacheable.

Example

```
MCacheMaxObjectSize 6400000
```

Note

The value of `MCacheMaxObjectSize` must be greater than the value specified by the `MCacheMinObjectSize` directive.

MCacheMaxStreamingBuffer Directive

Description:	Maximum amount of a streamed response to buffer in memory before declaring the response uncacheable
Syntax:	`MCacheMaxStreamingBuffer` *`size_in_bytes`*
Default:	`MCacheMaxStreamingBuffer the smaller of 100000 or MCacheMaxObjectSize`
Context:	server config
Status:	Experimental
Module:	mod_mem_cache

The `MCacheMaxStreamingBuffer` directive specifies the maximum number of bytes of a streamed response to buffer before deciding that the response is too big to cache. A streamed response is one in which the entire content is not immediately available and in which the `Content-Length` may not be known. Sources of streaming responses include proxied responses and the output of CGI scripts. By default, a streamed response will *not* be cached unless it has a `Content-Length` header. The reason for this is to avoid using a large amount of memory to buffer a partial response that might end up being too large to fit in the cache. The `MCacheMaxStreamingBuffer` directive allows buffering of streamed responses that don't contain a `Content-Length` up to the specified maximum amount of space. If the maximum buffer space is reached, the buffered content is discarded and the attempt to cache is abandoned.

Note:

Using a nonzero value for `MCacheMaxStreamingBuffer` will not delay the transmission of the response to the client. As soon as `mod_mem_cache` copies a block of streamed content into a buffer, it sends the block on to the next output filter for delivery to the client.

```
# Enable caching of streamed responses up to 64KB:
MCacheMaxStreamingBuffer 65536
```

MCacheMinObjectSize Directive

Description:	The minimum size (in bytes) of a document to be allowed in the cache
Syntax:	`MCacheMinObjectSize` *`bytes`*
Default:	`MCacheMinObjectSize 0`
Context:	server config
Status:	Experimental
Module:	mod_mem_cache

The `MCacheMinObjectSize` directive sets the minimum size in bytes of a document for it to be considered cacheable.

Example

```
MCacheMinObjectSize 10000
```

MCacheRemovalAlgorithm Directive

Description:	The algorithm used to select documents for removal from the cache
Syntax:	`MCacheRemovalAlgorithm LRU|GDSF`
Default:	`MCacheRemovalAlgorithm GDSF`
Context:	server config
Status:	Experimental
Module:	mod_mem_cache

The `MCacheRemovalAlgorithm` directive specifies the algorithm used to select documents for removal from the cache. Two choices are available:

`LRU` (Least Recently Used)
: `LRU` removes the documents that have not been accessed for the longest time.

`GDSF` (GreadyDual-Size)
: `GDSF` assigns a priority to cached documents based on the cost of a cache miss and the size of the document. Documents with the lowest priority are removed first.

Example

```
MCacheRemovalAlgorithm GDSF
MCacheRemovalAlgorithm LRU
```

MCacheSize Directive

Description:	The maximum amount of memory used by the cache in KBytes
Syntax:	`MCacheSize` *`KBytes`*
Default:	`MCacheSize 100`
Context:	server config
Status:	Experimental

Module:	mod_mem_cache

The `MCacheSize` directive sets the maximum amount of memory to be used by the cache, in KBytes (1024-byte units). If a new object needs to be inserted in the cache and the size of the object is greater than the remaining memory, objects will be removed until the new object can be cached. The object to be removed is selected using the algorithm specified by `MCacheRemovalAlgorithm`.

Example

```
MCacheSize 700000
```

Note

The `MCacheSize` value must be greater than the value specified by the `MCacheMaxObjectSize` directive.