NAME

ss_m, set_shutdown_flag, setup_options – Class ss_m Methods for Initialization

SYNOPSIS

```
#include <sm_vas.h>

class ss_m;

static void ss_m::set_shutdown_flag(bool clean);
            ss_m::ss_m();

static rc_t ss_m::setup_options(option_group_t*);
            ss_m::~ss_m();
```

DESCRIPTION

These methods of class *ss_m* control initializing and shutting down the Shore storage manager (SSM). Constructing an instance of *ss_m* starts the SSM. Destroying the instance causes the SSM to shut down.

During construction, the SSM follows the steps discussed in the Recovery section of **The Shore Storage Manager Programming Interface.**

setup_options(option_group_t *)

The **setup_options** method adds storage manager specific options to the *option_group_t.* These options must be initialized before the **ss_m** constructor is called.

ss_m()

The **ss_m** constructor initializes all SSM data structures, and performs recovery based on the current log. Only one instance of **ss_m** may be in existence at any one time (this is enforced by the constructor).

Part of SSM initialization includes allocating a buffer pool. The buffer pool is located in shared memory, so the operating system must have shared-memory support to accommodate the size of the buffer pool. If insufficient shared memory is available, the SSM prints a message indicating how much shared memory it is trying to acquire, and exits.

set_shutdown_flag(clean)

The **set_shutdown_flag** method can be used to simulate a crash. If *clean* is set to **false,** the SSM will not flush any buffers when **~ss_m()** is called. If *clean* is set to **true,** all data pages and logs are flushed to disk, and no recovery processing will be needed when the SSM is restarted. This is the normal operation of the storage manager.

~ss_m()

The **ss_m** destructor flushes all buffers in the buffer pool to disk (unless **set_shutdown_flag(clean)** was used to defeat this) and frees all the resources used by the SSM.

ERRORS

Failure to properly construct/destruct the SSM will result in a **fatal** error that will print a message and exit the program.

See **errors(ssm)** for more information on error-handling.

EXAMPLES

To Do.

VERSION

This manual page applies to Version 1.1 of the Shore software.

SPONSORSHIP

The Shore project is sponsored by the Advanced Research Project Agency, ARPA order number 018 (formerly 8230), monitored by the U.S. Army Research Laboratory under contract DAAB07-91-C-Q518.

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SEE ALSO

intro(ssm), volume(ssm), options(common), transaction(ssm)