

NAME

scond_t – Shore Condition Variable Class

SYNOPSIS

```
#include <pthread.h>

/*
 * Condition Variable
 */
class scond_t : public pthread_named_base_t {
public:
    NORET          scond_t(const char* name = 0);
    NORET          ~scond_t();

    w_rc_t          wait(
        smutex_t&    m,
        int4_t        timeout = WAIT_FOREVER);
    void            signal();
    void            broadcast();
    bool            is_hot() const;
};
```

DESCRIPTION

Threads usually wait on a conditional variable because they can only continue after a certain condition is met (for example, a consumer thread might wait for the condition that the input queue is not empty). Every condition variable should be protected by a **smutex_t**.

scond_t(name)

The constructor creates a condition variable. The *name* parameter is stored in the condition variable for debugging purposes.

~scond_t()**wait(mutex, timeout)**

The **wait** method suspends the current thread, which must hold *mutex*, on the condition variable and releases *mutex*. Later, when the condition variable is *signaled*, the thread is awakened and it will reacquire *mutex* before returning from **wait**.

signal()

The **signal** method wakes up *at least one* thread waiting on the condition variable.

broadcast()

The **broadcast** method wakes up *all* threads waiting on the condition variable.

is_hot()

The **is_hot** method returns **true** if at least one thread is waiting on the condition.

ERRORS

TODO.

EXAMPLES

TODO.

VERSION

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

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SEE ALSO

errors(pthread), pthread_t(pthread), sem_t(pthread), sem_wait(pthread), file_handlers(pthread), intro(pthread).