

simplebitfield

COLLABORATORS

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REVISION HISTORY

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Chapter 1

simplebitfield

1.1 simplebitfield.doc

```
--overview--  
  
bit_operations()  
  
clearfield()  
  
end()  
  
new()
```

1.2 simplebitfield.m/--overview--

PURPOSE
To provide a simple bitfield.

OVERVIEW
Implements the same concepts as bitfield.m, but a great many services are removed or simplified, for applications where only the simple get/set/clear functionality of a bitfield is needed.

SEE ALSO
bitfield.m

1.3 simplebitfield.m/bit_operations

NAME
simplebitfield.set() -- set an individual bit.
simplebitfield.clear() -- clear an individual bit.
simplebitfield.test() -- test an individual bit.

SYNOPSIS
state := set(bit)

```
state := clear(bit)
state := test(bit)
```

FUNCTION

Will test, then perform an operation on an individual bit in the bitfield:

```
set()    will set the bit to boolean TRUE.
clear()  will clear the bit to boolean FALSE.
test()   will perform no altering operation on the bit.
```

The bit specified must not lie outwith the range stored by the bitfield, otherwise innocent data `_will_` be corrupted.

INPUTS

bit - the bit to perform an operation on.

RESULT

state - the previous state of the bit before the operation was performed on it, either TRUE or FALSE.

1.4 simplebitfield.m/clearfield

NAME

simplebitfield.clearfield() -- clear all bits.

SYNOPSIS

```
clear()
```

FUNCTION

Clears all bits in the bitfield to boolean FALSE.

1.5 simplebitfield.m/end

NAME

simplebitfield.end() -- Destructor.

SYNOPSIS

```
end()
```

FUNCTION

Frees resources used by an instance of the bitfield class.

SEE ALSO

```
new()
```

1.6 simplebitfield.m/new

NAME

simplebitfield.new() -- Constructor.

SYNOPSIS

new(max)

FUNCTION

Initialises an instance of the bitfield class. Raises exception "MEM" if it cannot allocate enough memory for the required number of bits. All bits are initially cleared.

INPUT

max - the maximum integer value that will be represented in the field. Must be positive. The minimum will be 0.

SEE ALSO

end()
,
clearfield()