NAME
pmap_extract, **pmap_extract_and_hold** - map a virtual address to a physical page

SYNOPSIS
#include <sys/param.h>
#include <vm/vm.h>
#include <vm/pmap.h>

vm_paddr_t
pmap_extract(*pmap_t pmap*, *vm_offset_t va*);

vm_page_t
pmap_extract_and_hold(*pmap_t pmap*, *vm_offset_t va*, *vm_prot_t prot*);

DESCRIPTION
The **pmap_extract**() function maps a virtual address to a physical page. In certain situations, callers may use **pmap_extract_and_hold**() instead, to ensure that the returned page is held.

The **pmap_extract_and_hold**() function maps a virtual address to a physical page, and atomically holds the returned page for use by the caller, only if the mapping permits the given page protection.

IMPLEMENTATION NOTES
Currently, the page protection requested by the caller is not verified.

RETURN VALUES
The **pmap_extract**() function will return the physical page address associated with the virtual address *va* inside the physical map *pmap*. If the mapping does not exist, or if the *pmap* parameter is NULL, then NULL will be returned.

The **pmap_extract_and_hold**() function will return the *vm_page_t* associated with the virtual address *va* inside the physical map *pmap*. If the mapping does not exist, the result is a no-op, and NULL will be returned.

SEE ALSO
mutex(9), pmap(9)

AUTHORS
The **pmap_extract_and_hold**() function was implemented by Alan L. Cox <*alc@imimic.com*>. This manual page was written by Bruce M Simpson <*bms@spc.org*>.