

```

*****
4979 Wed Apr 16 13:35:20 2014
new/usr/src/uts/i86pc/sys/vm_machparam.h
4747 remove unused [DS]SIZE_LIMIT defines
*****
1 /*
2  * CDDL HEADER START
3  *
4  * The contents of this file are subject to the terms of the
5  * Common Development and Distribution License (the "License").
6  * You may not use this file except in compliance with the License.
7  *
8  * You can obtain a copy of the license at usr/src/OPENSOLARIS.LICENSE
9  * or http://www.opensolaris.org/os/licensing.
10 * See the License for the specific language governing permissions
11 * and limitations under the License.
12 *
13 * When distributing Covered Code, include this CDDL HEADER in each
14 * file and include the License file at usr/src/OPENSOLARIS.LICENSE.
15 * If applicable, add the following below this CDDL HEADER, with the
16 * fields enclosed by brackets "[]" replaced with your own identifying
17 * information: Portions Copyright [yyyy] [name of copyright owner]
18 *
19 * CDDL HEADER END
20 */
21 /*      Copyright (c) 1988 AT&T */
22 /*      All Rights Reserved      */
23 /*
24 * Copyright 2007 Sun Microsystems, Inc.  All rights reserved.
25 * Use is subject to license terms.
26 */

28 #ifndef _SYS_VM_MACHPARAM_H
29 #define _SYS_VM_MACHPARAM_H

31 #pragma ident      "%Z%M% %I%      %E% SMI"

31 #ifdef __cplusplus
32 extern "C" {
33 #endif

35 /*
36  * Machine dependent constants for PC.
37  */

39 /*
40  * USRTEXT is the start of the user text/data space.
41  */
42 #define USRTEXT      USRSTACK

44 /*
45  * Virtual memory related constants for UNIX resource control, all in bytes.
46  * The default stack size (initial stack size limit) keeps the stack from
47  * taking more than 2 page directory entries in addition to the part of
48  * the page directory entry which also maps the initial text and data,
49  * and makes the default slightly bigger than the 8MB on SPARC.
50  */
51 #ifdef __amd64
52 /*
53  * On amd64, the stack grows down from just below KERNELBASE (see the
54  * definition of USERLIMIT in i86pc/sys/machparam.h). Theoretically,
55  * it could grow down to the top of the VA hole (0xffff800000000000),
56  * giving it a possible maximum of about 125T. For an amd64 xpv
57  * kernel, all user VA space is below the VA hole. The theoretical
58  * maximum for the stack is about the same, although it can't grow
59  * to quite that size, since it would clash with the heap.

```

```

60 *
61 * Pick an upper limit that will work in both cases: 32T.
62 *
63 * For 32bit processes, the stack is below the text segment.
64 */
65 #define MAXSSIZ      (32ULL * 1024ULL * 1024ULL * 1024ULL * 1024ULL)
66 #else
67 #define MAXSSIZ      (USRSTACK - 1024*1024)
68 #endif /* __amd64 */
69 #define DFLSSIZ      (8*1024*1024 + ((USRSTACK) & 0x3FFFFFF))

71 /*
72 * The following are limits beyond which the hard or soft limits for stack
73 * and data cannot be increased. These may be viewed as fundamental
74 * characteristics of the system. Note: a bug in SVVS requires that the
75 * default hard limit be increasable, so the default hard limit must be
76 * less than these physical limits.
77 */
78 #define DSIZE_LIMIT  (USERLIMIT-USRTEXT)      /* physical data limit */
79 #define SSIZE_LIMIT  (USRSTACK)               /* physical stack limit */

83 /*
84 * Size of the kernel segkmem system pte table. This virtual
85 * space is controlled by the resource map "kernelmap".
86 */
87 #define SYSPTSIZE    ((61*1024*1024) / MMU_PAGESIZE)

89 /*
90 * Size of the ethernet addressable kernel segkmem system pte table.
91 * This virtual space is controlled by the resource map "ekernelmap".
92 * The ethernet interfaces in some sun machines can address only
93 * the upper 16 Megabytes of memory. Since the ethernet
94 * driver kmem_allocs its memory, we bias all kmem_allocs
95 * to try ekernelmap first and if it fails try kernelmap.
96 * Folks that allocate directly out of kernelmap, above,
97 * get memory that is non-ethernet addressable.
98 */
99 #define E_SYSPTSIZE  (0x2000000 / MMU_PAGESIZE)

101 /*
102 * The virtual address space to be used by the seg_map segment
103 * driver for fast kernel mappings.
104 */
105 #if defined(__i386)
106 #define SEGMAPDEFAULT (16 * 1024 * 1024)
107 #define SEGMAPMAX     (128 * 1024 * 1024)
108 #else
109 #define SEGMAPDEFAULT (64 * 1024 * 1024)
110 #endif

111 /*
112 * The time for a process to be blocked before being very swappable.
113 * This is a number of seconds which the system takes as being a non-trivial
114 * amount of real time. You probably shouldn't change this;
115 * it is used in subtle ways (fractions and multiples of it are, that is, like
116 * half of a 'long time', almost a long time, etc.)
117 * It is related to human patience and other factors which don't really
118 * change over time.
119 */
120 #define MAXSLP      20

121 /*
122 * A swapped in process is given a small amount of core without being bothered
123 * by the page replacement algorithm. Basically this says that if you are
124 * swapped in you deserve some resources. We protect the last SAFERSS
125 * pages against paging and will just swap you out rather than paging you.

```

```
116 * Note that each process has at least UPAGES pages which are not
117 * paged anyways so this number just means a swapped in process is
118 * given around 32k bytes.
119 */
120 /*
121 * nominal ``small'' resident set size
122 * protected against replacement
123 */
124 #define SAFERSS          3

126 /*
127 * DISKRPM is used to estimate the number of paging i/o operations
128 * which one can expect from a single disk controller.
129 *
130 * XXX - The system doesn't account for multiple swap devices.
131 */
132 #define DISKRPM          60

134 /*
135 * The maximum value for handspreadpages which is the the distance
136 * between the two clock hands in pages.
137 */
138 #define MAXHANDSPREADPAGES ((64 * 1024 * 1024) / PAGE_SIZE)

140 /*
141 * Paged text files that are less than PGTHRESH bytes
142 * may be "prefaulted in" instead of demand paged.
143 */
144 #define PGTHRESH          (280 * 1024)

146 #ifdef __cplusplus
147 }
_____unchanged_portion_omitted_
```

```

*****
2399 Wed Apr 16 13:35:20 2014
new/usr/src/uts/intel/sys/vmparam.h
4747 remove unused [DS]SIZE_LIMIT defines
*****
1 /*
2  * CDDL HEADER START
3  *
4  * The contents of this file are subject to the terms of the
5  * Common Development and Distribution License (the "License").
6  * You may not use this file except in compliance with the License.
7  *
8  * You can obtain a copy of the license at usr/src/OPENSOLARIS.LICENSE
9  * or http://www.opensolaris.org/os/licensing.
10 * See the License for the specific language governing permissions
11 * and limitations under the License.
12 *
13 * When distributing Covered Code, include this CDDL HEADER in each
14 * file and include the License file at usr/src/OPENSOLARIS.LICENSE.
15 * If applicable, add the following below this CDDL HEADER, with the
16 * fields enclosed by brackets "[]" replaced with your own identifying
17 * information: Portions Copyright [yyyy] [name of copyright owner]
18 *
19 * CDDL HEADER END
20 */

22 /*
23  * Copyright 2008 Sun Microsystems, Inc. All rights reserved.
24  * Use is subject to license terms.
25  */

27 /*      Copyright (c) 1983, 1984, 1985, 1986, 1987, 1988, 1989 AT&T      */
28 /*      All Rights Reserved      */

30 /*
31  * Portions of this source code were derived from Berkeley 4.3 BSD
32  * under license from the Regents of the University of California.
33  */

35 #ifndef _SYS_VMPARAM_H
36 #define _SYS_VMPARAM_H

38 #if (defined(_KERNEL) || defined(_KMEMUSER)) && defined(_MACHDEP)
39 #include <sys/vm_machparam.h>
40 #endif

42 #ifdef __cplusplus
43 extern "C" {
44 #endif

46 #define SSIZE          4096          /* initial stack size */
47 #define SINCR          4096          /* increment of stack */

49 /*
50  * USRSTACK is the top (end) of the user stack.
51  */
52 #if defined(__amd64)
53 #define USRSTACK        USERLIMIT
54 #define USRSTACK32     0x8048000
55 #define USRSTACK64_32  USERLIMIT32
56 #elif defined(__i386)
57 #define USRSTACK        0x8048000
58 #define USRSTACK32     USRSTACK
59 #define USRSTACK64_32  USRSTACK
60 #endif

```

```

62 /*
63  * Implementation architecture independent sections of the kernel use
64  * this section.
65  */
66 #if (defined(_KERNEL) || defined(_KMEMUSER)) && !defined(_MACHDEP)

68 #if defined(_KERNEL) && !defined(_ASM)
69 extern const unsigned int    _diskrpm;
70 extern const unsigned long   _dsize_limit;
71 extern const unsigned long   _ssize_limit;
70 extern const unsigned long   _pgthresh;
71 extern const unsigned int     _maxslp;
72 extern const unsigned long    _maxhandspreadpages;
73 #endif /* defined(_KERNEL) && !defined(_ASM) */

75 #define DISKRPM          _diskrpm
78 #define DSIZE_LIMIT     _dsize_limit
79 #define SSIZE_LIMIT     _ssize_limit
76 #define PGTHRESH       _pgthresh
77 #define MAXSLP          _maxslp
78 #define MAXHANDSPREADPAGES _maxhandspreadpages

80 #endif /* (defined(_KERNEL) || defined(_KMEMUSER)) && !defined(_MACHDEP) */

82 #ifdef __cplusplus
83 }
_____unchanged_portion_omitted_

```

```

*****
2265 Wed Apr 16 13:35:21 2014
new/usr/src/uts/sparc/sys/vmparam.h
4747 remove unused [DS]SIZE_LIMIT defines
*****
1 /*
2  * CDDL HEADER START
3  *
4  * The contents of this file are subject to the terms of the
5  * Common Development and Distribution License (the "License").
6  * You may not use this file except in compliance with the License.
7  *
8  * You can obtain a copy of the license at usr/src/OPENSOLARIS.LICENSE
9  * or http://www.opensolaris.org/os/licensing.
10 * See the License for the specific language governing permissions
11 * and limitations under the License.
12 *
13 * When distributing Covered Code, include this CDDL HEADER in each
14 * file and include the License file at usr/src/OPENSOLARIS.LICENSE.
15 * If applicable, add the following below this CDDL HEADER, with the
16 * fields enclosed by brackets "[]" replaced with your own identifying
17 * information: Portions Copyright [yyyy] [name of copyright owner]
18 *
19 * CDDL HEADER END
20 */

22 /*
23  * Copyright 2008 Sun Microsystems, Inc. All rights reserved.
24  * Use is subject to license terms.
25  */

27 /*      Copyright (c) 1983, 1984, 1985, 1986, 1987, 1988, 1989 AT&T      */
28 /*      All Rights Reserved      */

30 /*
31  * Portions of this source code were derived from Berkeley 4.3 BSD
32  * under license from the Regents of the University of California.
33  */

35 #ifndef _SYS_VMPARAM_H
36 #define _SYS_VMPARAM_H

38 #if (defined(_KERNEL) || defined(_KMEMUSER)) && defined(_MACHDEP)
39 #include <sys/vm_machparam.h>
40 #endif

42 #ifdef __cplusplus
43 extern "C" {
44 #endif

46 #define SSIZE          4096          /* initial stack size */
47 #define SINCR          4096          /* increment of stack */

49 /*
50  * USRSTACK is the top (end) of the user stack.
51  */
52 #define USRSTACK        USERLIMIT
53 #define USRSTACK32     USERLIMIT32
54 #define USRSTACK64_32  USERLIMIT32

56 /*
57  * Implementation architecture independent sections of the kernel use
58  * this section.
59  */
60 #if (defined(_KERNEL) || defined(_KMEMUSER)) && !defined(_MACHDEP)

```

```

62 #if defined(_KERNEL) && !defined(_ASM)
63 extern const unsigned int      _diskrpm;
64 extern const unsigned long     _dsize_limit;
65 extern const unsigned long     _ssize_limit;
66 extern const unsigned long     _pgthresh;
67 #endif /* defined(_KERNEL) && !defined(_ASM) */

69 #define DISKRPM          _diskrpm
72 #define DSIZE_LIMIT     _dsize_limit
73 #define SSIZE_LIMIT     _ssize_limit
70 #define PGTHRESH        _pgthresh
71 #define MAXSLP          _maxslp
72 #define MAXHANDSPREADPAGES  _maxhandsreadpages

74 #endif /* (defined(_KERNEL) || defined(_KMEMUSER)) && !defined(_MACHDEP) */

76 #ifdef __cplusplus
77 }
_____unchanged_portion_omitted_

```

new/usr/src/uts/sun4/sys/vm_machparam.h

1

```
*****
4531 Wed Apr 16 13:35:21 2014
new/usr/src/uts/sun4/sys/vm_machparam.h
4747 remove unused [DS]SIZE_LIMIT defines
*****
1 /*
2  * CDDL HEADER START
3  *
4  * The contents of this file are subject to the terms of the
5  * Common Development and Distribution License (the "License").
6  * You may not use this file except in compliance with the License.
7  *
8  * You can obtain a copy of the license at usr/src/OPENSOLARIS.LICENSE
9  * or http://www.opensolaris.org/os/licensing.
10 * See the License for the specific language governing permissions
11 * and limitations under the License.
12 *
13 * When distributing Covered Code, include this CDDL HEADER in each
14 * file and include the License file at usr/src/OPENSOLARIS.LICENSE.
15 * If applicable, add the following below this CDDL HEADER, with the
16 * fields enclosed by brackets "[]" replaced with your own identifying
17 * information: Portions Copyright [yyyy] [name of copyright owner]
18 *
19 * CDDL HEADER END
20 */
21 /*      Copyright (c) 1988 AT&T */
22 /*      All Rights Reserved */

24 /*
25  * Copyright 2007 Sun Microsystems, Inc. All rights reserved.
26  * Use is subject to license terms.
27 */

29 #ifndef _SYS_VM_MACHPARAM_H
30 #define _SYS_VM_MACHPARAM_H

32 #pragma ident      "%Z%M% %I%      %E% SMI"

32 #ifdef __cplusplus
33 extern "C" {
34 #endif

36 /*
37  * Machine dependent constants for sun4u.
38 */

40 /*
41  * USRTEXT is the start of the user text/data space.
42 */
43 #define USRTEXT      0x2000

45 /*
46  * Virtual memory related constants for UNIX resource control, all in bytes
47  * The default stack size of 8M allows an optimization of mmu mapping
48  * resources so that in normal use a single mmu region map entry (smeg)
49  * can be used to map both the stack and shared libraries
50 */
51 #define MAXSSIZ      (0x7fff000) /* max stack size limit */
52 #define DFLSSIZ      (8*1024*1024) /* initial stack size limit */

54 /*
55  * DSIZE_LIMIT and SSIZE_LIMIT exist to work-around an SVVS bug (1094085),
56  * and should be removed from the kernel (1094089)
57 */

61 #define DSIZE_LIMIT      (USERLIMIT-USRTEXT) /* physical data limit */
```

new/usr/src/uts/sun4/sys/vm_machparam.h

2

```
62 #define SSIZE_LIMIT      (0x7fffffff) /* physical stack limit */

64 /*
65  * Minimum allowable virtual address space to be used
66  * by the seg_map segment driver for fast kernel mappings.
67 */
68 #define MINMAPSIZE      0x200000

69 /*
70  * The virtual address space to be used by the seg_map segment
71  * driver for fast kernel mappings.
72 */
73 #define MINMAPSIZE      0x200000

74 /*
75  * Size is 1/8th of physmem at boot.
76 */

77 #ifdef _LP64
78 #define SEGMAPSIZE      (256L * 1024L * 1024L * 1024L) /* 256G */
79 #else
80 #define SEGMAPSIZE      (256 * 1024 * 1024) /* 256M */
81 #endif /* _LP64 */

82 /*
83  * Define the default virtual size and valid size range for the segkp segment.
84 */
85 #ifdef _LP64
86 #define SEGKPDFSIZE      (2L * 1024L * 1024L * 1024L) /* 2G */
87 #define SEGKPMAXSIZE      (24L * 1024L * 1024L * 1024L) /* 24G */
88 #define SEGKPMINSIZE      (512L * 1024 * 1024L) /* 512M */
89 #else
90 #define SEGKPDFSIZE      (512 * 1024 * 1024)
91 #define SEGKPMAXSIZE      (512 * 1024 * 1024)
92 #define SEGKPMINSIZE      (512 * 1024 * 1024)
93 #endif /* _LP64 */

94 /*
95  * Define minimum size for zio segment
96 */
97 #define SEGZIOMINSIZE      (512L * 1024L * 1024L) /* 512M */
98 #define SEGZIOMAXSIZE      (512L * 1024L * 1024L * 1024L) /* 512G */

99 /*
100  * The time for a process to be blocked before being very swappable.
101  * This is a number of seconds which the system takes as being a non-trivial
102  * amount of real time. You probably shouldn't change this;
103  * it is used in subtle ways (fractions and multiples of it are, that is, like
104  * half of a 'long time', almost a long time, etc.)
105  * It is related to human patience and other factors which don't really
106  * change over time.
107 */
108 #define MAXSLP      20

109 /*
110  * A swapped in process is given a small amount of core without being bothered
111  * by the page replacement algorithm. Basically this says that if you are
112  * swapped in you deserve some resources. We protect the last SAFERSS
113  * pages against paging and will just swap you out rather than paging you.
114  * Note that each process has at least UPAGES pages which are not
115  * paged anyways so this number just means a swapped in process is
116  * given around 32k bytes.
117 */
118 #define SAFERSS      3
```

```
118 /*
119  * DISKRPM is used to estimate the number of paging i/o operations
120  * which one can expect from a single disk controller.
121  *
122  * XXX - The system doesn't account for multiple swap devices.
123  */
124 #define DISKRPM          60

126 /*
127  * The maximum value for handspreadpages which is the the distance
128  * between the two clock hands in pages.
129  */
130 #define MAXHANDSPREADPAGES ((64 * 1024 * 1024) / PAGE_SIZE)

132 /*
133  * Paged text files that are less than PGTHRESH bytes
134  * may be "prefaulted in" instead of demand paged.
135  */
136 #define PGTHRESH          (280 * 1024)

138 /*
139  * Cacheable bit for 64 bit MXCC Stream Source registers
140  */
141 #define BC_CACHE_SHIFT   36

143 /*
144  * set type for 64 bit phys addr variables.  Needed at least for interface
145  * with MXCC.
146  */

148 #ifndef _ASM
149 typedef unsigned long long pa_t;
150 #endif

152 #ifdef __cplusplus
153 }
  unchanged_portion_omitted
```