

VA 0: 0x_

VA 1: 0x_

VA 2: 0x_

VA 3: 0x_

Virtual address

Virtual page number

Page offset

31

0

L2 Index

L1/PTE Index

31

Page table entry

Physical page number

Valid

Present

2

1

0

Id/st unit

PA 0: 0x_

PA 1: 0x_

PA 2: 0x_

PA 3: 0x_

Physical address

Cache tag

Set index

Block offset

35

0

Cache

(4-bytes words)

| | V | Tag | Word 0 | Word 1 |
|---|---|------------|------------|------------|
| 0 | 1 | 0x8588A379 | 71.2 | 13.9 |
| | 1 | 0x8588A400 | 16.7 | 56.0 |
| | 1 | 0x02C72000 | 0x2DB007B4 | 0x00023790 |
| | 1 | 0x9A525000 | 7 | 8 |
| 1 | 1 | 0x9A525000 | 9 | 10 |
| | 1 | 0xB0BB1000 | r l d /0 | a b c d |
| | 1 | 0xB79E5000 | 0x03020010 | 0.117 |
| | 0 | | | |

MMU

CR3 register: 0x7A2300000

TLB

| VPN | PPN | V |
|--------|---------|---|
| 0x0002 | 0x8588A | 1 |
| 0x0301 | 0x02C72 | 1 |
| | | |
| 0xABCD | 0x741AC | 1 |

2-level page table

256 entry L2 page table

256 entry L1 page table

64 KB pages

Physical Memory (shown as 4-byte words)

| | | | |
|-------------|-------------|-------------|------------|
| | 0x7492B2F4 | 0x813B8 | 00 |
| | 0xD411F7D4 | 0x8588A | 11 |
| | 0x7C32B114 | 0x9A525 | 11 |
| | 0xFBAB80E4 | 0xB0BB1 | 11 |
| 0x813B80000 | | | |
| | 0x280BA0000 | | a b c d |
| | 0 | | r l d /0 |
| | 0 | | o _ w o |
| 0x7A2300000 | 0xD1ACB0000 | 0xB0BB10000 | h e l l |
| | 0xB94E4758 | | 0.117 |
| | 0xF9A7F898 | | 0x03020010 |
| | 0x57691828 | | 0.153 |
| | 0x986DFAEC | | 0x03020008 |
| 0x5E1F90000 | | 0xB79E50000 | |
| | 0x6336C1BC | | 0 |
| | 0xDEE932A4 | | 0 |
| | 0x4368AD88 | | 0 |
| | 0x525D7838 | | 0 |
| 0x417E30000 | | 0xAC2620000 | |
| | 0x5E1F9 | 10 | 10 |
| | 0xB79E5 | 11 | 9 |
| | 0x02C72 | 11 | 8 |
| | 0xAC262 | 00 | 7 |
| 0x280BA0000 | | 0x9A5250000 | |
| | 0xA445B1F0 | | 1.29 |
| | 0x1B58C68 | | 2.8 |
| | 0x00023790 | | 13.9 |
| 0x02C720000 | 0x2DB007B4 | 0x8588A3790 | 71.2 |