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ADRP

Form PC-relative address to 4KB page adds an immediate value that is shifted left by 12 bits, to the PC value to form a PC-relative address, with the bottom 12 bits masked out, and writes the result to the destination register. 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0

1 |mml|p1 0 0 0 0

immhi

Rd

ор

```
ADRP <Xd>, <label>
```

```
integer d = <u>UInt</u>(Rd);
bits(64) imm;
imm = <u>SignExtend</u>(immhi:immlo:<u>Zeros</u>(12), 64);
```

Assembler Symbols

<Xd> Is the 64-bit name of the general-purpose destination

register, encoded in the "Rd" field.

calculated. Its offset from the page address of this instruction, in the range +/-4GB, is encoded as

"immhi:immlo" times 4096.

Operation

```
bits(64) base = PC[];
base<11:0> = Zeros(12);
X[d, 64] = base + imm;
```

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