C6.2.167 MOV (wide immediate)

Move (wide immediate) moves a 16-bit immediate value to a register.

This instruction is an alias of the MOVZ instruction. This means that:

- The encodings in this description are named to match the encodings of MOVZ.
- The description of MOVZ gives the operational pseudocode for this instruction.

### 32-bit variant

Applies when $sf = 0$.

MOV $<Wd>$, #<$imm>$

is equivalent to

MOVZ $<Wd>$, #<$imm16>$, LSL #<$shift>$

and is the preferred disassembly when $! (IsZero($imm16$) && hw != '00')$.

### 64-bit variant

Applies when $sf = 1$.

MOV $<Xd>$, #<$imm>$

is equivalent to

MOVZ $<Xd>$, #<$imm16>$, LSL #<$shift>$

and is the preferred disassembly when $! (IsZero($imm16$) && hw != '00')$.

### Assembler symbols

- $<Wd>$: Is the 32-bit name of the general-purpose destination register, encoded in the "Rd" field.
- $<Xd>$: Is the 64-bit name of the general-purpose destination register, encoded in the "Rd" field.
- $<imm>$: For the 32-bit variant: is a 32-bit immediate which can be encoded in "imm16:hw".
  
  For the 64-bit variant: is a 64-bit immediate which can be encoded in "imm16:hw".
- $<shift>$: For the 32-bit variant: is the amount by which to shift the immediate left, either 0 (the default) or 16, encoded in the "hw" field as $<$shift$/16$.
  
  For the 64-bit variant: is the amount by which to shift the immediate left, either 0 (the default), 16, 32 or 48, encoded in the "hw" field as $<$shift$/16$.

### Operation

The description of MOVZ gives the operational pseudocode for this instruction.