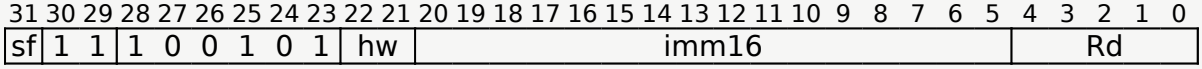
MOVK

Move wide with keep moves an optionally-shifted 16-bit immediate value into a register, keeping other bits unchanged.



32-bit (sf == 0 && hw == 0x)

```
MOVK <Wd>, #<imm>{, LSL #<shift>}
```

64-bit (sf == 1)

```
MOVK <Xd>, #<imm>{, LSL #<shift>}
```

```
if sf == '0' && hw<1> == '1' then UNDEFINED;

integer d = UInt(Rd);
constant integer datasize = 32 << UInt(sf);
constant integer pos = UInt(hw:'0000');
```

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>	Is the 16-bit unsigned immediate, in the range 0 to 65535, encoded in the "imm16" field.
<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

```
bits(datasize) result;

result = X[d, datasize];
result<pos+15:pos> = imm16;
X[d, datasize] = result;
```

Operational information

If PSTATE.DIT is 1:

- The execution time of this instruction is independent of:
  - The values of the data supplied in any of its registers.
  - The values of the NZCV flags.
- The response of this instruction to asynchronous exceptions does not vary based on:
  - The values of the data supplied in any of its registers.
  - The values of the NZCV flags.

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