## MOV (from general)

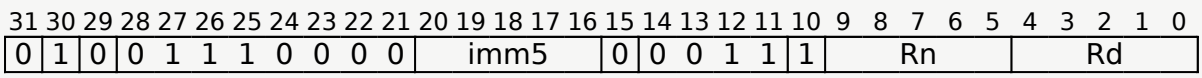
Move general-purpose register to a vector element. This instruction copies the contents of the source general-purpose register to the specified vector element in the destination SIMD&FP register.

This instruction can insert data into individual elements within a SIMD&FP register without clearing the remaining bits to zero.

Depending on the settings in the *CPACR_EL1*, *CPTR_EL2*, and *CPTR_EL3* registers, and the current Security state and Exception level, an attempt to execute the instruction might be trapped.

This is an alias of INS (general). This means:

- The encodings in this description are named to match the encodings of INS (general).
- The description of INS (general) gives the operational pseudocode, any constrained unpredictable behavior, and any operational information for this instruction.




```
MOV <Vd>.<Ts>[<index>], <R><n>
```

**is equivalent to**

```
INS <Vd>.<Ts>[<index>], <R><n>
```

**and is always the preferred disassembly.**

### Assembler Symbols

<Vd> Is the name of the SIMD&FP destination register, encoded in the "Rd" field.

<Ts> Is an element size specifier, encoded in “imm5”:

| imm5 | <Ts> |
|---|---|
| x0000 | RESERVED |
| xxxx1 | B |
| xxx10 | H |
| xx100 | S |
| x1000 | D |

<index>
Is the element index encoded in “imm5”:

| imm5 | <index> |
|---|---|
| x0000 | RESERVED |
| xxxx1 | imm5<4:1> |
| xxx10 | imm5<4:2> |
| xx100 | imm5<4:3> |
| x1000 | imm5<4> |

<R>
Is the width specifier for the general-purpose source register, encoded in “imm5”:

| imm5 | <R> |
|---|---|
| x0000 | RESERVED |
| xxxx1 | W |
| xxx10 | W |
| xx100 | W |
| x1000 | X |

<n>
Is the number [0-30] of the general-purpose source register or ZR (31), encoded in the "Rn" field.

**Operation**

The description of INS (general) gives the operational pseudocode for this instruction.

**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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