

MOVT (ZT0 to scalar)

Move 8 bytes from ZT0 to general-purpose register

Move 8 bytes to a general-purpose register from the ZT0 register at the byte offset specified by the immediate index. This instruction is UNDEFINED in Non-debug state.

SME2

(FEAT_SME2)

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	1	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	off3		0	0	1	1	1	1	1	Rt					

MOVT <Xt>, ZT0[<offs>]

```
if !HaveSME2() || !Halted() then UNDEFINED;
integer t = UInt(Rt);
integer offset = UInt(off3);
```

Assembler Symbols

- <Xt> Is the 64-bit name of the general-purpose register to be transferred, encoded in the "Rt" field.
- <offs> Is the immediate byte offset, a multiple of 8 in the range of 0 to 56, encoded in the "off3" field as <offs>/8.

Operation

```
CheckSMEEnabled();
CheckSMEZT0Enabled();
bits(512) operand = ZT0[512];
X[t, 64] = Elem[operand, offset, 64];
```

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.

Internal version only: isa v33.64, AdvSIMD v29.12, pseudocode
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