

DUP (scalar)

Broadcast general-purpose register to vector elements (unpredicated)

Unconditionally broadcast the general-purpose scalar source register into each element of the destination vector. This instruction is unpredicated.

This instruction is used by the alias [MOV \(scalar, unpredicated\)](#).

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
0	0	0	0	0	1	0	1	size	1	0	0	0	0	0	0	0	1	1	1	0	Rn				Zd						

DUP <Zd> .<T> , <R><n|SP>

```
if !HaveSVE() && !HaveSME() then UNDEFINED;
constant integer esize = 8 << UInt(size);
integer n = UInt(Rn);
integer d = UInt(Zd);
```

Assembler Symbols

<Zd> Is the name of the destination scalable vector register, encoded in the "Zd" field.

<T> Is the size specifier, encoded in "size":

size	<T>
00	B
01	H
10	S
11	D

<R> Is a width specifier, encoded in "size":

size	<R>
01	W
x0	W
11	X

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

Operation

```
CheckSVEEnabled();
constant integer VL = CurrentVL;
constant integer elements = VL DIV esize;
constant integer PL = VL DIV 8;
```

```

bits(64) operand;
if n == 31 then
    operand = SP[];
else
    operand = X[n, 64];
bits(VL) result;

for e = 0 to elements-1
    Elem[result, e, esize] = operand<esize-1:0>;

Z[d, VL] = result;

```

Operational information

If FEAT_SVE2 is implemented or FEAT_SME is implemented, then 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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Internal version only: isa v33.64, AdvSIMD v29.12, pseudocode
no_diffs_2023_09_RC2, sve v2023-06_rel ; Build timestamp: 2023-09-18T17:56

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