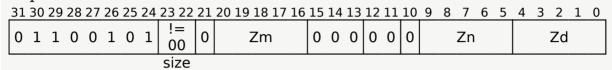
| <u>by</u> | <u>Sh</u> |
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| <u>ling</u> | <u>Pseu</u> |

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FADD (vectors, unpredicated)

Floating-point add vector (unpredicated)

Add all floating-point elements of the second source vector to corresponding elements of the first source vector and place the results in the corresponding elements of the destination vector. This instruction is unpredicated.



```
FADD <Zd>.<T>, <Zn>.<T>, <Zm>.<T>

if !HaveSVE() && !HaveSME() then UNDEFINED;

constant integer esize = 8 << UInt(size);

integer n = UInt(Zn);

integer m = UInt(Zm);

integer d = UInt(Zd);</pre>
```

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></t> |
|------|---------|
| 01 | Н |
| 10 | S |
| 11 | D |

<7.n>

Is the name of the first source scalable vector register, encoded in the "Zn" field.

<Zm>

Is the name of the second source scalable vector register, encoded in the "Zm" field.

Operation

```
CheckSVEEnabled();
constant integer VL = CurrentVL;
constant integer PL = VL DIV 8;
constant integer elements = VL DIV esize;
bits(VL) operand1 = Z[n, VL];
bits(VL) operand2 = Z[m, VL];
bits(VL) result;
```

```
for e = 0 to elements-1
  bits(esize) element1 = Elem[operand1, e, esize];
  bits(esize) element2 = Elem[operand2, e, esize];
  Elem[result, e, esize] = FPAdd(element1, element2, FPCR[]);

Z[d, VL] = result;
```

 $Internal\ version\ only: is a\ v33.64,\ AdvSIMD\ v29.12,\ pseudocode\ no_diffs_2023_09_RC2,\ sve\ v2023-06_rel\ ;\ Build\ timestamp:\ 2023-09-18T17:56$

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