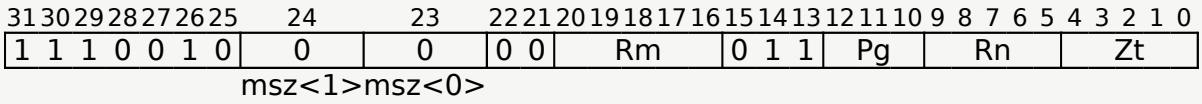
## STNT1B (scalar plus scalar, single register)

Contiguous store non-temporal bytes from vector (scalar index)

Contiguous store non-temporal of bytes from elements of a vector register to the memory address generated by a 64-bit scalar base and scalar index which is added to the base address. After each element access the index value is incremented, but the index register is not updated. Inactive elements are not written to memory.

A non-temporal store is a hint to the system that this data is unlikely to be referenced again soon.




**STNT1B { <Zt>.B }, <Pg>, [<Xn|SP>, <Xm>]**

```
if !HaveSVE() && !HaveSME() then UNDEFINED;
if Rm == '11111' then UNDEFINED;
integer t = UInt(Zt);
integer n = UInt(Rn);
integer m = UInt(Rm);
integer g = UInt(Pg);
constant integer esize = 8;
```

### Assembler Symbols

| | |
|---|---|
| <Zt> | Is the name of the scalable vector register to be transferred, encoded in the "Zt" field. |
| <Pg> | Is the name of the governing scalable predicate register P0-P7, encoded in the "Pg" field. |
| <Xn\|SP> | Is the 64-bit name of the general-purpose base register or stack pointer, encoded in the "Rn" field. |
| <Xm> | Is the 64-bit name of the general-purpose offset register, encoded in the "Rm" field. |

### Operation

```
CheckSVEEnabled();
constant integer VL = CurrentVL;
constant integer PL = VL DIV 8;
constant integer elements = VL DIV esize;
bits(64) base;
bits(64) offset;
bits(VL) src;
bits(PL) mask = P[g, PL];
constant integer mbytes = esize DIV 8;
```

```
boolean contiguous = TRUE;
boolean nontemporal = TRUE;
boolean tagchecked = TRUE;
AccessDescriptor accdesc = CreateAccDescSVE(MemOp_STORE, nontemporal, c

if !AnyActiveElement(mask, esize) then
    if n == 31 && ConstrainUnpredictableBool(Unpredictable_CHECKSPNONEA
        CheckSPAlignment();
else
    if n == 31 then CheckSPAlignment();
    base = if n == 31 then SP[] else X[n, 64];
    offset = X[m, 64];
    src = Z[t, VL];

for e = 0 to elements-1
    if ActivePredicateElement(mask, e, esize) then
        bits(64) addr = base + (UInt(offset) + e) * mbytes;
        Mem[addr, mbytes, accdesc] = Elem[src, e, esize];
```

**Operational information**

If FEAT_SVE2 is implemented or FEAT_SME is implemented, then if PSTATE.DIT is 1, the timing of this instruction is insensitive to the value of the data being loaded or stored when its governing predicate register contains the same value for each execution.

---



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