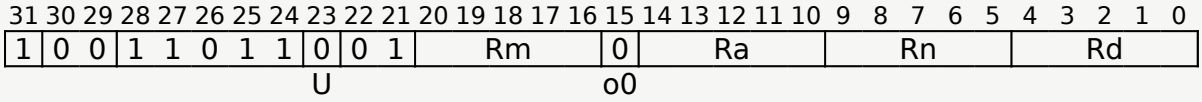
SMADDL

Signed Multiply-Add Long multiplies two 32-bit register values, adds a 64-bit register value, and writes the result to the 64-bit destination register.
This instruction is used by the alias SMULL.




```
SMADDL <Xd>, <Wn>, <Wm>, <Xa>
```

```
integer d = UInt(Rd);
integer n = UInt(Rn);
integer m = UInt(Rm);
integer a = UInt(Ra);
```

Assembler Symbols

<Xd>	Is the 64-bit name of the general-purpose destination register, encoded in the "Rd" field.
<Wn>	Is the 32-bit name of the first general-purpose source register holding the multiplicand, encoded in the "Rn" field.
<Wm>	Is the 32-bit name of the second general-purpose source register holding the multiplier, encoded in the "Rm" field.
<Xa>	Is the 64-bit name of the third general-purpose source register holding the addend, encoded in the "Ra" field.

Alias Conditions

Alias	Is preferred when
SMULL	`Ra == '11111'`

Operation

```
bits(32) operand1 = X[n, 32];
bits(32) operand2 = X[m, 32];
bits(64) operand3 = X[a, 64];

integer result;

result = Int(operand3, FALSE) + (Int(operand1, FALSE) * Int(operand2, F

X[d, 64] = result<63:0>;
```

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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