



Instruction Set

Version: 0.5.0

Total Instructions Supported: 73

Operand Size: Up to 2 operands, each of 64-bits



Operand Types

Instructions in SASM accept a variety of operand types:

??? example "Immediate Values"

```
...  
0, 1, 2, 3  
...
```

??? example "Constants"

```
...  
M, N, 0, P  
...
```

??? example "Registers"

```
...  
L0, L1, L2, L3  
...
```





Registers

SASM registers are identified by **unique IDs**. Each register can be accessed either as a **reference** or as a **value** using *compile-time functions*.

```
ref(L1) ; reference to register L1  
val(L1) ; value stored in register L1
```

These are **compile-time functions** that tell the assembler how to interpret operands.

Related References

-  [Compile-time Functions](#)
-  [Register Reference](#)

INSTRUCTIONS NOT DOCUMENTED:

```
INST_DONOP,  
INST_INVOK,  
INST_RETVL,  
INST_PUSHR,  
INST_SPOPR,  
INST_SHUTS,  
INST_SETR,  
INST_GETR,  
INST_CALL,  
INST_LOOP,  
INST_PUSH,  
INST_SPOP,  
INST_SWAP,
```

```
INST_JMPU,  
INST_JMPC,  
INST_ANDB,  
INST_NOTB,  
INST_COPY,  
INST_DUPS,  
INST_RET,  
INST_NOT,  
INST_EQI,  
INST_GEI,  
INST_GTI,  
INST_LEI,  
INST_LTI,  
INST_NEI,  
INST_EQU,  
INST_GEU,  
INST GTU,  
INST_LEU,  
INST LTU,  
INST_NEU,  
INST_EQF,  
INST_GEF,  
INST_GTF,  
INST_LEF,  
INST_LTF,  
INST_NEF,  
INST_ORB,  
INST_XOR,  
INST_SHR,  
INST_SHL,
```

```
INST_I2F,  
INST_U2F,  
INST_F2I,  
INST_F2U,  
INST_READ1U,  
INST_READ2U,  
INST_READ4U,  
INST_READ8U,  
INST_READ1I,  
INST_READ2I,  
INST_READ4I,  
INST_READ8I,  
INST_WRITE1,  
INST_WRITE2,  
INST_WRITE4,  
INST_WRITE8,
```