L64 Notes:

According the ELF standard the relocation information is processor specific. I’ve defined the information field as follows:

Relocation info format:

the least significant 8 bits represent the relocation type

the next 8 significant bits represent the number of bits involved with the relocation.

the most significant 32 bits are the index into the symbol table of the associated symbol (ELF standard)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 63 32 | 31 16 | 15 8 | 7 | 6 0 |
| STI | ~ | BITS | X | RT |

RT = relocation type

1 = 32 bit constant field to update

2 = 24 bit constant field

3 = 16 bit constant field

4 = 14 bit constant field

5 = 4 bit constant field

X = external symbol

1=Instructs the linker to lookup the value to place in the constant field from the external symbol identified by the symbol index (STI field).

BITS = size of the fixup in bits

This field tells the linker to reach into preceding constant extension words if necessary in order to perform the fixup. For instance a 14 bit constant field requiring a 32 bit fixup will have a constant prefix word associated with it. Both the constant field and the constant prefix are updated.

The number of bits involved in the fixup comes from the size of the code or data specified by a code size or data size directive in the assembler source code. The default size for code and data is 32 bits.