Integer Language-Independent Type
for YAML™ Version 1.1

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Status

This specification is a draft reflecting consensus reached by members of the yaml-core mailing
list [http://lists.sourceforge.net/lists/listinfo/yaml-core]. Any questions regarding this draft should
be raised on this list.

URI: tag:yaml.org,2002:int
Shorthand: !!int
Kind: Scalar.
Definition: Mathematical integers.

Integers represent arbitrarily sized finite mathematical integers. Integers can be formatted using
the familiar decimal notation, may have a leading “0x” to signal hexadecimal, a leading “0b”
to indicate binary bits (base 2), or have leading “0” to signal an octal base. Using “:” allows
expressing integers in base 60, which is convenient for time and angle values. Any “_” characters
in the number are ignored, allowing a readable representation of large values.

 Scalars of this type should be represented by a native integer data type, if possible. However,
there are cases where an integer provided may overflow the native type’s storage capability.
In this case, the processor should find some manner to round-trip the integer, perhaps using a
string based representation. In general, integers representable using 32 binary digits should
safely round-trip through most systems.

Canonical Format: 0|−?[1-9]&(0-9)* # (base 10)
Resolution and Validation: Valid values must match the following regular expression, which may also be used for implicit
tag resolution:

[-+]?0b[0-1]#: (base 2)
[-+]?0[0-7]#: (base 8)
[-+]?0[1-9][0-9]#: (base 10)
[-+]?0x[0-9a-fA-F]#: (base 16)
[-+]?[1-9][0-9]#:([0-5]?[0-9])+ # (base 60)
Example 1. **int** Examples

- **canonical**: 685230
- **decimal**: +685_230
- **octal**: 02472256
- **hexadecimal**: 0x_0A_74_AE
- **binary**: 0b1010_0111_0100_1010_1110
- **sexagesimal**: 190:20:30