Visual Basic for Applications Reference

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Data Type Summary

See Also Specifics

The following table shows the supported data types, including storage sizes and ranges.

Data type	Storage size	Range
Byte	1 byte	0 to 255
Boolean	2 bytes	**True** or **False**
Integer	2 bytes	-32,768 to 32,767
Long (long integer)	4 bytes	-2,147,483,648 to 2,147,483,647
Single (single-precision floating-point)	4 bytes	-3.402823E38 to -1.401298E-45 for negative values; 1.401298E-45 to 3.402823E38 for positive values
Double (double-precision floating-point)	8 bytes	-1.79769313486231E308 to -4.94065645841247E-324 for negative values; 4.94065645841247E-324 to 1.79769313486232E308 for positive values
Currency (scaled integer)	8 bytes	-922,337,203,685,477.5808 to 922,337,203,685,477.5807
Decimal	14 bytes	+/-79,228,162,514,264,337,593,543,950,335 with no decimal point;

		+/-7.9228162514264337593543950335 with 28 places to the right of the decimal; smallest non-zero number is +/-0.0000000000000000000000000001
Date	8 bytes	January 1, 100 to December 31, 9999
Object	4 bytes	Any **Object** reference
String (variable-length)	10 bytes + string length	0 to approximately 2 billion
String (fixed-length)	Length of string	1 to approximately 65,400
Variant (with numbers)	16 bytes	Any numeric value up to the range of a **Double**
Variant (with characters)	22 bytes + string length	Same range as for variable-length **String**
User-defined (using **Type**)	Number required by elements	The range of each element is the same as the range of its data type.

__Note__ Arrays of any data type require 20 bytes of memory plus 4 bytes for each array dimension plus the number of bytes occupied by the data itself. The memory occupied by the data can be calculated by multiplying the number of data elements by the size of each element. For example, the data in a single-dimension array consisting of 4 **Integer** data elements of 2 bytes each occupies 8 bytes. The 8 bytes required for the data plus the 24 bytes of overhead brings the total memory requirement for the array to 32 bytes.

A **Variant** containing an array requires 12 bytes more than the array alone.

__Note__ Use the **StrConv** function to convert one type of string data to another.