

# Using BEXIS2 in SPP2089

## What is a Data Type?

A data type is a particular kind of data item, as defined by the variables it can take. While creating a data structure, you need to know the exact type of each variable. For example, you need to specify how you want to store the length of an event. You may store it in different ways like “3-4”, “10cm”, “15” or “13.8”. Note that the data type you choose for a variable must be consistent with all data associated with it.

The following describes data types that are most commonly used in data collections.

### String

A string variable is a normal text. It could be any combination of characters (a-z and A-Z) and numbers (0-9). The name of species or places are the most popular variables in string format.

### Number

A number in the BEXIS2 data type system is a whole number which is not a fraction. It can be positive, negative, or zero. For example, 21, 4, 0, and -2048 are numbers, while 0.23 and -4/3 are not. The range of values that can be stored as number is from - 65,535 to 65,535.

### Integer

An integer is a number but in a bigger range from -2,147,483,648 to +2,147,483,647.

### Double

Double Types are probably the most normally used data type for real values, except handling money. It contains 15-16 digits like 1.747466728844 or -345.4.

### Decimal

Decimal can accurately represent any number within the precision of the decimal format. It could contain 28-29 significant digits.

The main difference between double and decimal is that decimals have much higher precision and are usually used within monetary (financial) applications that require a high degree of accuracy. But in performance wise computing decimals are slower than double types.