Attribute types

(for more detailed description see *Attribute type definition (detailed)*)

String may reach up to 255 characters (10 is default). This attribute type should be used sparingly, because entering strings on keyboard-less field computers is impractical. Alphanumeric strings are not very practical for further data analysis either.

Number represents numerical data. The default number type is a 4 byte integer and when you define any decimal places, it becomes an 8 byte floating point.

Logical may be one of the two values TRUE or FALSE.

Date is an attribute with an obvious meaning. In Field-Map Data Collector it may be filled automatically by double clicking the input box. The format of date may be defined in the Regional settings of the Windows control panel.

Date+Time attribute is a date (see the attribute Date) and time in hours, minutes and seconds. This attribute may be filled automatically by double clicking the input box.

Lookup list is a special attribute type, which combines a numeric or an alphanumeric ID and a description. ID is a unique code entered into the database. Description is a verbal explanation of the ID's meaning. This description replaces the ID in Field-Map Data Collector. Usually, most of the attributes are of lookup list type. It is very easy to enter and edit such data using a field computer. Data are also very convenient for further processing.

Conditional lookup list is a type of a lookup list which dynamically changes the number of items in relation to its master lookup list. (see the previous paragraph).

Height attribute is a floating point number representing a height in meters (received e.g. from an electronic inclinometer). For the layer of trees this attribute is automatically included but you can define it manually for other Field-Map layers as well.

Tree Diameter is an integer number and it represents diameter in millimeters measured at other then breast height. Remote diameters can be measured using a calliper or an optical device.

Basal area (Dendroscope) enables to calculate the basal area of trees using an angle count sampling method (relescopic method) and laser rangefinder TruPulse Dendroscope.

Stand density can estimate the density of a forest (recalculated to ha) using the number of trees on a circular plot with predefined size.

Line Length is a floating point number and it represents the length of a line (usually used for measuring branches). In this attribute both a general line (2D or 3D distance) and a projected line (e.g. length of branches) are supported.

Line Length (+coordinates) is a binary attribute (memo) which represents the length of a line (similar to the attribute "Line Length", see the previous paragraph). While the attribute type "Line Length" only stores one floating point number to the database, the attribute "Line Length (+coordinates)" enables to store the total length of a line, the azimuth and the declination between the measuring equipment and the first point on the measured line. It also enables to store the X, Y, Z coordinates of one or two points used to project the line (referred to as "Point 1" and "Point 2") and the X, Y, Z coordinates of all the points

measured on the line. All these coordinates are related to the position of the measuring equipment (local origin of coordinates; 0,0,0). The data are stored in XML format.

Width (+height,azimuth) is a floating point number representing the width of a line (usually used for measuring the width of a crown projection). Also the height and the azimuth between the device and the measured object can be stored during measurement; these parameters are stored in numerical attributes of a specific name.

Distance attribute enables to record the horizontal or slope distance directly from an electronic rangefinder.

Azimuth attribute enables to record the azimuth directly from an electronic compass. The azimuth value is stored in degrees (deg) or gons.

Slope attribute enables to record the slope angle directly from an electronic inclinometer. The slope value is stored in degrees (deg) or in percentage (%).

Counter (+/-1) is an integer number. It automatically adds +1 or –1 to the current value.

Memo is appropriate when maximum length of string description cannot be predicted at design time or where 255 characters of the String attribute type is not enough. Memo can hold up to 64 000 characters.

Voice memo can record voice if your computer is equipped with a microphone and a sound card.

Picture (jpg, bmp, emf, wmf, ico) can be attached to the entity.

Video (avi, wmv, mpeg) can also be attached to the entity.

Button attribute can be used to run a user defined script. In Data Collector it is represented as a button with a label. You can prepare e.g. on-change script for volume calculation and the script is executed when you click the button (see the chapter "*Field-Map scripting*").