

# Database

# Hierarchical Picklists

A TNT attribute picklist is a custom list you set up from your database table that contains the allowable attributes for elements in a geometric object. A picklist lets you quickly assign attribute values to elements. A series of Technical Guides with substantial basic information about picklists is available (see [microimages.com/documentation/cplates/75PicklistIntro.pdf](http://microimages.com/documentation/cplates/75PicklistIntro.pdf) or search Tech Guides for "picklist"). It is possible that your picklist may be quite long. If there are natural groupings in the picklist, such as cities, animal types, or landcover classes, you can use these natural groupings to condense the list and create a hierarchy to select from.

- Make long picklists more compact for attribute selection.
- Choose desired field for grouping of picklist attribute values.

It is easy to create a hierarchical picklist structure and the hierarchy may contain as many levels as desired. The fields used to create the hierarchy must be in the same table as the primary key that provides the picklist values. It is then a simple matter of selecting the field to set up the grouping for each level in the hierarchy.

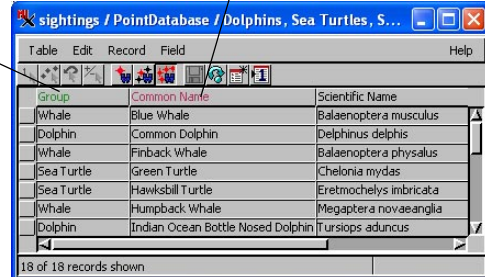
- Group into hierarchical picklist structure by simple field selection.
- Create as many levels in hierarchy as desired.

The picklist table contains the values that appear on a picklist in a primary key field. The field in the table that the picklist opens from has a foreign key relationship to the corresponding primary key in the picklist table. The same window that lets you set up your picklist hierarchy also provides other picklist display control options. These options apply to the ungrouped picklist and to the lowest (last) level of a hierarchical picklist.

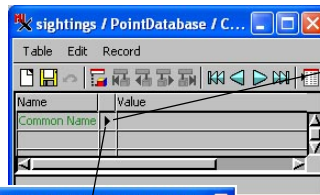
- Choose any field in picklist table for viewing in the picklist.
- Choose any field in picklist table to determine order of picklist items.

field that provides default picklist values (ungrouped or lowest level of hierarchy)

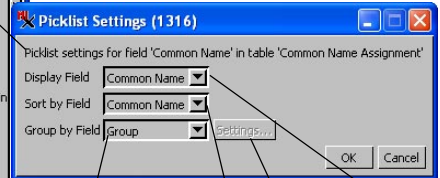
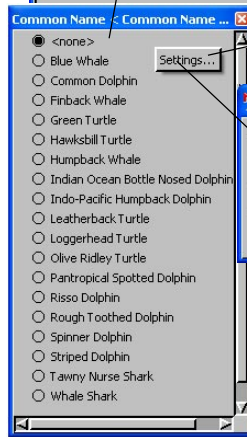
field to use for grouping



button that opens picklist window from single record view



Right-click in a Picklist window to view or adjust its settings.



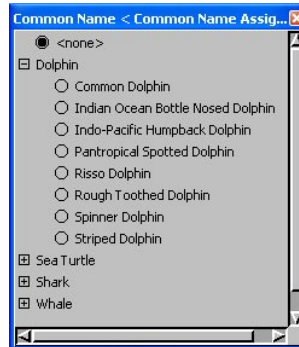
field used to determine order of picklist items

values to display in picklist

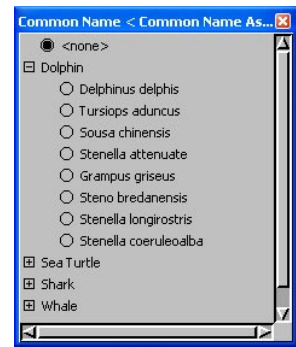
field used to create hierarchy

The Settings button is active if a field is specified for grouping.

ungrouped picklist



picklist grouped by "group" field values (Common Name displayed as above)



picklist grouped by "group" field values with Scientific Name chosen for viewing

(over)

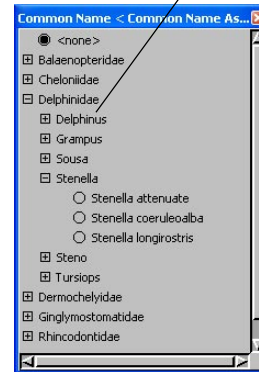
## Multiple Grouping Levels

The same data can be organized differently in your picklist selection hierarchy if there are additional fields in your picklist table that can be used for grouping. Each field used for grouping a picklist must be in the same table as the picklist being grouped. When you are setting up multiple hierarchical levels, the fields used for grouping at each level are in different tables. In the illustrated example, the field used for the first level of grouping (Genus) is in the table that provides both the common name and scientific name for the marine animal sightings (top table). The field that provides the second level of grouping (Family) is in the Genus picklist table. You can add this field and its values when setting up the picklist table for the lower level of grouping.

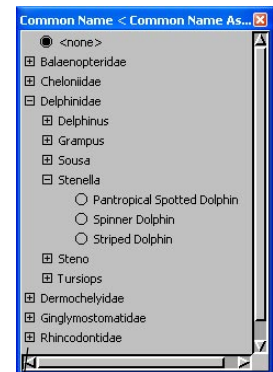
Group	Common Name	Scientific Name	Genus
Whale	Blue Whale	Balaenoptera musculus	Balaenoptera
Dolphin	Common Dolphin	Delphinus delphis	Delphinus
Whale	Finback Whale	Balaenoptera physalus	Balaenoptera
Sea Turtle	Green Turtle	Chelonia mydas	Chelonia
Sea Turtle	Hawksbill Turtle	Eretmochelys imbricata	Eretmochelys
Whale	Humpback Whale	Megaptera novaeanglia	Megaptera
Dolphin	Indian Ocean Bottle Nosed D	Tursiops aduncus	Tursiops

picklist table for common names

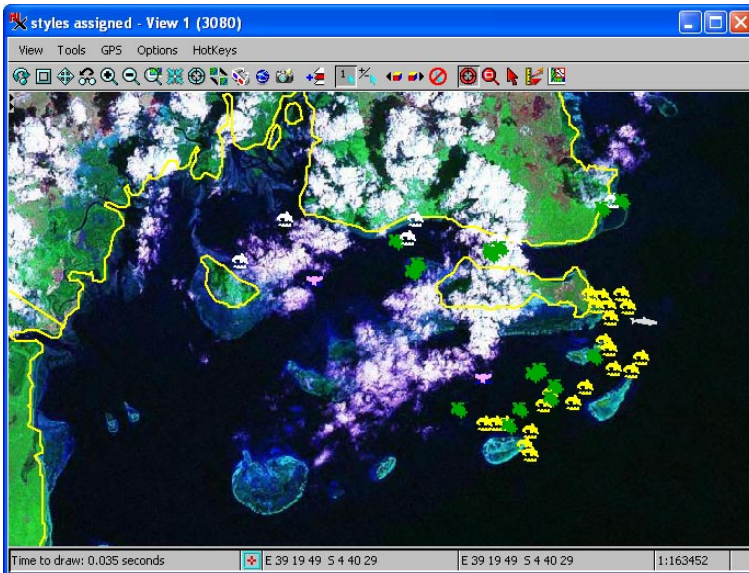
Genus names in the common name picklist table are used for the first grouping in the hierarchy.



picklist grouped by Family and Genus field values (Common Name shown)



picklist grouped by Family and Genus field values with Scientific Name chosen for viewing



Sightings of dolphins, sea turtles, whales, and sharks off the coast of Kenya. The Landsat 7-4-2 tileset available for direct use as an Internet tileset from MicroImages' web site provides the reference image.

Genus	Family
Balaenoptera	Balaenopteridae
Caretta	Cheloniidae
Chelonia	Cheloniidae
Delphinus	Delphinidae
Dermochelys	Dermochelyidae

picklist table for genus names contains family names used for grouping

