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Topobase™

Archive – Technical Training

Autodesk Topobase Client



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Chapter Overview

- Chapter provides basic information about Autodesk Topobase 2009:
 - Layout
 - Functionality
- Enables novice user to:
 - Launch Topobase.
 - Understand introductory Topobase terminology.
 - Gain familiarity with basic user interface.

Topobase Basics

Chapter Objectives

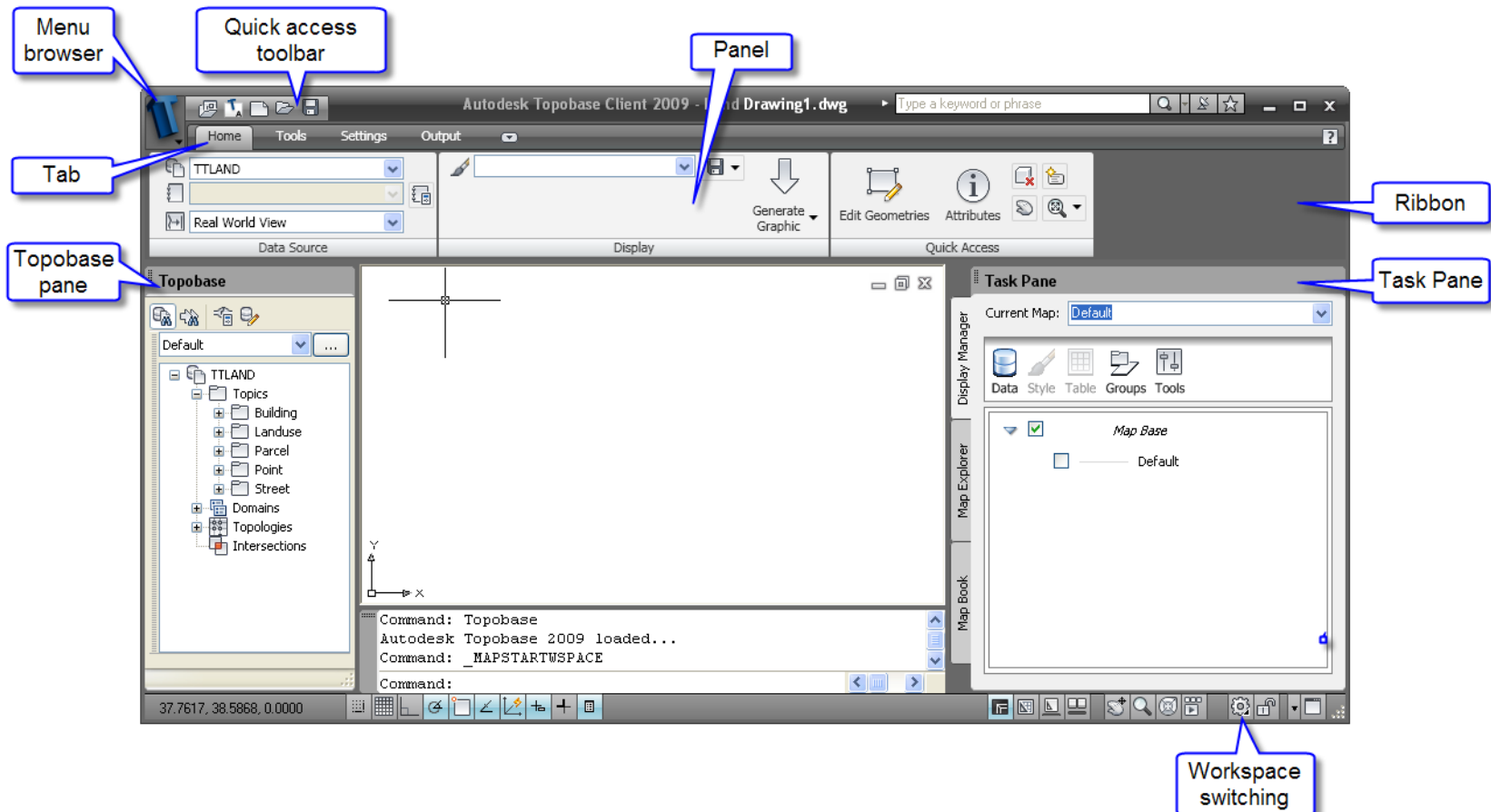
By the end of this chapter, you will be able to:

- Launch Topobase.
- Understand introductory Topobase terminology.
- Identify the components of the document explorer.
- Explain workspace, document, topic, feature class and domain
- Navigate in the map window.
- Effectively use the Autodesk Topobase 2009 interface.
- Use forms to extract attribute information for a given feature.


1.2.1 Launching Autodesk Topobase 2009

- From Windows desktop:
 - Select **Start > Programs > Autodesk > Autodesk Topobase 2009 > Autodesk Topobase Client 2009**.
- On first login, click **Options** and provide:
 - Username: **TBSYS or TBMAIN**
 - Password: *********
 - Oracle net service name: **orcl**
- Select Workspace to be opened.
- Topobase Client task pane appears in Map 3D window.

1.2.2 User Interface Overview

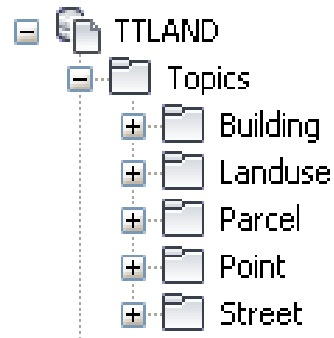


1.3.1 What is a Workspace?

- The starting point for working with any Topobase data
- Contains all necessary objects, including menus and toolbars
- Launch the workspace by clicking the window icon 

1.3.2 What is a Document?

- A document is related to an Oracle schema, which contains all your Topobase data.
- A document contains one or more topics. Think of a topic as a container that organizes feature classes.

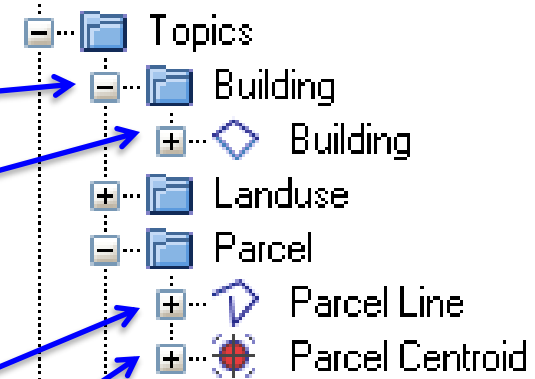


1.3.3 Feature Classes

- Topic—contains one or more feature classes.
- Feature class—an Oracle database table containing geometry and attribute data about features such as polygons, points, or lines.
- Tables—basic unit of data storage in an Oracle database.
 - A **column** refers to an attribute that describes the data.
 - A **row** is a collection of column information corresponding to a single record.

1.3.3 Feature Classes +

- Example
- Building topic contains
 - Building polygon feature class
- Parcel topic contains
 - Parcel line feature class
 - Parcel centroid feature class
- You can group multiple feature classes into the same topic as shown in the Parcel topic.



1.3.3 Feature Classes ++



Attributes

Attribute table (without geometry)



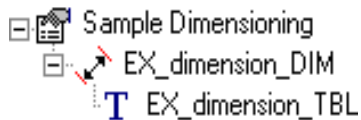
Centroid

A special point that represents an area defined by line strings



Collection

Features with arbitrary geometry (line, point, etc.)



Dimension


A dimensioning feature class consists of three related tables: Attribute feature class, Dimension feature class, and Label feature class



Label

A Label feature class is used for text

1.3.4 Domains


- Domains are look-up tables in Oracle database that contain valid values for attributes of feature classes to guarantee the integrity of database information.
- A domain is represented by a stacked look-up table icon. 
- The Landuse feature class attribute ID_LANDUSE_TYPE is related to the domain Landuse Type (ID_LANDUSE_TYPE_TBD).

1.4 Using Generate Graphics

- When a workspace is opened its features do not automatically appear in the Map 3D drawing area.
- To begin working with the data you must display the features in the map window: you have to generate a graphic.

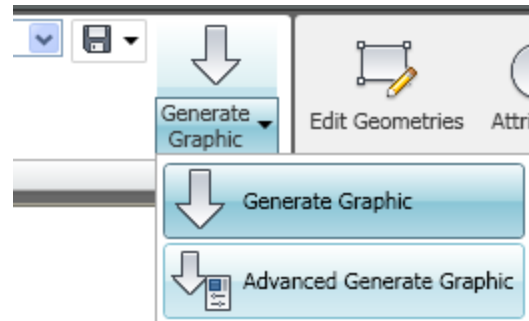


1.4.1 Select Styling

- *Default styling* is an option for immediately displaying Topobase data sources. The styling is done with random colors and standard symbols and texts.
- To get a map with default stylization, select  in the display panel.
- *Predefined styling*: Usually predefined display models are provided by the administrator and should be applied by the users.
- You can switch easily between different predefined display models for the same dataset.

1.4.2 Generating Graphics with a Viewport

- A viewport limits the geographic extent of the data that will be drawn.
- To access the viewport window, select **Generate Graphic > Advanced Generate Graphic**.



1.4.2 Generating Graphics with a Viewport

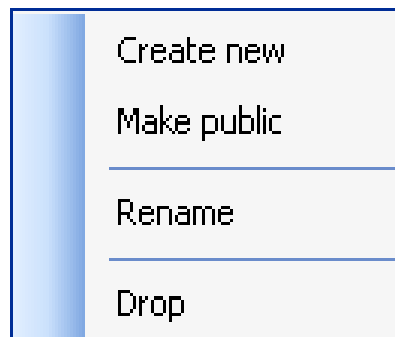
Creating a Viewport with a Window, Point, or Polygon

In the Generate Graphic form, if you click...	You are prompted to...
Window	Draw a rectangle in the map window to define the extent of the viewport.
Point	Click a point in the map window.
Geometry	Click any feature in the map window.
Polygon	Draw a polygon in the map window.

1.4.2 Generating Graphics with a Viewport

Editing Viewport Properties

- Using the **Edit** (✎) icon next to the viewport name shows the following functions:




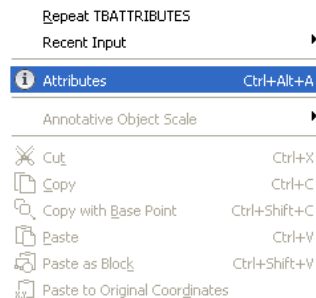
1.5 Showing Attribute Information

- The document explorer has many tools to help you efficiently manage data.
- Two options for displaying attribute information about features:
 - Click the Information icon, and then select features of interest in the graphic display.
 - Open attribute information forms for features in the document explorer.

1.5.1 Open Topobase Forms

There are 5 ways to get information about features shown in a map:

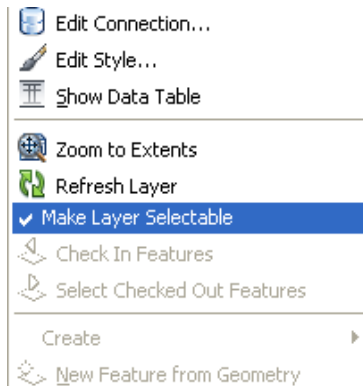
1. Click the Information () icon in the quick access panel to get information.
2. Click a feature in the generated map and right-click. Select **Attributes**.



3. Press Ctrl+Alt+A.
4. Type **tbattributes** in the command line.
5. Double-click a feature in the generated map.

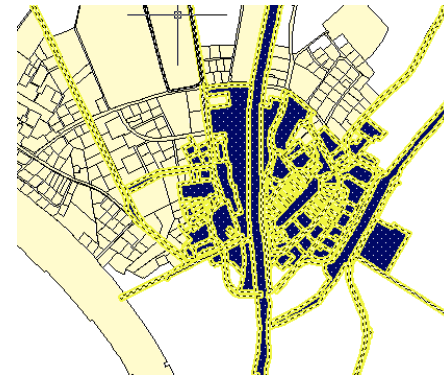
1.5.2 Feature Selection in the Map

- If no selection is possible, the layer is not selectable.
- There will be no check mark next to Make Layer Selectable in the context menu.
- Right-click the layer in the Display Manager and select Make Layer Selectable.



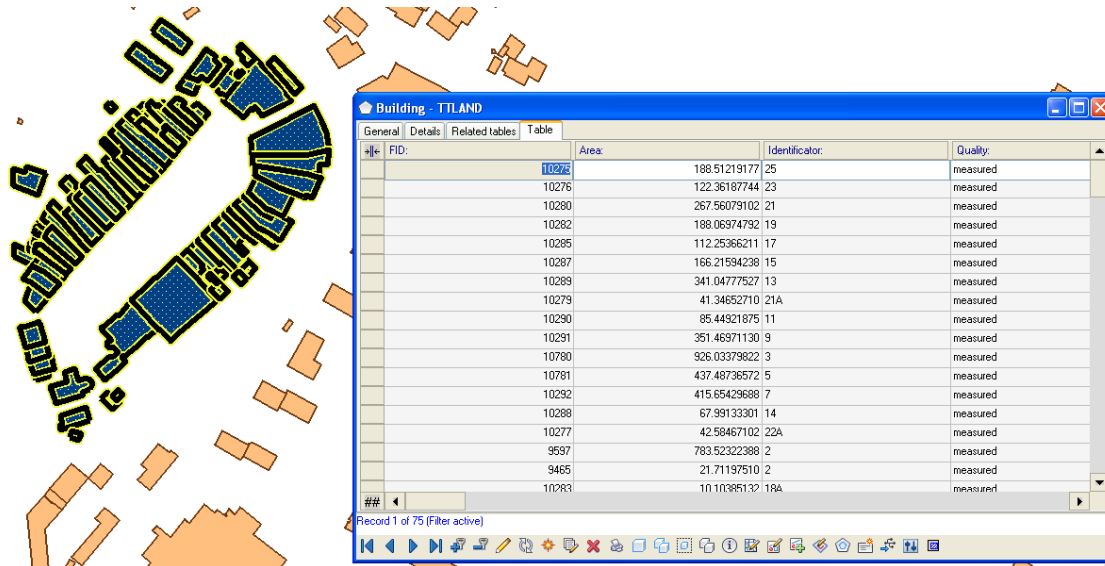
1.5.2 Feature Selection in the Map +

- Selecting in a rectangle has 2 modes:
 - Selecting **from left to right** finds all features which are completely in the rectangle
 - Especially long features like streets or rivers are not included.
 - Selecting a similar rectangle **from right to left** finds all features which are partly and completely in the rectangle.
 - Now also the intersected long features like streets or rivers are included.



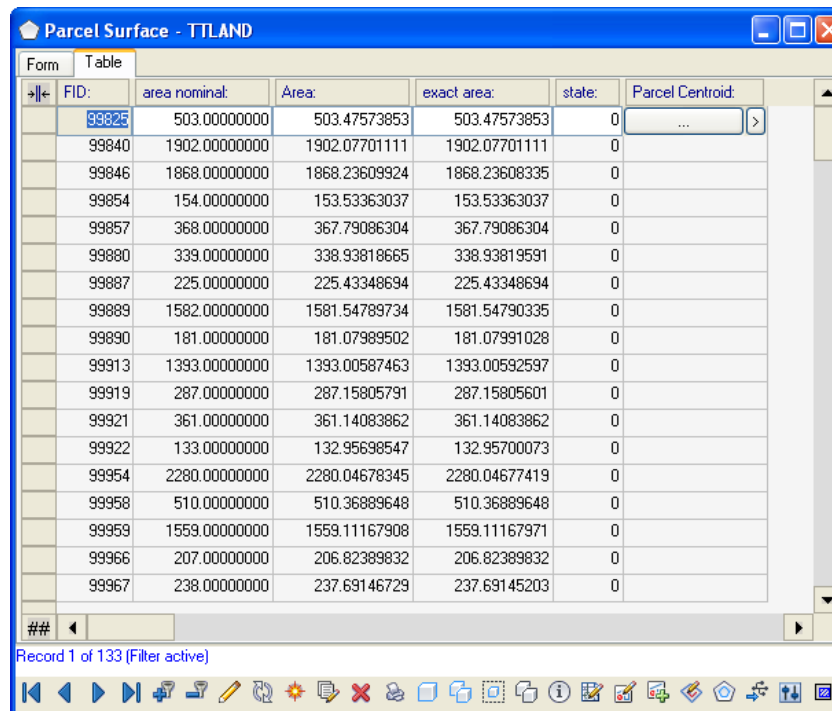
1.5.3 Spatial Selection

- With a spatial selection in the map you are able to select features in a rectangle, a polygon, or at a point in the map (intersected features are included).
- The spatial selection starts from the **Feature Class context menu** in the Topobase Explorer pane.



1.5.4 Forms of Feature Classes

- The attributive information is displayed in the Topobase form for any feature class.



FID	area nominal	Area	exact area	state	Parcel Centroid
99825	503.00000000	503.47573853	503.47573853	0	...
99840	1902.00000000	1902.07701111	1902.07701111	0	
99846	1868.00000000	1868.23609924	1868.23608335	0	
99854	154.00000000	153.53363037	153.53363037	0	
99857	368.00000000	367.79086304	367.79086304	0	
99880	339.00000000	338.93818665	338.93819591	0	
99887	225.00000000	225.43348694	225.43348694	0	
99889	1582.00000000	1581.54789734	1581.54790335	0	
99890	181.00000000	181.07989502	181.07991028	0	
99913	1393.00000000	1393.00587463	1393.00592597	0	
99919	287.00000000	287.15805791	287.15805601	0	
99921	361.00000000	361.14083862	361.14083862	0	
99922	133.00000000	132.95698547	132.95700073	0	
99954	2280.00000000	2280.04678345	2280.04677419	0	
99958	510.00000000	510.36889648	510.36889648	0	
99959	1559.00000000	1559.11167908	1559.11167971	0	
99966	207.00000000	206.82389832	206.82389832	0	
99967	238.00000000	237.69146729	237.69145203	0	

1.5.4 Forms of Feature Classes

Icon

Description



Move to the first record.



Move to the previous record.



Move to the next record.



Move to the last record.



Add a filter based on attribute criteria.



Remove the current filter.



Edit the selected record.



Refresh the form to obtain the latest information.



Insert a new record into the feature class.



Perform a global update to modify every selected record in the feature class. Click *before* you change a value.



Delete the selected record(s).



Print a report containing attribute information about the selected record(s).

1.5.4 Forms of Feature Classes +

Icon

Description



Highlight the selected record in the map. The default highlight color is a black line highlighted with a yellow lining.



Highlight the features in the graphic that are part of the current filter selection in the form.



Highlight all the features in a graphic that are bounded by the selected feature.



Remove highlight from all highlighted features.



Use to select features in the map and then display their attribute information.



Use to digitize new features which become selected in the form.



Use to digitize new geometry for the selected feature.



Use to connect an existing geometry with a selected feature.



Digitize an inner ring and add it to the selected polygon.



Insert an existing geometry as an inner ring and add it to the selected polygon.



Create and position a label for the selected feature.



Reverses the direction of the line.



Reverses the direction of all features selected in the form. (Only available for lines)

1.5.4 Forms of Feature Classes ++

Icon



Description

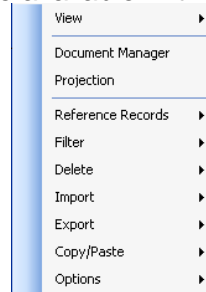
Shows the Connectivity Manager for the selected feature.
(Only available for features that belong to a logical topology)



Add this feature to the schematics workflow feature explorer.



Accesses the Tools which are available in the right-click context menu.



Dock the form window in or out of the Autodesk Topobase 2009 task pane.

1.6 Chapter Summary

You should now be able to:

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- Effectively use the Autodesk Topobase 2009 interface.
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