

What is Property Tax Mapping System (PTMS)

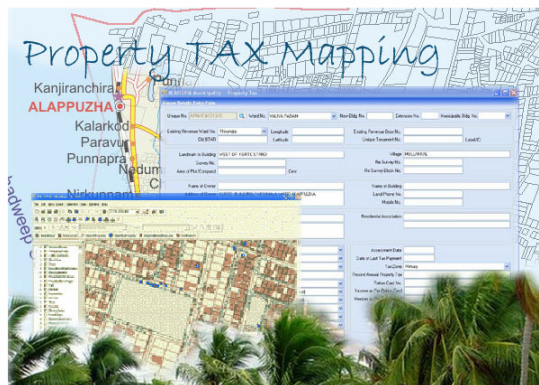
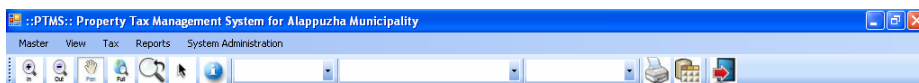
Municipal corporations and authorities have an important role to play in the development of cities and towns in India. These authorities have to provide proper roads for city transportation, sufficient water supply to satiate the needs of the residential, educational, recreational, industrial areas. They need to build drainage networks and reconstruct them so that they can withstand the monsoons. They have a role to play in property tax assessment. This last category is what we are interested in, especially property tax. The importance of bringing IT into the municipal infrastructure is paramount, especially the need to store, retrieve and update large amounts of data. Today, with the use of large storage servers and reliable database management systems, IT empowers the authorities to do all that and much more. There is a transparency and efficiency in the way all the data is managed and administered with the IT infrastructure. However, such a system that manages data could be made even better if we were able to visualize the data and analyze trends in a spatial context. GIS provides a whole new dimension to IT, as it brings the spatial element to IT. GIS enhances the functionality and information that IT gives us, in its own unique way, and most importantly helps in decision-making. The Property Tax Management System (PTMS) application was made for Alappuzha Municipality. It is one such endeavor in making tax assessment simpler and prioritizes areas on the basis of tax revenues collected or due. It helps in the decision-making process and streamlining the workflow of property tax assessment.

Visualization of Alappuzha city map showing property tax bills to be paid in different ways like:

- Based on total amount to be collected from the owner of the property
- Based on the percentage contribution of the property in terms of amount to be collected, towards the total amount to be collected from the Ward.
- A query tool, which will allow users to query the property tax information based on threshold value.

The following reports with Thematic map will be generated depending on the type of tool the user has selected:

- The overall property tax information pertaining to individual Ward
- The overall property tax collected from a particular ward.
- The overall property tax defaulter form a particular ward
- List of exempted properties from a particular ward.
- List of properties/ward based on a particular tax zone



Approach

- Field survey of all the properties in the ULB
- Preparation of digitized ward maps with individual properties having a unique property ID Number
- Association with Satellite Image for over seeing the survey work
- Streets and Properties in the ULB limits were surveyed
- Street naming, numbering and property numbering is carried out in a scientific manner.
- Property details like plinth area, building structure, built up area, ownership details, occupant details and tax details were captured as MIS database.
- Creation of sound database of all the properties (MIS)
- Linking Spatial Data With Properties attribute Data
- Develop GIS based Property tax application and Decision Support System

Application Feature

- Multi-user capability with best GUI
- Centralized database to avoid duplication, misuse and data error.
- Inserting, updating, retrieving and deleting attributes
- Highly Scalable
- Highly secure with privileges to authentic users
- Basic windows operations - zooming in, zooming out, panning
- Facility to set map layers
- Facility to click on map and get layer information
- Displaying legends
- Identifying attributes attached to geographic features
- Zoom to layer's extent Select a layer
- Automatic Layer Visible on/off facility during Zoom In & Zoom out
- Automatic Demand Notice generation
- Digital Storage facility of **Tax Assessment Form** of each property
- Single click information of total TAX outstanding & Collection details of each label, like Property Wise, Ward Wise, Zone wise etc

S/W Platform

PTMS software installs on desktop computers. It is used by a municipal officials for viewing Property & tax related information of each property owner and generate different types of query for making decision support.

Operating System

Microsoft Windows Vista, Windows XP (with Service Pack 2) or Windows 2000/2003 Server (with Service Pack 4).

RAM

512 MB or higher - Software performance, in general, improves for a computer with more random access memory

Word Processor

Microsoft Word XP, 2000 or greater. Only required to generate demand notice.

Database

Microsoft SQL Server 2005 or 2008