



# PLANNER MUNICIPAL SOFTWARE™

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Proven technology since 1994

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## SYSTEM 6

Valuation Roll Management System (VRMS)

Computer Assisted Mass Appraisal (CAMA)

Land Information System (LIS)

Property Register Management System (PRMS)

System 6 - Version 1.3

Document Version 2.7

April 2022

# 1. PLANNER MUNICIPAL SOFTWARE™ ERP SUITE

PLANNER MUNICIPAL SOFTWARE™ (also known as **Planner**) is a powerful municipal ERP incorporating a:

1. Property Register Management System (PRMS)
2. Valuation Roll Management System (VRMS)
3. Computer Assisted Mass Appraisal System (CAMA); and
4. Land Information Management system (LIMS)

specifically designed for municipalities in Southern Africa.

The Planner approach introduces a common, central, shared repository of property information, a single version of truth regarding properties within the municipality's jurisdiction. The various modules are supplied and configured as per each municipality requirement.

Planner is mSCOA, POPIA and MPRA compliant, contains user and data auditing capabilities, and utilises industry standard security protocols. A brief description of the various modules follows.

## 1.1 PROPERTY REGISTER AND LAND USE MANAGEMENT

The Central Property Register is a record of every property within the municipality's jurisdiction. Planner addresses this need by making provision for recording all variations or types of properties. These property types include:

- Freehold Erven
- Farms
- Agricultural Holdings
- Township Remainders
- Sectional Schemes
- Sectional Title Units
- Registered Lease Agreement
- Public Service Infrastructure
- Exclusive Use
- Servitudes
- Share Block Properties

**Property Search Screen**

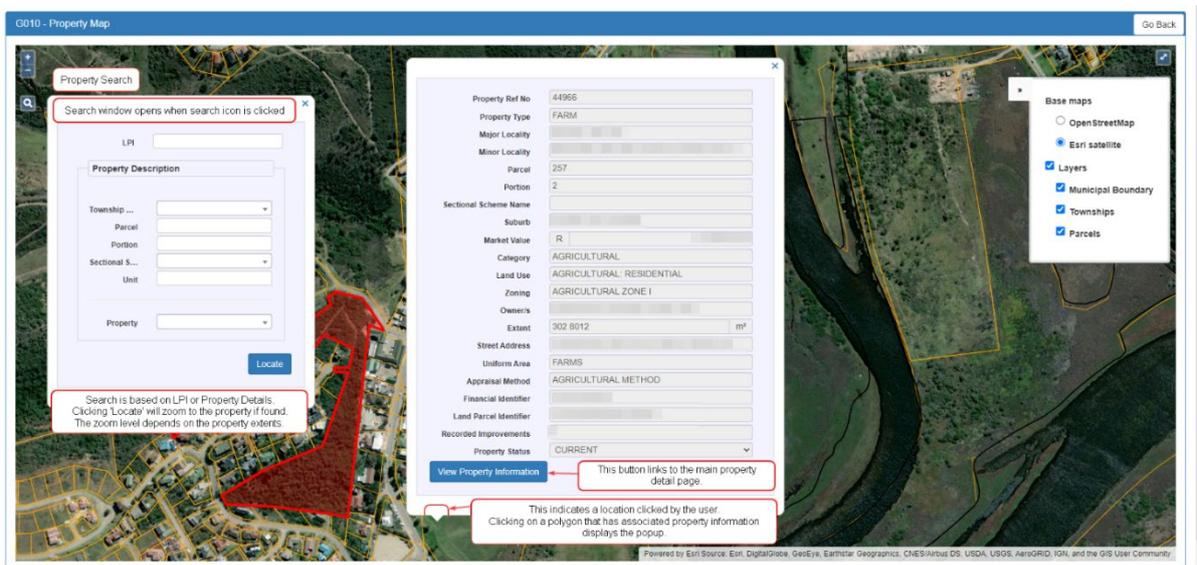
An effective Land Information System (LIS) will track the life cycle of a property as parent farms are sub-divided and farm portions are proclaimed as townships. It records township remainders, which are surveyed as erven, and these are sub-divided into portions. It traces consolidations, subdivisions, and other changes such as excisions. It defines how they can be used and manages any applications for property changes. Consequently, the system provides for the comprehensive storage and management of the following property attributes:

- Township & Property Creation History
- Type of Property
- Market Values
- Improvement Details
- Property Category
- Rating Tariff Categorization
- Zoning
- Land Use
- Height Zones
- Coverage
- Consent Use
- Notarial Ties
- Exclusive Use Rights
- Property Ownership History
- Sale Purchase Price
- Erf Lifecycle History
- Property/Township Remainders
- Property Status
- Property Extents
- Excluded Extents
- Improvement Values
- Split Valuation
- Influential Factors
- Photo and /or document storage
- Special Zoning
- Density
- Floor Area Ratio
- Scheme Annexure
- Servitudes
- Sectional Schemes
- Street Addresses
- Deeds Information
- Bonds & Endorsements
- User change auditing

- Surveyor General Code
- Public Service Infrastructure
- Estate
- Region
- Roll Remarks
- Mass Appraisal Method
- Comparable Properties
- Owner Email Address
- Valuation History
- Homogeneous/Uniform Area
- Suburb
- Ward
- Deeds Office
- Internal Remarks
- Consent Use
- Owner Postal Address
- Constraints

Some properties cannot be separated from each other. They are linked and are handled and valued as a unit. The system refers to these as Linked Property Groups. Properties can be added and removed from a group by an authorised user. The system enforces that the parent property must be the one with the lowest property number. Each group has one master or parent property to which the market value for the group of properties is attached. It is enforced that linked or child properties have a market value of 0 assigned to them, and a remark added that these were valued with the parent. System reports indicate where child properties have a different owner or property category from that of the parent. Valuation tasks are always linked to the parent property.

The property register also handles other special property types such as Mining Rights and Long-Term Leases as Servitudes. These are attached to the linked property and the corresponding information is displayed on the relevant Property Information page.



Map Interface

## 1.2 DEEDS TRANSFERS

This module processes data about property transfers, as periodically received from the Deeds Office. It ensures the master database is continuously aligned with the ownership records held at the Registrar of Deeds. Files obtained from the Deeds Office, (e.g. the DeedsWeb website) are loaded into Planner by means of an automated process. Ownership changes are automatically passed to the Finance system and other 3<sup>rd</sup> party integrations. Where properties must be revalued, a 'To-Do' item is triggered in the Valuation Roll Management System.

The data received, recorded, and processed are: Owner names, ID numbers, Buyers and Sellers details, Purchase price, Title Deed number, Sale date, Registration date, Bonds and endorsements, Subdivisions, Consolidation, Certificate of Registration, Excise, Township, Land Parcel Indicator (LPI) (used for integrating with the GIS system and the Surveyor General Office). Transfer information is received and recorded, exactly as registered with the Deeds Office.

## 1.3 VALUATION ROLL MANAGEMENT SYSTEM (VRMS)

The VRMS provides tools for generating and managing:

- The General Valuation (GV) Roll
- The Supplementary Valuation (SV) Roll
- Objections, Appeals, as well as Section 78 queries / reviews
- Public Online Valuation Roll Module

These components serve to maintain the current consolidated Valuation Roll.

In particular, the VRMS links market values and property categories to General Valuation Rolls or Supplementary Valuation Rolls. Supplementary Valuation Rolls could be divided into smaller reporting periods. A snapshot of all certified rolls is kept for future reference and reporting purposes.

The system automatically generates Notification Letters, as applicable, which can be printed or automatically emailed to the property owners. Furthermore, they can also be made available for download on the Public Online Module.

The screenshot shows a web interface for 'Valuation Details'. It features a 'Valuation Information' section with the following fields:

- Show On Supplementary Report
- Valuation Roll\*: SUPPLEMENTARY VALUATION ROLL 2020-07 TO 202
- Valuation Reporting Period: .....
- New Market Value: .....
- New Category: .....
- Effect Date\*: 2017-07-01
- Legal Reason\*: .....
- Reason: NEW LAND USE, SITE EXTENTS

Below the Reason field, it says: Reason valuation request was placed on the todo list

On the right side, there are two text areas:

- Valuers Notes: (empty)
- Valuation Roll Remarks: (empty)

Below the Valuation Roll Remarks text area, it says: This is what will appear in the comments on the valuation roll

### Valuation Details

Task is an automatic valuation workflow process and is maintained by the system. These tasks are automatically generated when the nature of the change made to a property requires a Section 78 Supplementary Valuation. Specifically, Tasks are generated as they are triggered by changes to the property as received from the Deeds Office, the Municipal Revenue system, the Municipal GIS system, the Land Information system, the Building Control system, and other integrated systems. Authorised users can also manually create tasks within this process. Tasks are assigned to users. Users have roles. Those with management roles can assign, cancel, prioritise, re-value, defer and reject tasks. These tasks can be changed individually or in bulk. Users can view the tasks they have been assigned in their Workbasket.

The VRMS also caters for properties with special attributes, characteristics, and classifications. For example, where a single physical property is used for multiple purposes, a market value and property category can be assigned to different segments of the property. In the system, these are referred to as Split Values. These Split Value properties are treated as individual properties and valuation tasks are generated individually for each 'split'. Split Values are displayed as separate entities in the system but are always grouped with their Master Property. Different appraisal methods can be applied to each Split Valuation.

Township remainders are a unique feature of the VRMS. Where transfers on consolidations and subdivisions become registered, the extents of the originating properties are automatically adjusted and a re-valuation task is triggered. Valuation tasks are also triggered for the resulting properties. This is especially evident on Township Remainders. A valuation task is triggered for each of the transfers on the Township Remainder, and the extent of that property is adjusted accordingly. Where there are multiple changes on a Township Remainder property on one day, the valuer can choose to only create a single valuation for those changes.

## 1.4 COMPUTER ASSISTED MASS APPRAISAL (CAMA)

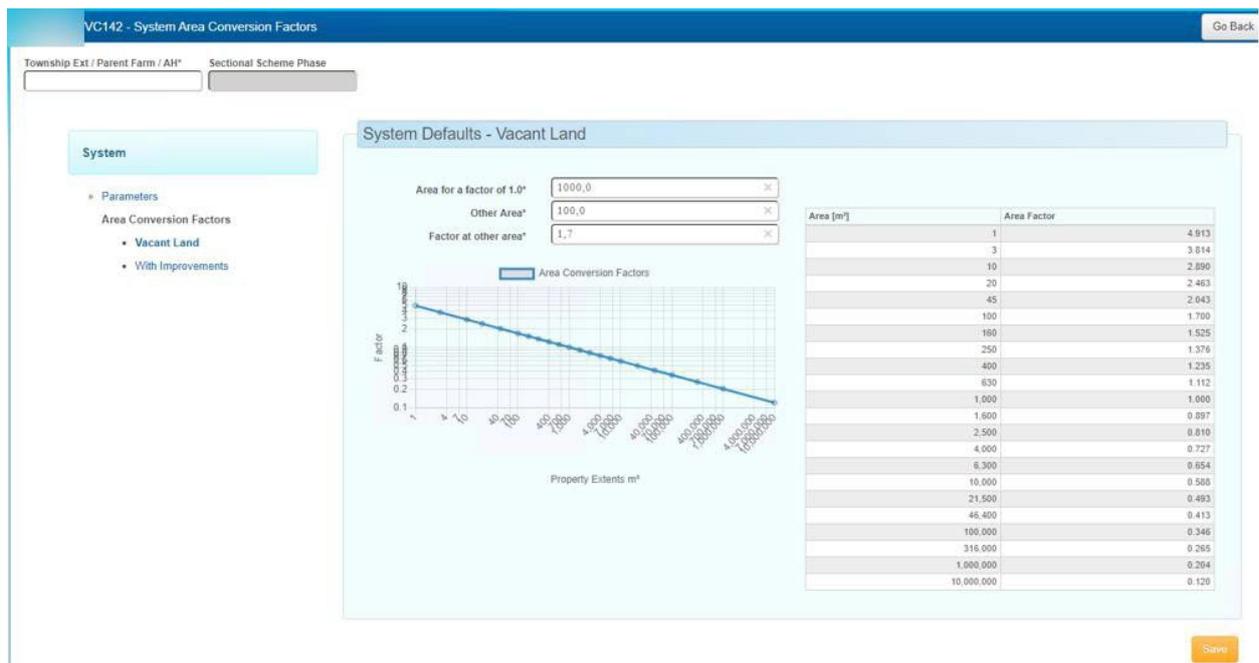
In the CAMA module, the emphasis is on MASS APPRAISAL, not just computer assisted. The term "*Mass Appraisal*" is best defined as the systematic appraisal of groups of properties as of a given date using standardized procedures and statistical testing. "Mass Appraisal" includes the application of single-property appraisals, as well as the development of appraisal formulas and statistical models that can be applied uniformly to any number of properties at a time. The result is a valuation process that is exponentially more efficient and effective than a simple "Computer Assisted" process. Planner's "*Mass Appraisal*" methodology is specifically designed to meet the needs of the South African valuation professional.

The Planner CAMA process currently supports various methods of automatically valuing properties:

- Comparable Sales: determined from the selling prices of similar properties in the neighbourhood, adjusted for size and distance. Primarily used to determine the value of Residential Properties as well as Vacant Land.

- Depreciated Replacement Cost method: how much it would cost to replace the buildings and equipment on the property, adjusted for their age.
- Income Capitalisation method: value as an income producing investment.
- Individual property valuation.
- Agricultural Method: The system allows for capturing the extents used for Wasteland, Natural Grazing, Cultivated Land, and Irrigated Land for each agricultural property. Base values (in Rands per hectare) for each of these four uses are also captured for the valuation roll being produced and can be overridden per parent farm or agricultural holding area, if required. The assessed value for properties valued by the agricultural method is calculated as the sum of each of these four sizes multiplied by the corresponding base value.

A key to this process is a market analysis on vacant land, improved properties, and sectional title properties. Statistical analysis is applied to create a model which is used to determine base values applicable for the area and for the duration of the valuation roll. Thereafter, data is modelled using the Planner CAMA routines. A monitoring process is provided to screen out anomalies or errors in the result.



Advanced CAMA Interface

## 1.5 BUILDING CONTROL

The Building Control module is an optional add-on. This caters for the processing of building applications, as well as the workflow related to this from the initial scrutinization process through the issuing of permits and the various inspections until finally occupational certificates are issued. This allows the actual changes to the properties to be effectively managed and to update the Valuation and Revenue systems accordingly.

## 1.6 TOWN PLANNING

Planner also provides a means of processing applications for

- Subdivision
- Consolidations
- Rezoning
- Township Establishment; and
- Excision

This functionality directly updates the Property Register as these applications are processed and approved.

## 1.7 REPORTING AND BUSINESS INTELLIGENCE (BI) MODULES

Standard exportable reports are included as a core system function. However, as an additional add-on module, the BI module provides powerful analytics and insightful dashboards.

The standard and core Reporting Module enables the extraction and reporting on information such as:

- Valuation Rolls (General, Supplementary and Consolidated)
- Objection and Appeal Outcomes
- Exception Reports highlighting missing information
- Discrepancy Reports
- MPRA Prescribed Notices (Section 49, 52, 53, 78)
- Lookup Lists

Reports can be printed or exported to PDF, Microsoft Excel, CSV, and other common formats. The reporting module runs on a SQL Server Reporting Services backend.

## 2. SYSTEM SPECIFICATIONS

### 2.1 SERVER SOFTWARE REQUIREMENTS

- Microsoft Window Server 2016 or above
- Microsoft SQL Server 2016 or above
- Microsoft SQL Server Reporting Services
- Microsoft SQL Analysis for Business Intelligence insights and advancedreporting (optional)
- Microsoft IIS 10 or above
- Remote access
- Public internet access to separate public web application
- Hardware processing power and memory dependent on the number of users. Pleaseensure sufficient allocation.
- Minimum 32GB RAM
- Minimum 200 GB Available Disk Space

### 2.2 CLIENT SOFTWARE REQUIREMENTS

- Compliant Web browsers include current versions of Mozilla Firefox, Google Chrome, Microsoft Edge