



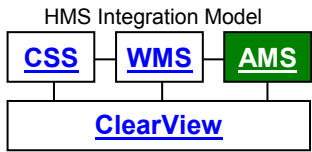
# Asset Management Systems



How well does your organisation know its assets?



Maintaining an inventory of assets and their condition, defining optimal replacement strategies and meeting statutory reporting requirements are all objectives that the Asset Manager must achieve. Loftus HMS Asset Management Systems (AMS) are GIS enabled, discipline-based modules that enable the discerning Asset Manager to understand, analyse, optimise, model and program their assets.



*“What are your assets doing tomorrow?”*

### Asset Management System Key Features

Loftus HMS **Asset Management Systems** are specifically designed for the management of Local Government asset infrastructure and operate as standalone applications or part of a unique and powerful Integrated System. The systems are affordable and easy-to-use with many flexible features to manage your assets.

Each **AMS** shares a uniform look and feel and contain comprehensive facilities to:

- **Record** assets in data structures designed to logically present the relationship between asset components.
- Record measured and visual condition indexes and life assessment information.
- **Comply** with AAS27 / FRS3 financial requirements relating to:
  - Current Cost;
  - Annual Depreciation;
  - Accumulated Depreciation; and
  - Written Down Current Cost (Revaluation).
- **Model** asset behaviour over time using powerful in-built statistical reports and graphs.
- **Display** geographic asset locations via embedded GIS+Viewer or real-time data exchange with your ESRI, MapInfo or GenaMap GIS.
- **Determine** strategy / maintenance programs.
- **Archive** data for historical comparisons.
- **Interface** to other **Loftus HMS** modules and third party analysis software (where applicable).



All **Loftus HMS** Asset Management Systems consist of the following main elements:

### 1. Inventory

Each record describes assets of uniform condition rating and includes identification, location and quantity of asset.

The inventory/raw data is gathered in accordance with industry standards and details contained in an Inventory / Data Classification manual (supplied with the product).



GIS identification numbers are associated with each asset allowing for separate identification of individual components (if desired), using the embedded GIS+Viewer or via dynamic external connection to your GIS.

User Definable Fields - ie fields available for the organisation to use for their own purposes - are also available. These allow additional attributes to be defined and recorded against each record.

Inventory data can be exported or bulk loaded into the system using an in-built Excel-based facility which also validates the data and logs any changes made to the database.

### 2. Condition Rating System

A condition rating system is used under which the quality (or condition) of a particular asset is rated in accordance with industry standards, which are user definable. In addition measured condition values for roughness, deflection, CBR, etc. can be recorded and analysed (where applicable).



### 3. Optimisation

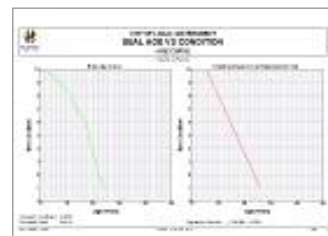
Optimisation is achieved by allocating a workcode (or variable) to each asset where the workcode represents a selected unit rate (eg \$/m) which, when multiplied by a quantity (eg length, area or volume), represents the cost to replace (ie value), upgrade or maintain the asset.



By varying the unit rates or workcodes various alternative maintenance or construction strategies can be defined and evaluated.

### 4. Modelling

**Loftus HMS AMS** statistically analyse age and condition data of asset groups which have the same life cycle (eg all 10 mm road spray seals, all wooden park benches or all bottle brush trees) to produce Age Curves. These historical degradation curves are used to model degradation of the asset and to determine an optimum intervention period or economic life of that group of assets.



Additionally by archiving data, various "what if" scenarios can be developed on portions or all data by modifying any system value.



## Key Benefits to Your Organisation



### Knowledge

- Registers of all Council controlled assets.
- Tools to evaluate scenarios and understand the impact of decisions.
- Means to define service standards and policies.



### Compliance

- Conformance with financial accounting standards and best practice manuals via auditable and repeatable processes.
- Conformance with the Local Government Act.
- Conformance with data security and access policies.



### Savings

- Accomplishment of cost savings through optimised delivery of asset improvements to your community.
- Understanding of asset lifecycles and behaviour.
- Ready access to information that can be shared with other applications and resources.

## Power and Performance

Loftus HMS Asset Management Systems were designed as full 32-bit applications to take advantage of the scalability, reliability and performance that SQL Server / MSDE offers. This means that the **AMS**:

- Are easily installed in a few minutes using a simple wizard-based approach.
- Are true client-server applications that offer rapid data access and reporting performance regardless of volume of data or concurrent users.
- Can record an (effectively) unlimited number of assets without the headaches that come from low-performance file based programs developed using Access, FoxPro or Excel. You won't experience index corruption, deleted files or drive mapping restrictions.
- Users can be set up with their own user name and password and security applied to the individual menu item level allowing Administrators to customise access organisation wide.
- Data can be replicated to a standby server and can be easily backed up to disk or tape by scheduled process.

## Technical Specifications

Hardware	Celeron 333MHz or higher CPU, 64MB RAM (minimum), 100 Mbit network card desirable
Software	Windows 95 / 98 / NT / 2000 / XP / Vista / 7.0 Office 97 / 2000 / XP / 2003 / 2007
Database	SQL Server 7.0 / 2000 / 2005 / 2008 or MSDE (Note: MSDE is included with product)
Licenses	Based on concurrent users, not per PC. Runs on standalone PC, Windows network, Terminal Server, Citrix Metaframe or VMware
GPS	GARMIN protocol compliant GPS (Global Positioning System)
PDA	Windows XP Tablet PC (eg HP TC1100) HP/Compaq iPAQ Pocket PC PDA (Personal Digital Assistant)

Refer to the **Loftus HMS FAQ** for further details

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**Building Asset Management System**

The Building Asset Management System (**BuildingPAK**) uses a multi-level hierarchical structure allowing for all building assets to be recorded, optimised, modelled and valued.

**BuildingPAK** utilises a series of customisable tabs to record asset details. These tabs can be configured to match the International Infrastructure Manual or your own data recording requirements.

Core, Legal and Financial details are also recorded.



**Plant Asset Management System**

The **PLANT** program is the pump station and treatment plant discipline of the Loftus HMS Asset Management System (**AMS**) suite. **PLANT** is specifically designed for the management of local government non pipeline sewer and water asset infrastructure.

**PLANT** utilises a multi-level hierarchical structure to record pump station and treatment plant asset components.

In **PLANT** attributes can be recorded for:

- Mechanical:
  - Valve; and
  - Electrical.
- Building; and
- Civil assets.



Plant Sewer

**Integration**

Each Asset Management module is able to be integrated with:

- **CSS** - The Customer Service System (Request / Complaint tracking).
- **WMS** - The Work Management System (Work Orders and Activity Based Costing).
- **GIS** - can be linked directly to your MapInfo, ArcMap or WorldViewer GIS.



CSS



WMS

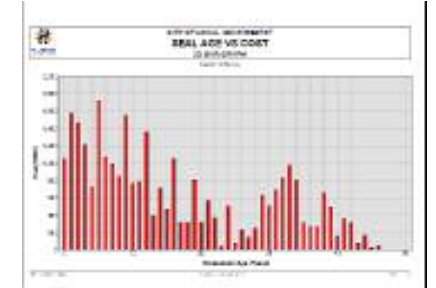


GIS Link



**5. Budgeting**

Comprehensive graphical and textual reports present values to maintain, rehabilitate or replace assets. By setting a level of service and varying workcode values allocated to each asset the impact of proposed funding levels can be evaluated. This enables budgets to be more accurately prepared and understood.



**6. Programming**

The systems can be used to prepare detailed programs for maintenance, rehabilitation or reconstruction of all assets. Programs can be in textual or graphical form where report listings are in priority (ie worst first) order.

In addition, by accessing Service Location History, a listing of all Customer Service Requests and Work Orders associated with an asset can be displayed. This list can be drilled-down on for further information from the relevant area allowing for a more informed decision making process.

**7. Statutory Reporting**

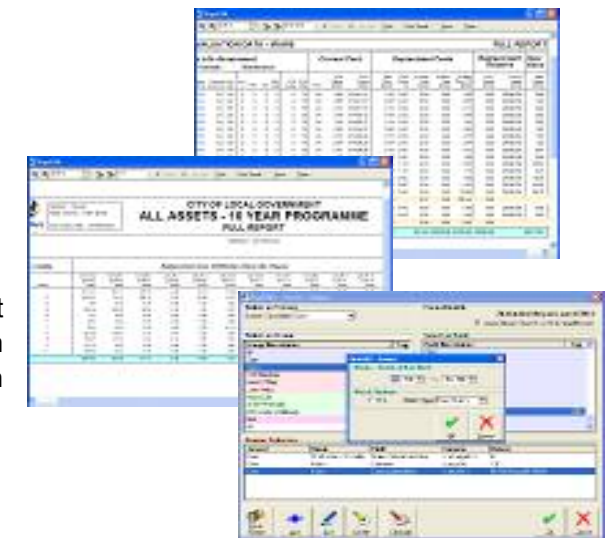
The **Loftus HMS** Asset Management Systems contain a reporting and graphing module with in-built reports under the following common categories:

- Field Data Reports – Consist of several sub-reports that present every field within the database.
- Engineering Data Reports – Include selected Field Data attributes and unit value (\$) information.
- Accounting Data Reports – Include selected Field Data attributes, unit value (\$) and AAS27 / FRS3 data.
- Statistical Data Reports – Present measures against various patterns in data.

The reporting and graphing module is also used to present strategies and evaluate AAS27 / FRS3 and Grants Commission requirements relating to:

- Replacement cost;
- Current cost;
- Annual depreciation;
- Accumulated depreciation;
- Written down current cost; and
- Replacement reserve.

A powerful Selection System engine forms a front end to all reports, providing an intuitive mechanism to set up complex filters based on any combination of system attributes.





Loftus IT has developed a range of asset-specific management software for Local Government controlled assets including:

- Roads
  - Roads ..... **RoadPAK-ROADS**
  - Footpath ..... **RoadPAK-FOOTPATH**
  - Street Trees ..... **RoadPAK-STREET TREES**
  - Miscellaneous (Signage, Line Marking, Street Furniture and Lighting) ... **RoadPAK-MISCELLANEOUS**
- Pipes
  - Sewer (wastewater) ..... **PipePAK-SEWER**
  - Water ..... **PipePAK-WATER**
  - Drainage (stormwater) ..... **PipePAK-DRAINAGE**
  - Gas ..... **PipePAK-GAS**
- Parks
  - Facilities ..... **ParkPAK-FACILITIES**
  - Trees (incl Shrubs/Ground Cover) ..... **ParkPAK-TREES**
- Buildings ..... **BuildingPAK**
- Pump Stations and Treatment Plants ..... **PLANT**

**Road Asset Management System**

The focus of the Loftus HMS Road Asset Management system (**RoadPAK**) is to provide mechanisms to record the physical attributes and condition of an asset together with data relating to Risk Management. This is particularly important in relation to footpath, signage, line marking and lighting assets where lawsuits have taken place through lack of records and documentation.

**RoadPAK** is available in 4 disciplines, each recording their own asset and sub asset attributes.

- Roads
  - Pavement
  - Seal
  - Kerbing
- Footpath
  - Left footpath
  - Right footpath
- Miscellaneous
  - Signage
  - Line Marking
  - Street Furniture
  - Lighting
- Trees
  - Street Trees

More importantly, **RoadPAK** incorporates additional modules to record and manage risk relating to assets. Comprehensive in-built reports and graphs produce outputs on a worst-first or highest risk basis and are able to be exported to a variety of desktop formats for inclusion in other documents.

Incorporating the latest GIS technology and many customer requested features, **RoadPAK** is an exciting and user friendly product.



**Pipe Asset Management System**

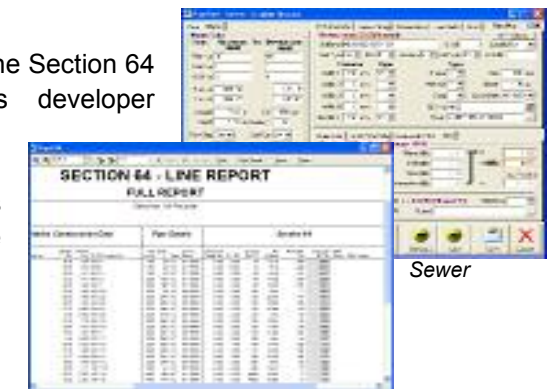
The Loftus HMS Pipe Asset Management System (**PipePAK**) records all Sewer, Water, Drainage and Gas pipeline assets. **PipePAK** is available in 4 disciplines, each recording their own asset and sub asset attributes:

- Sewer
  - Mains
  - Manhole
  - Vents
  - Connections
- Water
  - Mains
  - Connections
  - Hydrants
  - Valves
- Drainage
  - Drain
  - Pit
  - Lid
  - Connections
- Gas
  - Mains
  - Services
  - Risers
  - Valve
  - Meter
  - Station

**PipePAK** includes in-built network traversal and hydraulic modelling facilities with interfaces to third party analysis packages.

A recent addition to the **PipePAK** suite of products is the Section 64 plug in module which automatically determines developer contributions at any point in the network.

An embedded GIS viewer is included which displays assets geographically and can be used to locate records spatially.



**Park Asset Management System**

The Loftus HMS Park Asset Management System (**ParkPAK**) uses a multi-level hierarchical structure allowing for all park assets to be recorded, optimised, modelled and valued in accordance with statutory requirements.

In **ParkPAK-FACILITIES**, attributes can be collected for the following assets:

- Park or Reserve (including associated street and location)
- Major Components within each Park or reserve
- Facilities within each Park Component including:
  - Below ground assets including irrigation, bore/pump, drainage, services;
  - Above ground assets including equipment, fencing, lighting, structures, furniture;
  - Building assets including structures; and
  - Civil assets including paths, roads, kerbing and walls.



In **ParkPAK-TREES**, attributes can be collected and recorded for trees, plants, shrubs and ground cover together with their associated Risk Management (tree hazard) information.