

Question:

How can activeG optimize
your assets in Maximo?



Answer: With an engine. MapEngine™

Seamless Maximo/Enterprise GIS Integration & Visualization

activeG's MapEngine seamlessly integrates your Enterprise Geographic Information System (GIS) and Maximo™ system by embedding maps directly into IBM's strategic asset management solution.

The screenshot displays the activeG MapEngine interface within a Maximo Work Order Tracking application. The interface is divided into several sections:

- Form Fields:** Includes fields for 'First & Last Name' (Peacock), 'Problem Address' (8708 E MCDOWELL RD), 'Work Order' (1147), 'Location' (WHVD-101), and 'Asset'. It also shows 'Parent WO' coordinates (X: 706,205,500; Y: 897,083,490) and 'Attachments' (Status: WAPPR, Status Date: 1/25/07 2:54 PM).
- MapEngine:** A central map area showing a street grid with 'NORTH' and 'MCDOWELL' streets. A pink polygon highlights parcel (8708). A blue line represents a water main network with a red 'X' symbol indicating a water leak. Other parcels are labeled with numbers like (1628), (1625), (1615), (1620), (8718), (8650), and (8708).
- Legend:** A list of map layers including BASE, Work Order, Parcel Address, Parcels, QS Grid, City Boundary, WATER (Water Hydrants, Water Meters, Water Services, Water Mains), SEWER (Sewer Manholes - RL, Sewer Manholes, Sewer Mains), HIGHWAY (Hvy Work Segment, Mile Post, Highway), and STREET (Street Name, Streets).
- Attribute Table:** A table on the right side of the map showing details for the selected work order.

Attribute Name	Value
WORKUM	1147
PARENT	null
STATUS	WAPPR
STATUSDATE	2007-01-25 14:54:32.0
WORKTYPE	EM
DESCRIPTION	Water leak
ASSETNUM	null
LOCATION	WHVD-101
JPHUM	null
FAILDATE	null
CHANGEDBY	WINSTON
CHANGEDATE	2007-02-26 11:26:08.0
ESTDUR	0
ESTLABHRS	0
ESTMATCOST	0
ESTLABCOST	0
ESTTOOLCOST	0
DNMUM	null
ACTLABHRS	0
ACTMATCOST	0
ACTLABCOST	0
ACTTOOLCOST	0
HASCHILDREN	0
OUTLABCOST	0
OUTMATCOST	0
OUTTOOLCOST	0

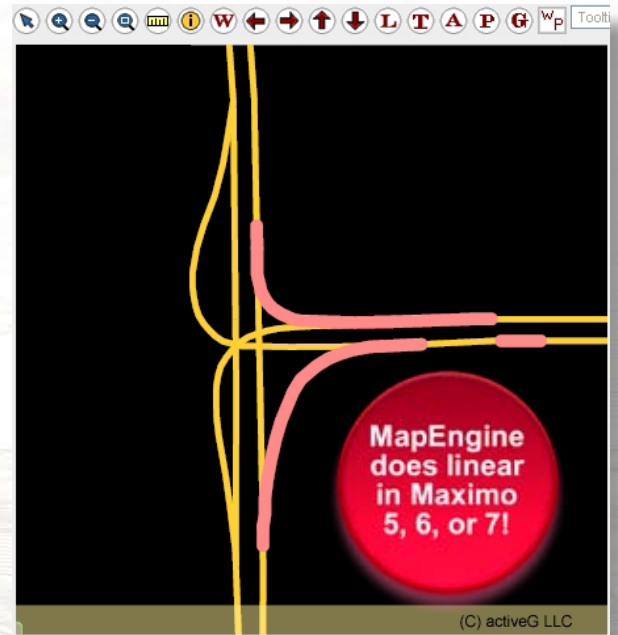
Asset Management, Facilities Management and GIS systems contain information about field and facility assets, including their physical location and network relationships of the physical system (water distribution, sewer collection, electrical transmission/distribution, gas/oil transmission and distribution, public works infrastructure, telecommunications, airport infrastructure, rail, highway/transportation infrastructure, etc.). Work and asset management systems are designed to track information relating to the installation and maintenance of these assets.

activeG's MapEngine brings these two systems together by map-enabling your Maximo system (versions 5.x, 6.x, and 7.x) and integrating Maximo and GIS at both the data and application levels.

Dynamic Linear Segmentation

For departments of transportation, rail companies and pipeline operators, it's often necessary to generate a work order that covers portions of several assets or locations. The work that needs to be done may not fit neatly within the segments drawn in GIS. This is where MapEngine helps.

MapEngine enables users to highlight partial segments of any linear asset visually, whether they are roadways, rail lines or gas pipelines. Select the portions of the roadway to be maintained and work orders are automatically created in Maximo for any segments that are part of that defined work.



Key Industry Applications: Departments of transportation (DOT), Railroad, Gas Utilities, Pipeline Operators

Facilities Management

You have great drawings of your physical plant or campus. Why not integrate that detail with the maintenance and/or asset information you have in Maximo?

- **Multi-Floor views:** MapEngine lets you choose the building level you need to see. You can find that damaged sprinkler valve or failing server by choosing the floor of the structure where that asset resides.
- **Instant Asset Detail:** Mouse over a troubled server to find out its components, select a pump to see its maintenance history. It's all right there on the map.

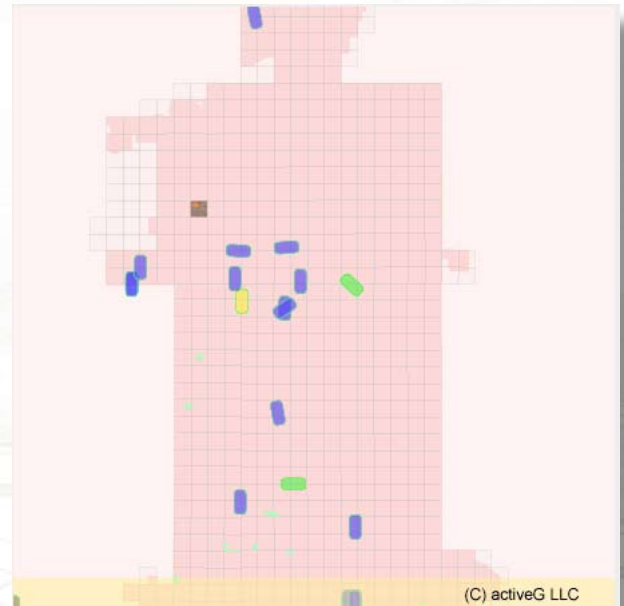


Key Industry Applications: ITSM, Aviation/Airports, Oil & Gas, any Campus environment

GPS

You have mobile assets in the field: vehicles, work crews, heavy equipment. With MapEngine, you can track the location of those mobile assets from the same window that you manage all of your other assets in Maximo.

- **Real-time positions of GPS-tracked Maximo assets:** In an emergency, response time is critical. Use MapEngine to give emergency dispatchers live information on the closest available responders.
- **Mark X,Y Coordinates of Work:** Use a GPS-enabled handheld device to mark the coordinates of a work area accurately and feed that back to Maximo for display in MapEngine.



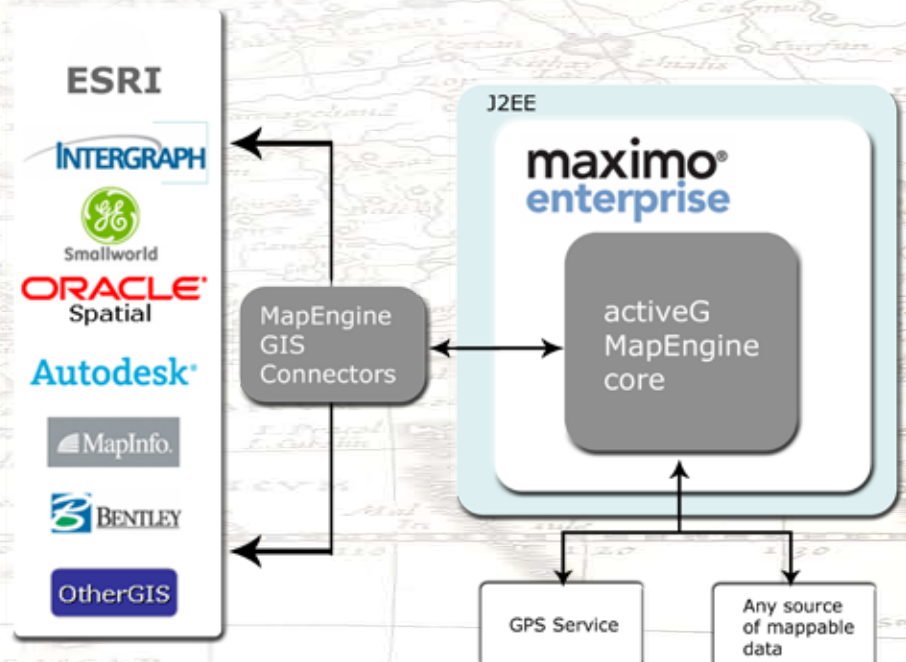
Key Industry Applications: ITSM, Airports, Oil, Water, Waste Water, Gas, Electric

Data Synchronization

MapEngine keeps GIS and Maximo systems synchronized. This encourages business-driven data ownership by ensuring complete consistency between GIS and Maximo databases.

Organizations have made substantial investments creating and maintaining asset data in their GIS. Implementing MapEngine within your enterprise asset or facilities management system leverages that investment by enabling Maximo to use the GIS asset database for work order and asset processing.

MapEngine also protects your GIS investment by keeping your GIS data updated with the maintenance operations recorded in Maximo.



Flexibility

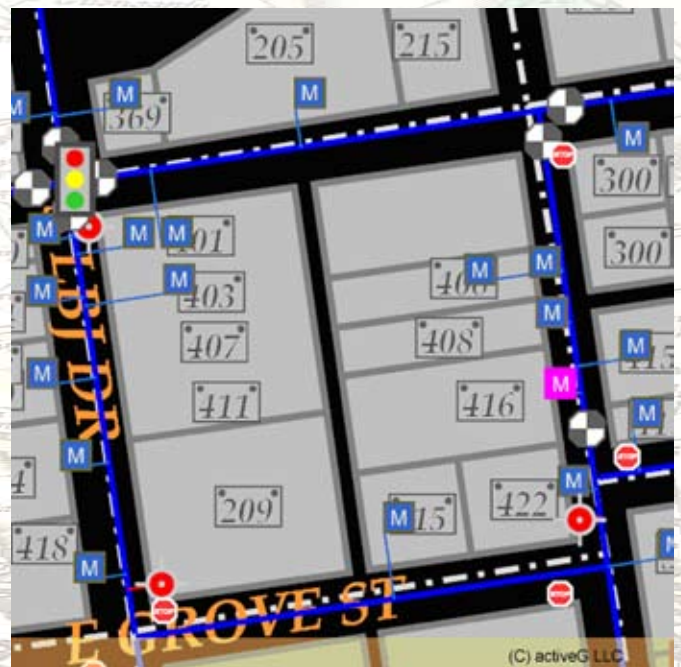
MapEngine gives companies tremendous flexibility in a variety of critical areas:

- **Link to any spatial data source.** Whether you have ESRI™ ArcGIS, Oracle Spatial™, Small-world™, Intergraph™, MapInfo™, shape files, CAD drawings, etc.—wherever your company is storing its GIS information—MapEngine can access it and integrate it into Maximo.
- **MapEngine embeds directly into Maximo.** You put the map where you want it – no annoying pop-ups, no separate applications. You get seamless integration of your GIS straight into Maximo. Unlike other applications, you can place MapEngine anywhere in the business process that makes sense for your company.
- **MapEngine is highly configurable.** While MapEngine takes advantage of Maximo's standard business functionality, it's highly configurable, so users can tailor functionality to meet their specific needs. For instance:
 - Searches – search by anything on the map: an address, a location, a name, an intersection, an account number from your customer information system, or what ever else you need to locate.
 - Map portability – drop MapEngine anywhere on any Maximo page and size it to your specifications.
 - Menus/function buttons – choose which MapEngine functions you want to be available to users.
- **Extensible interface** – if you need to extend MapEngine's capability, activeG can tailor MapEngine to meet your specific need.

Field Assets

The bread and butter of GIS is its ability to display the location of field assets quickly. With MapEngine, this same capability can be leveraged together with your Maximo asset information. Key features include the ability to click on an asset, view its attributes, and create a work order against that asset - visually.

Key Industry Applications: Electrical, Freight and Docks, Gas, Government, Large Office, Parks and Gardens, Petrochemical, Telecommunications, Transportation, Water, and Wastewater.



MapEngine

Seamless Maximo/Enterprise GIS Integration

MapEngine comes with a variety of configurable features, including:

MapEngine Key Feature	Description
Business Object Creation	Locate an asset on a map--instead of drilling down a tree of assets--to create business objects such as Service Requests, Work Orders, and Routes.
Custom Map Generation	Prepare maps for specific purposes, such as work order specification, and print or push to field PDA with work order
Data Synchronization	MapEngine keeps GIS and Asset Management systems synchronized. This encourages business-driven data ownership by ensuring complete consistency between GIS and operational databases.
GPS Integration	Display GPS data on field assets tracked in Maximo. For example, map real-time locations of a field crew's vehicle for optimum unplanned maintenance response.
Show Parent/Child Relationships	Graphically highlights parent or children of an asset or location.
Dynamic Linear Segmentation	Select work areas with partial overlap of fixed location segments.
Integrated Orthophotography	Use GIS-managed digital images for close-ups of major plant during work order planning.
Quick asset history display	Use the map to click on an asset to quickly see work order history for that asset.
Quick Location/asset display	Show software assets for hardware locations in tabular rather than symbolic form.
Display location and asset hierarchy for multiple hierarchies	Enables user to see a map of the hierarchy of location/assets specific to their responsibility.
Redlining	User draws new spatial data via the map-based GUI for asset/location creation. Geometry of asset/location may be Point, Line, or Polygon.

System Requirements

Maximo 5.x, 6.x, 7.x
Any GIS or spatial data system

Contact

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