

ADAPTIT GROUP

Asset management industry solutions

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AGENDA

Smart Factory Maintenance Solutions

Why ADAPTIT invests in Asset Management Solutions

Enterprise Asset Management / Quick Start Implementation

New Generation Asset Management Strategy

Smart Factory Maintenance Solutions



What is Enterprise Asset Management ?

Enterprise Asset Management (EAM) is the lifecycle management of the physical assets of an organization.

An asset can be such things as machines, equipment, tools, buildings, plants, vehicles or ships.



Top 5 EAM market trends

IoT

The number of connected devices is exploding and each is rife with data.

Big Data and advanced analytics

With more data comes improved insights.

- Descriptive analytics
- Predictive analytics
- Prescriptive analytics

Blockchain

Integration with blockchain enables stronger business networks.

SaaS

Enables faster upgrades and opens up the market to SMB's.

Mobility

Taking center stage as workforces must be able to access EAM from the field.

Benefits of Enterprise Asset Management Solutions

Top 10 benefits of a Enterprise Asset Management solution that will increase efficiency and improve the ability to achieve EAM business goals.

1. Reducing Unplanned Downtime
2. Minimizing Asset Failures
3. Maximizing use of Resources
4. Increase Asset Reliability
5. Reduce Inventory Costs
6. Improving services
7. Safety & Risk Management
8. Adherence to regulator compliance
9. Extending the life of assets
10. Identify trends



Asset Management Solution, a deeper look...

Integrated capabilities of Maximo



Work management

- Job plans for recurring tasks
- Predictive maintenance
- Manage labor, skills, qualifications
- Mobile enablement for better point of failure data collection



Asset management

- Location/Function, work, and cost history
- Roll-up costs
- Asset modeling
- Improved asset safety



Supply chain

- Manage inventory across storerooms and sites for better visibility
- Eliminate costly off-contract buying
- Improved monitoring of vendor performance
- Fully manage receipts, inspections and vendor payments



Planning and scheduling

- Ensures assignment of the right person, with the right skills
- Drag-and-drop team assignments accelerates schedule optimization



Health Safety Environment

- Standardize HS&E practices
- Operators log risk assessment, incident management, Investigation and correction
- Planning for hazard identification, risk assessment, and risk control



Analytics

- Descriptive, predictive and prescriptive analytics
- Built on industry-leading Cognos business intelligence software
- Available & customizable by user type

Asset Management importance

50% of asset-intensive organizations
have some form of asset analytics
However....

<10% have an APM platform


(Source: IDC, 2018)

By 2020, 60% of asset-intensive
organizations will rely on APM to help
them optimize the performance of
their mission-critical assets

(Source: Gartner, 2018)



Asset Management necessity

A high-angle photograph of a factory floor. In the center, a large orange industrial robotic arm is positioned over a circular metal worktable. The background is filled with complex machinery, metal railings, and various industrial components, creating a sense of a busy manufacturing environment.

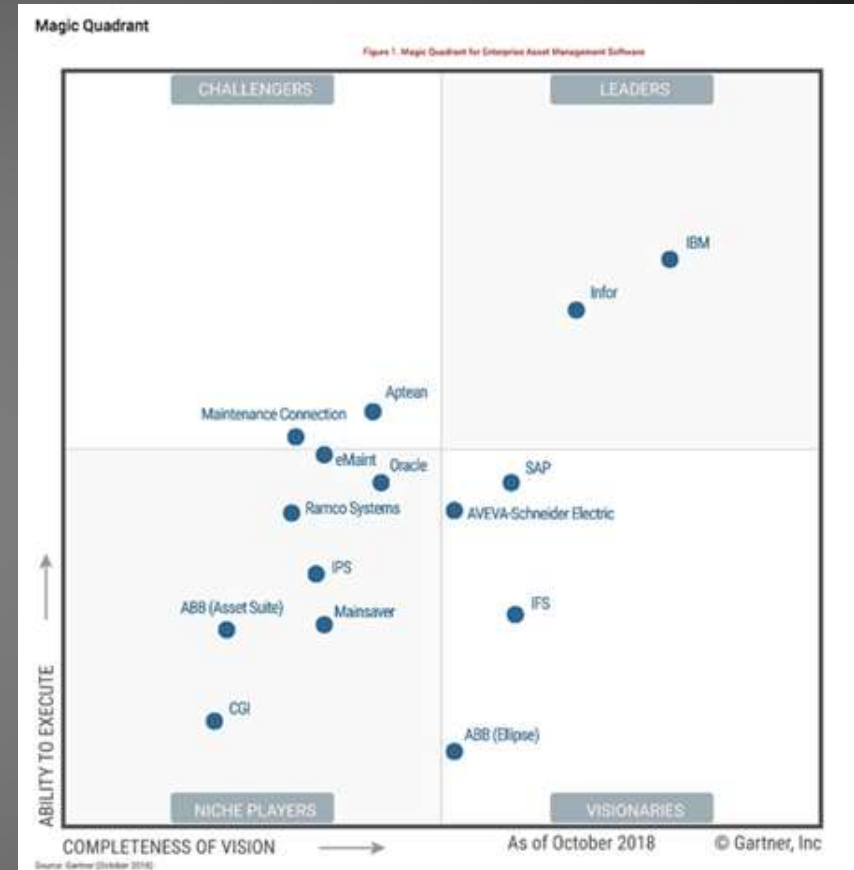
Today's top performers are approaching 99% equipment availability while spending only 1.4% of their equipment replacement value.

Plants not achieving these levels are losing opportunities and incurring unnecessary maintenance costs.

Maximo for Asset Management

Gartner has recognized **IBM** as a **leader in the Magic Quadrant since 1996.**

Gartner has recognized **IBM** as a **leader in The Magic Quadrant for Enterprise Asset Management Software**



Why ADAPTIT invests in Asset Management Solutions





**“STRENGTH
AND
HONOUR”**

- MAXIMUS
DECIMUS MERIDIUS

FACTS

- Established in 2005
- Unique Specializations in Telecom Market and Enterprise Market
- Over 90 fully qualified employees & certified engineers
- 2500 m2 office + lab facilities
- 3000 m2 warehouse facilities
- Certified by TUV Austria Hellas for Quality, Environmental Management & Health Management (ISO 9001:2008, OHSAS 18001:2007, ISO 14001:2004)



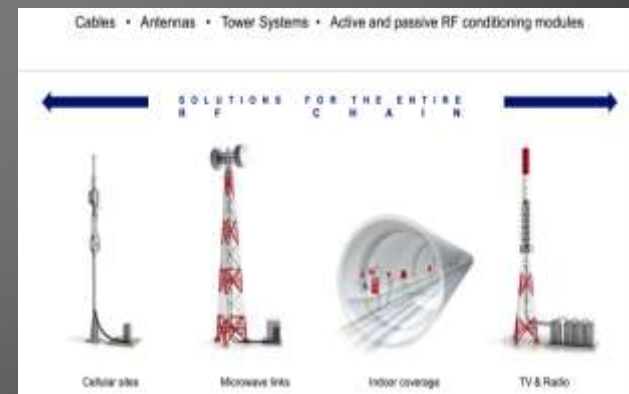
KEY CHARACTERISTICS

- We have and still execute all special projects for in house/ in premise radio coverage improvement on behalf of Service Providers.
- We perform this task without interruption since 2008 (for more than one decade).
- We make around 800-1000 special in house installations per year across the country. Cumulative number more than 8000 installations



INDICATIVE PROJECTS

- Technical Support Services for Olympia Radio Network
- Navtex System and Tele-management S/W
- Innovative wireless and broadcast infrastructure products and solutions
- Design, Supply and Installation of Radio Coverage System



So we know what..

- **Field Service**
- **Maintenance**
- **Production and construction**

means

Enterprise Asset Management

Quick Start Implementation



ADAPTIT and IBM Maximo Solution

The solution is based in **IBM Maximo** along with its required subsystems.

All the items of the equipment and the Assets are registered, hierarchically and in detail, the details of acquisition and warranty, the full proactive maintenance and repair data, the required parts, the data and the costs of the suppliers so that there is a complete and immediate image.

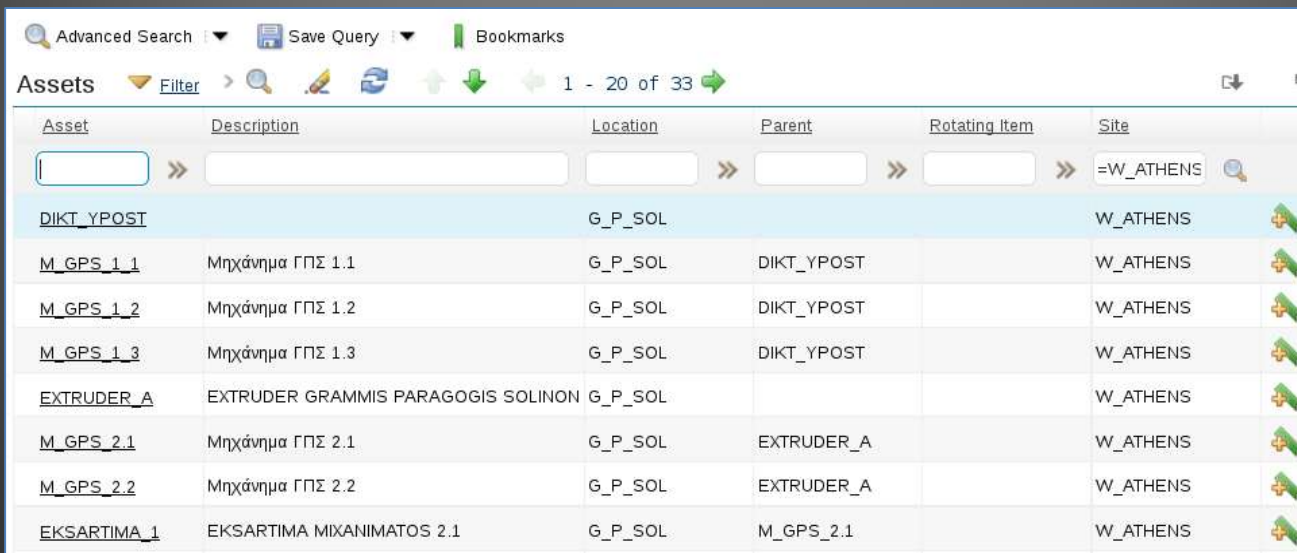
It is based also in the development of a mobile application in which maintenance and fault repairing works are recorded quick and easily by the factory units' technicians.



ADAPTIT and IBM Maximo Solution

Utilizing **IBM Maximo** the following is being registered and monitored hierarchically

- Company's **facilities**
- **Buildings hierarchy**
- Company's fixed assets
- **Components** of production line machines
- Date and value of purchase as well as the supplier of each fixed asset
- Fixed asset's collateral expiration date



The screenshot shows the IBM Maximo 'Assets' page. At the top, there are navigation options: 'Advanced Search', 'Save Query', and 'Bookmarks'. Below this is a toolbar with icons for 'Filter', search, edit, refresh, and navigation. The main content is a table with columns: Asset, Description, Location, Parent, Rotating Item, and Site. The table displays a hierarchical list of assets, including a parent asset 'DIKT_YPOST' and several child assets like 'M_GPS_1_1', 'M_GPS_1_2', 'M_GPS_1_3', 'EXTRUDER_A', 'M_GPS_2_1', 'M_GPS_2_2', and 'EKSARTIMA_1'. Each asset row has a green plus icon in the right margin.

Asset	Description	Location	Parent	Rotating Item	Site
DIKT_YPOST		G_P_SOL			W_ATHENS
M_GPS_1_1	Μηχάνημα ΓΠΣ 1.1	G_P_SOL	DIKT_YPOST		W_ATHENS
M_GPS_1_2	Μηχάνημα ΓΠΣ 1.2	G_P_SOL	DIKT_YPOST		W_ATHENS
M_GPS_1_3	Μηχάνημα ΓΠΣ 1.3	G_P_SOL	DIKT_YPOST		W_ATHENS
EXTRUDER_A	EXTRUDER GRAMMIS PARAGOGIS SOLINON	G_P_SOL			W_ATHENS
M_GPS_2_1	Μηχάνημα ΓΠΣ 2.1	G_P_SOL	EXTRUDER_A		W_ATHENS
M_GPS_2_2	Μηχάνημα ΓΠΣ 2.2	G_P_SOL	EXTRUDER_A		W_ATHENS
EKSARTIMA_1	EKSARTIMA MIXANIMATOS 2.1	G_P_SOL	M_GPS_2.1		W_ATHENS

ADAPTIT and IBM Maximo Solution

- Type and timing of maintenance works for each machine
- **Contracts made with equipment maintenance companies**
- The **staff** of the company that **deals with machine repairs**, the **Skills** they possess and their **cost**.
- The **maintenance plan** is created and monitored

The screenshot displays the IBM Maximo Asset Management Work Supervision interface, organized into three main panels:

- Approve Work (8):** Contains three work items:
 - Relocate Guard Rails...** (Priority 2): CM 1000, Location: Boiler Room Reciproc..., Asset: Reciprocating Compress..., Scheduled Start: 3/30/16 3:00 ...
 - Remove old pole** (Priority 3): 1043, Location: Electrical Service Pol..., Asset: Electrical Service Pole #..., Scheduled Start: *Unspecified*
 - Transfer cables from ...** (Priority 3)
- Assign Owner (14):** Contains two work items:
 - problem at 13170** (Priority 2): CM 30067, Location: #1 Liquid Packaging Line, Asset: Top Sealer System, Scheduled Start: 8/6/01 2:29 PM, Approved
 - 11200 prob work** (Priority 2): CM 31250, Location: HVAC System- Main ..., Asset: HVAC System- 50 Ton C..., Scheduled Start: 11/26/01 11:..., Approved
- Monitor Work (9):** Contains two work items:
 - 13170 problem** (Priority 2): CM 30058, Location: #1 Liquid Packagin..., Asset: Top Sealer System, Actual Start: 10/20/01 2:29 ..., Scheduled Finish: 10/21/01 ..., Approved, Assigned to Sam Murphy
 - problem at 13120** (Priority 2): CM 30065, Location: #1 Liquid Packagin..., Asset: Bottom Sealing System, Actual Start: 8/16/01 2:29 P..., Scheduled Finish: 8/17/01 2..., Approved, Assigned to Sam Murphy



ADAPTIT and IBM Maximo Solution

Mobile application for technicians

Utilizing special development, there is also an **easy and quick way of registering the work done** by the company's staff via mobile.

SOLIN Καταχώριση Εργασιών

Επιλογή Κτιρίου
Παρακαλώ επιλέξτε το κτίριο στο οποίο εργαστήκατε.
Μετά την επιλογή σας, παρακαλώ πατήστε Συνέχεια.

Κτίριο Α

Κτίριο Β

Κτίριο Γ

Συνέχεια

SOLIN Καταχώριση Εργασιών

Επιλογή μηχανήματος
Παρακαλώ επιλέξτε το μηχάνημα στο οποίο εργαστήκατε.
Μετά την επιλογή σας, παρακαλώ πατήστε Συνέχεια ή το μενού πάνω αριστερά για έναρξη από την αρχή.

Μηχάνημα 2.1

Μηχάνημα 2.2

Μηχάνημα 2.3

Συνέχεια

SOLIN Καταχώριση Εργασιών

Τύπος εργασίας
Παρακαλώ επιλέξτε τον τύπο εργασίας που επιτελέσατε στο μηχάνημα.
Μετά την επιλογή σας, παρακαλώ πατήστε Συνέχεια ή το μενού πάνω αριστερά για έναρξη από την αρχή.

Προληπτική συντήρηση

Επιδιόρθωση βλάβης

Συνέχεια

ADAPTIT and IBM Maximo Solution

Mobile application for technicians

Upon completion of the entry in the mobile device, a completed Work Order is being registered in Maximo automatically regarding the specific asset with the work duration that was selected.

SOLIN Καταχώριση Εργασιών

Επιλογή Μονάδας
Παρακαλώ επιλέξτε τη μονάδα στην οποία εργαστήκατε.
Μετά την επιλογή σας, παρακαλώ πατήστε Συνέχεια ή το μενού πάνω αριστερά για έναρξη από την αρχή.

Extruder

Κεφαλή

Διαμορφωτής Σπιράλ

Κοπτικό Μηχάνημα

Ανέμη

Συνέχεια

SOLIN Καταχώριση Εργασιών

Ημερομηνία εργασίας
Παρακαλώ επιλέξτε ημερομηνία εργασίας.
Μετά την επιλογή σας, παρακαλώ πατήστε Συνέχεια ή το μενού πάνω αριστερά για έναρξη από την αρχή.

Thu, Jul 12 2018 **Σήμερα**

< July 2018 >

Δ	Τ	Τ	Π	Π	Σ	Κ
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Συνέχεια

SOLIN Καταχώριση Εργασιών

Σχόλια
Καταχωρίστε προαιρετικά κάποια σχόλια για την εργασία που επιτελέσατε (μέχρι 250 χαρα).
Επειτα, παρακαλώ πατήστε Αποστολή στο Maximo ή το μενού πάνω αριστερά για έναρξη από την αρχή.

Ολοκλήρωση !

Θέλετε να αποστείλετε τις καταχωρίσεις σας στο Maximo;

Όχι Ναι

Αποστολή στο Maximo

So what comes after preventive maintenance ?

- Reduce downtime by up to 50%
- Eliminate up to 70% of costly breakdowns
- Out-of-the-box reports regarding works per machine, per technician, per external partner.
- Detailed on-line information regarding each machine, its location, what work has been done on it, what works are going to take place.
- Full cost monitoring regarding the repairs, the suppliers and the subcontractors.
- Creating scenarios and policies for cost cuts optimizations.

New Generation Asset Management Strategy

New Generation Asset Management Strategy

- IoT data eliminates the guesswork from asset maintenance
- Blockchain brings together business networks like never before
- Augmented reality enables a new generation of workers
- The user experience can make you or break you
- Mobility is no longer a “nice to have”, but rather a “must have”



Augmented reality Case

Top AR uses cases for Asset Management and their Operational Benefits

1. Productivity Gains through Hands-Free Maintenance
2. Reduced Errors and Response Times using Remote Expert Advice
3. Improved Safety and Compliance using Contextual Overlay of Information
4. Faster and Real Time Training based on Simulation



Partner with DAQRI - Leader in Industrial AR

- Innovative, large patent portfolio for Industrial AR
- Industrial Client Base - O&G, Utilities, CPG, Manufacturing, Government, Construction
- DAQRI Smart Helmet and Glasses
 - Ruggedized device; Safety Certifications for Industrial Use
 - Thermal Imaging, Depth Sensor, Wide Angle Camera with Powerful Processor

Thank You!

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