

# Actian Enterprise Monitoring Appliance

## Monitor, Alert, Fix

### Key Benefits

- Proactive Monitoring and Alerting
- Reduce Incidents
- Improve Stability and Availability
- Improve Performance
- Custom Setup
- Full System Visibility
- Graphical Interface

### Proactive Database Monitoring and Alerting

The Actian Enterprise Monitoring Appliance (EMA) is a single interface for monitoring your Actian X and Ingres environments. The EMA can be configured to monitor and display a significant number of database, operating system, network and HVR data points. An EMA can proactively monitor multiple servers, installations and databases around the clock, providing early warnings and alerts so you can quickly resolve problems or prevent them from occurring.

### Performance and Trend Analysis

The EMA includes a performance module to quickly identify problems which can help maximise system efficiency by fine tuning the Actian X and Ingres configurations and database layouts. A data repository within the EMA facilitates fault investigation, capacity planning, retrospective analysis and SLA reporting.

### Service Checks

The EMA includes a comprehensive set of Service Checks:

#### Availability:

- Server\*
- Installation\*
- Database\* (\*suitable for uptime and SLA reporting)

#### Performance:

- Long running query (LRQ) detection
- DMF cache analysis
- Locking analysis
- Logging analysis
- Dbmsinfo analysis (CPU, DIO, BIO)

#### Backup:

- Checkpoint check (validity, existence and freshness)

#### Network:

- Latency check

#### Action X and Ingres:

- Ingres processes check
- Transaction log file check
- User session count
- User connect count (GCC/GCD)
- Locking check - time based
- Locking check - percent based
- Error log file check
- License check

#### Operating System:

- CPU check
- RAM and swap memory check
- Disk usage check
- Disk I/O performance

#### HVR:

- HVR error log file check
- Scheduler and Job check

#### Status Reports:

- Checkpoint, journal, disk usage, error log file

# Quick Install

EMA is supplied as a Docker image and an installer packaged as a tar file. The minimum footprint is 1 (Docker) processor, 1 GB (Docker) ram, and 16GB storage for configuration and history.

# Custom Setup

The EMA is highly configurable. Alerts are sent when defined thresholds are breached. Bespoke plugins can be added to monitor specific activity e.g. batch job completion, daemon processes.

# Service Level Agreements and Escalations

The EMA can accommodate Service Level Agreements (SLAs) and can be integrated with IT Service Management software. It records and can report system availability and uptime statistics.

# Graphical Interface

A single graphical interface can view your entire estate. The example below shows the Services screen, showing just 1 server (3-EMA), 1 installation (II) with 1 main database (emadb) with a few Service drill downs:

**Current EMA Network Status**  
Last Updated: Thu Dec 8 14:59:29 GMT 2016  
Loaded every 2 seconds  
Nagios® Core™ 4.0.8\_EMA - www.nagios.org  
Logged in as emadb  
- Notifications are disabled

**Host Status Totals**  
Up: 1, Down: 0, Unreachable: 0, Pending: 0  
All Problems: All Types: 0

**EMA Service Status Totals**  
Ok: 24, Warn: 1, Unkn: 0, Critical: 0, Pend: 0, DepW: 0  
All Problems: All Types: 1

**EMA Service Status Details For All Hosts**

Host	Service	Status	Last Check	Duration	Attempt	Status Information
3-EMA	Ingres II DBMS Processes	OK	08-12-2016 14:59:25	0d 11h 58m 22s	1/1	Correct number of Ingres servers running
	Ingres II Daily Reports	OK	08-12-2016 08:05:00	84d 2h 28m 15s	1/1	Reports consolidated and distributed
	Ingres II Installation Availability	OK	08-12-2016 14:59:25	0d 11h 58m 22s	1/1	Available
	Ingres II License	OK	08-12-2016 14:59:25	1d 3h 20m 29s	1/1	License is valid (expiry in 258 days)
	Ingres II Log errlog.log	OK	08-12-2016 14:59:26	1d 2h 5m 47s	1/1	No significant Ingres errors reported
	Ingres II Perf DMF Cache	OK	08-12-2016 14:54:33	1d 2h 4m 55s	1/1	HR ratio: Private (34271): 8K: 59%
	Ingres II Perf DMF Info	OK	08-12-2016 14:54:34	1d 2h 4m 55s	1/1	DBMS IDs: (34271)
	Ingres II Perf Locking	OK	08-12-2016 14:54:34	1d 2h 4m 55s	1/1	Lock waits: 19899 Lock escalates: 0
	Ingres II Perf Logging	WARN	08-12-2016 14:54:34	1d 2h 4m 55s	1/1	Log buffer utilisation: 3%
	Ingres II Transaction Log File	WARN	08-12-2016 14:59:25	0d 0h 0m 4s	1/1	Transaction log file usage: 51%
	Ingres II User Connections	OK	08-12-2016 14:59:24	0d 11h 58m 21s	1/1	GCC connections: 0 GCD connections: 0
	Ingres II User Sessions	OK	08-12-2016 14:59:24	0d 11h 58m 23s	1/1	Active sessions: 2 System threads: 9
	Ingres II emadb Availability	OK	08-12-2016 14:59:25	0d 11h 58m 44s	1/1	Available
	Ingres II emadb Checkpoint	OK	08-12-2016 14:59:25	0d 11h 58m 44s	1/1	Last checkpoint (0735) is valid
	Ingres II emadb LRO	OK	08-12-2016 14:59:26	1d 6h 59m 24s	1/1	T=1 S=0 U=1 I=0 D=0 (Updated: 14:59 GMT)
	Ingres II emadb Lock Waits - Percent Based	OK	08-12-2016 14:59:23	0d 11h 58m 43s	1/1	Waiting sessions: 0 Active sessions: 1
	Ingres II emadb Lock Waits - Time Based	OK	08-12-2016 14:59:23	0d 11h 58m 43s	1/1	No waiting locks identified
	Ingres II lidbdb Checkpoint	OK	08-12-2016 14:59:24	0d 11h 58m 22s	1/1	Last checkpoint (0188) is valid
	Ingres II Imadb Availability	OK	08-12-2016 14:59:26	0d 11h 59m 10s	1/1	Available
	Network Latency to 2-whana01-rhwm02	OK	08-12-2016 14:58:39	15d 18h 53m 31s	1/1	Network latency: 0.12 secs
	OS CPU Load	OK	08-12-2016 14:57:32	1d 2h 40m 55s	1/1	CPU load 15 minute average: 3.51
	OS Disk Perf	OK	08-12-2016 14:54:34	462d 0h 4m 16s	1/1	Disks: 1
	OS Disk Usage	OK	08-12-2016 14:59:25	58d 1h 16m 36s	1/1	Disks OK: 3
	OS Free RAM Memory	OK	08-12-2016 14:59:25	44d 2h 52m 9s	1/1	RAM usage: 24% (925 of 3832 MB)
	OS Free Swap	OK	08-12-2016 14:57:25	682d 1h 8m 35s	1/1	Swap usage: 0% (23 of 3967 MB)

**Total values**  
Request lock: 3152886224  
Escalate: 30  
Lock wait: 26877087  
Deadlock: 0  
Deadlock search: 7511  
LKB highwater: 1100  
Lock resource utilisation: 3%

**Total values**  
Transactions: 316587913  
Log write I/O's: 62162207  
Log writes: 75093725  
Split buffer wait: 85736  
Free buffer wait: 6803  
Kbytes written: 11597498  
All logwriters busy: 1661913  
Max write queue length: 35  
Max write queue count: 2367  
Buffer utilisation: 4%  
Max queue: 0%  
Inconsistent db: 0  
Logfull stall: 1

Database = emadb, Window = 06/02/17 08:00 to 06/02/17 10:46, Interval = 1 second(s)  
Limit = 15 queries, Distribution = 'none'  
1 10:46 emadb ingres 00007F1C7D3AA580 57601 modify pw\_temp1\_3 to btree on id  
1 10:46 emadb ingres 00007F1C7D3AA580 24755 update pw\_temp1\_3 set name = 'Walter Jones' where name = 'John Smith'  
1 10:46 emadb ingres 00007F1C3D51FC0 41431 modify pw\_temp1\_2 to btree on id  
1 10:46 emadb ingres 00007F1C3D51FC0 24789 update pw\_temp1\_2 set name = 'Walter Jones' where name = 'John Smith'

For more information and to discuss your needs, please contact Actian Services at [services@actian.com](mailto:services@actian.com)



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