

# FabWorks-iMS

Following the success of FabWorks, Edwards is pleased to introduce FabWorks-iMS Intelligent Monitoring System which offers enhanced capability in a single package. FabWorks-iMS improves fab efficiency and delivers cost savings by constantly monitoring networked equipment and providing the user with information to help maximise equipment uptime.

FabWorks-iMS is offered as a licensed package that is often integrated with a service contract. A FabWorks-iMS installation comprises four main elements:

- Network Hardware and Commissioning
- FabWorks-iMS Server and Software Package
- FabWorks-iMS Maintenance Support
- Options including Edwards Advanced Diagnostic Services (EADS)

The Edwards Advanced Diagnostic Services (EADS) option helps to predict process induced equipment issues before they occur, thus reducing down-time and cutting costs.



## Features and benefits

- Increased uptime
  - EADS can increase equipment uptime and reduce scrapped wafer batches by helping to avoid mid-process equipment stoppages
- Peace of mind
  - AutoPager can contact user(s) by e-mail, SMS or pager when an alert occurs, ensuring nothing gets overlooked
- Cost effective
  - FabWorks-iMS can justify its installation price in less than 12 months
- Information at your fingertips
  - FabWorks-iMS can monitor up to 2,000 items of equipment and can link to any LAN; only requires Internet Explorer 8 (or above) to view
  - FabWorks-iMS provides real-time and historical data and can generate standard or customised reports

## Hardware and commissioning

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Hardware includes items required to network equipment to the FabWorks-iMS server. Ethernet connectivity is available on turbomolecular pumps, drypumps and other newer equipment. FabWorks-iMS can simultaneously support networks of both LonWorks and Ethernet devices.

Scope: Pump Network Interface Modules (NIMs), Abatement System Interface Modules (SIMs), cables, router housings, network connectivity checks.

Items are sold individually.

## FabWorks-iMS server and software

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A server comes pre-installed with FabWorks-iMS software allowing up to 2,000 items of Edwards equipment to be monitored via any PC connected to the Local Area Network. The package includes the first year's FabWorks-iMS maintenance and support ensuring optimum network performance and peace of mind.

Included in the package:

- Server and Operating System
- MS SQL Server
- Installation and Setup
- FabWorks-iMS software comprising:
  - Equipment Manager
  - Fab Explorer
  - ToolView
  - DataLogger
  - Data Analysis & Reporting Tool (DART)
  - Smart Alerts Manager (SAM)
  - AutoPager
  - Service Facility
  - User Manager
- First year's FabWorks-iMS maintenance and support



FabWorks-iMS Menu Screen

# FabWorks-iMS software - individual applications

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## Equipment Manager

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Allows items on the network to be grouped into logical structures that relate to processes, tools and chambers, making it easy for section leaders to view the status of Edwards equipment.

## Fab Explorer

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Used to view the status and alerts of all equipment on the network to provide an 'at a glance' view and to highlight important events.

## ToolView

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Provides an alternative user interface to Fab Explorer where items are grouped and visually represented according to the layout of chambers on a tool.

## DataLogger

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Allows a user to manage the rate at which sensor data is sampled. This optimises information capture and maintains reliable network operation.

## Data Analysis and Reporting Tool (DART)

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Organises the information captured by DataLogger into standard reports, tables and graphs. Equipment status history and parameters can be tracked and abatement up-time/down-time reports can be created allowing users to assess equipment performance.

## Smart Alerts Manager (SAM)

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Provides alert tracking functionality that enables service users to prioritise maintenance actions. Individual parameter alert thresholds can be configured so that parameter deviations are highlighted only when thresholds are exceeded.

## AutoPager

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Provides remote alert notifications to designated engineers by pager, email, SMS text or RSS feed. AutoPager enables a rapid response to alerts from any location.

## Service Facility

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Provides automated reports on the history of equipment connected to the network. This assists with equipment maintenance tracking and helps improve fab management efficiency.

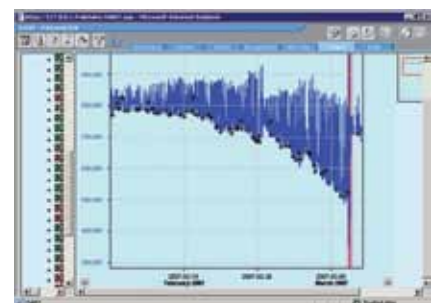
## User Manager

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Controls access to FabWorks-iMS and allows the user to customise access restrictions to any FabWorks-iMS application. This provides security and allows for the creation of personalised views within FabWorks-iMS.



ToolView screen



DART screen example



AutoPager in use

## FabWorks-iMS maintenance

The FabWorks-iMS license package includes the first year's maintenance and support. Renewing the license annually ensures maximum availability of the FabWorks-iMS network and enables users to exploit FabWorks-iMS's full range of capabilities. FabWorks-iMS Maintenance includes support, FabWorks-iMS software upgrades, data and server management.

FabWorks-iMS remote e-diagnostics services (via an E-Link\*) allows for rapid support and training from Edwards system experts. Data and server management is included where an on-site team or E-Link is in place.



Direct access to FabWorks-iMS experts via E-Link

## Options

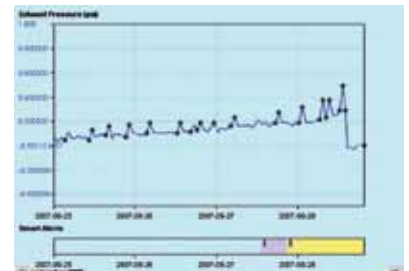
FabWorks-iMS functionality can be extended to significantly reduce fab operating costs and provide higher value services.

### Edwards Advanced Diagnostics Services (EADS)

Edwards Advanced Diagnostics Services (EADS) offers analytical tools, algorithms and reports that automate graphical analysis to identify tell tale fingerprints of process related issues. These services can significantly reduce costs and improve productivity by:

- Minimising the number of scrapped wafer batches and unplanned downtime
- Providing optimised maintenance costs by servicing equipment when necessary

Using an E-link\*, FabWorks-iMS experts can expedite the set up, commissioning and ongoing maintenance of EADS, enabling faster deployment and support.



EADS gives advanced warning of process related issues

### Customised Reports

Data can be manipulated, calculations performed and the resulting information presented according to specific customer requirements.

### Open Connectivity Interface (GEM/SECSII)

FabWorks-iMS GEM/SECSII interface allows customers to remotely access FabWorks-iMS information, which enables tool/fab engineers to investigate the status of equipment connected to a specific tool or running a particular process. FabWorks-iMS GEM/SECSII significantly improves fab management and communications efficiency.

\* E-Link is remote service provided by way of a secure network connection to the FabWorks-iMS server. Please contact us for details.

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