

*...the solution to web enabled  
metrology logbooks*

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# INTRODUCTION

Record™ is one part of a web enabled metrology asset management suite developed by Ambrit Ltd. in cooperation with METCO Services Ltd. The five products in the suite streamline the management of flow measurement systems used in the Oil and Gas industry, supporting system inventory, event logging, instrumentation calibration and scheduling, metrology audits, and a library of support manuals and system drawings. The suite is supplemented by a sixth application, Acquire™, which provides high performance web enabled data acquisition and control.

Record™ replaces the conventional paper based logbooks used to record events relating to flow measurement and control systems.

Record™ is a web enabled relational database which links a system inventory database to a logbook database of process, system and maintenance events.

Operations, technicians and management can access metrology logbook data in real-time using private networks or worldwide through a secure Internet connection. The accurate recording of process and system events relating to complex measurement and control systems can contribute to enhanced safety and efficiency leading to positive cost benefits.



# EVENT RECORDING

A conventional web browser, using secure TCP/IP protocols over private or Internet networks, is used to interface with the Record™ server.

Operators and technicians can record general and process/instrument specific events against equipment as they occur. Event specific templates are used to ensure all the relevant detail is recorded and all entries are automatically stamped with the date and time and the author's name.

The standard data entry templates cover a wide range of metrology related events. Custom templates can be created and included in the logbook template list for use in specialised situations.

The logbook opens as a chronological list of events for the whole system, with a single line entry for each event. Selecting a line entry shows the full details for that event.

The data can be filtered using the hierarchical navigation panel or search facility to create subsets of event records. Individual logbook entries and subsets of data can be previewed and printed directly from Record™.

Events entered into the logbook cannot be deleted. If an event is entered erroneously it can be struck out and is recorded in the logbook with a line through it.

Event data can be supplemented with file attachments, including scanned document files, digital photo files, PDF document files and video files. The file attachments are recovered with the record and can be viewed through the browser.

Record™ provides a platform from which data relating to the management of measurement and control systems can be shared, ensuring those involved have access to key information as events unfold.

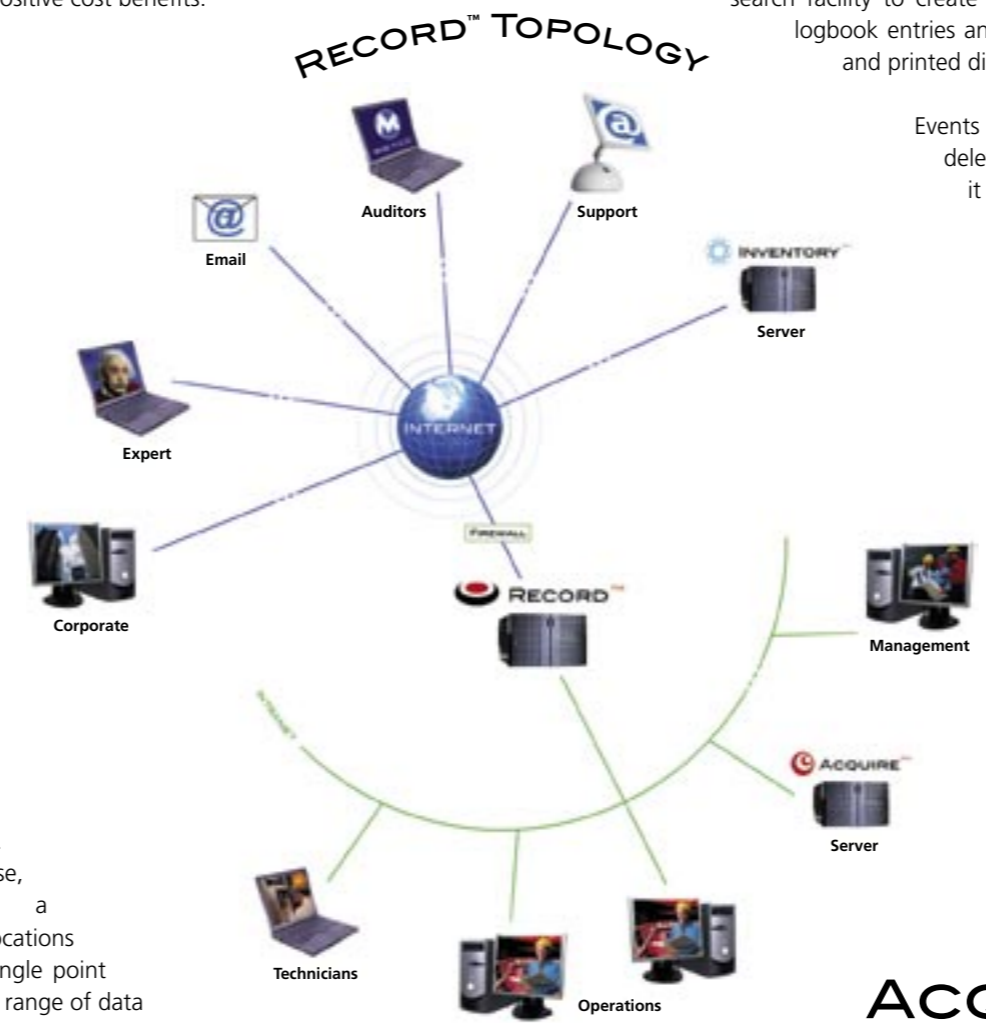
# SYSTEM INVENTORY

The Record™ system inventory database is a concise record of the equipment used in a system and its location. This catalogue of equipment can be maintained providing a definitive index against which process, system and maintenance events can be recorded.

The structure of the system inventory is represented using an intuitive hierarchical navigation panel. Information on individual locations and equipment can be recalled instantly by selecting the appropriate item from the navigation panel.

The Record™ search facility enables logbook data to be filtered using multiple criteria, including equipment type, keyword, date range and author.

The data in the system inventory is generic and can be shared with any of the other products in METCO's web enabled metrology asset management suite. This generic database, Inventory™, provides a centralised record of locations and equipment and a single point of entry for access to the range of data (historical detail, equipment performance, calibration records, manufacturers information etc.) recorded using the METCO metrology asset management products for a single system or multiple systems in many locations. Inventory™ can also be extended to manage data from third party sources including PI and SAP.



▲ Equipment List

► Equipment Detail



# ACQUIRE™ INTEGRATION

Record™ can be integrated with Acquire™, Ambrit's web enabled data acquisition and control system, to supplement the manual entry of event data. Acquire™ can "write" events determined by the measurement and control system directly into Record™. All events are authenticated with date, time and meter readings and interlaced chronologically with the manually entered events.







....the solution to web enabled metrology logbooks

Record™ extends the boundaries of Internet and database technologies to deliver true web-enabled metrology asset management.

In today's increasingly regulated world, the requirement to formally document the operation and maintenance of complex process plant systems demands no justification. It is of paramount importance that actions and events can be recorded as they occur and shared with others expeditiously. To meet these requirements METCO Services Ltd., working closely with web database specialists Ambrit Ltd., has produced a web enabled logbook, Record™.

Electronic logbooks are not new, but most are simply digital copies of a paper version. Record™ is different, taking advantage of modern relational database technology and the power of the Internet to provide continuity of information across time and distance to ensure that key event data is available to all personnel who need to interact with plant and process.

Operating as a stand-alone logbook Record™ creates an interactive environment where management, operations and technicians can collect and share key information regardless of location. Events and actions are recorded using automated templates and context specific prompts and menus to ease the record keeping process to avoid operator error. Recorded information is automatically date, time and process data stamped supported by comments. Logbook audits can be performed locally or remotely, reducing on-site audit time.


Sophisticated search tools enable detailed analysis of plant and process records. Reports can be exported automatically to other systems or emailed with attachments in most popular file formats.

The Record™ system inventory database is powered by Inventory™, a generic database of locations and equipment that can be shared with the other products in the METCO suite to extend event data to other aspects of metrology asset management.

Record™ can be configured online, enabling support to be extended through the Internet allowing METCO to maintain the Record™ logbook environment remotely.

METCO's web enabled metrology asset management suite is based on Ambrit's well established Webspring™ technology providing a proven, dependable foundation for secure real time database interaction on Internet or Intranet networks.

..... Representative - South America .....

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## LOGBOOK FEATURES

- Manual event recording
- Automatic process event recording
- Date, time and process data stamping
- Entry strike-out
- Intelligent data filtering
- Powerful search facilities
- Customisable screens and report forms
- Video/sound event records
- File or scanned document attachments
- Printer friendly reports

## WEB BASED

- Browser access using Internet Explorer® 6.0
- Secure Internet or private Intranet networks
- Intuitive navigation
- Fully HTTP 1.1 standard compliant
- Integration with Acquire™
- Integration with Inventory™

## SECURE

- Integrated 128 Bit SSL Encryption
- Digest Authentication for secure password control
- Multi level user access
- Synchronised, real time remote back-up and archive

## GRAPHIC RICH INTERFACE

- Intuitive navigation
- Easy to use menu driven interface
- Prompted response handling
- Context specific input fields and pull down menus
- Customisable screens and report forms

## METCO - Metrology Asset Management

RECORD™ is one of the components in a suite of web enabled metrology asset management applications:

**INVENTORY™**  
Equipment and location database

**INSPECT™**  
Audit management and reporting

**CALIBRATE™**  
Calibration schedule

**ARCHIVE™**  
Documentation management



All components are interactive and web enabled, sharing data and events to provide a complete solution to metrology asset management. Further information on Record™ is available from METCO's web site:

[www.emersonprocess.com/metco/record](http://www.emersonprocess.com/metco/record)