

*...the solution to web enabled  
audit management and reporting*

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# INSPECT™

A metrology audit can be complex: a series of tasks relating to a variety of engineering disciplines in multiple locations must be distilled into a single report. Inspect™ consolidates the audit process, using leading edge web-enabled database technology to collect and distribute audit data and provide real time interaction between system managers and auditors.

The topology diagram illustrates the way that Inspect™ allows the different parties involved in the audit process to interact. The Inspect™ server is hosted and supported by the auditing company on their private network.

The audit manager and auditors can access the audit data locally through the Intranet or remotely through a secure Internet connection. Security is provided by a hardware firewall, augmented by Inspect's™ restricted access privileges and password digest authentication and further protected with 256 bit SSL encryption.

The diagram also illustrates two client environments. Both have independent private networks and Internet connection to the Inspect™ server, enabling system managers, operations and technicians worldwide to interact with the audit process. Remote access through the Internet also enables third parties – auditors in the field, experts and government agencies – to access the audit data when appropriate.

## AUDIT CREATION

A measurement coordinator is often responsible for several metering stations. Using Inspect™ they can manage their own audit programme centrally, setting up new audit requirements by hand, from previous audits or from generic templates when required.

Once the audit is set up, the lead auditor is automatically notified of the new audit details by email and appoints an auditor to implement the audit. Inspect™ emails this auditor with the details needed for them to gain access to the Inspect™ server.



▲ Audit Overview



◀ Audit Entry

Audit Finding ▶



The auditor then downloads the audit requirements to their laptop computer and goes on site to perform the audit. Working offline, they enter their findings, comments and recommendations against each audit item, supporting their findings with file attachments such as pictures, video and other documentation.

At the end of the visit, the initial audit findings are transferred back to the Inspect™ server from the auditor's laptop computer. The audit data can then be viewed online, allowing the auditor and other members of the audit team to collaborate with each other to review the findings and add comments as required. When the review is complete the interim audit report is made available to the lead auditor.

Finally, the lead auditor can review the interim audit report, making alterations and adding covering comments as appropriate. Once the review is complete the final audit report is issued and made available to interested parties.

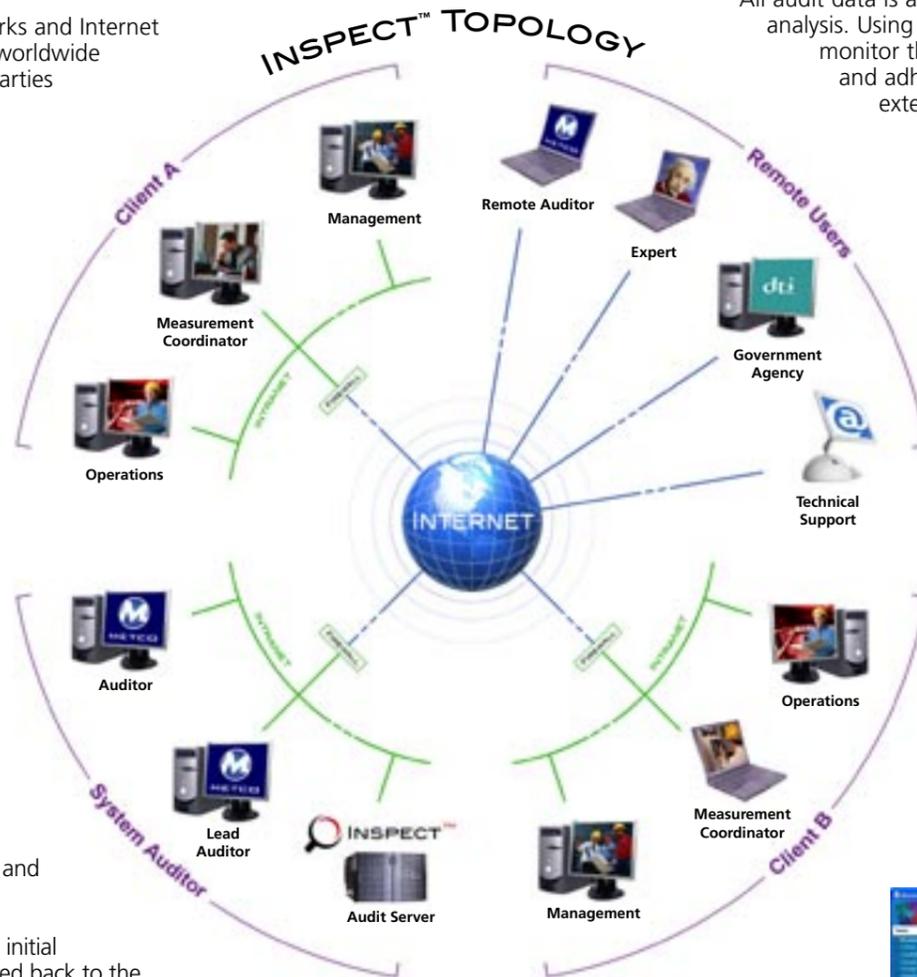
Each step of the audit process is tracked by an automated revision control mechanism, ensuring that no data is lost and a full revision history is maintained.

## THE AUDIT

Over time, Inspect™ builds a library of every audit report that has been issued on every station. Users with the correct levels of access can log on to the Inspect™ server and view any audit report that has been issued. Audit reports can also be downloaded and viewed as Adobe® Acrobat® PDF documents.

Inspect™ provides the station manager with a list of outstanding findings for each audit report. Outstanding findings can then be addressed individually and any remaining outstanding issues are automatically carried forward to the next audit report.

All audit data is archived on the Inspect™ server for future analysis. Using just a web browser, managers are able to monitor the individual performance of equipment and adherence to operating procedures over extended time periods.



▲ Audit Overview



Audit Findings ▶



View reports as PDFs ▶

◀ Audit Reports List

Inspect™ provides powerful tools for filtering archived audit data. Specific reports or individual findings can be located quickly using Inspect's™ intuitive search interface.

## INVENTORY™

At the heart of Inspect™ is Inventory™, an asset register which maintains a record of all the equipment in the system, including equipment location and service status.

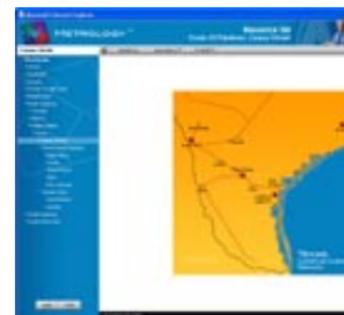
This equipment list can also be shared with the other products in the suite, (Record™, Calibrate™, and Profile™) and integrated with Acquire™, Ambrit's data acquisition and control system. Data from third party systems can be linked with the Inventory™ portal to provide a single world wide window into the metrology data.

An intuitive graphical interface guides the user through the database to pinpoint a specific item of equipment. Once the equipment is selected it is possible to view source data from any associated products in the metrology suite.

Inventory™ enables the index function to be extended to servers in other geographical locations via local intranet networks or world wide through the Internet.



▲ Equipment List



◀ Intuitive Navigation



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## Audit management and reporting through the World Wide Web.

Performing a single audit of a process or installation might be considered to be a relatively straightforward task. However, when many different assets, processes or organisations require auditing on a regular basis, often by more than one auditing company, the audit management can become complex.

Where multiple parties have an interest in the outcome of the audit, the job of managing the process and the dissemination of audit data becomes a time consuming and demanding responsibility. The requirement for increased accuracy and accountability has continued unabated but the management tools for rapid, interactive audit reporting have not kept pace. Until now!

METCO Services Ltd. have many years experience conducting and managing audits for some of the world's largest organisations. Ambrit Ltd. are developers of leading edge web database solutions. Together we have created Inspect™, a web based audit management and reporting solution. Inspect™ is one of four web enabled metrology asset management applications created by METCO and Ambrit.

Inspect™ creates a secure interactive environment where auditors, audit managers and operations personnel across the world can share key audit information in real time regardless of location.

Using a standard web browser on the Internet or private Intranet networks Inspect™ enables audit managers to maintain control of the complete audit process, from initiating the audit criteria to the issue of the final audit report and management of corrective actions.

Audit criteria can be entered manually or imported from predefined templates or previous audits and then downloaded to an auditor's computer. As the audit proceeds the auditor can enter the findings, include comments, and recommend corrective action, responsibilities and close out dates. The auditor's findings may be supported by images, scans or video file attachments as necessary.

When an audit revision is completed, the findings are automatically uploaded to the server where they can be analysed using Inspect's™ powerful filtering and search tools. Inspect™ uses built in revision control procedures, alert settings and automated email mechanisms to advise audit managers when report data is available for review and alert key personnel to ensure that close out dates are met.

Once findings have been reviewed and modified if necessary, the audit is signed off then a formal audit report is published on the Internet for viewing by interested parties, authorities, clients and those given the responsibility to close out corrective actions. Reports and summaries can also be emailed to selected recipients.

For added security Inspect™ can archive remote, synchronised copies of criteria and findings for future reference.

## AUDIT FEATURES

- World-wide real time, secure access
- Multiple installations/multiple stations
- Audit schedule for multiple assets
- Custom audit criteria templates
- Intelligent data filtering
- Powerful search facilities
- Sophisticated audit analysis
- Post audit review and sign off controls
- Interactive comments
- Online revision control
- File or scanned document attachments
- Video/sound file attachments
- Centralised repository of audits

## WEB BASED

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

## SECURE

- Integrated 256 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

## REPORTS

- Audit criteria, audit detail, findings and dispensations
- Conventional, full format, printed final reports
- Customisable screens and report forms
- Automated e-mail distribution

## METCO - Metrology Asset Management

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

**INVENTORY™**  
Equipment and location database

**RECORD™**  
Inventory and event logbook

**CALIBRATE™**  
Calibration schedule

**PROFILE™**  
Data collection and reporting



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

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



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