



WITHOUT A TRACE

**How to solve the
metrological
traceability mystery**

Traceability is an indispensable part of any quality management system

It's an essential topic in any audit of a quality management system, whether it's a NATA assessment or a certification audit. It enables tracking back to a point of origin through to the point of release or use.

Just as any good detective will tell you, tracing back to the last known point of reference can be difficult and tortuous. It's not at all like those crime shows where it's all wrapped up in 47 minutes.

But it does involve some investigations and not necessarily of a crime scene (although after sweating through those difficult questions by the auditor, you may wonder why you didn't pursue that acting career instead of doing science...).

There's one particular form of traceability that can leave people a bit puzzled and wanting when it comes to their quality management system.

What is metrological traceability?

Metrological traceability is about measurements and how they compare to other measurements. It helps us to understand what the results mean in a broader context.

It is not the same as other forms of traceability in a lab. Samples and records or paperwork moving through the system do require traceability. However, those are subject to different requirements relating to sample and records traceability.

In metrology (the science of measurement), traceability is widely defined as the

'property of a measurement result whereby the result can be related to a reference through a documented unbroken chain of calibrations, each contributing to the measurement uncertainty'. You'll see the same definition in NATA's Metrological Traceability Policy document

Labs use reference equipment or standards to calibrate samples or items. This helps labs realise metrological traceability of their results. The reference equipment and standards are usually traceable to a national standard.

Your lab may not need traceability to SI units. In fact, depending on what you're testing or calibrating, it may not be possible. However, you still need to demonstrate measurement traceability of your lab's results. This helps to achieve appropriate comparability of results, depending on your client's needs.

Unravelling the mystery

Our half-day workshop, **Without a Trace**, is for people who make decisions about calibrations, use of equipment and reference materials. Anyone involved in quality assurance will also find it useful.

As a participant you'll refresh your knowledge of traceability and develop appropriate strategies for ensuring the traceability of test and calibration results. You'll learn how to show you've met NATA Accreditation requirements during an assessment.

The aim is for laboratory staff to intelligently evaluate the traceability of calibrations and reference materials. Where needed, they can also respond to the requirements of ISO 17025 and NATA's Metrological Traceability Policy.

In this workshop you will:

- * Learn what metrological traceability really means in a practical sense and how it relates to your lab
- * Be working through your methods, pulling them apart and determining just what's required – and what isn't
- * Discuss the interface of the customer's needs and your lab's traceability capabilities
- * Learn how to demonstrate metrological traceability to a NATA assessment team

To ensure this workshop is of immediate and practical use, we'll work through a method from your lab, as well as some real-world worked examples.

We won't leave you high and dry

We know that there's usually nagging questions after any training and we check in with you a couple of weeks afterwards to make sure you're on track with your traceability investigations.

Plus we'll help you solve those particularly difficult 'crime scenes' where the pieces of the traceability puzzle are more difficult to put together.

Head to our [training page](#) to read more or email info@masmanagementsystems.com.au for a confidential discussion.

Remember, you don't have to do this alone!