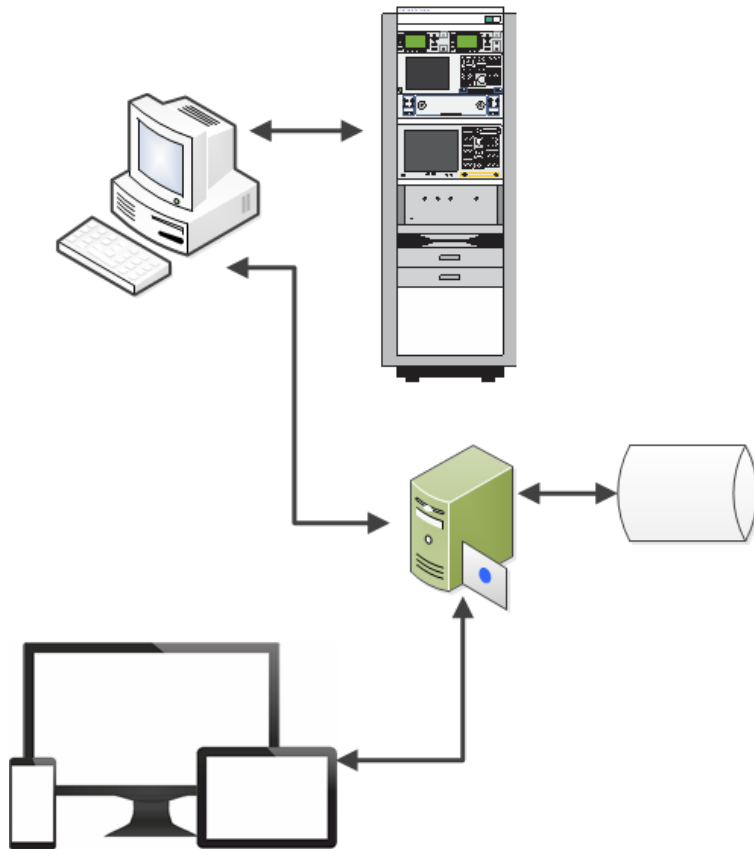


Measurement Information Infostructure & Metrology.NET[®] Standard Definition

Overview of Metrology.NET®



**Data Point Centric Automation
w/ Detailed Test Point Metadata**

**Standardized Communications
using REST & JSON (or XML)**

System-of-Metrology-Systems

Any Programming Language

Any Database

Any Operating System

Any Browser (PC or Mobile)

Any Reporting Tool

I know, I said all the details are in the paper. I Lied. Sue me.

Schema Objects

(Not Exhaustive)

Text Styles Page Numbers Test Process Annotations Data Validation Rules
Border Widths Integer Values CMCs Boolean CMC Selectors
Dates Paper Sizes Page Margins Footers Alignments Units of Measurement
People Addresses UOM MathML Strings Formula Variables Test Technique Citations
Web Page URLs Foot Note Annotations Measurement Quantities Phone Numbers Headers
Email addresses Symbolic Formulas UOM Symbols
Logos Numeric CMC Range Qualifiers for All Variables Floating Point Values
Image URLs Text Colors Hyperlinks Variable Definitions UOM Conversion Factors
Images Paragraphs Text Backgrounds Formula Result Definitions Foot Notes
Document Tables Numeric CMC Selector Variables (not appearing in CMC formula)
Table Rows Border Colors Equipment Types
Table Cells Fonts Column Definitions Paragraph Spacing
Border Styles Cell Vertical Alignments Cell Content Alignments Table Borders
Image Heights/Widths Technology Categories

SOA Data Organization

Standards Defined by Metrology.NET®

1. Custom Accreditation Body SOA Templates
2. Accredited Laboratory Business and SOA Boiler Plate
3. CMC Section Data Structure
4. CMC Data Validation Rules
5. Measurement Quantities ⇔ Unit of Measurement



Multiple Data Sources and Templates
Merged into a Final SOA Document

Units of Measure Editor

<http://testsite2.callabsolutions.com/UnitsOfMeasure/index.html>

Available Online

Users can edit & expand our
Units of Measure Database

Resubmit for acceptance into the
Standard

The screenshot shows the 'Units of Measure Editor' web application. At the top, it displays 'UOM_Database.xml Source' with options to 'Get from Server' or 'Load Locally:'. Below this is a 'Filter by category:' dropdown set to 'electrical' and a 'Select By UOM:' radio button. The main interface is divided into several sections:

- Append New UOM:** A sidebar containing a list of categories with expandable sub-items. The 'frequency' category is expanded, showing 'gigahertz' and 'kilohertz'. A 'SAVE TO DISK' button is at the bottom.
- Dimensions:** A row of input fields for units: m: 0, kg: 0, s: -1, A: 0, K: 0, mol: 0.
- Base Name:** A text field containing 'hertz' and a 'Symb' field containing 'Hz'.
- UOM Categories:** A list of categories (physical, optical, electrical, work) with '<-remove' and '<-append' buttons.
- Available Categories:** A list of categories (physical, optical, electrical) with a '<-append' button.
- Quantities:** A list of quantities (frequency) with '<-remove' and '<-append' buttons.
- Aliases:** A text field for entering aliases.

A hint at the bottom states: 'HINT: Items in "Available Categories" may be dragged and dropped to the "UOM Categories" editor fields.'

What to Expect Next

Next Actions:

- Define and Build API & REST service calls
- Build Edit Tools
- Build Search Tools
- Work with 10-20 Labs / SOA's
- Bi-weekly Development Meetings
- Progress Demo Mid-Oct
- Unveiling Q1 2017



Questions



Measurement Uncertainties

Uncertainty Budget

[Reset The Budget](#) [+ Add Row](#) Page 1 of 1 30 View 1 - 3 of 3

Source	Type	Nominal	Limits +/-	Units	Dist.	Sensitivity	Uncertainty
Accurac	B	1.0	0.01	V	Normal k=2	1.0	5.000E-3
Resolution	B	0.001	0.001	V	Rectangle k=1.732	1.0	577.4E-6
Repeatability	A	0.0	0.034	V	Normal k=2	1.0	17.00E-3

Save ChangesShow ParametersShow Details

Formula Parameters

Repeatability:	<input type="text" value="0.034"/>	Required	Combined Uncertainty:	17.73E-3
Volts:	<input type="text" value="1"/>	Required	K-Factor:	2
			Uncertainty:	35.46E-3

Re-calculate Uncertainty