

# Sampling



Provides lot-based sampling as well as sub-material sampling at metrology steps

## Overview

In many cases it's not practical to inspect or measure every single lot; and even in an inspection or metrology step, it's not practical to inspect or measure every single unit of a lot. The Sampling module provides the capability to implement sampling strategies by pre-defining 1) which materials must

go through an inspection or metrology step based on time or counters; and 2) which sub-materials to be measured at an inspection or metrology step. Once the sampling strategy is defined, the system will execute and enforce it automatically.

The screenshot shows a software interface for a Sampling Plan. The title is "My Sampling Plan (Active)". Under the "DETAILS" section, the plan is named "My Sampling Plan" with a description of "My Sampling Plan". It is of type "CounterBased" with a counter frequency of 10. The type is set to "Standard" and the universal state is "Active". There are "Refresh" and "Manage" buttons under the "CONTEXT" section. A search bar is present above a table of context information.

ORDER	NAME	DESCRIPTION	CONTEXT
1	Resource	Resource	MaterialResource

At the bottom right of the interface, it shows "Rows per page: 10" and "Page 1 of 1 (1 records)".

Figure 1 Sampling Plan example

## Key Features

- Support for static and dynamic inspection plans, including AQL, supporting:
  - In-process measurements as well as measurements that are performed in different inspection stations (e.g.: a lab)
  - Variable and Attribute results
  - The definition and capture of measurement instruments, ensuring that they are calibrated and that they cover the required range and have the required precision
  - Automatic severity switching rules
- Support for lot-based sampling strategies based on flexible contexts that can be:
  - Counter based (e.g.: every 10th lot of a certain product)
  - Time based (e.g.: one lot from a certain equipment every 8 hours)
- Support for sub-material selection at a metrology step, for example to measure the top, middle and bottom wafers and in that particular sequence. The sub-materials to be measured can be defined manually or by a business rule (system or user-defined).
- Integration with Material Tracking and transparent to the user.

## Benefits

- Improved process control
- Reduction of costs
- Reduction in the opportunity for errors

✔ Post Data to Data Collection

■ LOT-01 (InProcess) / 🏠 MOSRM8HQ (MOSRM8HQ Product) / ● Inspection / 100 Kg

< Width (Variable)

WIDTH (VARIABLE)	
* Sample 1	999 mm
* Sample 2	999.8 mm
* Sample 3	1000.1 mm
* Sample 4	998.8 mm
* Sample 5	1000.4 mm

Last entered value: Width > Sample 5 > 1000.4 mm

Measure the width of the scalpel at the thinnest point.



Width > Sample 5

999	1,000	1,001	
1000.4   mm			
7	8	9	C
4	5	6	Del
1	2	3	OK
+/-	0	.	

Comments:

Cancel
Post

Figure 2 Inspection example