MATRIX PROGRAMMING TRAINING scientaomicron

Enhance functionality and automation of your MATRIX SPM Controller

MATRIX offers powerful capabilities with its rich programming interface. Though MATRIX's functionality is well documented, even experienced programmers may appreciate support to explore the aspects and procedures of the software that are less obvious. This course is intended for people already experienced in using MATRIX with at least basic programming skills who want to take their SPM to new heights.

The training course can be held as a remote training or an on-site training. Participating groups should consist of up to two persons. The size of a single course will not exceed five persons allowing for individual mentoring of each participant. Courses can be held as a single-day basic or two-day advanced training.

Script Manager	- 🗆 X
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8810 40	8
Project STM	"test.mate ×
STM_Basic	function Sampler Z.Sample(sample)
STM_Spectroscopy	<pre>{ trace(sample); }</pre>
	Sampler_Z.Sample = sample;
test.mate	
	function main()
	Sampler_Z.Sample_Period = 0.1; // [s] 1/sampling frequency Sampler Z.Auto Averaging = true; // Enable Auto-oversampling
	Sampler_Z.Enable = true; // Enable Sampler
	3
	function on_abort()
	{ Sampler Z.Enable = false; // Disable Sampler
	Sampler_2.Enable = faise; // Disable Sampler
	<pre>function Sampler_2.Sample(sample)</pre>
	(💿 Script Log
	STM Spectroscopy Sampler Z::sample = 6.9881862875000004e-007
	fu STM_Spectroscopy_Sampler_Z::sample = 6.8569578708333335e-007
	<pre>STM_Spectroscopy_Sampler_Z::sample = 6.7255647124999997e-007</pre>
	STM_Spectroscopy_Sampler_Z::sample = 6.5943386208333333e-007 STM_Spectroscopy_Sampler_Z::sample = 6.4629420833333332e-007
	STM Spectroscopy Sampler Z::sample = 6.3317066749999998e-007
	<pre>STM Spectroscopy_Sampler_Z::sample = 6.2003129624999999e-007</pre>
	ful STM_Spectroscopy_Sampler_Z::sample = 6.0690865958333331e-007 STM_Spectroscopy_Sampler_Z::sample = 5.9376876124999998e-007
TM_AtomManipulation	STM_Spectroscopy_Sampler_2::sample = 5.8064567541666671e-007
TM_AtomManipulation_AuxChannels	<pre>STM_Spectroscopy_Sampler_Z::sample = 5.675061320833333e-007</pre>
uid Errors	STM_Spectroscopy_Sampler_Z::sample = 5.5438280208333334e-007 STM_Spectroscopy_Sampler_Z::sample = 5.4124361958333332e-007
	STM_Spectroscopy_Sampler_Z::sample = 5.2811962375000003e-007
	STM_Spectroscopy_Sampler_Z::sample = 5.1498076874999998e-007

Buiilt-in MATRIX Automated Task Environment (MATE) script editor of MATRIX software executing code and showing debugging output.

The training course contents can be adapted to the participant's interest areas to a certain extent. The course will be held by an experienced SPM and MATRIX specialist with application knowledge.

Prerequisites:

- Basic practical experience in SPM and in using MATRIX
- Basic programming skills
- Optional: MATRIX controller attached to a SPM

Building blocks for a training course:

- MATE Language Overview and Questions
- Configuration: Understanding and editing configuration files
- Experiment Element Catalogues: functions, entities, and parameters
- Interaction with MATRIX: entity observers and parameters
- Control Mechanisms of the tip position, trigger strategies
- Customized Manipulation and Grid spectroscopy
- Retrieving measurement data from MATRIX
- Using the Remote API (LabView and Python)
- Custom topics on request

Please contact us to ask for your personal training content, availability, and a personal quotation.

Summary

Interested in making the most of your SPM using MATRIX programming?

Make a start with an expert tutor and gain knowledge about:

- Automation
- Customization
- Configuration
- Communication
- Linkage to your experiment

Start your tutorial soon either in your lab or as a remote session with your colleagues in small groups at a high degree of individualization.





How to contact us:

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For more information on our training programs, please visit:

https://scientaomicron.com/ en/services/Service-Training

