

The inquiry site for purchasing the SPM simulator

Introduction to the SPM simulator

https://www.aasri.jp/pub/spm/pdf/mail_Introduction_of_the_SPM_simulator_01.pdf

After discussing your own technical problems that you want to simulate, you and we estimate the price for the package of the SPM simulator. Then we enter into a contract for purchasing the software.

- https://www.aasri.jp/pub/spm/pdf/SPM_Simulator_purchase_process_ver2_eng.pdf
- https://www.aasri.jp/pub/spm/pdf/spm_howtouse_en.pdf
- https://www.aasri.jp/pub/spm/pdf/SPM_Simulator_User_Support_Manual_v03s_171029_eng_2.pdf

If you want to purchase the SPM simulator Innovator 1, please look at the following Web page:

https://www.aasri.jp/pub/spm/pdf/SPM_Simulator_Manual_For_Beginners_v16e_eng.pdf

From the following Web page, you can obtain the information about prices of software suites:

https://www.aasri.jp/pub/spm/pdf/catalog/pricelist_eng.pdf#page=12

If you want to purchase the SPM simulator Innovator 2, please look at the following Web page:

https://www.aasri.jp/pub/spm/pdf/SPM_progress_report_meeting20180127_document_en.pdf

From the following Web page, you can obtain the information about prices of software suites:

https://www.aasri.jp/pub/spm/pdf/catalog/pricelist_eng.pdf#page=19

The SPM simulator for users in the fields of soft and bio-related materials.

The SPM simulator can help you to compare experimental results and simulation results.

https://www.aasri.jp/pub/spm/pdf/DLVO_national_project_20171122a.pdf

The SPM simulator for examining surface viscoelasticity of sample materials.

The SPM simulator helps you to simulate AFM and KPFM images.

https://www.aasri.jp/pub/spm/pdf/SPM_progress_report_meeting20180224_document_P38_en.pdf

After making the contract with us for purchasing the software, please fill in an application form.

Please write your name, affiliation, and e-mail address in blank spaces. After your application, an e-mail for reconfirmation will be sent to you automatically.

[An example of the e-mail](#)

Then, we will send you an e-mail for letting you know how to download and install the software.

[An example of the e-mail](#)

Following instructions given by e-mail, you can make use of the SPM simulator soon.

普及版SPMシミュレータ申込書

SPMインベーターをご希望の方は、以下、*を必須項目として、ご入力をお願い致します。その後、本ページ下部の「送信する」を押して頂きますと、お申し込み確認のメールが自動送信されます。その後、SPMシミュレータのダウンロードのご案内メールが送られますので、お待ちください。

お名前：*	<input type="text"/>	全角（例：山田 太郎）
フリガナ：	<input type="text"/>	全角（例：ヤマダ タロウ）
組織名：*	<input type="text"/>	全角（例：株式会社Aシステムズ）
ご所属：	<input type="text"/>	全角（例：システム部）
ご職名：	<input type="text"/>	全角（例：課長）
郵便番号：	〒 <input type="text"/>	半角（例：150-0013）
ご住所：	<input type="text"/>	全角（例：東京都渋谷区恵比寿1-13-6）
お電話番号：	<input type="text"/>	半角（例：03-3447-5501）
メールアドレス：*	<input type="text"/>	半角
メールアドレス(確認用)：*	<input type="text"/>	半角
所属区分：*	<input type="radio"/> 産(民間) <input type="radio"/> 官(独立行政法人等) <input type="radio"/> 学(大学研究室等)	

SPM simulator application

Please inform your objective SPM simulator 8 solver, and about your PC information.

spm-simulator-howto@aes-ri.co.jp

We will agree estimation sheet, and terms of contract.

If you have some questions, please contact or below
E-mail

spm-simulator-howto@aes-ri.co.jp

Since then, customers and AES will take counsel for contract.

How to use the SPM simulator: navigation for beginners

Explanations for using the SPM simulator:

https://www.aasri.jp/pub/spm/pdf/spm_howtouse_en.pdf

Please make use of **the SPM Simulator Operation Navigation System** and **the Web sites for technical supports** simultaneously.

We prepare teaching materials of the SPM simulator for beginners as follows. We can also offer technical consultation to you as on-the-job training.

https://www.aasri.jp/pub/spm/pdf/DFTB_BAND_PHASE0.pdf#

https://www.aasri.jp/pub/spm/SPM_new_technology_eng.html

https://www.aasri.jp/pub/spm/mail/mail20161102_eng.html

https://www.aasri.jp/pub/spm/mail/mail20170811_2_en.html

https://www.aasri.jp/pub/spm/mail/mail20170228_eng.html

https://www.aasri.jp/pub/spm/pdf/SPM_Simulator_sectional_reference_for_beginners_part0.pdf

(1)[References of the SPM simulator]

If you want read documents about the SPM simulator, please visit the following Web page from the help menu of the software. We gather all documents in this Web page.

The online help of the SPM simulator:

https://www.aasri.jp/pub/spm/spm_simulator_help.html

SPMシミュレータ・オンラインヘルプ

チュートリアル

リファレンス
マニュアル

ガイドブック

チュートリアル
デザイン

各種リンク

ホームページ内の各種リンク

SPM Simulator 情報交換プラットフォーム

マニュアルリストと活用ガイダンス

SPMシミュレータ計算事例

SPMシミュレータ操作支援システム

SPMシミュレータ操作支援システムの使い方

計算事例用 Project ファイル・ダウンロードページ

You can read the tutorial, the reference manual, the guidebook which explains theoretical aspects of the software, and the tutorial design which explains functions of the software with ease from the above Web page. You can also visit the online help via the Internet.

(2)[How to visit the online contents]

From the Graphical User Interface, via the Internet, please visit the home page of Advanced Algorithm & Systems Co., Ltd.

SPM Interactive Information Exchanging Platform:

https://www.aasri.jp/pub/spm/en/about_spm_eng.html

SPM Interactive Information Exchanging Platform

Advanced Simulator for the Scanning Probe Microscopy

SPM World

From Japan, SPM to The World

SPM Simulator Concept

Procedures for Providing SPM
(Plan on purchasing the SPM simulator with trial period)

SPM Simulator International Standard

SPM Simulator Price List

SPM Guidebooks

Manual List & Practical Use Guides

SPM Case Examples of Calculation

SPM Simulator Operation Navigation System (written in Japanese partially)

We have developed "SPM Simulator Operation Navigation System".
But why do we make customers to use it?

SPM Simulator consists of 8 solvers. In order to calculate an interested problem of SPM, you should order proper solvers and choose a solver by characteristics of solvers and the restrictions of technological properties. And we recognize the need of guidance for users to operate SPM Simulator.

The operational navigation system for the SPM simulator

https://www.aasri.jp/pub/spm/assistant_eng/SPM_Simulator_assistant_top.htm

In the operational navigation system for the SPM simulator, you can obtain technical supports about how to use the software effectively. You only needs to answer the sequence of inquiries and you arrive at the Web page where how to use the software is explained.

How to utilize the operational navigation system for the SPM simulator:

https://www.aasri.jp/pub/spm/pdf/SPM_operational_procedures_p34_eng.pdf

The operational navigation system for the SPM simulator

SPM: Scanning Probe Microscope

This home page aims to provide information about how to use the SPM simulator and how to apply it to practical problems for beginners, experienced users, and other wide audience.

As you go ahead page by page, we show you some questions.

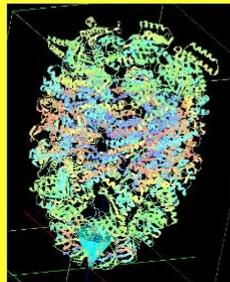
Answering these questions, you will find a suitable solver for a simulation that you want to perform.

If you advance more pages further, we will show you optional modes of the solver for various numerical simulations and how to use them.

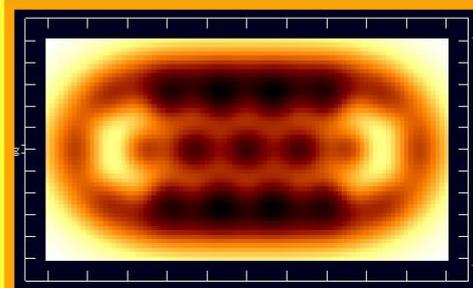
Moreover, an input screen for numerical parameters appears.

You can input physical parameters for your own simulation through the screen.

Please select one of the following two courses.



A course for beginners at the SPM



A course for experienced users at the SPM

(3)[The list of typical values of physical parameters for various materials]
 You can obtain typical values of physical parameters for various materials, such as Young's modulus and the Hamaker constant, in the following Web page:
https://www.aasri.jp/pub/spm/assistant_eng/properties_typical_materials.htm

**In this page, we collect physical quantities of typical materials.
 We hope that you utilize these quantities for editing configuration files for numerical simulations.**

Physical quantities of typical materials

Material	Young's modulus [Gpa]	Poisson's ratio [dimensionless]	Hamaker constant [zJ]	Surface tension [N/m]	Density [kg/m3]	Kinematic viscosity [m2/s]
Diamond	1220	0.2	296		3520	
Copper	117	0.355	284		8940	
Gold	74	0.42 - 0.44	455		19300	
Silver	82.7	0.367	398		10490	
Germanium	103	0.26	299		5323	
Silicon	185	0.28	255		2329	
Aluminum	70.3	0.34	154		2700	
Aluminum oxide (Alumina)	less than 400	0.23	150		3950 - 4100	
Quartz	31	0.18	79.3		2500	
glass	50 - 90	0.18 - 0.3	85.5		2400 - 2600	
Polycarbonate	2.6	0.39	50.8		1200	
Polyethylene	0.4 - 1.3	0.458	52.8	0.0316	900 - 960	
Polystyrene	3 - 3.5	0.34	78 - 98	0.0343	1040 - 1065	
Natural rubber	less than 0.001	0.4999	85.8	0.032	910 - 930	
Water				0.07275	996.56	0.857e-06
Benzene				0.0289	876.5	0.690e-06
Ethanol				0.02255	789	1.373e-06
Methanol				0.0226	791.8	0.705e-06

(4)[Input data for various case examples of simulations]

We gather input data for various case examples of simulations in the following Web page.
You can download input data freely.

https://www.aasri.jp/pub/spm/project_samples/project_samples_top.htm

計算事例用Projectファイル・ダウンロードページ

この色で指定されている文字列は、シミュレータ内の計算モード記号を表します。

Analyzer

- [Analyzer TipEstimation](#): 探針形状推定
- [Analyzer_LoadImage](#): SPM実験データの読み込み
- [Analyzer_ImageProcessing](#): 画像処理
- [Analyzer_Neuralnet](#): ニューラルネットシミュレータ

GeoAFM

- [GeoAFM CalcImage](#): 探針・試料からAFM像計算
- [GeoAFM CalcSample](#): 探針・AFM像から試料形状計算
- [GeoAFM CalcTip](#): 試料・AFM像から探針形状計算

FemAFM

- [FemAFM ConstHeight](#): [[femafm_Van_der_Waals_force](#)]ノンコンタクトモード、力の2次元マップ
- [FemAFM FreqShift](#): [[femafm_frequency_shift](#)]周波数シフトAFM像
- [FemAFM Viscoelastic](#): [[femafm_JKR](#)]粘弾性接触解析

Please find the case example which resembles your own problem. Downloading the input data, you can start simulation soon. If you want to perform simulation that is slightly different from our example, you only have to modify physical parameters described in the project file.

You can purchase or rent the SPM simulator.

Please feel free to select options what you want.

If you cannot pay all at once, you can opt annual payment.

You can also rent the SPM simulator by paying maintenance fee annually.

The maintenance fee is around twenty percent of the net price of the software.

In typical cases, the annual maintenance fee is lower than 1,500,000 yen.

The annual rental fee is also is lower than 1,500,000 yen.