SRIMfit
Installation Guide

(for WinOS)

※ for MacOS, see the last page of this manual

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SRIMfit Installation Guide

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（ Note for Install operations ）

- Some Excel files of SRIMfit include macro description inside.
- When you open those files, the following message will appear;

SECURITY WARNING Macros have been disabled.　　Enable Content
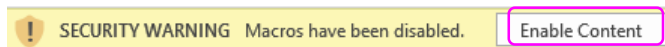
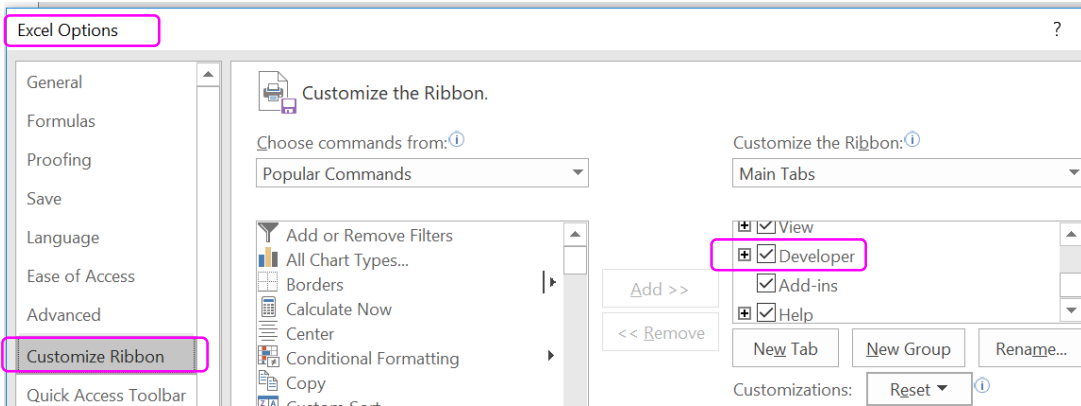Then, click "Enable Content" and continue.;

Setup for Excel

（1） Setup for your Excel

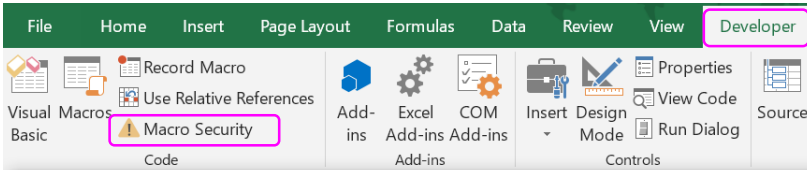The following screen shots are examples using Excel2016 on Win10.

（1-1） Show [Developer] Tab

Run your Excel. From the menu of [File：Option：Customize Ribbon], make check at Main Tabs [Developer].
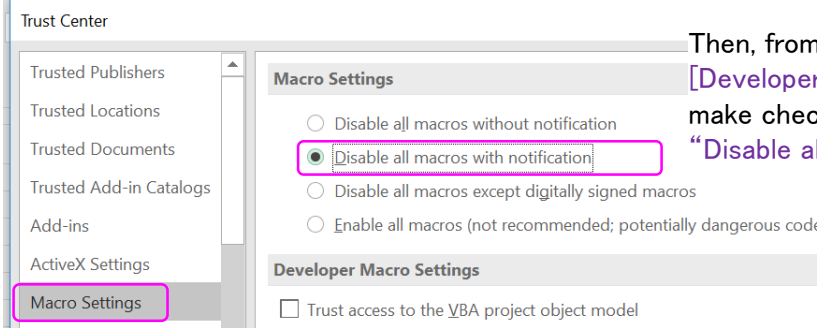

（1-2） Give permission for Macro Security
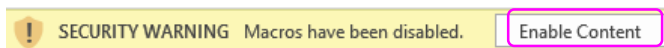
Check the [Developer] tab is shown.

Then, from the menu of [Developer: Macro Security: Macro Settings], make check mark at "Disable all macros with notification".

From the security point of view, this setting is safe for your PC.
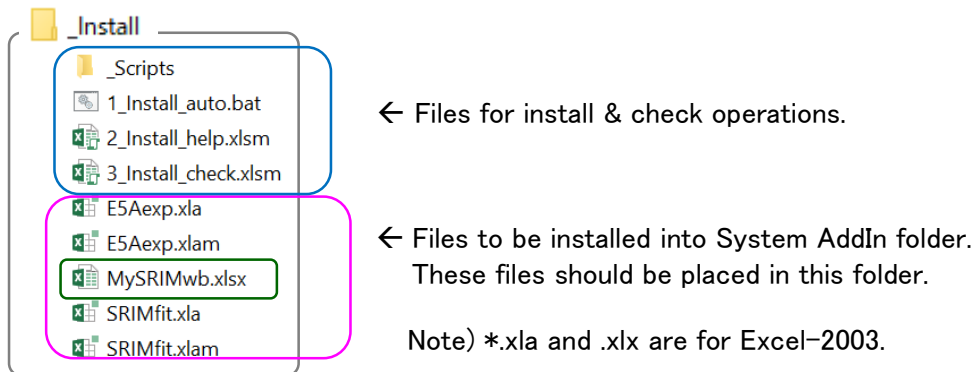But when you open a macro included excel book, the following message will appear;

Then, click "Enable Content" and continue.;

(2) Setup "_Install" folder

(2-1) Explanation for the files in "_Install" folder

Open and see "_Install" folder which you have downloaded from SRIMfit HP.

_Install
  _Scripts
  1_Install_auto.bat
  2_Install_help.xlsm
  3_Install_check.xlsm
← Files for install & check operations.

  E5Aexp.xla
  E5Aexp.xlam
  MySRIMwb.xlsx
  SRIMfit.xla
  SRIMfit.xlam
← Files to be installed into System AddIn folder.
  These files should be placed in this folder.
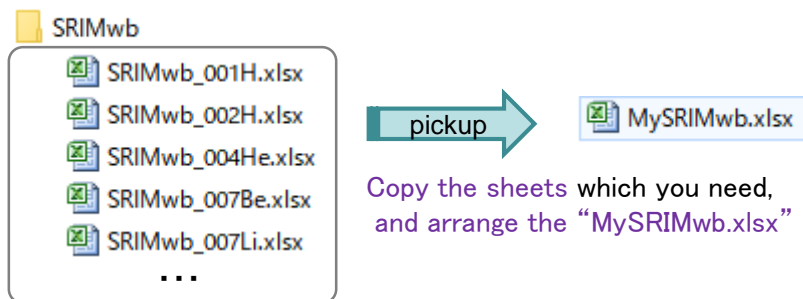
  Note) *.xla and .xlx are for Excel-2003.

Here, the MySRIMwb.xlsx should be prepared by your own purpose.
The default file included is for users in RIKEN.

(2-2) Preparation for "MySRIMwb.xlsx" (SRIM-2013 data sheets)   【if you need it】

Open and see "SRIMwb" folder.

SRIMwb
  SRIMwb_001H.xlsx
  SRIMwb_002H.xlsx
  SRIMwb_004He.xlsx
  SRIMwb_007Be.xlsx
  SRIMwb_007Li.xlsx
  ...

pickup →   MySRIMwb.xlsx

Copy the sheets which you need,
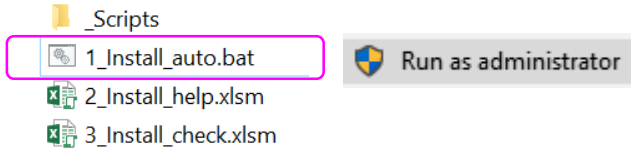and arrange the "MySRIMwb.xlsx"

Or, you can build your own sheets using SRIM-2013 code.
For the detail, please see "Users Manual: How to prepare MySRIMwb".

(3a) Install using automatic script

- Usually, the following script works well. But if you failed, please go to section (3b).
- As the script overwrites files in the System AddIn folder, it is recommended to save previous files in the folder in advance, if you need it.

(3a-1) Run a batch file

📁 _Scripts
　　🔲 1_Install_auto.bat　　　　🛡 Run as administrator
　　📊 2_Install_help.xlsm
　　📊 3_Install_check.xlsm

Right click "1_Install_auto.bat", and chose 「Run as administrator」

　　※ As this installation needs to copy files into MS-Office System AddIn folder, the system admin privilege is needed.

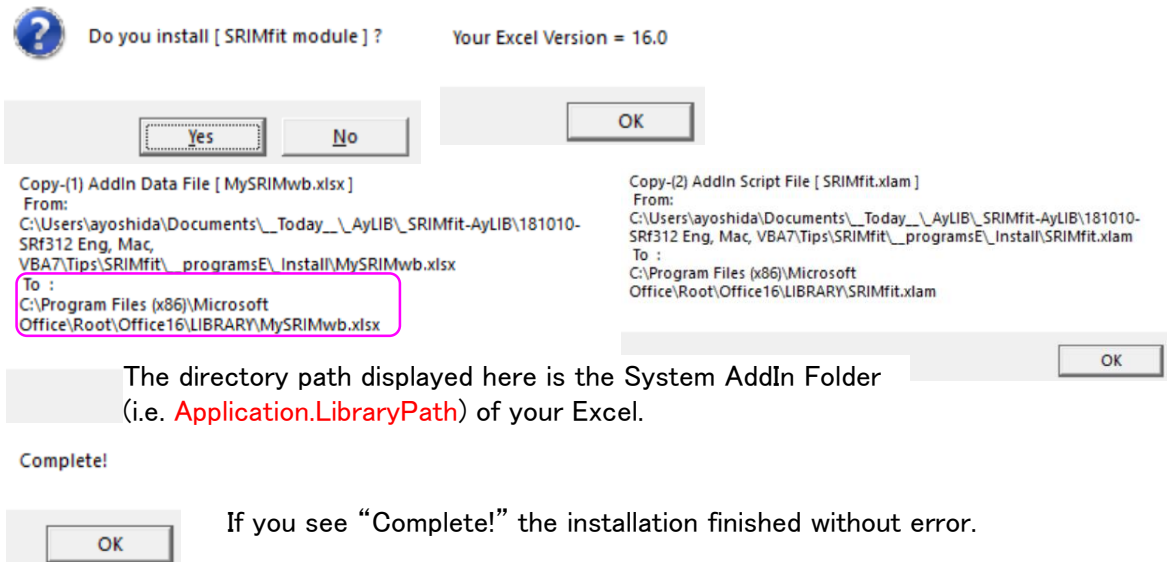DOS window will appear, then please chose a menu number.

```
C:\WINDOWS\System32\cmd.exe
Please chose a menu which you will install.
1. SRIMfit + MySRIMwb
2. a macro for E5Aexp

[ for Excel-2003 ]
3. SRIMfit + MySRIMwb
4. a macro for E5Aexp
[1, 2, 3, 4]?
```

← #1. SRIMfit + MySRIMwb　(necessary)
　　#2. a macro for E5Aexp　(if you need it)
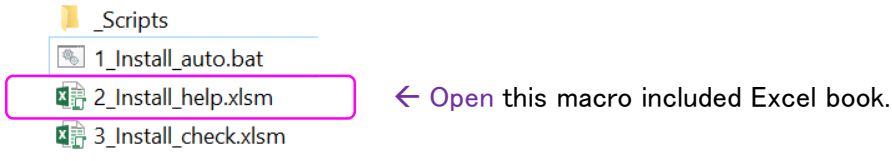
　　　　#3 and 4 are for Excel-2003.

A VBScript in _Scripts folder selected by the menu will run, and the following message boxes will appear. Click "OK" for all and go ahead.

Do you install [SRIMfit module] ?　　　Your Excel Version = 16.0

　　　　[Yes]　[No]　　　　　　　[OK]

Copy-(1) AddIn Data File [MySRIMwb.xlsx]
From:
C:\Users\ayoshida\Documents__Today___AyLIB_SRIMfit-AyLIB\181010-SRf312 Eng, Mac,
VBA7\Tips\SRIMfit__programsE_Install\MySRIMwb.xlsx
To :
C:\Program Files (x86)\Microsoft Office\Root\Office16\LIBRARY\MySRIMwb.xlsx

Copy-(2) AddIn Script File [SRIMfit.xlam]
From:
C:\Users\ayoshida\Documents__Today___AyLIB_SRIMfit-AyLIB\181010-SRf312 Eng, Mac, VBA7\Tips\SRIMfit__programsE_Install\SRIMfit.xlam
To :
C:\Program Files (x86)\Microsoft Office\Root\Office16\LIBRARY\SRIMfit.xlam

[OK]

The directory path displayed here is the System AddIn Folder (i.e. Application.LibraryPath) of your Excel.

Complete!

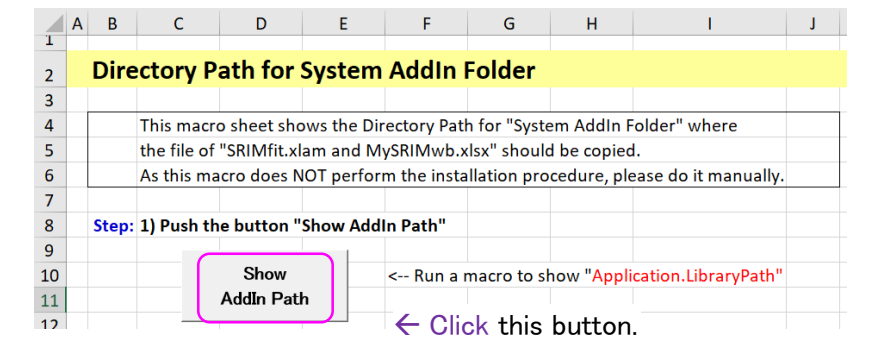[OK]　　　If you see "Complete!" the installation finished without error.

（3b）　Install　by manual procedures

The following manual installation is necessary when
you failed in automatic installation, or you only replace a new "MySRIMwb.xlsx" file.
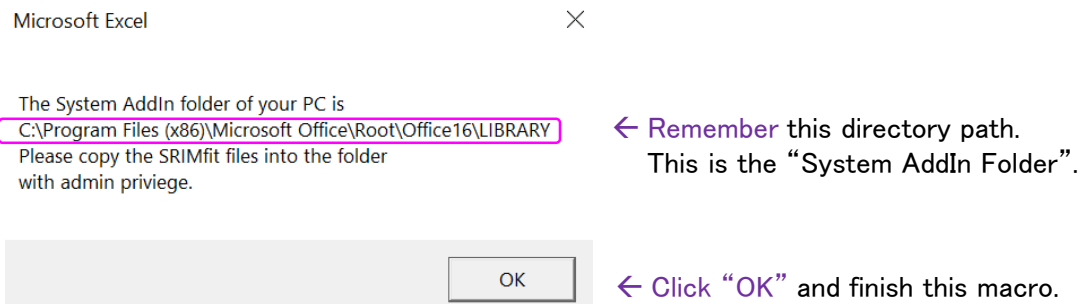
（3b-1）　Check a directory path to install

_Scripts
1_Install_auto.bat
2_Install_help.xlsm   ← Open this macro included Excel book.
3_Install_check.xlsm

A	B	C	D	E	F	G	H	I	J
1									
2	**Directory Path for System AddIn Folder**								
3									
4		This macro sheet shows the Directory Path for "System AddIn Folder" where							
5		the file of "SRIMfit.xlam and MySRIMwb.xlsx" should be copied.							
6		As this macro does NOT perform the installation procedure, please do it manually.							
7									
8	**Step:**	**1) Push the button "Show AddIn Path"**							
9									
10		Show		<-- Run a macro to show "Application.LibraryPath"					
11		AddIn Path							
12									

← Click this button.

Then a message box appear and show you a directory path to install.

Microsoft Excel   ✕

The System AddIn folder of your PC is
C:\Program Files (x86)\Microsoft Office\Root\Office16\LIBRARY   ← Remember this directory path.
Please copy the SRIMfit files into the folder   This is the "System AddIn Folder".
with admin priviege.

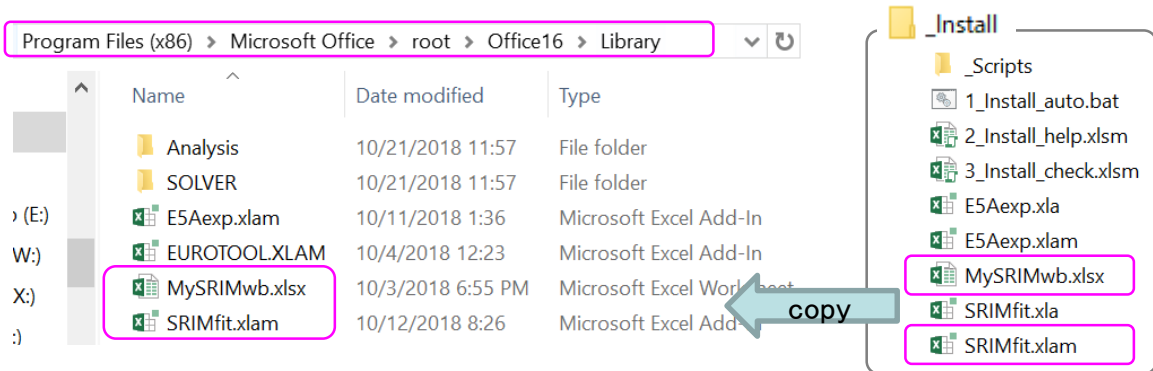   OK   ← Click "OK" and finish this macro.

The path displayed here may be VERY different from this example. It depends on ;
• The version of your MS-Excel,
• If you did update install for your old Excel,
• If you installed multi versions of Excel in one PC.

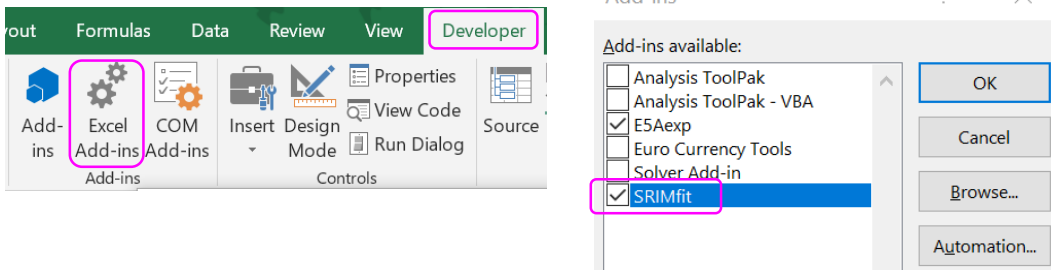## (3b-2) Copy SRIMfit files into the folder

Open and see the "System AddIn" folder.

Copy files of "SRIMfit.xlam and MySRIMwb.xlsx" into the "System AddIn" folder with administrator privilege". If you need, copy "E5Aexp.xlam", also.

(3b-3) Registration for AddIn

Run Excel and open a New blank workbook.
Click [Developer: Excel Add-ins]

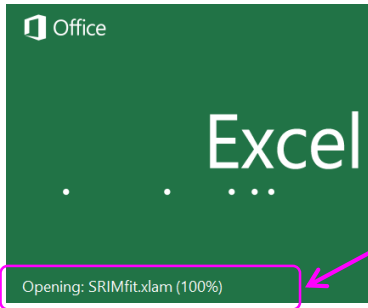Make check mark for "SRIMfit", and "E5Aexp" if you need it.

Here, if a message box telling "Link error" appears, please refer to (5-3).

Thus, the manual installation has finished.

Confirm SRIMfit is working ?

● check the macro working ?

(4-1) When Excel is starting up

Run Excel, and during its start-up, the installed AddIn file of "SRIMfit.xlam" will be opened automatically

Opening: SRIMfit.xlam (100%)

(4-2) First, open a New blank workbook.

	A	B
1	=srMcr	
2	f_x srMcrPath	
3	f_x srMcrVer	
4	f_x srMcrWBdir	
5	f_x srMcrWBname	
6	f_x srMcrWScount	
7	f_x srMcrWSlist	
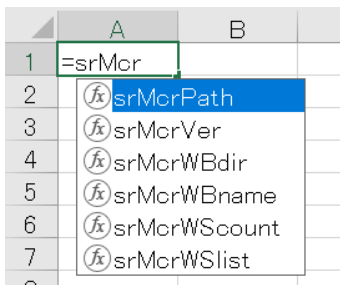
[File: New: blank workbook] and in the new sheet,
Write a SRIMfit formula in a cell like "= sr "
Then a function list will appear.

A1			f_x	=srMcrPath()

	A	B	C	D	E	F
1	C:¥Program Files (x86)¥Microsoft Office¥root¥Office16¥Library					
2						

=srMcrPath()

Then the System AddIn Folder path will be returned in the cell.

(4-3) Check Function Help Message

Move to a blank cell, and Click 「Insert function (fx) 」.
At the bottom of the category list, you can find "SRIMfit".

Insert Function

Search for a function:

Type a brief description of what you want to do and then click Go

Or select a category: SRIMfit

Select a function:

srDEt_eq_Eold
srDEt_eq_EoldGas
srDEt_eq_Th
srDEt_eq_ThGas
srDEu_eq_Eold
srDEu_eq_EoldGas
srDEu_eq_Th

Statistical
Lookup & Reference
Database
Text
Logical
Information
User Defined
Engineering
Cube
Compatibility
Web
SRIMfit

srDEt_eq_Eold(WS1

This function returns

f_x =srEnew("srim84Kr_Si",10,100)

Function Arguments

srEnew

WS	"srim84Kr_Si"	⬆	= "srim84Kr_Si"
E0	10	⬆	= 10
Tum	100	⬆	= 100

= 0.106732348

This function returns "new" ion E [MeV/u] through a Target material.

Tum indicates Thickness [um] of Target.

Choose "srEnew", then appears a Function Arguments box.

If you could confirmed up to here, it suggests that SRIMfit macro script was installed properly.
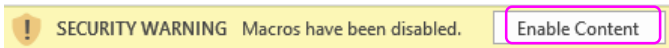
● Check using a macro sheet

📁 _Scripts
📄 1_Install_auto.bat
📄 2_Install_help.xlsm
📄 3_Install_check.xlsm   ← Open this macro included Excel book.

⚠ SECURITY WARNING   Macros have been disabled.   [Enable Content]   ← Click "Enable Content" and continue.;

Here, if a message box telling "Link error" appears, please refer to (5-3).

(4-4)   Check Macro Information

See "eg11Macro Info" sheet in this Excel book.

← These are information on "SRIMfit.xlam" and on "MySRIMwb.xlsx" installed in the System AddIn Folder.

If "# NAME?" errors appear here, the installation of "SRIMfit.xlam" is not completed.

← This list shows the contents of "MySRIMwb.xlsx".

If "# NAME?" errors appear here, the "SRIMfit.xlam" could not find "MySRIMwb.xlsx" in the SystemAddIn Folder.

(4-5) Check sheets in MySRIMwb

See "eg12MySRIMwb check" sheet in this Excel book.

Green values shown in cells are returned value from SRIMfit functions.

（5）Uninstallation procedure

（5-1）Release AddIn

Run Excel and open a New blank workbook.
Click [Developer: Excel Add-ins]
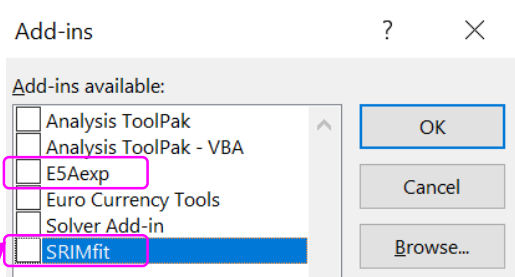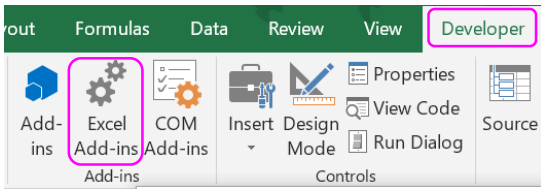
Make check mark OFF for "SRIMfit", and "E5Aexp".

This is a temporary uninstallation for the SRIMfit module.

（5-2）Delete files

After that, if you need complete uninstallation, please delete some SRIMfit related files in the System AddIn folder.
The folder can be found using procedure (3b-1).

Delete these files for with admin privilege.

Link Error measures

(6-1) Recover "Link Error" for AddIn files

After the registration of AddIn and you "first open" an Excel book containing function calls for SRIMfit, the following "Link Error" messages may appear in sometime.
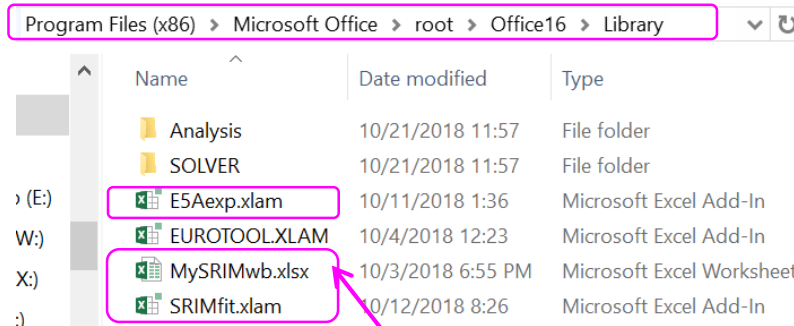In this case, please recover the link for AddIn files.

Microsoft Excel ✕

⚠ This workbook contains links to one or more external sources that could be unsafe.

If you trust the links, update them to get the latest data. Otherwise, you can keep working with the data you have.

[Update]   [Don't Update]   [Help]   ← Click "Update" links

⚠ We can't update some of the links in your workbook right now.

You can continue without updating their values, or edit the links you think are wrong.

[Continue]   [Edit Links…]   ← Click "Edit Links"

Edit Links ? ✕

Source	Type	Update	Status
SRIMfit.xlam	Worksheet	A	① Warning! Values referring to other workbooks

[Update Values]

④ [Change Source…]

[Open Source]

Edit Links

Source	Type	Update	Status
SRIMfit.xlam	Worksheet	A	③ OK

[Break Link]

② [Check Status]

Location: C:\Program Files (x86)\Microsoft Office\Root\Office16\LIBRARY
Item:
Update: ● Automatic   ○ Manual

[Startup Prompt…]   ⑥ [Close]

① Is the Link Status "Warning", right ?

② First, Click "Check Status" and if the status changes to "OK", like ③,
Link Recovery is finished.
Click ⑥

But if it is not OK,

④ Click "Change Source" and

⑤ « Microsoft Office › root › Office16 › Library

New folder

Name
📁 Analysis
📁 SOLVER
📊 E5Aexp.xlam
📊 EUROTOOL.XLAM
📊 MySRIMwb.xlsx
📊 SRIMfit.xlam

File name: SRIMfit.xlam

⑤ Specify the "SRIMfit.xlam" file installed in the System AddIn folder.
The folder can be found using procedure (3b-1).

(6-2) Recover "Link Error (#NAME?)" in each cell

If you made miss treatment for AddIn link error in (6-1), you may see "#NAME?" error in each cell of your worksheet as below.


If this happens, it is better NOT to save this excel book, but "Don't save" and quit this book. And again try to recover link error for AddIn files according to (6-1). But unfortunately you have saved the book file, please follow the instruction below.

When the AddIn link error happens, Excel system changes function call formula in each cell to a "full path format", automatically. It is nervous problem.
To recover the "full path format", it is better to remember the following.

① From Home menu [Find & Select: Replace]
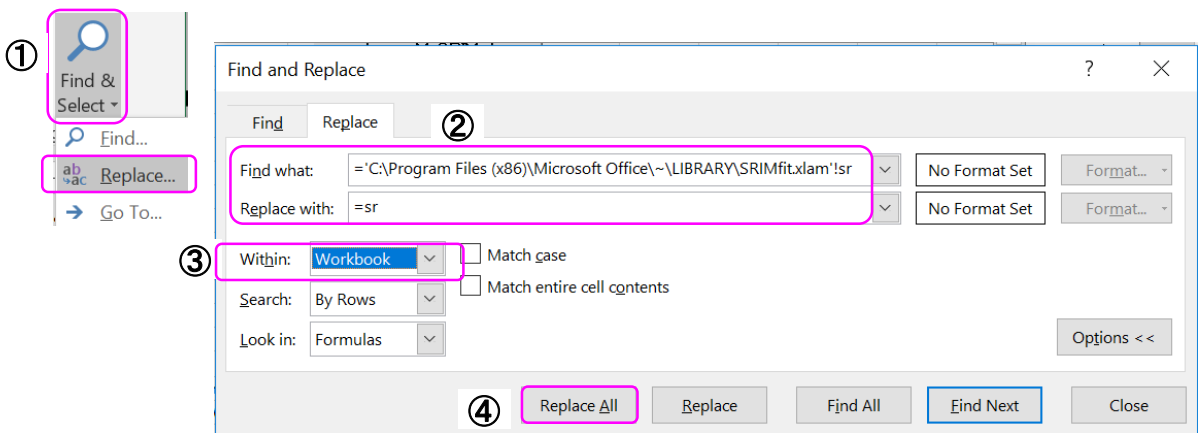
② Find what : 'c:¥Program Files~ ~ ~¥SRIMfit.xlam' !   ← untill "!" mark
Replace with :   ← blank

③ Within : Workbook
And ④ Replace All

Install for Old Excel

The following instructions are examples using Excel2003 on Win10.

● Note for old Excel (97～2003)

- File Type of AddIn Macro is NOT .xlam but is **.xla.**
- File Type of Book file is NOT .xlsx but is **.xls.**
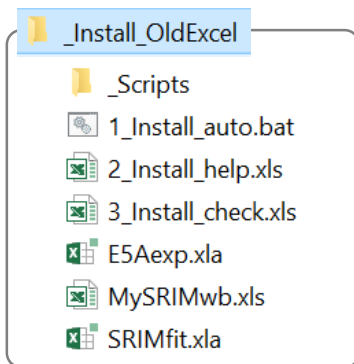
(1) Setup for Excel

(1-1) Show [Developer] Tab
Excel2003 does not have the tab, but you can use [Tool: Macro: Visual Basic Editor]

(1-2) Give permission for Macro Security
Please use [Tool: Macro: Security]

(2) Setup "_Install" folder

```
📁 _Install_OldExcel
    📁 _Scripts
    📄 1_Install_auto.bat
    📊 2_Install_help.xls
    📊 3_Install_check.xls
    📗 E5Aexp.xla
    📊 MySRIMwb.xls
    📗 SRIMfit.xla
```

Please use _Install_OldExcel folder.
　SRIMfit**.xla**　E5Aexp**.xla**　MySRIMwb**.xls**
　are the files to be installed.

For confirmation, use utility files of **.xls**
If Link Error occurs, please check the link ;
　not to SRIMfit.xlam　but to　SRIMfit**.xla**

(3a) Install using automatic script

(3a-1) Run a batch file
- ・ Run 1_Install_auto.bat with admin privilege.
- ・ For WinXP, login as admin user and run the .vbs script included in _Script folder.

(others) are same as mentioned above.

Install for MacOS

● Note for MacOS + Excel for Mac

- I have only checked the current SRIMfit (ver.3.1.3) is working under the following environment; macOS Mojave (ver.10.14) + Excel for Mac 2016 (ver.16.16.2)

- Function help message has NOT worked yet..

(1) Setup for Excel

(1-1)   Show [Developer] Tab
(1-2)   Give permission for Macro Security
    Please consult your Excel manual.
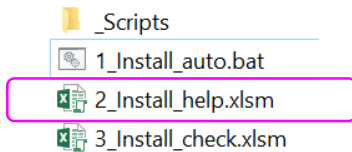
(2) Setup "_Install" folder

You can use same _Install folder for WinOS.

(3a) Install using automatic script

This does NOT work, because the scripts are for WinOS only.
Then, please do the following manual installation.

(3b) Install by manual procedures

(3b-1)   Check a directory path to install

```
📁 _Scripts
📄 1_Install_auto.bat
📊 2_Install_help.xlsm        ← Open this macro included Excel book.
📊 3_Install_check.xlsm
```

- Although this excel book shows you a certain Application.LibraryPath, but the path is not exactly same as your Real System AddIns Folder, in sometime. Please find it by yourself as looking for a similar directory path name.

(others)   are same as mentioned above.