

State Inventory Tool

User Guide for Getting Started

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Acknowledgements

The SIT was originally developed in conjunction with EPA's state and local programs to automate the steps states would need to take in developing their own emission estimates in a manner that was consistent with prevailing national and state guidelines. The result was a set of eleven modules that help users estimate greenhouse gas emissions and removals at the state level. CGS is supporting updates to the tool to facilitate continuity in state inventory development and improvement work at the state level.

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This section of the User Guide provides instructions on getting started to use the modules of the State Inventory Tool (SIT).

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1.1 GETTING STARTED

The SIT modules were developed using Microsoft® Excel 2000. While the module will operate with older versions of Excel, it functions best with Excel 2000 or later. If you are using Excel 2007 or later, instructions for opening the module will vary as outlined in the Excel basics below. Before you use the modules, make sure your computer meets the system requirements. In order to install and run a module, you must have:

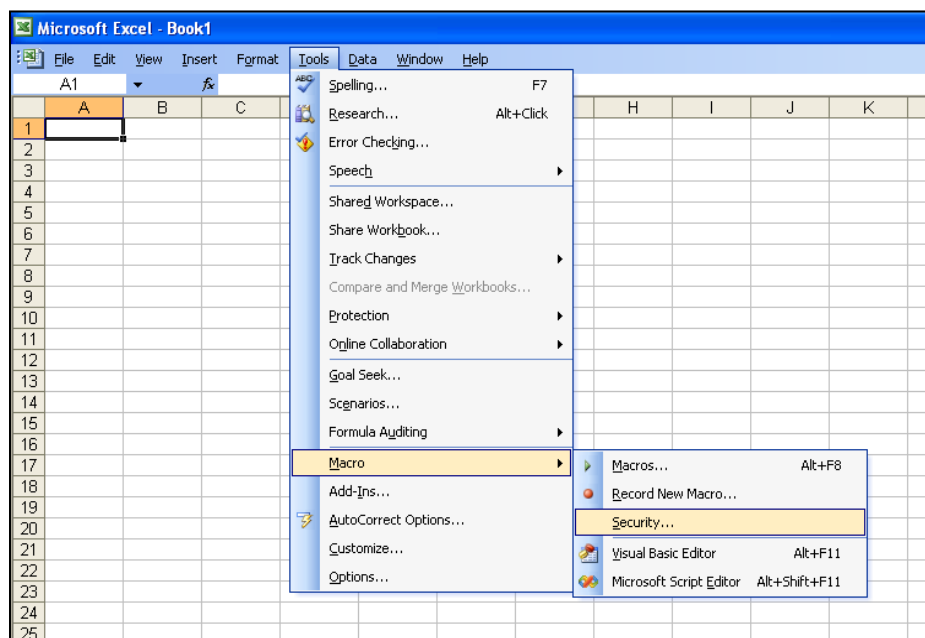
- IBM-PC compatible computer with the Windows 95 operating system or later;
- Microsoft® Excel 1997 or later, with calculation set to automatic and macros enabled;
- Hard drive with at least 20MB free; and
- Monitor display setting of 800 x 600 or greater.

Microsoft Excel Settings and Security for Excel 2003 and Earlier:

Settings: For the SIT modules to function properly, Excel must be set to automatic calculation. To check this setting, launch Microsoft Excel before opening the module. Go to the Tools menu and select "Options..." Click on the "Calculations" tab and make sure that the radio button next to "Automatic" is selected, and then click on "OK" to close the window. The security settings (discussed next) can also be adjusted at this time.

Security: Because the SIT employs macros, you must have Excel security set to medium (recommended) or low (not recommended). To change this setting, launch Microsoft Excel before opening the module. Once in Excel, go to the Tools menu, click on the Macro sub-menu, and then select "Security" (see Figure 1). The Security pop-up box will appear. Click on the "Security Level" tab and select medium. When set to high, macros are automatically disabled; when set to medium, Excel will give you the choice to enable macros; when set to low, macros are always enabled.

When Excel security is set to medium, users are asked upon opening the module whether to enable macros. Macros must be enabled in order for the module to work. Once they are enabled, the module will open to the control worksheet. A message box will appear welcoming the user to the module. Clicking on the "x" in the upper-right-hand corner of the message box will close it.

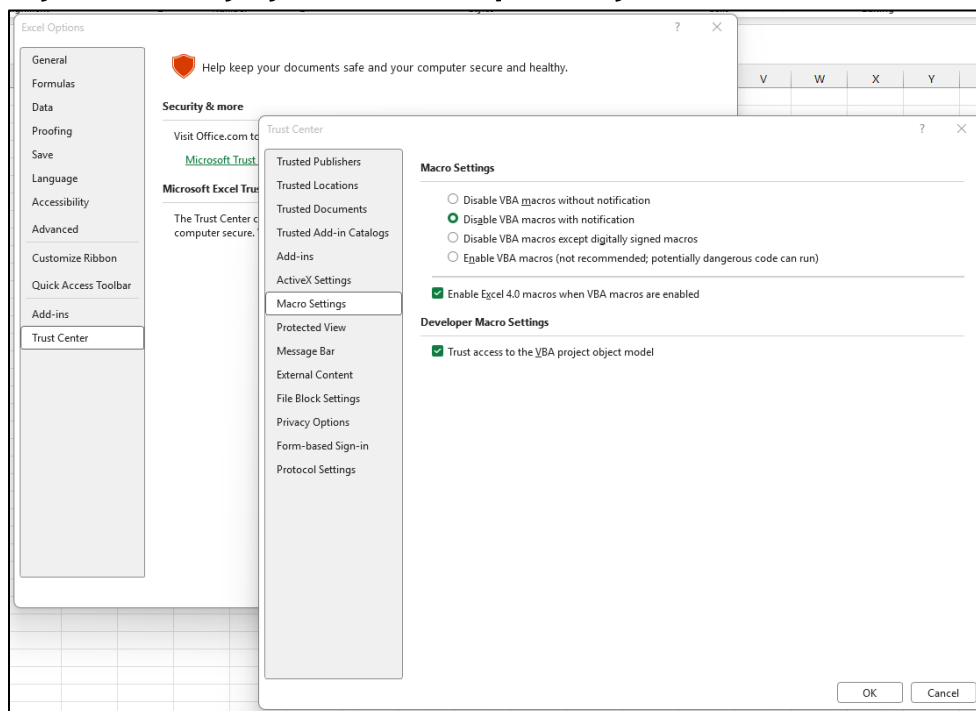
Figure 1. Changing Security Settings for Excel 2003 and earlier

Microsoft Excel Settings and Security for Excel 2007 and Later:

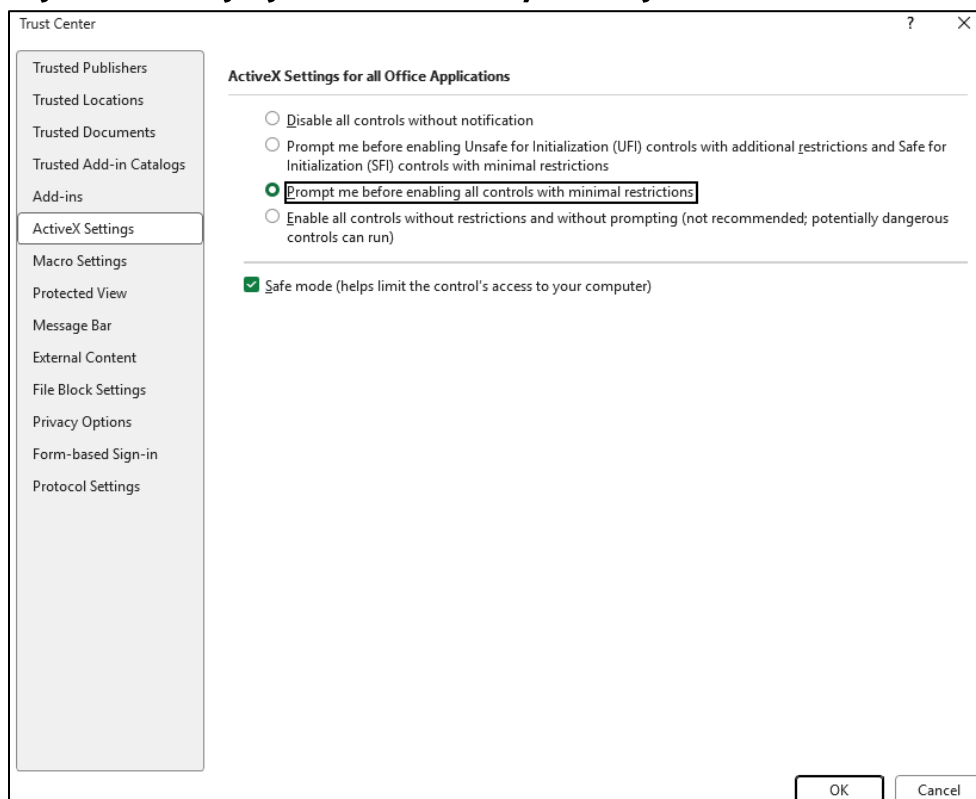
Settings: For the SIT modules to function properly, Excel must be set to automatic calculation. Go to the Formulas ribbon and select "Calculation Options." Make sure that the box next to the "Automatic" option is checked from the pop-up menu.

Security: If Excel's security settings are set at the default level a Security Warning appears above the formula box in Excel when the module is initially opened. The Security Warning lets the user know that some active content from the spreadsheet has been disabled, meaning that Excel has prevented the macros and ActiveX in the spreadsheet from functioning. Because SIT needs macros in order to function properly, the user must click the "Options" button in the security message and then select, "Enable this content" in the pop-up box. Enabling the macro content for the SIT in this way only enables macros temporarily in Excel but does not change the macro security settings. Once macros are enabled, a message box will appear welcoming the user to module. Click on the "x" in the upper right-hand corner to close the message box.

If the Security Warning does not appear when the module is first opened, it may be necessary to change the security settings for macros. To change the setting, first exit out of the module and re-launch Microsoft Excel before opening the module. Next, click on the Microsoft Excel icon in the top left of the screen. Scroll to the bottom of the menu and select the "Excel Options" button to the right of the main menu. When the Excel Options box appears, select "Trust Center" in left hand menu of the box. Next, click the gray "Trust Center Settings" button. When the Trust Center options box appears, click "Macro Settings" in the left-hand menu and select "Disable all macros with notification" (see Figure 2).

Figure 2. Changing Macro Security Setting for Excel 2007 and later

Next, click “ActiveX Settings” in the left-hand menu and select “Prompt me before enabling all controls with minimal restrictions” as well as the “Safe mode” checkbox (see Figure 3).

Figure 3. Changing ActiveX Security Setting for Excel 2007 and later

Once the security levels have been adjusted, open the module and enable content in the manner described in the preceding paragraph.

Viewing and Printing Data and Results

The modules contain some features to allow users to adjust the screen view and the appearance of the worksheets when they are printed. Once a module has been opened, you can adjust the zoom by going to the Module Options Menu, and either typing in a zoom percentage or selecting one from the drop-down menu. In addition, data may not all appear on a single screen within each worksheet; if not, you may need to scroll up or down to view additional information.

You may also adjust the print margins of the worksheets to ensure that desired portions of the module are printed. To do so, go to the File menu, and then select "Print Preview." Click on "Page Break Preview" and drag the blue lines to the desired positions (see Figure 4). To print this view, go to the File menu, and click "Print." To return to the normal view, go to the File menu, click "Print Preview," and then click "Normal View."

Figure 4. Adjusting Print Margins

State Inventory Tool - CO2 Emissions from Combustion of Fossil Fuel

File Edit Module Options

Type a

	A	B	C	D	E	F	G	H	I	J	K	L
10	Fuel	Default Efficiency		Efficiency Used		Use the Default? (Check for Yes)						
11	Coal	99.0%				☐						
12	Natural Gas	99.5%				☐						
13	Petroleum	99.0%				☐						
14	LPG	99.5%				☐						
15												
16	Carbon Contents (lbs Carbon/million Btu)											
		Default Carbon		Carbon		Use the Default? (Check for Yes)						
17	Fuel	Content		Content Used								
18	Asphalt and Road Oil	45.42				☐						
19	Aviation Gasoline	41.56				☐						
20	Distillate Fuel	43.94				☐						
21	Jet Fuel, Kerosene	variable by year				☐						
22	Jet Fuel, Naphtna	43.50				☐						
23	Kerosene	43.44				☐						
24	LPG (industrial)	variable by year				☐						
25	LPG (energy only)	variable by year				☐						
26	Lubricants	44.58				☐						
27	Motor Gasoline	variable by year				☐						
28	Residual Fuel	47.33				☐						
29	Misc. Petro Products	variable by year				☐						
30	Feedstocks, Naphtna	39.96				☐						
31	Feedstocks, Other Oils	43.94				☐						
32	Pentanes Plus	40.18				☐						
33	Petroleum Coke	61.34				☐						
34	Still Gas	38.57				☐						
35	Special Naphtnas	43.74				☐						
36	Unfinished Oils	variable by year				☐						
37	Waxes	43.63				☐						
38	Residential Coal	variable by year				☐						
39	Commercial Coal	variable by year				☐						

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1.2 EXPORTING DATA

The final step of each module is to export the summary data. Exporting data allows the estimates from each module to be combined later by the Synthesis Module to produce a comprehensive greenhouse gas inventory for the state.

To access the “Export Data” button, return to the control sheet and scroll down to the bottom (8). Click on the “Export Data” button and a message box will open that reminds the user to make sure all steps of the module have been completed. If you make any changes to the module later, you will then need to re-export the results.

Note: the resulting export file should not be modified.

The export file contains a summary worksheet where users can view the results, as well as a separate data worksheet with an unformatted version of the results; this data worksheet contains the information that is exported to the Synthesis Tool, and it is especially important that users do not modify it. Adding/removing rows, moving data, or making other modifications jeopardize the ability of the Synthesis Module to accurately analyze the data.

Clicking “OK” prompts you to save the file.

The file is already named, so you only need to choose a convenient place to save the file. After the file is saved, a message box will appear indicating that the data was successfully exported.

While completing the modules, you are encouraged to save each completed module; doing so will enable you to easily make changes without re-running it entirely.

Following data export, the module may be reset and run for an additional state. Alternatively, you may run the remaining modules of the State Inventory Tool to obtain a comprehensive profile of emissions for your state.