



Contents

Contents	1
Overview	1
Prerequisites	2
Supported TSI [®] Instruments via TSI Link [™] Smart Bridge	2
TSI Link [™] Smart Bridge Software	2
Downloading	2
Installing.....	2
Smart Bridge Setup, Installing the Software	2
Installing the Device Drivers	3
TSI Link [™] Smart Bridge Icon in System Tray	3
Registering your Smart Bridge Connection	4
Registering a DustTrak [™] Device	5
Excel [®] Report Creator Add-In	5
Installing.....	5
Connecting.....	6
Generating Report Creator Workbooks	7
Starting a New Workbook.....	7
Adding Worksheets.....	7
Study Manager	7
File Import.....	11
Tables within Studies.....	12
How to use the Layout View Function.....	13

Overview

Connecting your DustTrak[™] device to the TSI[®] Link[™] via Smart Bridge provides an easy way to securely store data and generate customizable analytical reports in Microsoft[®] Excel[®] software. The Report Creator tool allows to analyze data more easily, to provide Excel[®] custom reports to customers and to save time and resources.

This document shows how to get started with Smart Bridge and the Report Creator and reviews the general functionality.

The Report Creator is extremely versatile. There are different workbooks to meet different situations. These different workbooks are covered in depth in other documents.

Prerequisites

This guide assumes you have already:

- Setup an account with TSI® Incorporated by registering on tsi.com/register (website has a full guide and video instructions).
- Ordered the Smart Bridge application and received the Welcome Email.
- Activated your Account's TSI Link™ Standard Subscription. If your account is the same as the ordering account, the registration is automatic and no steps are needed. Otherwise, use the activation Code in the welcome email to Register your Subscription.

Supported TSI® Instruments via TSI Link™ Smart Bridge

- DustTrak™ Aerosol Monitor
(More to follow)

TSI Link™ Smart Bridge Software

The Smart Bridge software enables you to leverage the TSI Link Report Creator and for easy, secure management of test data via the TSI Link Study Manager.

Downloading

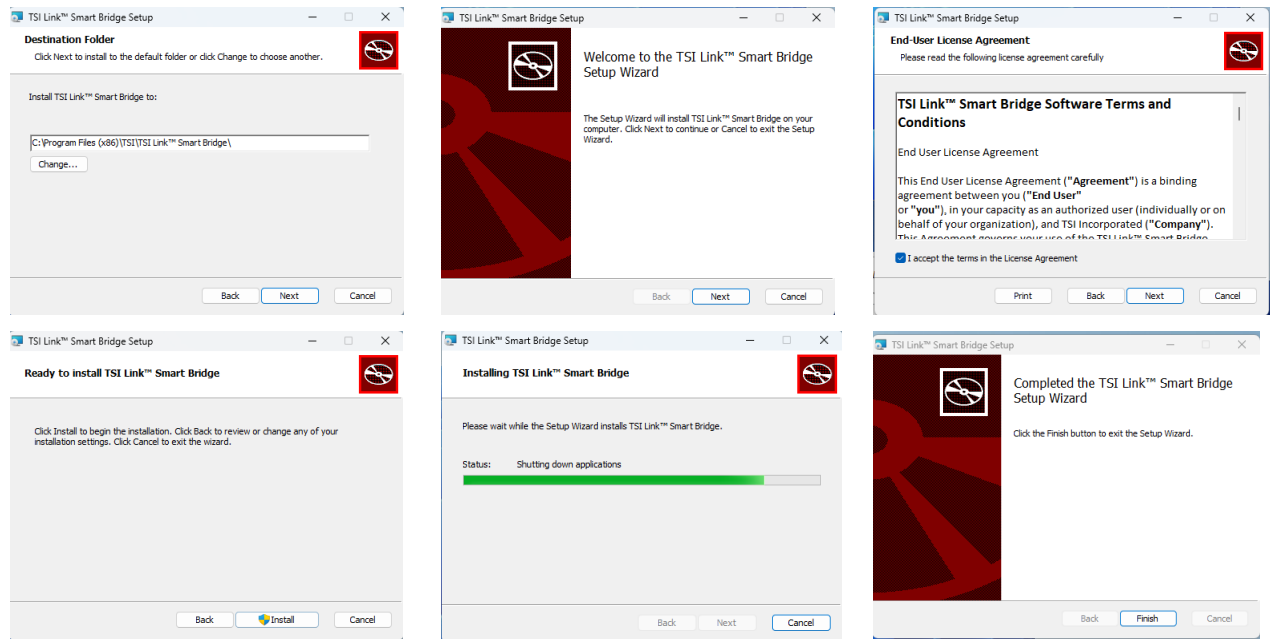
The welcome email has a link to automatically download the Smart Bridge software.

Alternatively, the software can be downloaded from the [TSI Software and Firmware Wizard](#), search for your TSI® DustTrak™ monitor, click on **TSI Link Smart Bridge**, fill out the form then an email with a link to download Smart Bridge will be sent.”

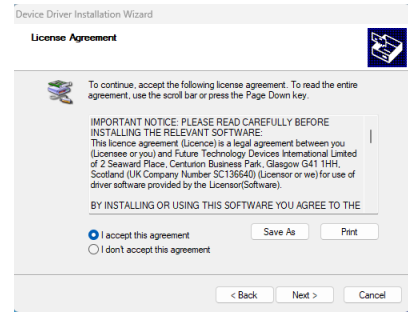
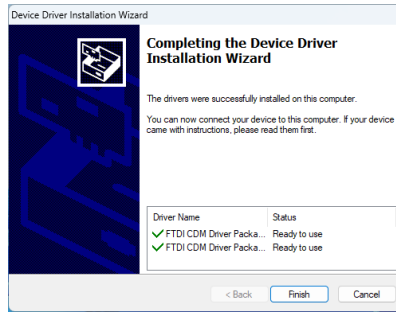
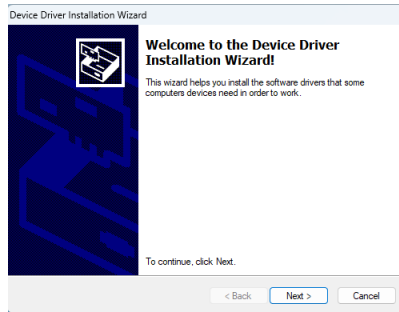
Installing

Double-click on the Smart Bridge set up icon to begin installation, follow these steps:

Smart Bridge Setup – Installing the Software

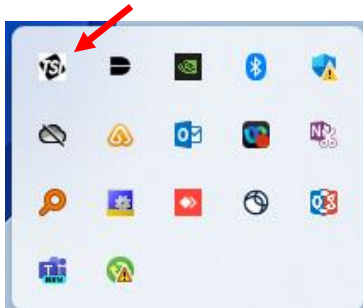


Installing the Device Drivers



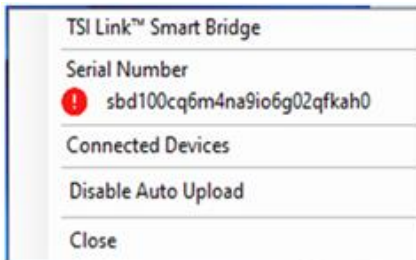
TSI Link™ Smart Bridge Icon in System Tray

After you have finished, the TSI Link™ Smart Bridge icon will be on your screen and accessible as a program on your computer. It is shown in the system tray when it is running.

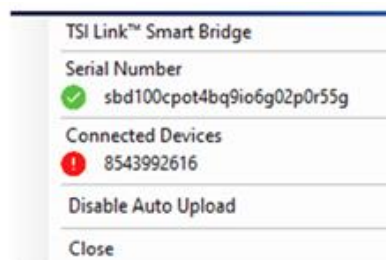


This icon will lead to the Smart Bridge menu screen. Below are examples of the Smart Bridge menu screen for different situations.

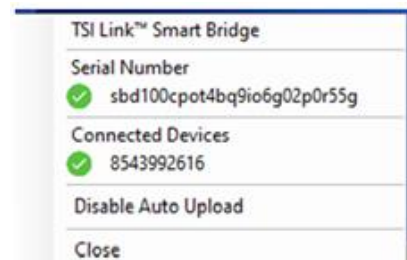
Unregistered TSI Link™ Smart Bridge



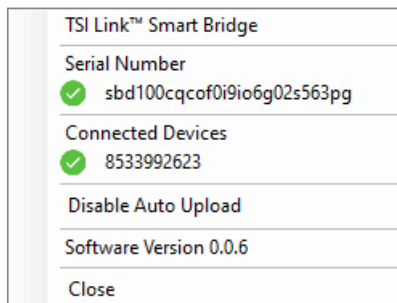
Registered TSI Link™ Smart Bridge & Unregistered DustTrak™ Monitor



Registered TSI Link™ Smart Bridge & Registered DustTrak™ Monitor



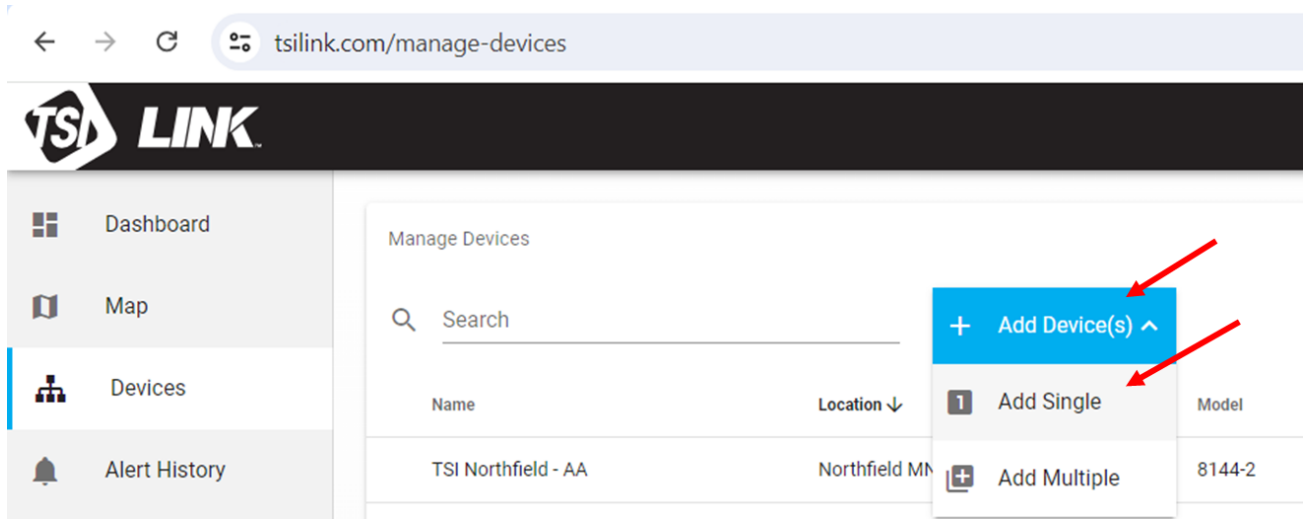
New (Software Version has been added).



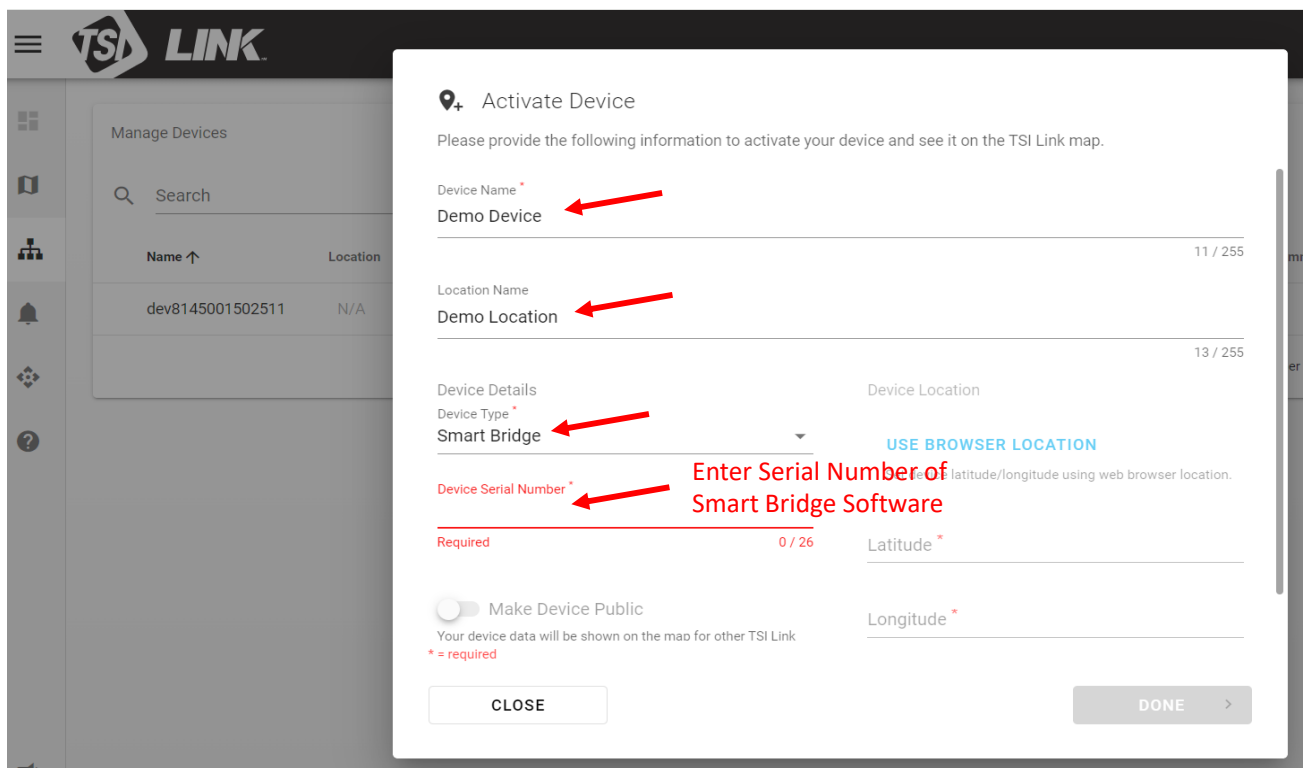
Use the Smart Bridge menu screen to copy the Smart Bridge Serial Number which is used in the next registration step.

Registering your Smart Bridge Connection

Once you have downloaded the Smart Bridge Software you will need to register it at <https://tsilink.com/manage-devices>. Choose to add a device then add a single device.



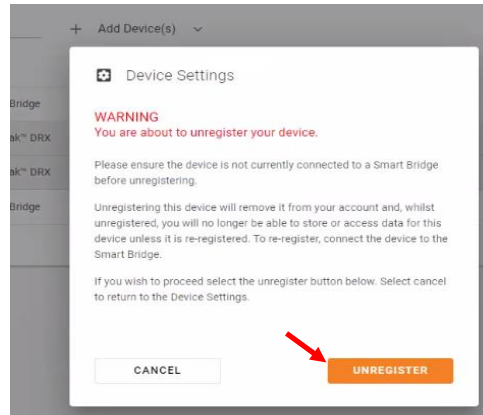
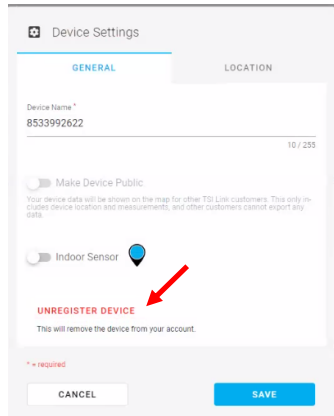
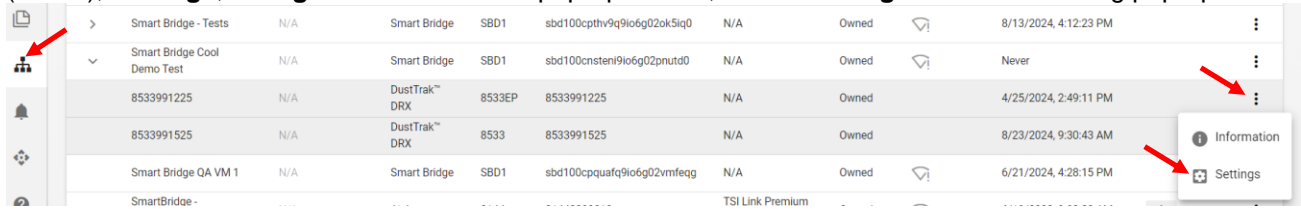
Next, fill out the **Activate Device** form, choose **Smart Bridge** as the Device type and fill in the other required fields. For the Serial Number, enter the Serial Number of the Smart Bridge Device.



Registering a DustTrak™ Device

DustTrak™ monitor will auto-register when the Smart Bridge detects them connecting. This will be added to your subscription and a registration fee will be applied.

If you upgrade or swap out a DustTrak™ device, you can unregister one of the devices and then use the subscription for a new device. To do so, logon to **TSILink.com**, on the **Devices** page, click the **Actions** menu (3 dots), **Settings**, **Unregister Device** in the pop-up screen, confirm **Unregister** in the warning pop-up.



Excel® Report Creator Add-In

The Report Creator Software enables automated, easy downloading and report of your test data. Just as Smart Bridge enables the data to be easily uploaded, Report Creator enables it to be easily downloaded and reported on.

Installing

For Microsoft® Excel® software running on your computer, the TSI® Link™ Report Creator add-in will work with the following configurations:

- Windows® operating system – Excel® 2019 software or newer desktop
- Macintosh® – Excel® 2019 software or newer desktop
- Microsoft® 365 operating system

For Microsoft® Excel® software for the web, i.e. via a browser, the following environments are recommended:

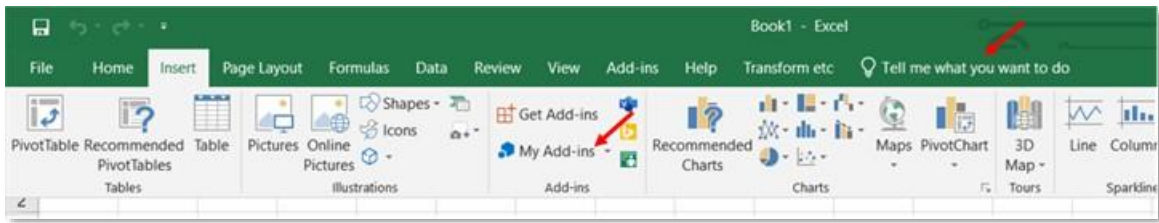
- Excel® 2019 or newer using Internet Explorer® (IE) 11 via a Chrome® or Edge® browser
 - Can be used on a tablet running Android® 10 and accessed via a Chrome® browser
 - Operating system must be either Windows® 10, 11. or Mac® OS Ventura®

With the correct version of Excel® software available, you will then need to install the TSI® Link™ Report Creator from the Microsoft® App store. Open Excel® software and click the **Insert** tab.

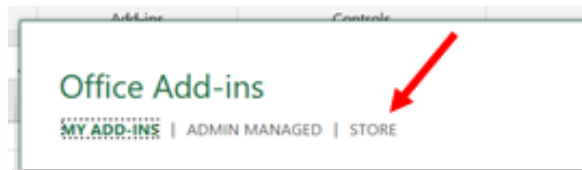
1. Go to the Microsoft® Store for Excel® Add-ins.
Under **Insert** tab, **Add-ins** section, choose **My Add-ins**

or

Use Excel® spreadsheet's "Tell Me what you Want" search for "**Insert Add-in**"

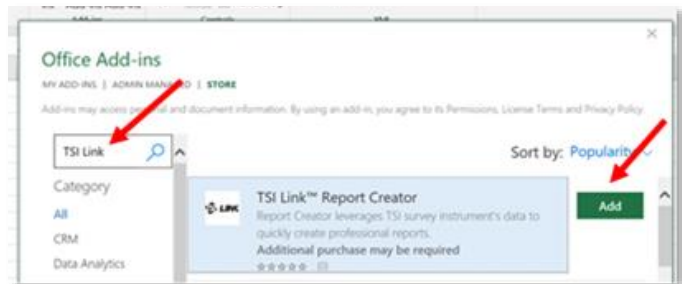


2. A dialog box appears. Click the **Store** tab.



3. Enter "TSI Link" into the search box. Locate the TSI® Link™ Report Creator add-in and click **Add**.

Terms and Conditions are agreed to when you add it.

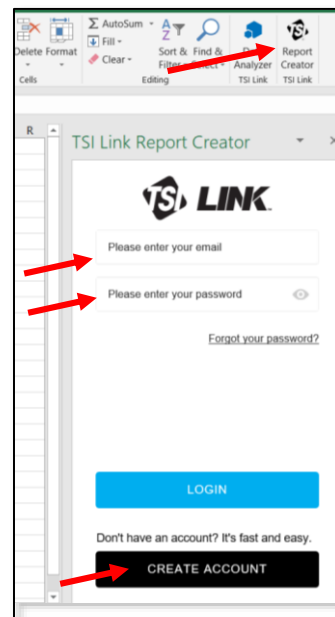


Connecting

Once the add-in is installed, a **TSI® Link™ Report Creator** icon will appear in the upper right of the Home Tab in Excel® software.

Click the icon to open the add-in then enter your TSI® Link email address and password.

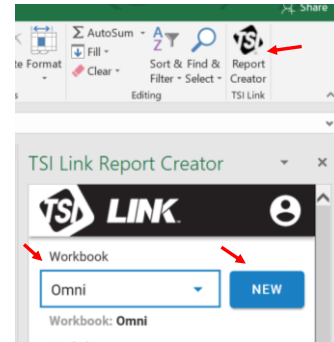
This is the same email address and password to login to tsi.com. If you do not have one, go ahead and [Create an Account](#) by registering on tsi.com.



Generating Report Creator Workbooks

Starting a New Workbook

1. Click on the Report Creator icon, select the Workbook you are interested in from the Workbook drop-down, click on the **NEW** button.

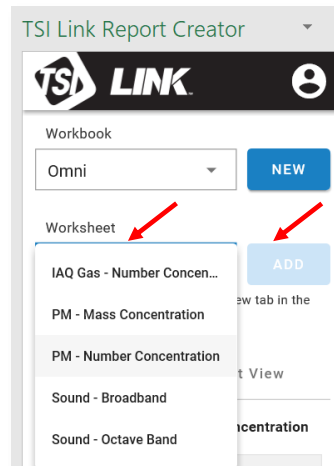


2. Fill out or edit the cover sheet information, customizing it with your own logo and information



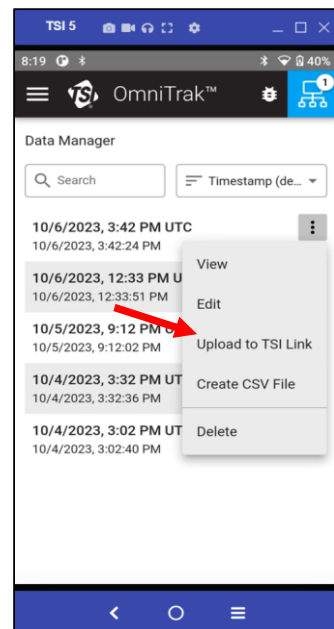
Adding Worksheets

3. Select the Worksheet you are interested in. Use the **ADD** button.



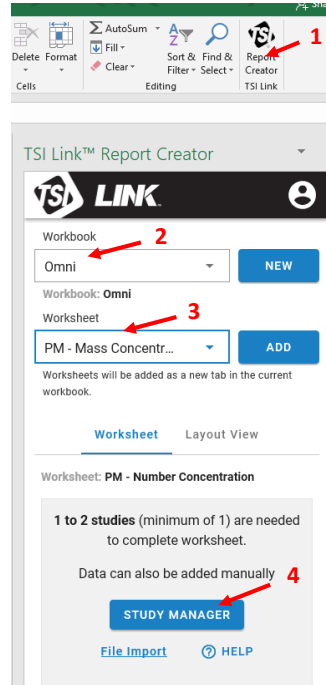
Study Manager

4. Pull studies into the worksheet template using either the **STUDY MANAGER** or the **File Import**.
 - First, Upload Studies from the Smart Station to TSI® Link™ using **STUDY MANAGER**.



5. Once the study has been uploaded to TSI® Link™ **STUDY MANAGER** load the data into your report.

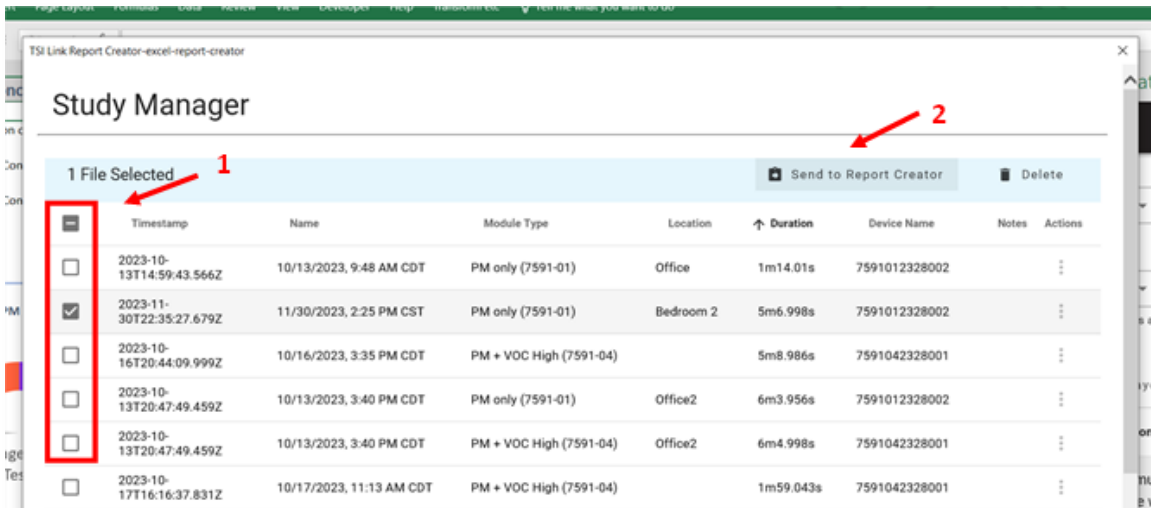
- 1 Click on the **Report Creator** icon
- 2 Choose the workbook type you want to use
- 3 Choose the worksheet you to populate
- 4 Click on **STUDY MANAGER**



6. **Choosing files to load:** After you load, click on the Study Manager.

- 1 **Files Selected** for the study
- 2 Click **Send to Report Creator**

NOTE: If you have selected more files than the chosen worksheet can support, the **Send to Report Creator** button will be grayed out.



7. Individual Study Actions.

Delete: Allows the user to delete the selected study.

The screenshot shows the 'Study Manager' interface. At the top is a search bar labeled 'Find Study'. Below it is a table with columns: Timestamp, Name, ID, Location, Type, Duration, Device Name, Device ID, Comments, and Actions. The table contains 11 rows of study data. A red box highlights the 'Actions' menu for the study with ID '64f7...ef51'. The menu options are: Details, Edit, Send to Report Creator, and Delete.

<input type="checkbox"/>	Timestamp	Name	ID	Location	Type	Duration	Device Name	Device ID	Comments	Actions
<input type="checkbox"/>	2023-10-09T16:33:47.329Z	10/9/2023, 11:24 AM EDT	6524...a214		generic	13m26.991s	7591040000001	D3:07:02:9F:35:A7		⋮
<input type="checkbox"/>	2023-10-09T16:33:47.329Z	10/9/2023, 11:24 AM EDT	6524...a215		generic	13m26.902s	7591020000002	D6:15:BC:3C:23:C2		⋮
<input type="checkbox"/>	2023-10-09T16:33:47.329Z	10/9/2023, 11:24 AM EDT	6524...a216		generic	13m27.041s	7591010000001	EE:8E:72:20:18:9A		⋮
<input type="checkbox"/>	2023-10-06T17:37:35.234Z	10/4/2023, 3:32 PM UTC	6520...a1eb		generic	27m59.959s	Shared Sensor	D4:2F:A8:6B:17:18		⋮
<input type="checkbox"/>	2023-10-06T17:35:14.464Z	10/5/2023, 9:12 PM UTC	6520...a1ea	Office	generic	28m16.958s	Shared Sensor	D4:2F:A8:6B:17:18		⋮
<input type="checkbox"/>	2023-10-06T17:32:18.952Z	10/6/2023, 12:33 PM UTC	6520...a1e9		generic	1h12m13.857s	Shared Sensor	D4:2F:A8:6B:17:18		⋮
<input type="checkbox"/>	2023-10-06T17:27:41.101Z	10/6/2023, 3:42 PM UTC	6520...a1e8		generic	9m1.992s	Shared Sensor	D4:2F:A8:6B:17:18		⋮
<input type="checkbox"/>	2023-09-05T14:28:58.68Z	9/5/2023, 9:14 AM CDT	64f7...ef4f		generic	17.121s	TSI-5	56:35:94:9C:74:44		⋮
<input type="checkbox"/>	2023-09-05T14:28:58.68Z	9/5/2023, 9:14 AM CDT	64f7...ef50		generic	17.156s	TSI-6	96:53:86:17:7:25:7		⋮
<input type="checkbox"/>	2023-09-05T14:28:58.68Z	9/5/2023, 9:14 AM CDT	64f7...ef51		generic	17.154s	TSI-7	2:71:6:41:6:93:45		⋮

Details: Allows the user to see details of the Study.

The 'Study Details' view shows the following information for the study with ID '64f7...ef51':

- Timestamp:** 10/9/2023, 11:24 AM EDT
- Timestamp (ISO):** 2023-10-09T16:33:47.329Z
- Duration:** 13m26.991s
- Capture Device:** 7591040000001
- Device ID:** 7591-04/D3:07:02:9F:35:A7
- Location:**
- Notes:**

A blue 'BACK' button is located at the bottom left.

Edit: Allows you to make simple Study edits.

The 'Edit Study' view shows the following fields for editing the study with ID '64f7...ef51':

- Study Name:** 10/9/2023, 11:24 AM EDT
- Timestamp:** 2023-10-09T16:33:47.329Z
- Duration:** 13m26.991s
- Capture Device:** 7591040000001
- Device ID:** 7591-04/D3:07:02:9F:35:A7
- Location:** (empty text field)
- Notes:** (empty text area)

8. Marking Study files and Loading Data.

After you have selected files to load into the worksheet:

- 1 Match the studies to the Markers in the workbook
- 2 Data Loading typically takes just a few seconds
- 3 The charts are created
- 4 The detailed data is available

The image shows three stages of the TSI Link Report Creator interface:

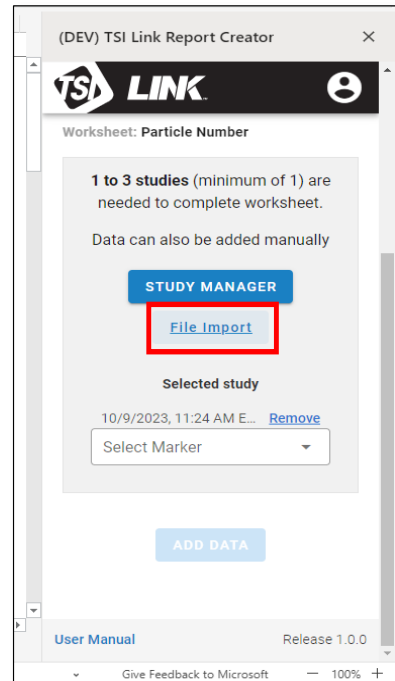
- 1** The 'Selected studies' window shows a list of studies (e.g., '9 7 2023, 6 41 AM U...') and a 'Select Marker' dropdown menu with 'Test 1' and 'Test 2' options. An 'ADD DATA' button is at the bottom.
- 2** A 'Please Wait' dialog box with a blue loading spinner is displayed over the interface.
- 3** A 'Temporal Analysis - PM 10' chart titled 'PM 10 - Test 1'. The chart shows a purple line for 'Test 1-PM 10' and a red dashed horizontal line for 'PM 10 Avg' at a value of 50. The x-axis has labels like '16.279'.

4 The 'Measurement Data' table below the chart displays the following data:

Timestamp	PM 1.0 (ug/n)	PM 2.5 (ug/n)	PM 4.0 (ug/n)	PM 10 (ug/m)	PM 1.0 Avg	PM 2.5 Avg	PM 4.0 Avg	PM 10 Avg
09-07-2023 06:41:23	2	2	2	3	20	30	40	50
09-07-2023 06:41:24	2	2	2	2	20	30	40	50
09-07-2023 06:41:25	2	2	2	2	20	30	40	50

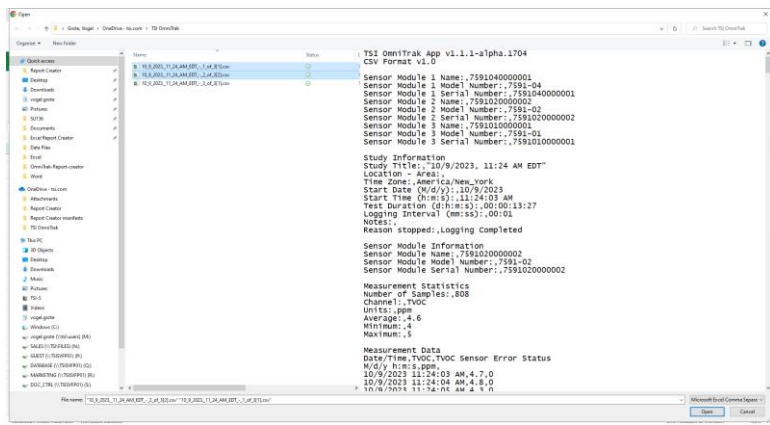
File Import

Studies can also be pulled manually into the **Report Creator** using the **File Import** function.

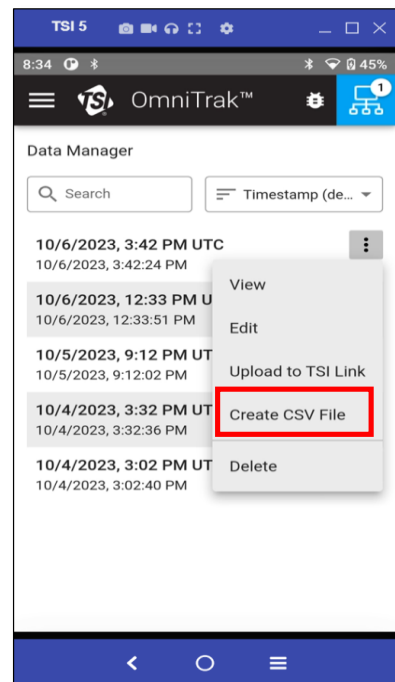


These studies must be sent to your computer using the **Create CSV File** and using a USB cable to connect the TSI® Instrument to your computer (see figure at right).

Once the files are sent to your computer open up the file picker using **File Import**. A single study can be selected, or multiple (see figure below).



Once the desired number of studies have been selected, they can be marked, just like they are with the **Study Manager** loading.



Tables within Studies

Once all the studies are marked, use the **ADD DATA** button to pull them into the Report Creator. A simple statistics table is presented summarizing the data that was pulled in.

Study	Duration (min)	Avg 0.3-0.5um	Avg 0.5-1.0um	Avg 1.0-2.5um	Avg 2.5-4.0um	Avg 4.0-10um
Upstream	18.15	572701.202	81729.197	0.	0.	0.
Downstream	25.9	8103.535	0.	0.	0.	0.
Ambient	0.					

statistics table

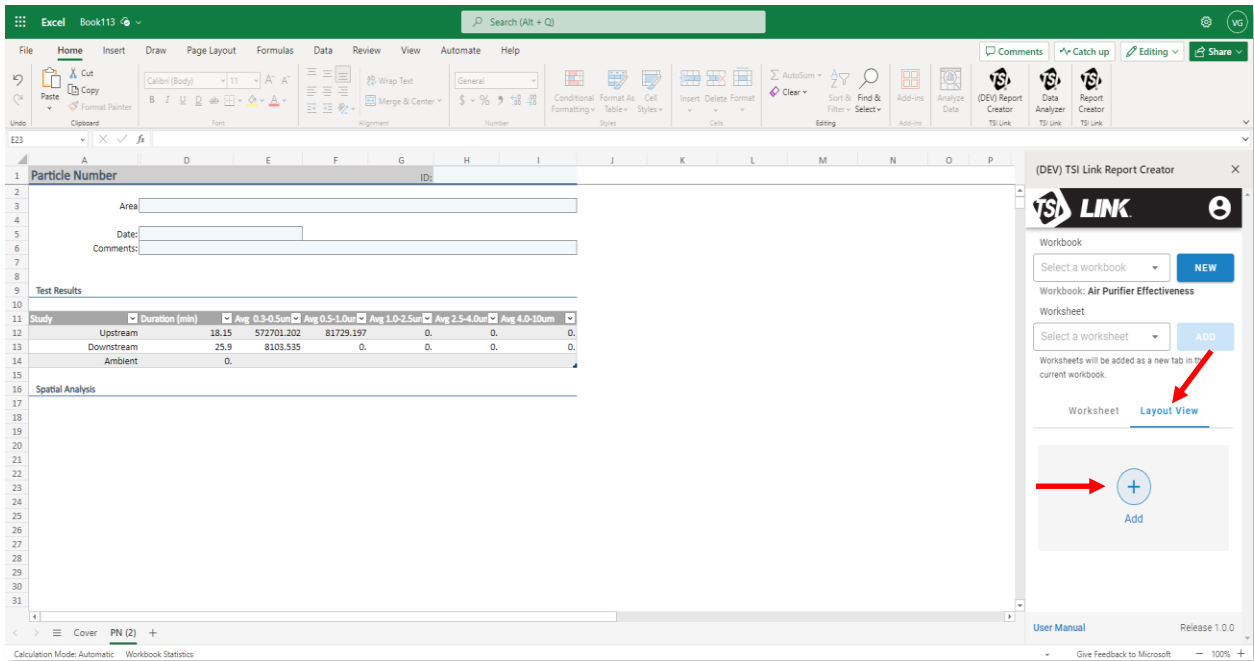
Scrolling down in the worksheet, the template will detail each study's telemetry with graphs and tables.

Detailed Measurement Data

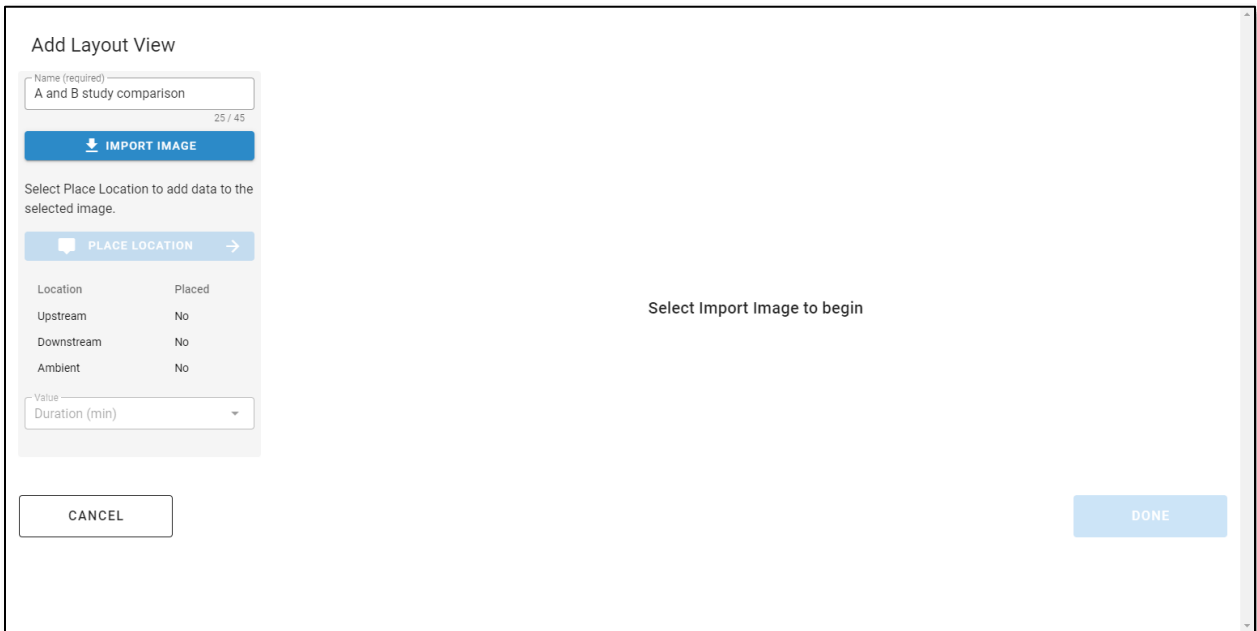
Timestamp	NC 0.3 - 0.5 (#/m3)	NC 0.5 - 1.0 (#/m3)	NC 1.0 - 2.5 (#/m3)	NC 2.5 - 4.0 (#/m3)	NC 4.0 - 10 (#/m3)	NC 0.3 - 0.5 Max	NC 0.5 - 1.0 Max	NC 1.0 - 2.5 Max	NC 2.5 - 4.0 Max	NC 4.0 - 10 Max
03-19-2021 11:21:45	800,000	100,000	0	0	0	10,000,000	5,000,000	1,000,000	100,000	10,000
03-19-2021 11:21:46	800,000	100,000	0	0	0	10,000,000	5,000,000	1,000,000	100,000	10,000
03-19-2021 11:21:47	600,000	0	0	0	0	10,000,000	5,000,000	1,000,000	100,000	10,000
03-19-2021 11:21:48	600,000	0	0	0	0	10,000,000	5,000,000	1,000,000	100,000	10,000
03-19-2021 11:21:49	600,000	0	0	0	0	10,000,000	5,000,000	1,000,000	100,000	10,000
03-19-2021 11:21:50	600,000	0	0	0	0	10,000,000	5,000,000	1,000,000	100,000	10,000
03-19-2021 11:21:51	600,000	0	0	0	0	10,000,000	5,000,000	1,000,000	100,000	10,000
03-19-2021 11:21:52	500,000	0	0	0	0	10,000,000	5,000,000	1,000,000	100,000	10,000

How to use the Layout View Function

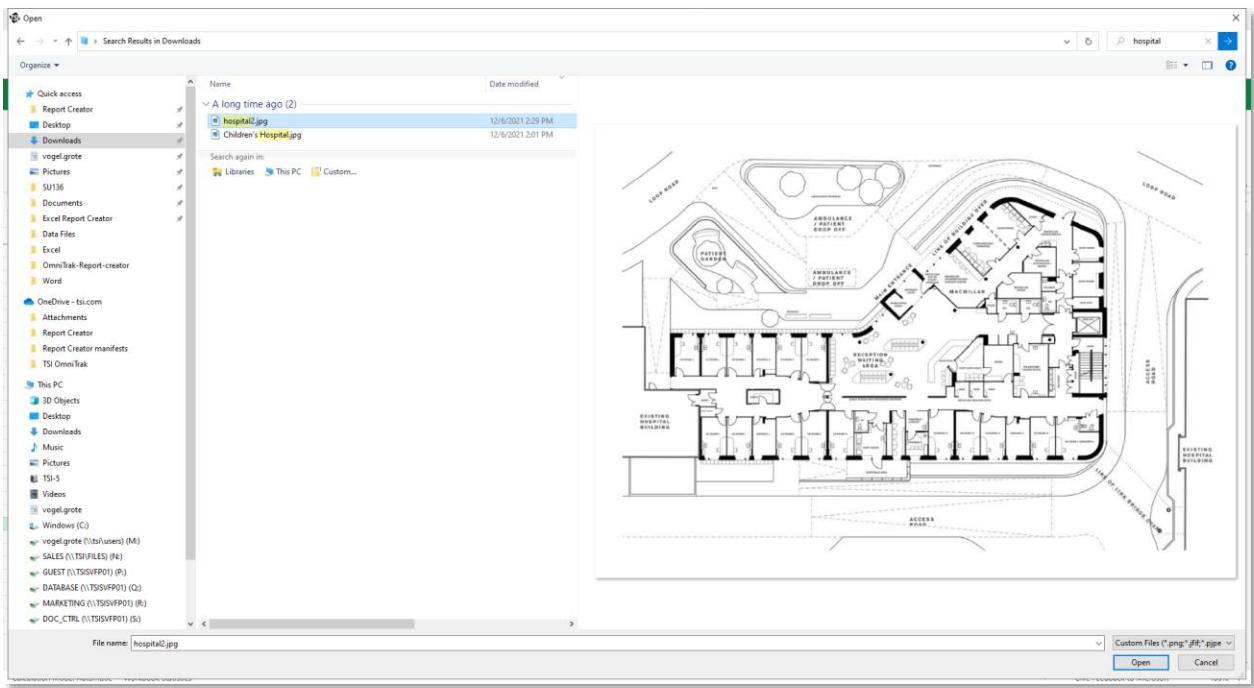
By selecting the **Layout View** and using the **Add (+)** button a visualization of the data can be included in the worksheet.



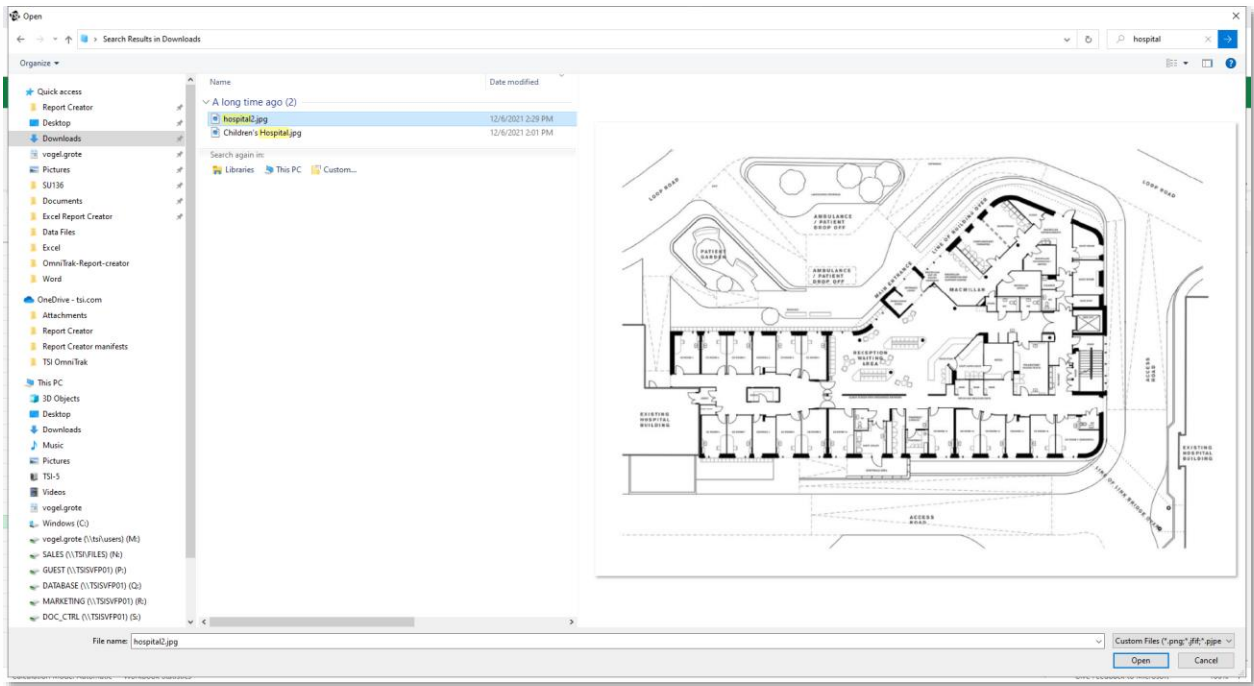
A new dialog is opened. A name of the Layout View must be entered. A jpeg image can then be selected using the **IMPORT IMAGE** button.



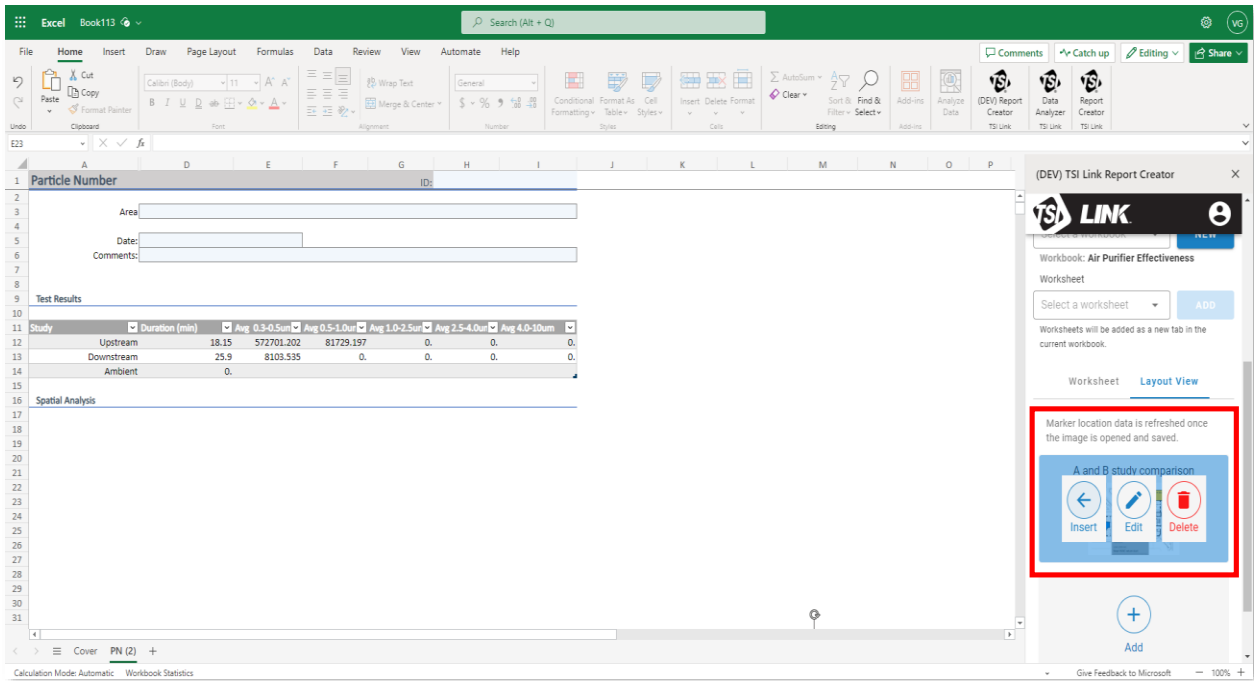
After using the **IMPORT IMAGE** button is used, a file picker will appear to help select a jpg image.



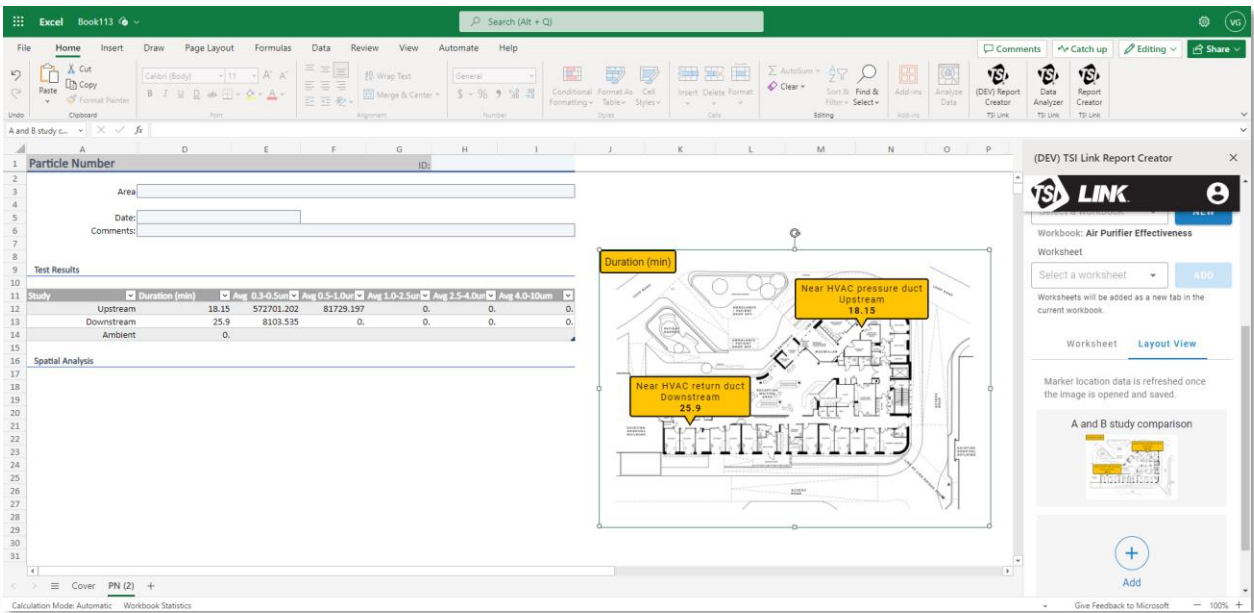
Location marker can then be selected to indicate on the image where the study was conducted.



The image with the marker locations can then be inserted into the worksheet template.



The image can be moved within the worksheet to ensure it does not hide any of the tables or graphs.



Knowledge Beyond Measure.

TSI Incorporated – Visit our website www.tsi.com for more information.

USA Tel: +1 800 680 1220
UK Tel: +44 149 4 459200
France Tel: +33 1 41 19 21 99
Germany Tel: +49 241 523030

India Tel: +91 80 67877200
China Tel: +86 10 8219 7688
Singapore Tel: +65 6595 6388

TSI and the TSI logo are registered trademarks of TSI Incorporated in the United States and may be protected under other country's trademark registrations. Microsoft, Windows and Excel are registered trademarks of Microsoft Corporation. Macintosh is a registered trademark of Apple Inc.