OmniTrak™ Core + Report Creator

User's Guide

Contents

Contents **1**

Overview **2**

Setup and Subscription **2**
- Account Setup 2
- TSI Link™ Report Creator Subscription 2
- Report Creator Software Set Up 2

Powering Smart Station and Modules **3**
- Charging 3
- Smart Station Power 3
- Module Power 4
- Sensor Signals 4

Connecting Smart Station to Modules **4**
- Wi-Fi® 4
- Date and Time 5
- Pairing Modules to the Smart Station 5

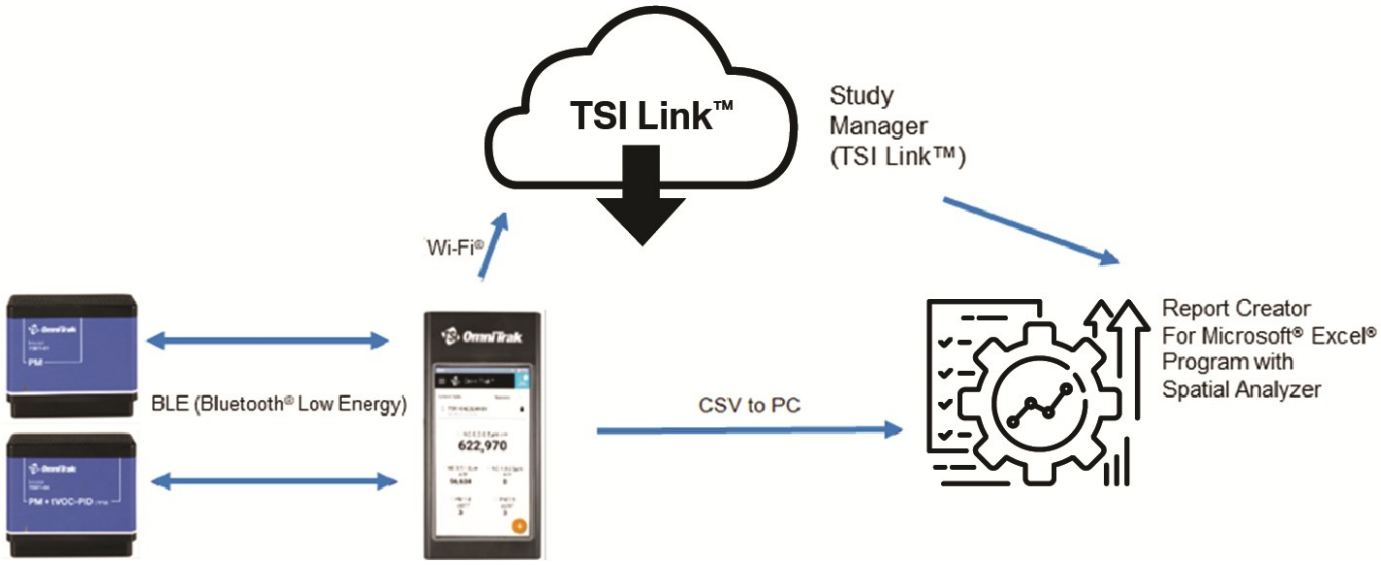
Smart Station Menu **6**

Data and Recording Studies **7**
- Recording a Quick Start Study 7
- Recording a Module Study 7
- Downloading Module Study Data 8
- Exporting Data from the Smart Station 9

Analyzing and Reporting on Studies using Report Creator **10**
- Adding Workbooks and Worksheets 10
- Parameters 10
- Loading Data 11
- Marking 12
- Report 12

Overview

This document is a guide to get started with the OmniTrak™ Solution + Report Creator. More information can be found on the OmniTrak Solution | TSI page.



Setup and Subscription

Account Setup

Registering on TSI.com/Register. This website has a full guide and video instructions.

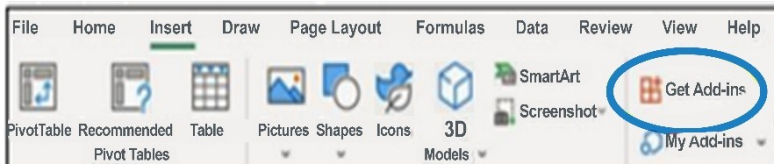
TSI Link™ Report Creator Subscription

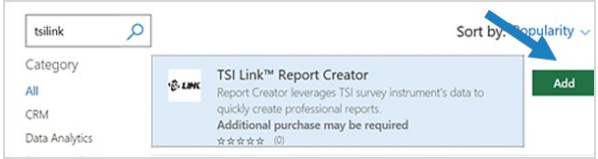
The Subscription typically autoactivates, but if the users account is on a different account versus what was used to order and ship the device, then follow the steps in TSI Link Report Creator Setup Guide using an Activation Code.

Report Creator Software Set Up

1. Install TSI Link™ Report Creator Add-in from within Microsoft® Excel program.

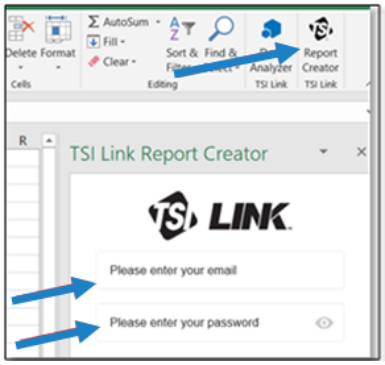
2. Go to Microsoft Store for Excel Add-ins. Under “Insert” tab, “Get Add-ins” section, choose **My Add-ins**, and then click **Store**. Search for TSI and click “**Add**” for the TSI Link™ Report Creator.





3. Once the Add-in is installed, a **TSI Link™ Report Creator** icon will appear in the upper-right of the Home tab in Excel program.

4. Click the icon to open the Add-in; then enter your TSI Link email address and password.



For Detailed Steps see [TSI Link Report Creator - Complete Setup Guide.]

Powering Smart Station and Modules

Charging

An ideal power source for the Smart Station and modules is a 5 VDC, 2 Amp, 10 Watt wall charger using the provided USB cable. They can both be charged in either on or off states. On the modules, there are LEDs next to the charging port indicating module status – see table below.

Smart Station Power

- To turn the Smart Station **on**, hold the power button on the right side for 2–3 seconds.
- To turn the Smart Station **off**, hold the power button on the right side for 2–3 seconds and touch **Power Off** in the upper-left corner of the screen.

Module Power

- To **power on**, hold the power button located on the left side for ~1 second.
- To **power off**, hold the power button for ~5 seconds. See table below for LED signals.

Sensor Signals

Signal	Meaning
LED on Outside of Module	
Blue 1x/sec or Solid Red	Module error
Green → Yellow → Red → Off	Module powering off
Blue 2x/ sec	Waiting for Bluetooth connection
Green 1x/5 sec	Bluetooth connected; Battery > 25%
Yellow 1x/5 sec	Bluetooth connected; Battery 10-25%
Red 1x/5 sec	Bluetooth connected; Battery < 10%
Blue ↔ White Alternating 1x/5 sec	Module study active; no Bluetooth connection
Green ↔ White Alternating 1x/5 sec	Module study active; Bluetooth connected; Battery > 25%
Yellow ↔ White Alternating 1x/5 sec	Module study active; Bluetooth connected; Battery 10–25%
Red ↔ White Alternating 1x/5 sec	Module study active; BLE connected; Battery < 10%
LED on Bottom of Module	
Orange with Flashing Green	Module charging
Orange with Solid Green	Module fully charged
Off	Charger not connected

Additional Information

- All modules are shipped in “Sleep Mode” to protect the battery during shipment and storage. It will not be possible to power on the module using the side button until Sleep Mode is disabled. To disable, plug the module into a power source and charge it for a few minutes. This process is only required the first time the module is powered on.
- The Smart Station can enter Hibernation Mode by pressing the power button. Press one more time to exit hibernation mode.
- The button on the left side of the Smart Station is disabled. Be sure you are using the power button on the right side of the Smart Station.

Connecting Smart Station to Modules

Wi-Fi®

To connect the Smart Station to Wi-Fi:

- Tap the hamburger menu (three horizontal lines) in the upper-left corner of the display.
- Tap **Settings**.
- Tap **Wi-Fi**.
- Move the slider over to turn on the Wi-Fi (by default it is off).
- Select a Wi-Fi network and enter the password.
- Tap **Connect**.

Date and Time

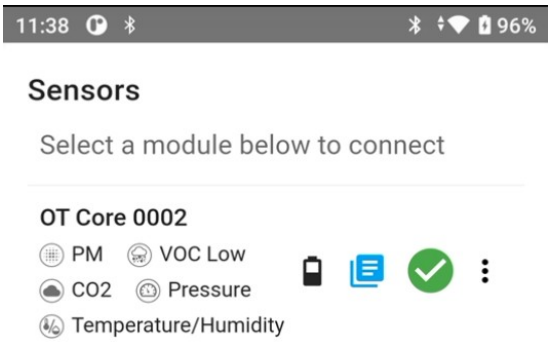
To adjust the Smart Station date and time:

- Tap hamburger menu in the upper-left corner.
- Tap **Date & Time**.
- Tap **Use network-provided time** and then touch **Off**. You can now adjust the date and time.

Pairing Modules to the Smart Station

To pair a module with the Smart Station:

- Ensure both the Smart Station and the module are powered on and within 2 meters (6 feet) of each other. Tap the blue network icon in the upper-right corner of the screen. The Smart Station will display all modules within Bluetooth® range.
- Tap the module to connect.
  - If you see 'No sensor modules detected,' tap **Refresh.**
- Confirm successful connection:
  - A green check mark will appear next to the module name.
  - The LED on the front of the module will blink green.
- Repeat these steps to connect additional modules. Tap **DONE** when finished.



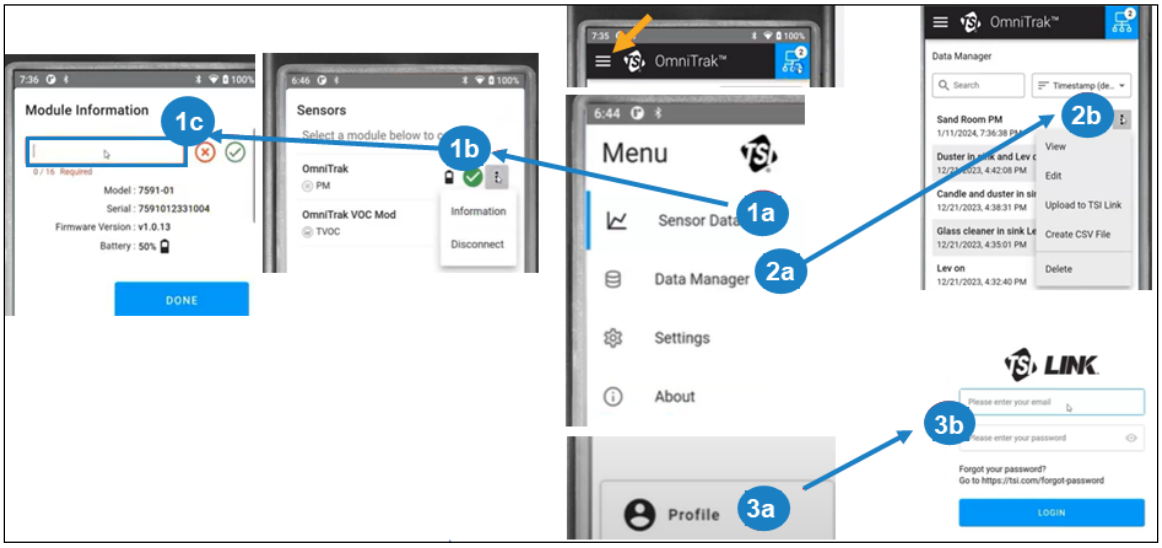
Unpairing Modules from the Smart Station

To disconnect a module:

- Tap the kebab menu (three vertical dots) next to the green check mark for the connected module.
- Select **Disconnect**.
- When the confirmation message appears, tap **Disconnect** again to finalize.

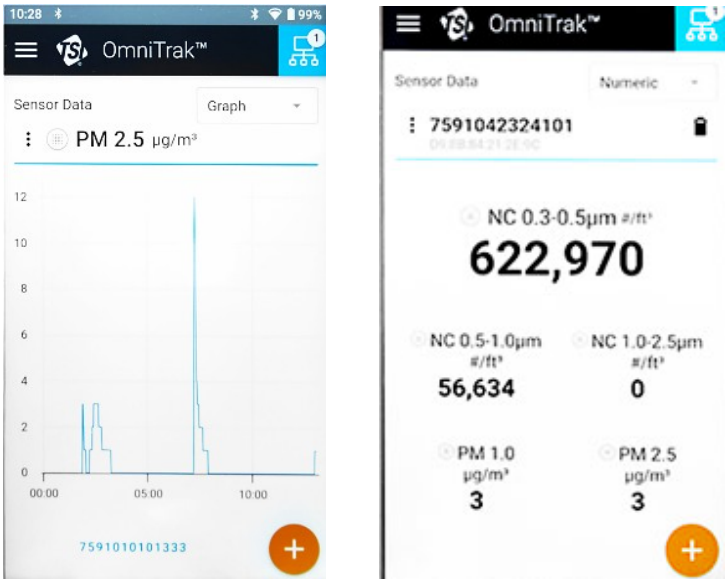
Additional Information
▪ It is not possible to connect the same module to two or more Smart Stations at the same time. ▪ If a module is out of Bluetooth range for ~15 minutes, it will power itself off to save the battery.

Smart Station Menu



From the hamburger menu button, you can access the main OmniTrak™ functions:

1. **1a) SENSOR DATA** – **1b)** Managing sensors, including **1c)** adjusting the Sensor Name (module serial number by default). Real-time measurement data can be viewed here in numerically or graphically.



2. **2a) STUDY MANAGER** – **2b)** Managing Study Data including viewing, editing, uploading and creating local CSV files on your computer.

3. **3a) PROFILE** –**3b)** Logging into TSI Link™ which enables uploading of studies for easy management (noted above).

Additional Information

- By default, the study name is set to the current date and time. You can rename the study and add location or notes as needed.
- Quick Start Studies use a fixed logging interval of 1 second. Module Studies allow you to choose a custom logging interval. Only a graphical view of historical data is available for these studies.

Data and Recording Studies

Recording a Quick Start Study

Quick Start Studies are available for all OmniTrak™ modules and record data directly on the Smart Station. Because of this, the module must stay within Bluetooth range of the Smart Station for the entire duration of the study.
To record a Quick Start Study:

- Tap the orange "+" icon located in the lower-right corner of the Sensor Data screen.
- Select **Quick Start Study** from the available options.
- Tap **Start** to begin recording.
- To temporarily pause the study, tap the blue **Pause** button.
    - Tap again to resume recording.
- When the study is complete, tap the red circle to **Stop**.
- Confirm by tapping **Stop** to end the recording session.
- Choose whether to **Save** or **Delete** the study.

The following sections do not apply to Quick Start Studies –
*continue to the **Exporting Data from the Smart Station** section.*

Recording a Module Study

Module Studies are available only on the Core module and record data directly on the module itself. The module only needs to be within Bluetooth range when starting or stopping the study – it does not need to stay within range during data collection.
To record a Module Study:

- Tap the orange "+" icon located in the lower-right corner of the Sensor Data screen and select **Module Study**.
- Choose the desired logging interval.
- Tap **Start** to begin recording.
    - A green 'Module Logging Active' status bar will appear, indicating that a Module Study is active.
    - All connected Core modules begin the study at the same time.
    - If an additional Core module is connected while a study is already in progress, a new Module Study can be started by following these steps again.
- To temporarily pause the study, tap the **Pause** button on the status bar.
    - Tap again to resume recording.
- Tap the **Stop** icon on the status bar to end recording.
- Confirm by tapping **Stop**. The study will be saved on the module with a default name

Additional Information

- **Core Module Control & Data Storage:** The Smart Station is required to start, stop, or manage the Core module. However, all data and studies are recorded directly on the Core module itself. These actions must be performed while the Smart Station is within BLE (Bluetooth® Low Energy) range of the module.
- **Active Timer for Module Study:** When a Module Study is within progress on the Core module, the Active Timer shows the elapsed time since the study began. This timer continues to count even if the study is paused.
- **Display During Quick Start Studies:** If a Quick Start Study is started while a Module Study is still running, the Active Timer for the Module Study will be temporarily hidden. Once the Quick Start Study ends, the Module Study Active Timer will reappear – provided the Core module is back within BLE (Bluetooth® Low Energy) range to the Smart Station.

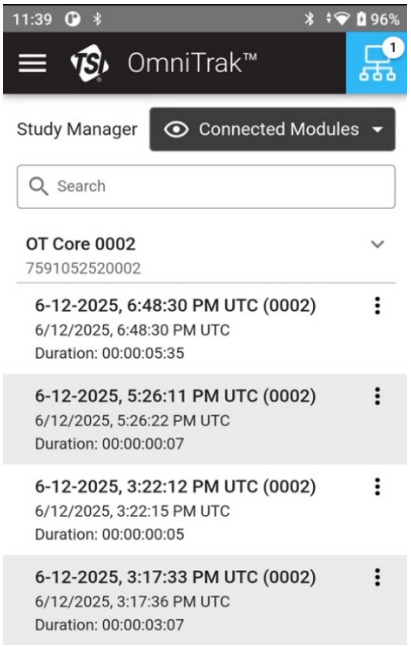
Downloading Module Study Data

Module Studies are stored directly on the Core module. To view or export these studies, they must first be downloaded to the Smart Station.

Follow these steps to complete the download.

- Tap the hamburger menu button and select **Study Manager.**
- Tap the dropdown menu at the top of the screen to select **Connected Modules.**
- Use the search bar to enter the module name or scroll through the list until you find the desired module. Tap the dropdown arrow to expand and view all studies saved on that module.
- Tap the kebab menu next to the desired study and select **Download** to save the study on the Smart Station.

Once the download is complete, tap the dropdown menu at the top of the screen and select **This Smart Station.**

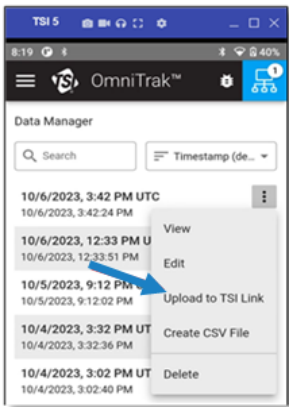


Additional Information

- **Module Study Naming:** Studies saved on the module use a default naming format that includes the date, time, and the last four digits of the module's serial number. This name, along with the date and time format, cannot be customized while the study is stored on the module. However, you can rename the study and adjust formatting after it has been downloaded to the Smart Station.
- **Deleting a Module Study from the Module**: To delete a study stored on the module, select the **Delete** option from the kebab menu next to the module name. This will permanently erase the study and its data from the module. This action is irreversible. Due to limited storage capacity on the module, studies may need to be deleted to free up space before starting a new Module Study – depending on the size and number of studies already stored.
- **Download Speed and Bluetooth Range:** When downloading studies from the module to the Smart Station, a stronger Bluetooth signal – moving the Smart Station and module(s) close to each other – will result in faster download times.

Exporting Data from the Smart Station

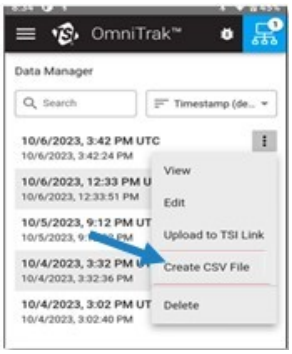
You can export data in two ways:



OPTION 1: Export via Study Manager to TSI Link™ Cloud
The easiest method is exporting through the Study Manager.

- Tap the hamburger menu and select **Study Manager**. You should see a list of recorded Studies.
  - Tap the kebab menu next to the Study you want to export.
  - Tap **Upload to TSI Link.**

OPTION 2: Export via CSV File to PC



To manually export a study as a CSV file:

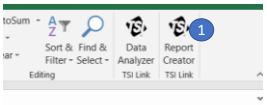
- Tap the hamburger menu in the upper-left corner of the display and select **Study Manager**.
  - Tap the kebab menu next to the study to be exported.
  - Tap **Create CSV File**. A message will confirm the file was saved to the **Documents/TSI OmniTrak** folder on the Smart Station.
  - Tap **Save** to complete the process. The Smart Station will notify you when the files are ready.
  - Connect the Smart Station to your PC using the provided USB cable. Studies are accessible through a drive labeled **TSI-5**.
  - Double click on **Internal Shared Storage**.
  - Double click on the **Documents** folder.
  - Double click on the **TSI OmniTrak** folder.

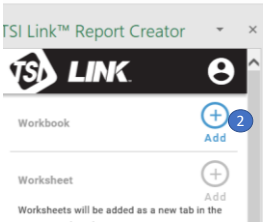
Additional Information
▪ Deleting the CSV file will not delete the study that is saved on the OmniTrak™ Smart Station. ▪ If the study contains data from multiple modules, the export features will separate the data and generate CSV files for each individual module.

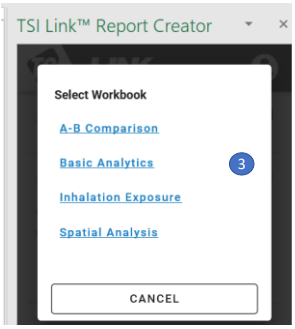
Analyzing and Reporting on Studies using Report Creator

To start a new report:

1. Open Microsoft Excel.
2. Click the TSI Link **Report Creator** icon **in the toolbar.**





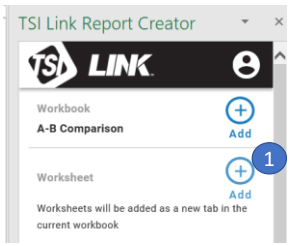


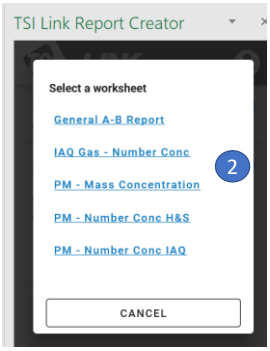
Fill out and edit the cover sheet information. Customize it for your company.

Adding Workbooks and Worksheets

The Core module is compatible with all workbooks, except for the Noise Exposure workbook and the DustTrak-specific worksheets within the Inhalation Exposure workbook.
Select the Workbook you are interested in:

- Click on the **+** icon next to 'Workbook.'
- Select the desired workbook.



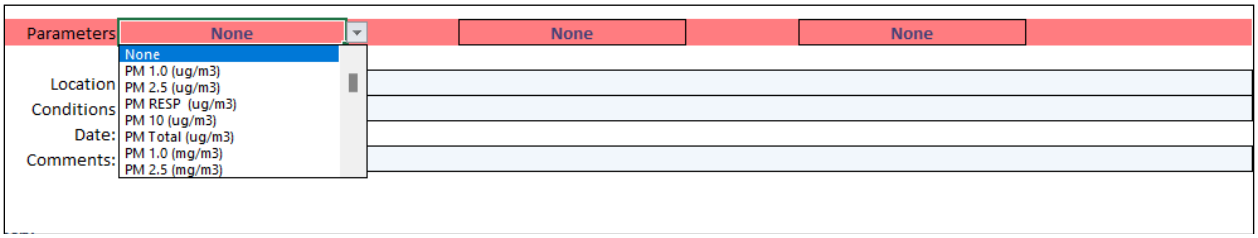


Select the Worksheet you are interested in.

- Click on the **+** icon next to 'Worksheet.'
- ClSelect the desired worksheet.

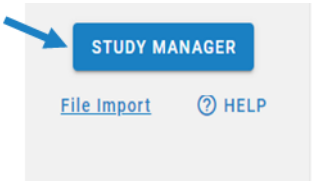
Parameters

Some reports require you to identify parameters before you can import data. If this is the case, cells will be highlighted red at the top of the worksheet and you will need to select from the drop-down menus before moving forward. If there are not any cells highlighted red for the report you selected, you can go right to loading data.



Loading Data

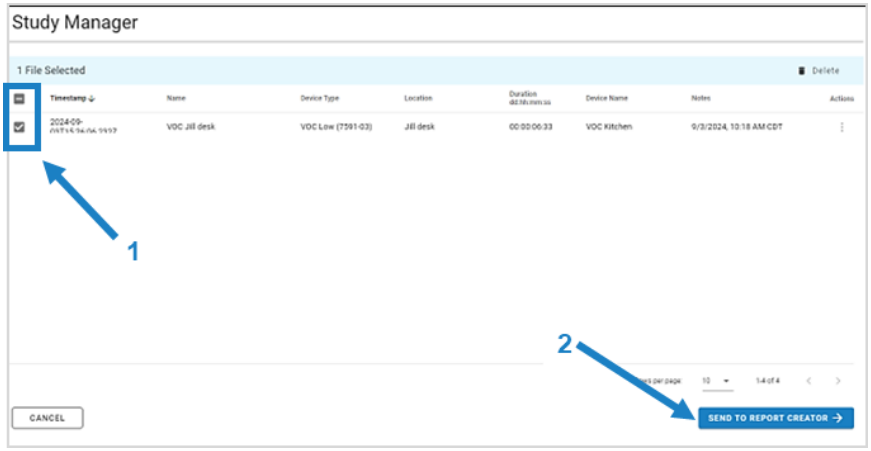
How you import the data depends on how you exported it.



OPTION 1: Import from TSI Link™

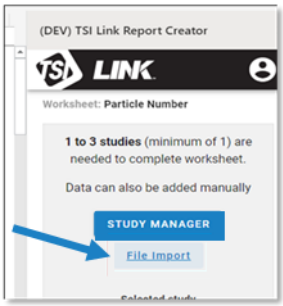
If you exported using the Study Manager to TSI Link™ then you will import the study from TSI Link™.

- In the Excel TSI Link™ Add-on, click **Study Manager.**
- Select the file(s) for the report.
- Click **Send to Report Creator**.
- After they load, click on the **Study Manager**.

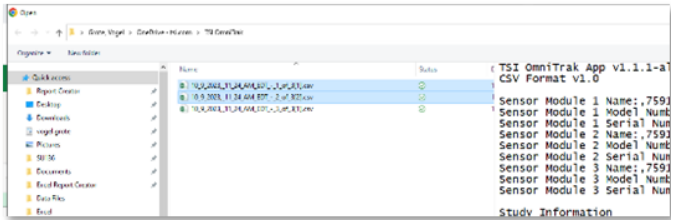


OPTION 2: Import a CSV file from a PC

If you created a CSV file and transferred it to a PC, then you will import the study from that PC.

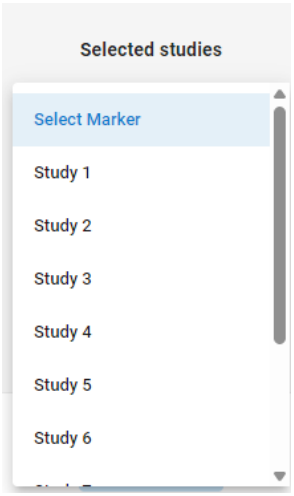


- In the Excel TSI Link™ Add-on, click **File Import.** This will open a new window.
- Navigate to your saved CSV file. A single study or multiple studies can be selected.



Marking

If you have selected more than 1 study to add to the worksheet, Report Creator will ask you to match the data being imported with the corresponding label in the worksheet. Once all the studies are marked, use the **ADD DATA** button to pull them into Report Creator.



Report

In Excel, click **File** and then **Print** to preview the report.

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