

Seek Thermal Scan

Getting Started and FAQ

[Seek Scan Software Update](#)

[Setup](#)

[System](#)

[Operation](#)

[Accuracy and performance](#)

Seek Scan Software Update

CURRENT VERSION: V1.1.1.1

Release Date: April 21, 2020

There are two ways to update Seek Scan software

1. Auto Update [Recommended]: If your PC running Seek Scan is connected to the internet you will receive a notification when a new version is available. To check for updates, close and relaunch Seek Scan. Follow the simple installation wizard to complete the update.
2. Download and Install Update: If your PC running Seek Scan is not connected to the internet download the file below to manually install the update. To check your software version, open Seek Scan and click "About."

Instructions:

1. Download and unzip the file
2. Double click the file named: SeekScanInstaller.msi
3. Follow the installation wizard to install the update

Confirm the update was successful by clicking the "About" menu and verifying the Software Version.

Setup

How long does Seek Scan take to set up?

Typical set up times take between 5 to 10 minutes on initial set up.

What is the set up configuration?

The Camera must be placed 1.5m (5 feet) from the Fixed Heat Source. The subject must stand next to the Fixed Heat Source looking at the Camera, and both the subject and the Fixed Heat Source must be in the Camera scene at the same time. Failure to follow these distance guidelines may result in less accurate skin temperature readings.

What is required to operate Seek Scan in addition to what is included in the box?

A PC, laptop, or tablet running Windows operating system (OS), software version 7 or 10 is required. Additionally, you will need a way to mount the Fixed Heat Source and the Camera. There is a variety of suitable options that range from using 2 standard camera tripods to more permanent installation options.

Note: The female ¼ 20 tripod mount is located on the back of the Camera and the Fixed Heat Source. If using a tripod setup, make sure the ¼ 20 mount is adjustable by 90 degrees, allowing the devices to face the correct direction.

Can the subject wear facemasks, glasses and hats?

Seek Scan will often work for subjects wearing these items. However, a single person with a high combination of these items may result in lower accuracy or no temperature reading. If this occurs, or for the most accurate results, it is recommended that subjects remove facial gear before measurement.

How do I update Seek Scan Software?

Seek Scan software has an auto update function. The software will automatically check for updates if your computer is connected to the internet. If your system is not up to date, Seek Scan will send you an alert to update your software. If your PC is not connected to the internet, you can find the latest software version by [clicking here](#). Please click the "About" menu at the top of the Seek Scan software program to check the version your software is currently running.

Does the system require WiFi?

No. The system does not require WiFi to function. As mentioned above, Seek Thermal may update the software occasionally and provide a download option on our website. Therefore, having your Windows PC connect to the internet will provide you the ability to access Seek Thermal's website and get product updates as they are released.

System

Is Seek Scan an FDA 510(k) cleared device?

No. It is Seek's position that the thermal cameras are not medical devices and do not require FDA 510(k) clearance when used for screening entry into a building or other space during the COVID-19 pandemic. The thermal cameras are not intended to replace a medical thermometer. Unlike a medical thermometer, Seek's thermal cameras measure skin temperature, not body temperature. They are not intended to diagnose, prevent, or treat any disease or condition, and they are not intended to be an adjunctive tool for diagnosis or identification of individuals who require a diagnostic assessment. Therefore, the thermal cameras are not subject to regulation by FDA as medical devices.

What are the physical dimensions and weight?

Seek Scan and the Fixed Heat Source are small and extremely lightweight.

Camera dimension (L x W x H) and weight: 3 x 8 x 9 cm / 140 g

Fixed Heat Source dimension (L x W x H) and weight: 3 x 9 x 9.5 cm / 80 g

What is the system frame rate (Hz)?

<9Hz

Can the system be used over WiFi or mobile app?

No, WiFi streaming and connection to a mobile app is not supported.

What data is stored and where?

Data is stored on the local Windows PC OS and can be found in the C Drive at C:\data\seekscan. The data consists of a text log that stores the time, date, temperature reading, and PASS or FAIL. In addition, the "Pass" and "Fail" folders will contain jpeg of each scan result.

Is there an SDK available for Seek Scan?

There is no SDK for Seek Scan. Developers are not permitted to modify the performance of the program. As stated above, the data from the system is stored locally on the Windows PC hard drive and can be accessed accordingly.

Does Seek Scan use facial recognition?

Seek Scan does not use any facial recognition software of any kind. Instead, the system uses face detection algorithms to determine if a subject is in the camera scene.

What is included in my software license?

Seek Scan comes with a free windows software program which comes with a software license when you buy the product. This includes any updates to the software released by Seek Thermal.

Operation

Do I need any special training to use Seek Scan?

No, the software is simple and easy to use.

Where should I set my alarm temperature threshold?

The temperature threshold is customizable and can be set by the user. A person's skin temperature may vary based on a variety of circumstances. For this reason, Seek Scan graphs all recent temperature measurements to help the user clearly see anomalies and set a desired temperature alarm threshold based on their own population and environment. By looking at this data the user can determine if they are setting the threshold at their desired screening level, typically a couple of degrees higher than where these measurements are clustered.

What should I do if someone has a temperature above the threshold I set?

That is up to the discretion of the user.

Do I need the Fixed Heat Source in the scene?

Yes, this is required. The Fixed Heat Source enables Seek Scan to produce much higher accuracy than a standard thermal imaging Camera. Seek Scan will not operate unless the Fixed Heat Source is detected in the Camera scene.

Does the Fixed Heat Source work with any other power sources?

No, please use the power supply provided by Seek Thermal in order to maintain the best performance of the system.

Can Seek Scan screen more than one person at a time?

No, the system intelligently looks for a single face to begin measurement. Please have only one subject in the Camera scene at a time.

Can multiple systems be used with one computer?

Seek Scan supports one system per computer.

How much time does each scan take per person?

Measurement time is 1 second.

Does Seek Scan have audible alarms?

Yes. Seek Scan has two audible tones. A buzzer tone will sound, along with the red box indicator on the screen, when the measurement results above the customizable temperature alarm threshold. A ding tone will sound, along with the green box indicator on the screen, when the measurement results below the customizable temperature alarm threshold. The audible tones can also be turned off.

Does Seek Scan require an operator?

No, the system is automated and does not require an operator. Although many users may prefer to have an operator monitor each scan as they occur, the system was developed to also accommodate self-measurement in honor system deployments.

Can I use the system in a hot room?

The system will not work with the required accuracy if the ambient temperature in the room exceeds 105°F. You should also avoid leaving the Fixed Heat Source in direct sunlight where it can be heated above its known temperature.

Will a nearby heating and air condition vent affect the system?

Environmental conditions such as warm and cold airflow may affect skin temperature. For optimal system performance we recommend installing this system inside a temperature-controlled environment but not directly in line with an HVAC vent.

What type of lighting is required for the system to function?

Normal indoor lighting is needed for best results using Seek Scan. Dark or nighttime conditions can make it difficult for the system to detect a subject. Glare, direct sunlight or reflection into the camera can also cause issues to detect a subject. For best results it is recommended to operate in standard indoor lighting conditions.

What happens when I don't get either a green or red box?

This means the system did not take a temperature measurement. The subject should step out of the frame and back in. First, a blue box should be presented which means the system is functioning correctly and about to take a measurement. If this does not happen, be sure the Fixed Heat Source is detected and an unobscured face is in the camera scene.

Can I use another brand of USB camera or Seek Camera (like a Seek Compact) with Seek Scan?

No. Seek Scan will only work as described when used as a system with the Seek Scan camera, Fixed Heat Source and Seek Scan software that is provided with the product.

Accuracy and Performance

How accurate is Seek Scan?

Seek Scan has $\pm 0.3^{\circ}\text{C}$ (0.5°F) measurement accuracy aimed at an object with a temperature that is known and stable, such as a Fixed Heat Source (also known as a black body). Unlike typical industrial thermal cameras, Seek Scan was developed and calibrated for precise skin temperature measurement and maximizes accuracy by referencing the Fixed Heat Source with a known temperature value. The system sensitivity is 40 mK (typical).

Skin temperature does not directly correlate to body temperature. The relationship between skin temperature and body temperature can vary among individuals subject to a number of factors such as physical activity prior to measurement, ambient conditions and subject distance from the camera.

Can Seek Scan be used to detect an illness, fever, virus or infection?

Seek Scan is a system that measures skin temperatures and alerts the user when this temperature exceeds the customizable temperature threshold set by the user. Seek Scan is not intended to diagnose, prevent, or treat any disease or condition, and it is not intended for medical use.

How does Seek Scan compare to a thermometer?

Seek Scan is not a thermometer and does not measure internal body temperature. Seek Scan is not intended to diagnose, prevent, or treat any disease or condition, and it is not intended for medical use. Seek Scan measures skin temperature, which may vary from body temperature.

Why would I want to use Seek Scan versus a thermometer?

Thermometers are used to measure a person's body temperature for medical reasons. Seek Scan does not do this. Seek Scan measures the skin temperature of an individual and alerts the user when the subjects' skin temperature exceeds the user-selected threshold. Seek Scan can be used for screening and allows the operator to maintain a safe distance from the subject. Seek Scan does not take the place of a medical thermometer for measurement of a person's body temperature to diagnose fever.

Does facial hair affect the system?

No, Seek Scan measures parts of the face that are not covered by facial hair.

Does skin color affect the system?

No, skin color does not affect system performance.

What affects skin temperature differences?

A few variables can affect skin temperature measurement differences. Therefore, Seek Scan looks to find the hottest, most reliable parts of the face for temperature measurement. Sunbathing and exposures to other hot temperatures can increase the temperature of the skin temporarily, and perspiration, cool rainwater or cold wind on a face may temporarily cool a face. This should be taken into consideration when screening.

Why doesn't your system display body temperature, which I am used to seeing on my thermometer?

Seek Scan is not a medical thermometer and it does not measure body temperature. Seek Scan displays your skin temperature at the warmest point detected on the face. The relationship between skin temperature and body temperature can vary depending on a variety of factors. However, screening for elevated skin temperatures above your population will have a high likelihood of detecting elevated body temperatures.