aegexscan™

USER GUIDE

The easy way to add barcode scanning to
Windows 10 tablets

www.aegex.com/solutions/aegexscan

AEG-MDS-008.09
11 November 2019

aegex

0 11166 07089 9

What's inside

AegexScan Overview 4

Downloading AegexScan 5

Installation 6

Setup and Configuration 7

Additional Capabilities 11

Start Scanning 12

Sample Barcodes & QR Codes 13

URL Commands (Supported) 14

Appendix 15

FAQ 16

Glossary 17

AegexScan Overview

Figure 1

Figure 2

Aegex Technologies has developed an industry-leading barcode scanning application that utilizes the camera on the aegex10™ Intrinsically Safe Tablet to read most common and uncommon 1D & 2D barcodes. It runs the Honeywell barcode scanning engine and interfaces with most back-of-house systems without software integration, which works well for light- to medium-duty scanning. It also includes URL mapping capabilities, which allows you to seamlessly integrate your supply chain and operations into the rest of your enterprise.

AegexScan enables you to capture and communicate accurate, timely field data without having to purchase additional equipment for barcode scanning. By utilizing the aegex10 tablet's built-in camera, AegexScan is able to scan and import most barcodes, giving the user greater mobility while increasing productivity.

AegexScan is a user-friendly Windows utility that can easily be integrated into critical operations to identify various barcode standards. And, unlike other camera-driven systems, the AegexScan purpose-built application uses robust algorithms to easily find, auto-discriminate and decode barcodes up to two meters away in varying light conditions, physical barcode conditions or image quality.

By integrating AegexScan right into your aegex10 tablet, you no longer need extra, single-purpose equipment, as your tablet also becomes your barcode scanner. Aegex has also provided a user-friendly interface with versatile configuration capabilities, so it's easy to fit the application to your specific requirements. The AegexScan interface is very easy to use - all you have to do is open up the app and press the scan button to allow reading of the barcode, which is added to your application.

Whether you want to send commands from your application to trigger AegexScan, launch a web link, or just scan a barcode to a document, the application can quickly be optimized for your specific use case or process. The AegexScan software automatically captures, scans and embeds the data in user-defined applications, ranging from Microsoft Excel to custom MES, CRM, or ERP systems, allowing for greater real-time visibility into your supply chain and operations.

Increase productivity, reduce costs, and connect operations to your enterprise - all in an easy-to-use app that can run on your existing aegex10 tablets: AegexScan.

Downloading AegexScan

In order to get started using AegexScan, you will either need to download and install a free 30-day trial license or order a permanent license. For the 30-day trial, you can download the file by going to https://aegex.com/solutions/aegexscan and clicking on the “Click for 30-day trial” button. From there, you will be able to download the installation file. Alternatively, you can order a permanent license by requesting a license from AegexScanPurchase@aegex.com.

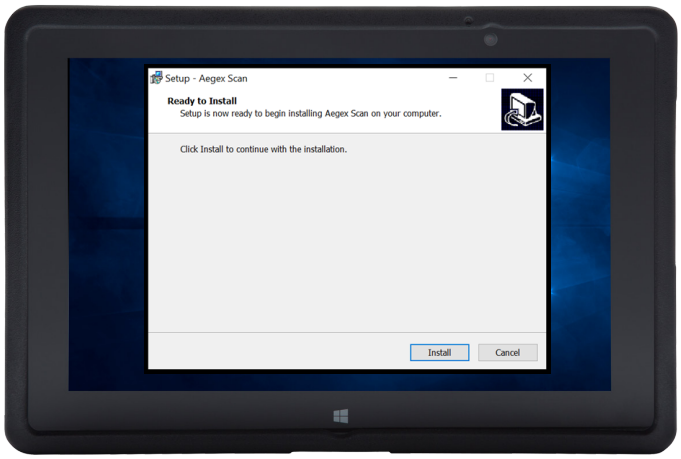


Figure 3

Click **Install**, and the package will automatically install all relevant files, certificates and dependencies.

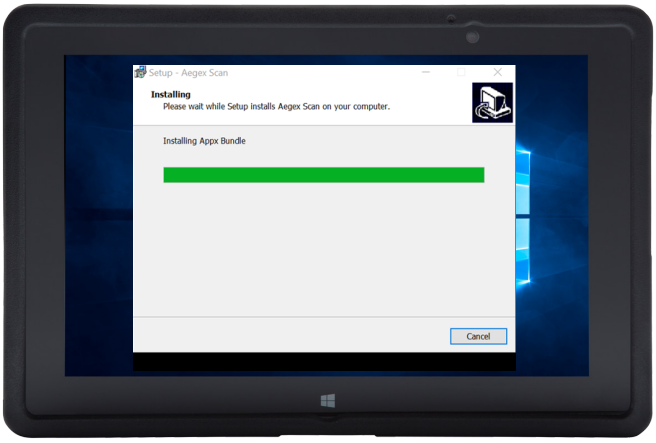


Figure 4

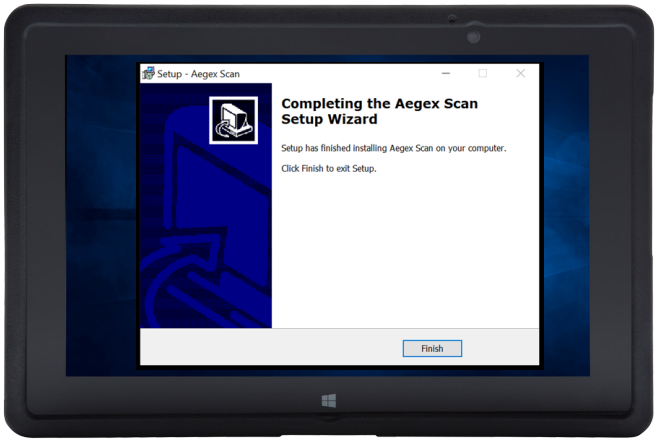


Figure 5

It is possible that your security policies may flag this as an unknown application because it is not sold through the Microsoft Application Store and, therefore, has to be “side loaded”. However, this is a safe and secure application, and we have included instructions below in the event that you encounter a security warning during installation (**See Appendix - page 15)**. AegexScan is a Windows 10-based application that is compatible with Windows 10 Version 1703 or newer.

Installation

Once installation is complete, click the **Finish** box, and you're ready to get started. By opening the **Start Menu**, you will see (pictured below) the newly installed AegexScan application near the top of the list of your applications. By right-clicking on the icon, it will enable you to pin the application to your Start menu.

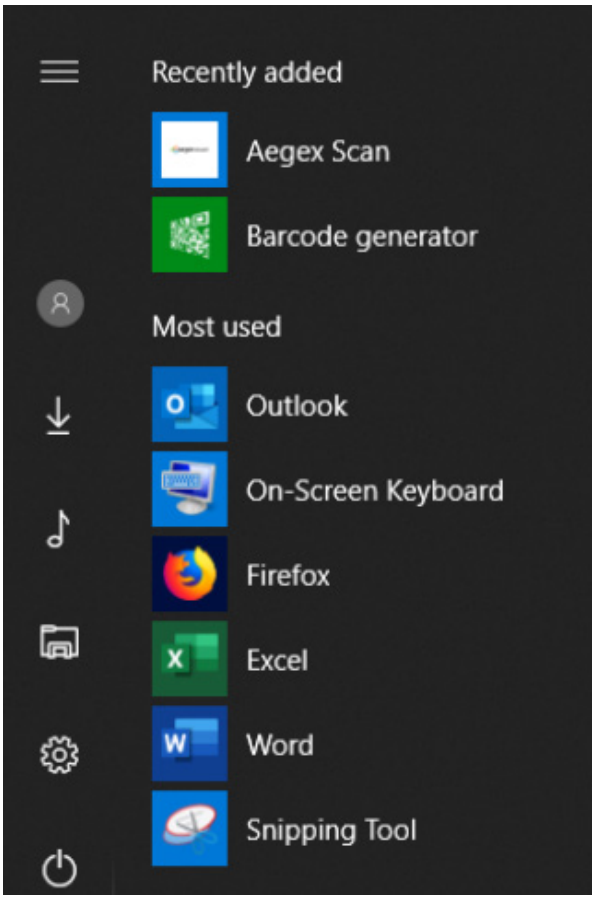


Figure 6

Security Warning Encountered

If you encounter a security warning during installation (**See Appendix - page 15**), it is likely due to your company's IT Policy disabling the side loading of applications. If so, please follow these steps to continue installation:

- Open **Settings**
- Click on **Update & Security**
- Click on **For Developers**
- Under **Use developer features** select the Side load apps option
- Click **Yes** to confirm the risks involved running an app outside the Microsoft Store
- **Double click** on package file. If an Error displays, right click and run with **Admin rights**
- Click the **YES** box

Setup & Configuration

When you are ready to get started, we recommend spending a few minutes setting up the AegexScan application based on your operational needs. These options allow you to configure AegexScan so that it runs optimally in your environment:

1) **Pinning to Taskbar**
2) **Decide which camera is used to scan barcodes -** Front (selfie) mode or Rear mode
3) **Add a keystroke after the barcode**
4) **Using the flashlight for scanning**
5) **Scanning Inside Aimer**
6) **Continuous Scanning**
7) **Ignoring Duplicates**
8) **Which barcodes are enabled for scanning**

The screenshots **(Figures 7-14)** below offer additional guidance for setting up the configurations.

1. Pinning to Taskbar

If you would like to pin AegexScan to your taskbar so that the quick launch is always visible, right-click on the icon, scroll down to “more” and select “pin to taskbar”. From your taskbar you will be able to launch AegexScan at any time.

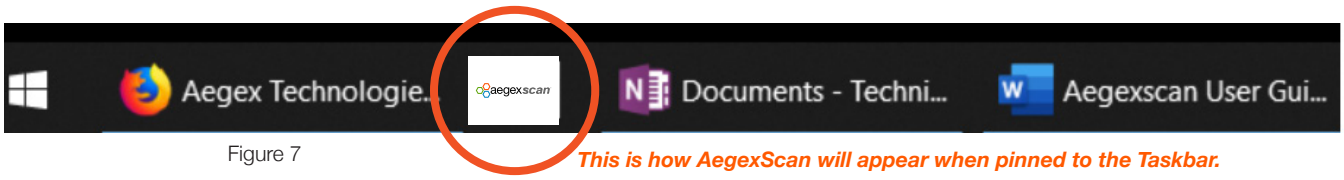


Figure 7

This is how AegexScan will appear when pinned to the Taskbar.

2. Camera

Under Settings, use the **Camera** drop-down to select which camera you would like to use for scanning - Front-facing camera or Rear-facing camera (default). The Rear-facing camera has better pixel quality (8MP vs. 4MP) and makes aiming significantly easier, so we recommend leaving the application set up with the Rear camera as the default, unless there is a specific requirement for your environment to use the Front-facing camera.

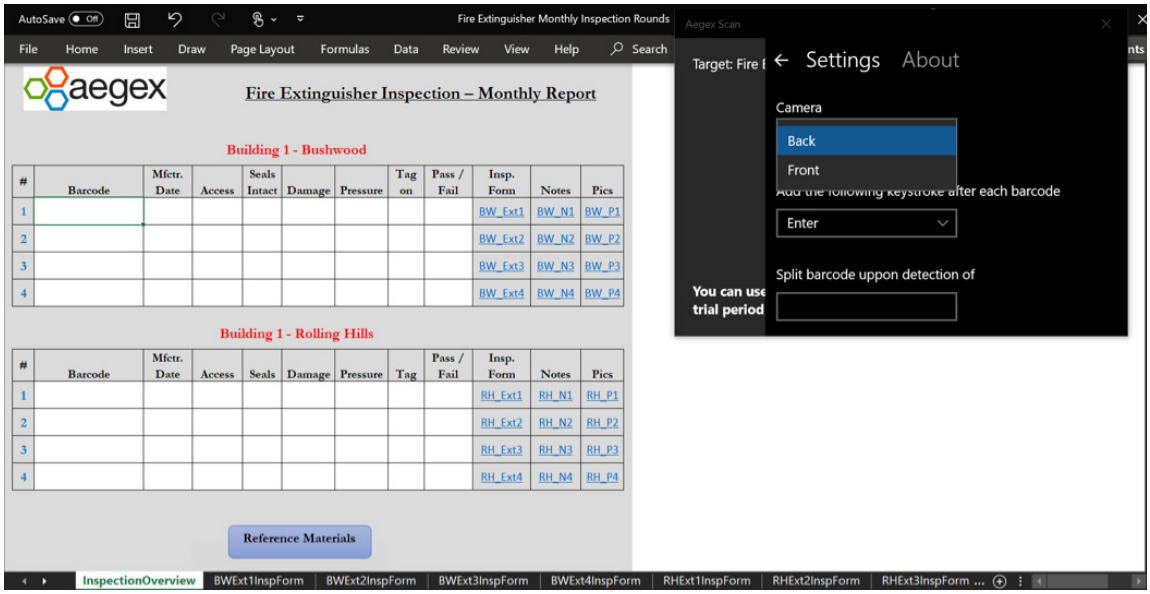


Figure 8

3. Adding a Keystroke after Barcode

If required, you can use the Keystroke drop-down to select which action you would like the application to take after the barcode has been entered. Depending on whether you are using a third-party application, a browser-based app, a Word doc or spreadsheet, the functionality may vary slightly.

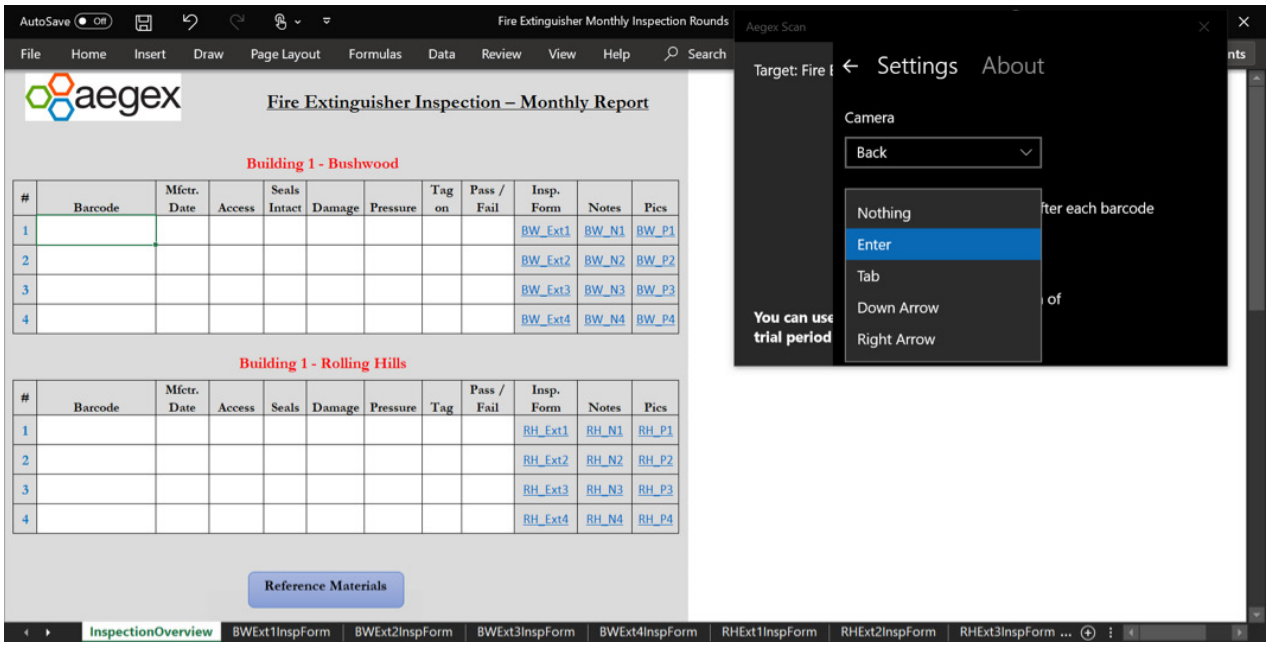


Figure 9

4. Flashlight

By selecting **Use Flashlight when available**, it will enable the LED flash to operate on the tablet while AegexScan is in operation. This can improve scanning speed in low-light conditions; however, proportional to the frequency of scanning, enabling the LED flash **can have an adverse effect on battery life.**

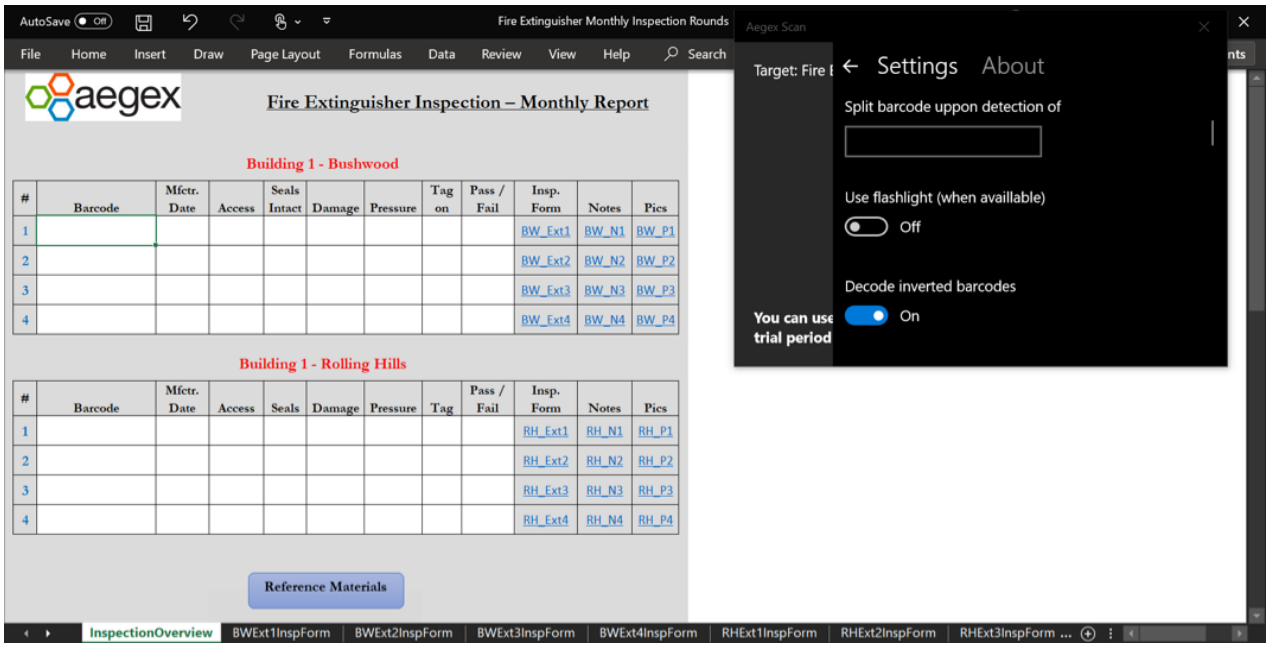


Figure 10

5. Scanning Inside Aimer

Using the **Only Scan Inside Aimer** function enables better control of where you scan when there are multiple barcodes in the field of view.

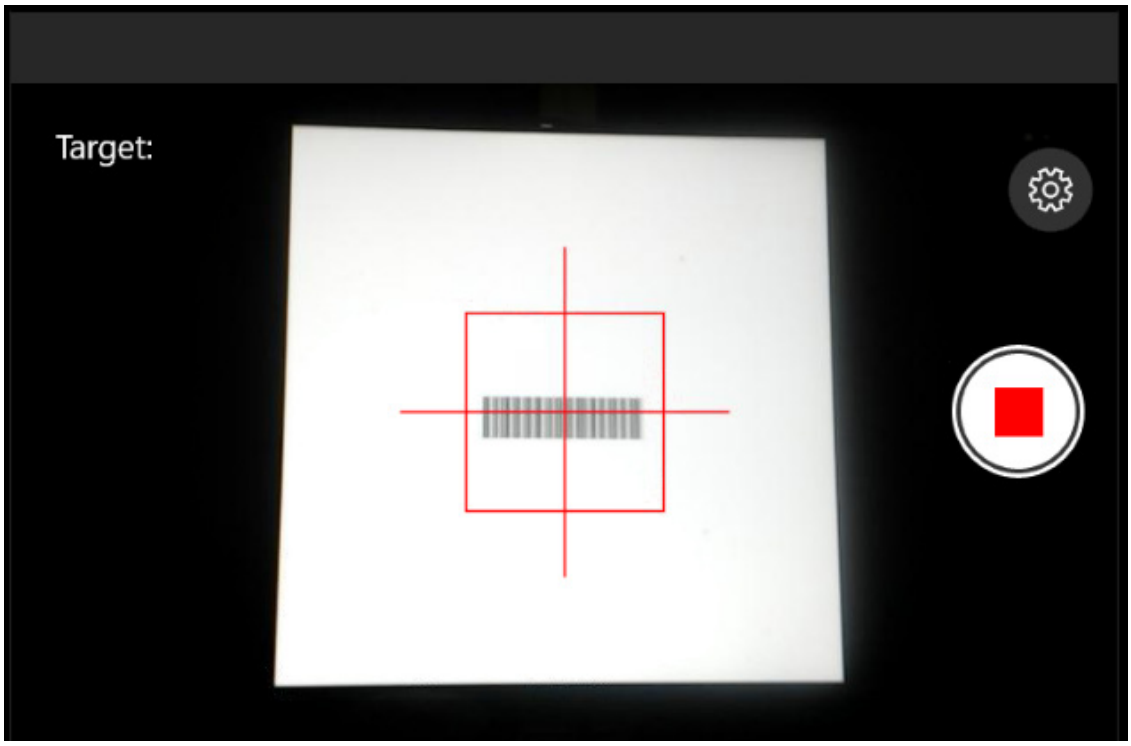


Figure 11

6. Continuous Scanning

By enabling **Continue Scanning after decode**, the AegexScan application will continue to search for and grab any barcode it recognizes. This can be beneficial when the application is being used as part of a serial process and the barcodes are in a similar, contiguous line. However, using this functionality could lead to accidental scanning of unintended barcodes as well as additional depletion of the tablet's battery.

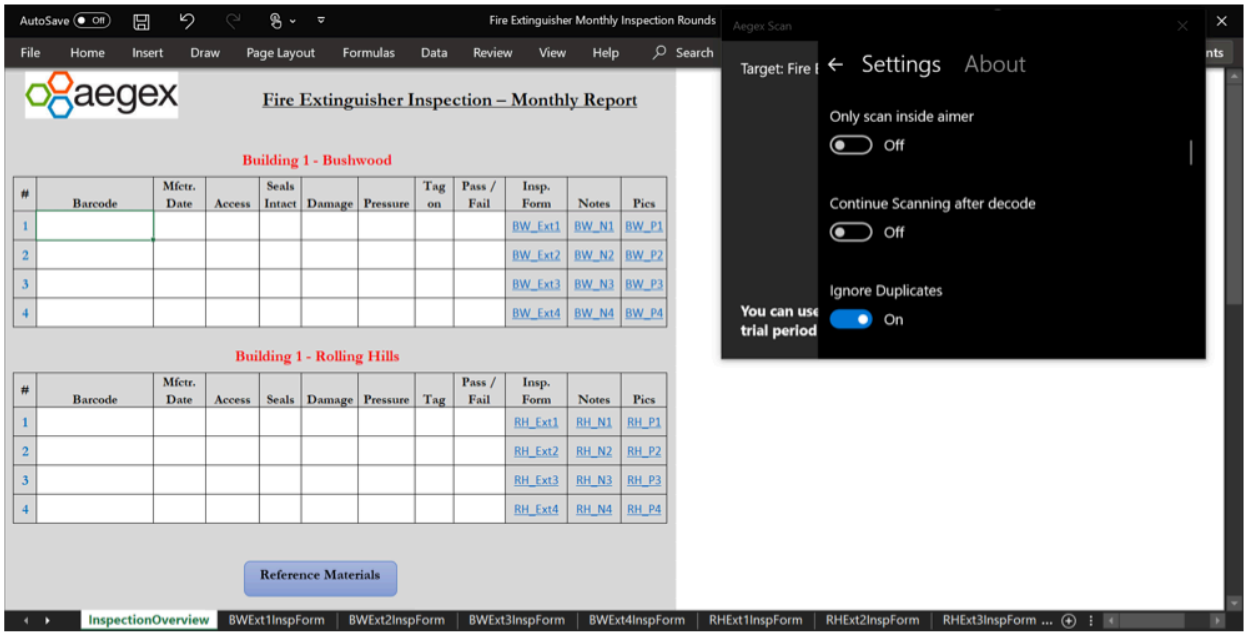


Figure 12

7. Ignoring Duplicates

The **Ignore Duplicates** functionality is a check-and-balance function within AegexScan. This allows the application to compare a scanned barcode against recently scanned barcodes to help ensure that the same barcode is not accidentally scanned twice. For installations where the same barcode may need to be scanned multiple times during a shift, do not enable this function.

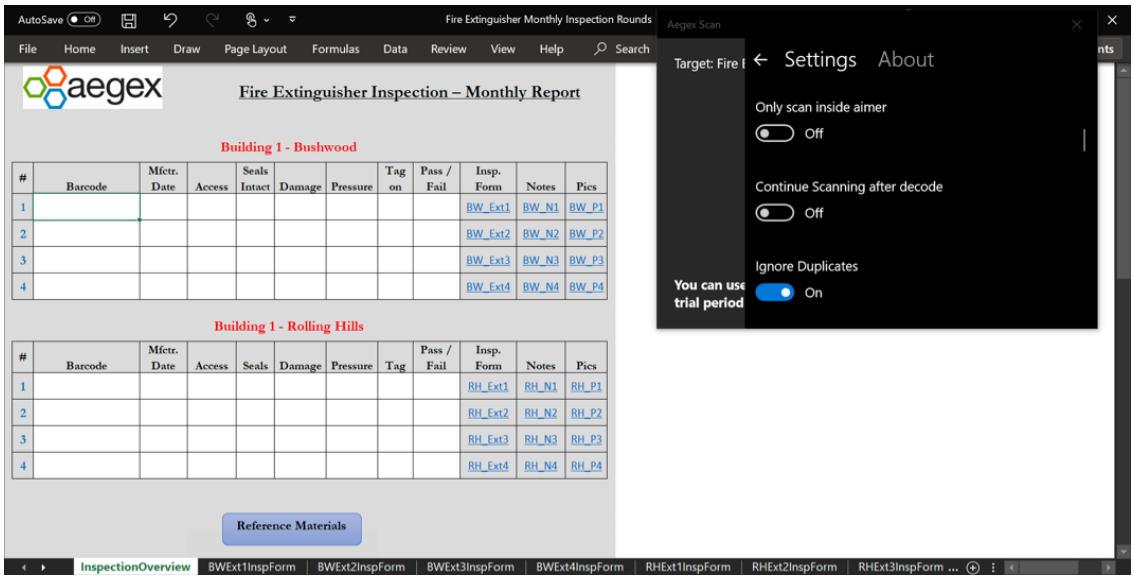
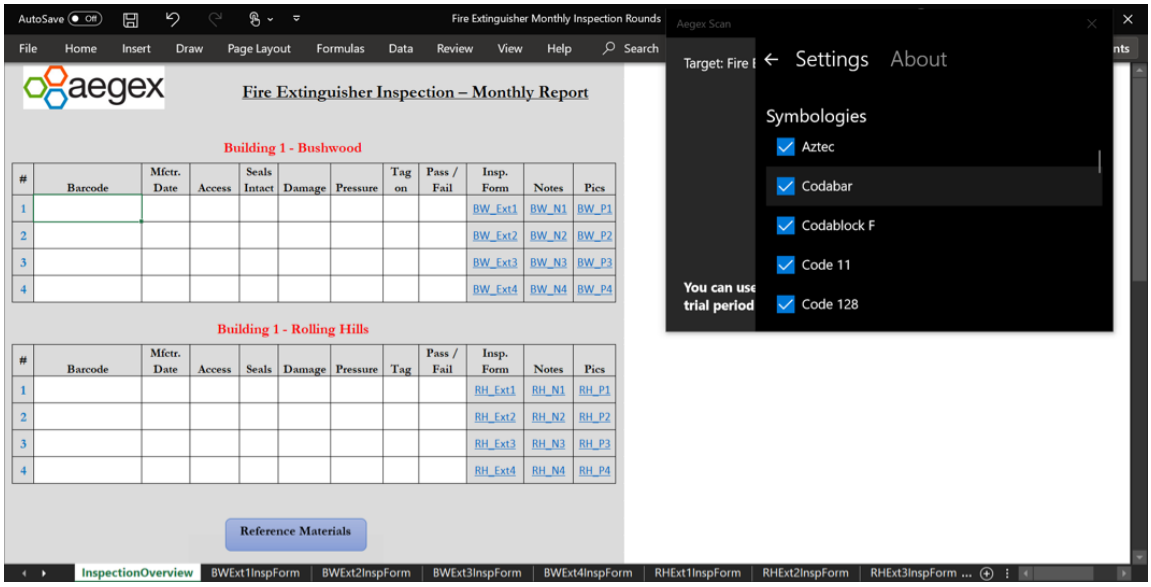


Figure 13

8. Symbologies

Use the **Symbologies** check boxes to select which barcode types you would like the application to scan. In preparation for the set up process you will want to check with operations to get a list of the types of barcodes (Code 39, Data Matrix, QR, etc.) that your facility currently utilizes and make sure those are selected under Symbologies. To optimize the scanning, you will want to review the default barcode types (listed below Figure 14 in ***bold*** and ***italics***) and deselect those that do not apply to your use case. This will optimize the scanning to only search for the types of barcodes your facility uses.

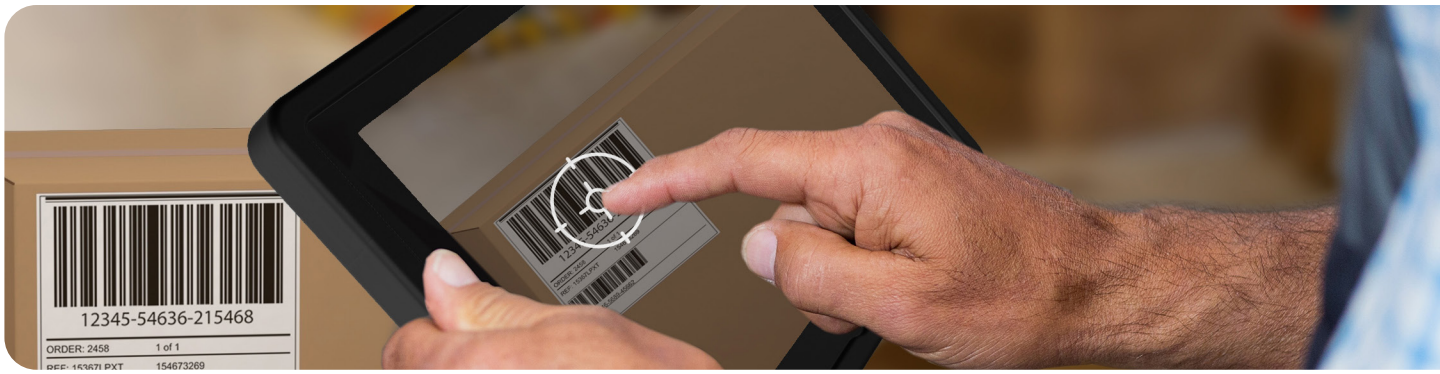


***POSTAL & OCR Codes optional at additional cost**

Figure 14

1D - Code 39, Code 93, ***Code 128, GS1 128, UPC/EAN/***JAN, Interleave 2 of 5, Hong Kong 2 of 5, Matrix 2 of 5, NEC 2 of 5, Codabar, Code 11, MSI Plessey, Pharmacode, RSS, Telepen, Straight 2 of 5, Korea Post, Trioptic
2D - Data Matrix, PDF417, MicroPDF417, ***QR Code,*** Micro QR Code, ***Aztec Code,*** Codablock, MaxiCode, UCC Composite, Hanxin, DotCode, Grid Matrix

Additional Capabilities



The AegexScan application also effectively reads poor quality barcodes. By utilizing Swiftdecoder™ algorithms licensed from Honeywell, AegexScan offers industry-leading barcode scanning performance, providing an aggressive first-time decoding rate and increased scanning rate, even for damaged, distorted or poorly printed barcodes.

SWIFTDECODER™

Figure 15

Start Scanning

To start scanning, you will need to launch the application and have a destination to point the barcode to, called the “Target.” The target destination can be as basic as a Notepad or Word document, or something with more functionality like a spreadsheet, software, or browser-based application. Once the application has been launched and the target destination has been identified, the header of the application will indicate the Target that the barcode will be sent to (see **Figure 16** below).

In the example below (Figure 16), the Target is “Fire Extinguisher Monthly Inspection Rounds V1.” For basic testing, you can open a Word document, Notepad, or spreadsheet and scan one of the sample barcodes located in the next section (Sample Barcodes & QR Codes **page 13**).

If the barcode you are scanning is meant to launch a website/URL, you will need to have a browser win-dow open. If you have set up the Keystroke action of “Enter” after the barcode has been scanned, the URL that is embedded behind the barcode will automatically launch in the browser.

If you need to use URL commands within the application itself, we have provided a list of the URL Commands supported by the AegexScan application - click on the orange button “User Guide and additional resources” at https://aegex.com/solutions/aegexscan to see the list.

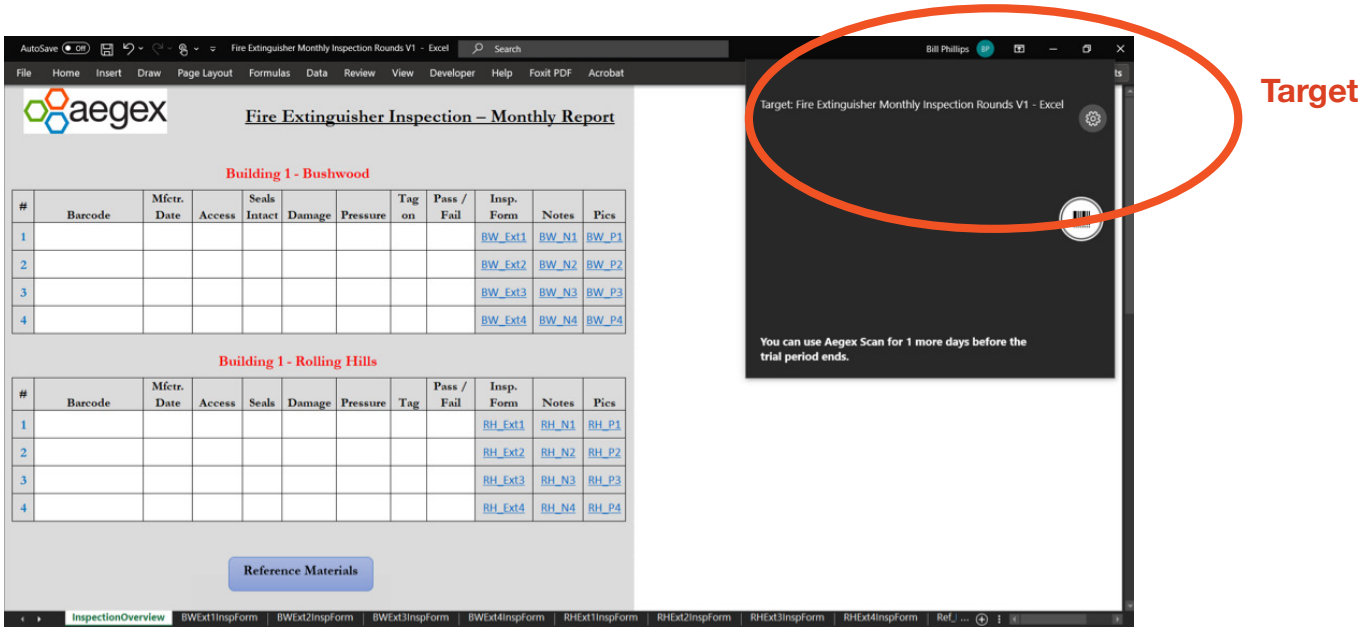
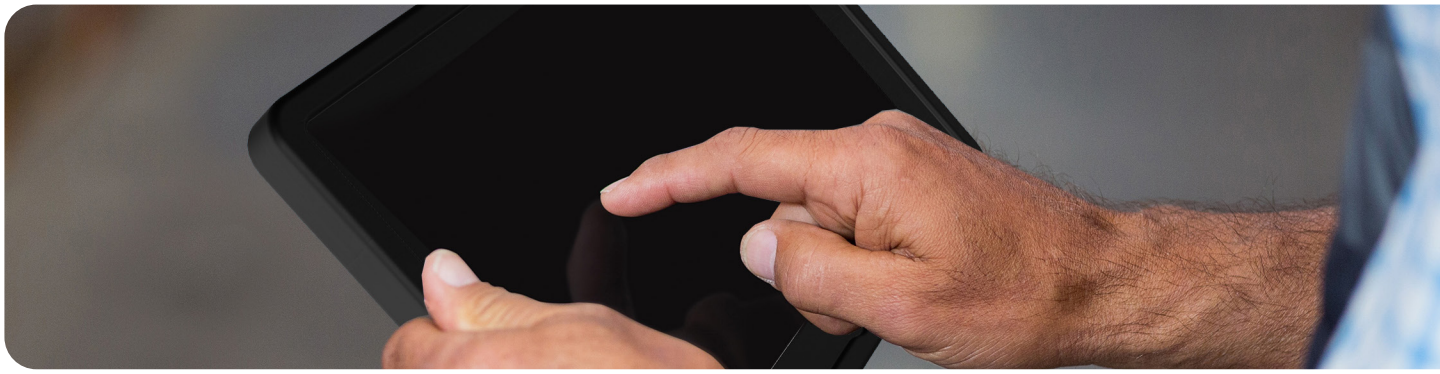


Figure 16

Sample Barcodes & QR Codes



Scanning basic data to a document

To begin scanning, simply open a document (Notepad or Word documents are the easiest), launch AegexScan, and scan the first barcode or QR code.

Scan to a document or application - Barcode with a Serial Number

Scan to a document or application -
QR Code with critical data about asset (fire extinguisher in this example)

Scanning Data to a URL

Open a browser and launch URL - Barcode with a URL embedded (this example points to https://aegex.com/solutions/aegexscan)

Open a browser and launch URL - QR Code with a URL embedded (this example points to https://aegex.com/solutions/aegexscan)

Current URL Commands Supported by AegexScan

Show
Action: Make the scanner app visible
Parameters: None
Example: mxs-88:show

Hide
Action: Hide the scanner app
Parameters: None
Example: mxs-88:hide

Pos (or Position)
Action: Set the scanner app position and, optionally, the size
Parameters: Left, Top, Width, Height
Width and height are optional
Note: the size is limited to about 500x500
Examples:
mxs-88:position=50,50,200,200
mxs-88:pos=100,100

Size
Action: Set the scanner size
Parameters: Width, Height
Note: the size is limited to about 500x500
Example: mxs-88:size=400,300

Scan
Action: Start the scan operation
Parameters: None
Example: mxs-88:scan

Stop
Action: Stop the scan operation
Parameters: None
Example: mxs-88:stop

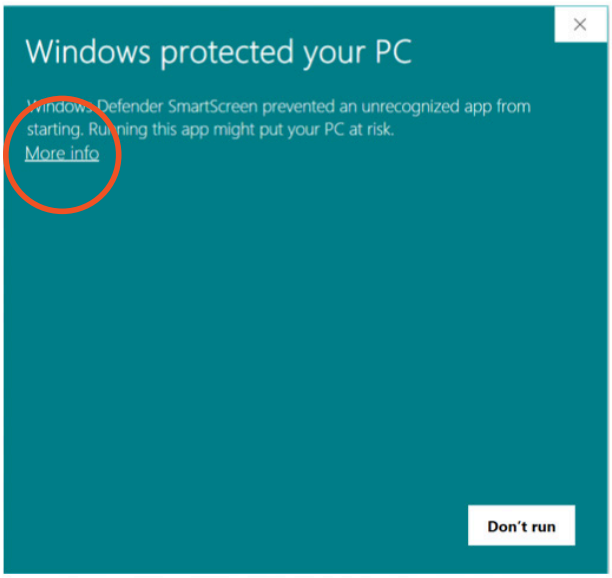
Exit
Action: Exit the scanner app
Parameters: None
example: mxs-88:exit

Combining Commands
Action: Commands can be combined
Examples:
mxs-88:pos=50,50,400,400/show/scan
mxs-88:stop/hide

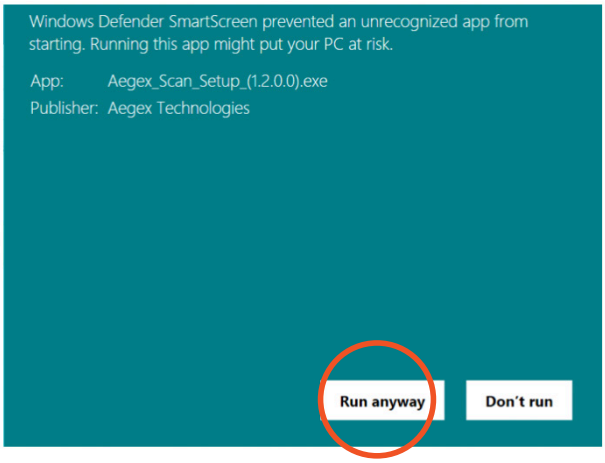
Appendix

In the event that you receive a security warning when attempting to install AegexScan, please complete the following steps:

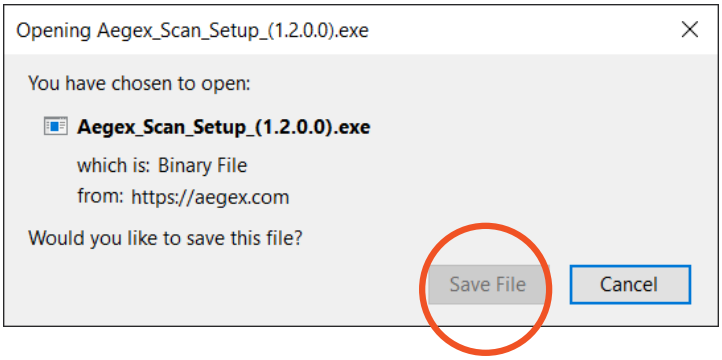
Windows Security Warning – Step One
Click on “More info,” and go to Step Two.



Windows Security Warning – Step Two
Click on Run anyway, and go to Step Three.



Windows Security Warning – Step Three
Click on Save File. From the folder you saved the file to, you will be able to download the application.



Frequently Asked Questions

Question: Which OS are supported?
Answer: Windows 10 1703 or newer

Question: Is AegexScan browser based?
Answer: No, this is an executable file that functions a keyboard wedge that is licensed to a specific device until it is retired.

Question: Is this a Windows UWP application?
Answer: The application was developed for the Windows store but can run fully as a UWP client. It was certified by Microsoft as fully UWP-compliant, although it can also use Win 32 code to do some things not possible in UWP.

Question: Is URL Mapping Supported?
Answer: Yes, however, this is normally done by IT or third-party vendors to map the scans into back-of-house databases (cloud and physical) and ERP systems. The supported URL commands can be found at https://aegex.com/solutions/aegexscan by clicking on the orange button "User Guide and additional resources."

Question: Is Continuous Scanning Supported?
Answer: Yes, but on an existing permanent license, this needs to be enabled. For a NEW permanent license, it is best to advise Aegex at the time of purchase so that we can enable this functionality, as it is a different license type.

Question: Are Postal Codes and OCR Functionality supported?
Answer: Yes, but this is currently in a Beta version. It only supports a few character types (OCR-A, OCR-B, and MICR), and the customer needs to **purchase** a permanent license **in order** to have that feature enabled.

Question: How do I find my activation code after the tablet I had a permanent license on was re-flashed or wiped?
Answer: The AegexScan licensing server holds a digital fingerprint of the hardware for activated licenses, so as long as no major hardware components are changed, the tablet can be wiped, a new Windows image installed, and when AegexScan is launched again, it will communicate with the server and re-activate the license.

Question: Does Aegex provide an application or spreadsheet or Word document I can use to test basic functionality of AegexScan?
Answer: Yes, it can be downloaded at https://aegex.com/solutions/aegexscan by clicking on the orange button "User Guide and additional resources."

Question: What is the SKU for AegexScan?
Answer: A000-VBO-001-01

Question: How long does it take to get a permanent license once the order has been submitted to Aegex?
Answer: 24 to 48 business hours

GLOSSARY

1D Barcodes: Barcodes representing data in the widths (lines) and the spacings of parallel lines such as Code128, Code 39, and UPC, are referred to as Linear or 1D (one-dimensional) barcode symbologies. 1D barcodes can have 20-25 characters.

2D barcodes: Two-dimensional (2D) barcodes look like squares or rectangles that contain many small, individual dots. A single 2D barcode can hold a significant amount of information and may remain legible even when printed at a small size or etched onto a product. Since the 2D barcode can hold information both vertically and horizontally, 2D barcodes can hold more data (up to 2000 characters) than 1D codes, while still appearing physically smaller.

QR codes: QR codes are machine-readable codes consisting of an array of black and white squares and dots, typically used for storing URLs or other information for reading by a tablet's camera or a barcode scanner.

Postamble character: The POSTAMBLE is a string of up to 20 characters (key codes) which are to be appended to the end of each decoded barcode data string.

USER GUIDE

www.aegex.com/solutions/aegexscan