

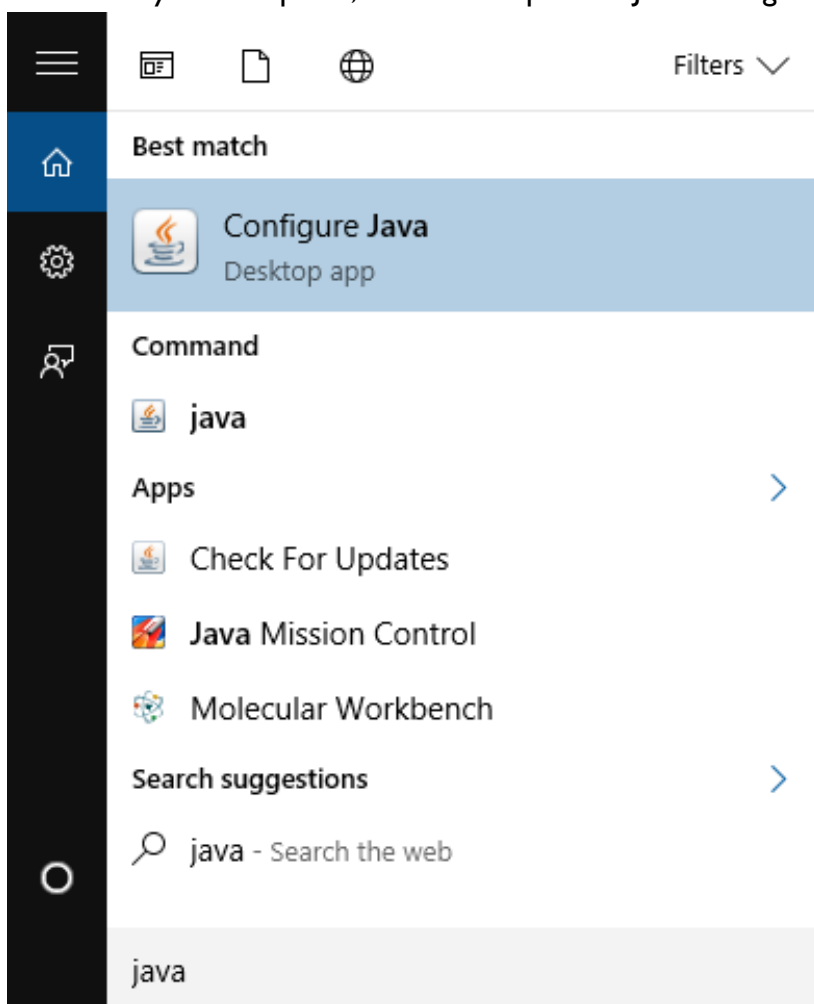
Installation Guide for Tunl

Note: Tunl will only run in Internet Explorer with Java 8

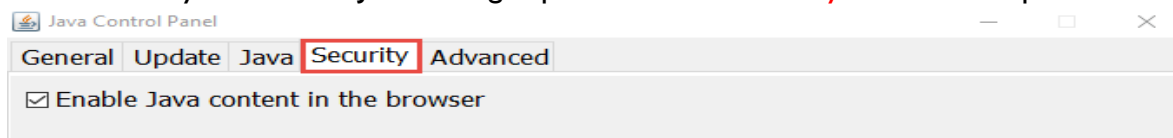
Updated: 5/8/2018

Procedure

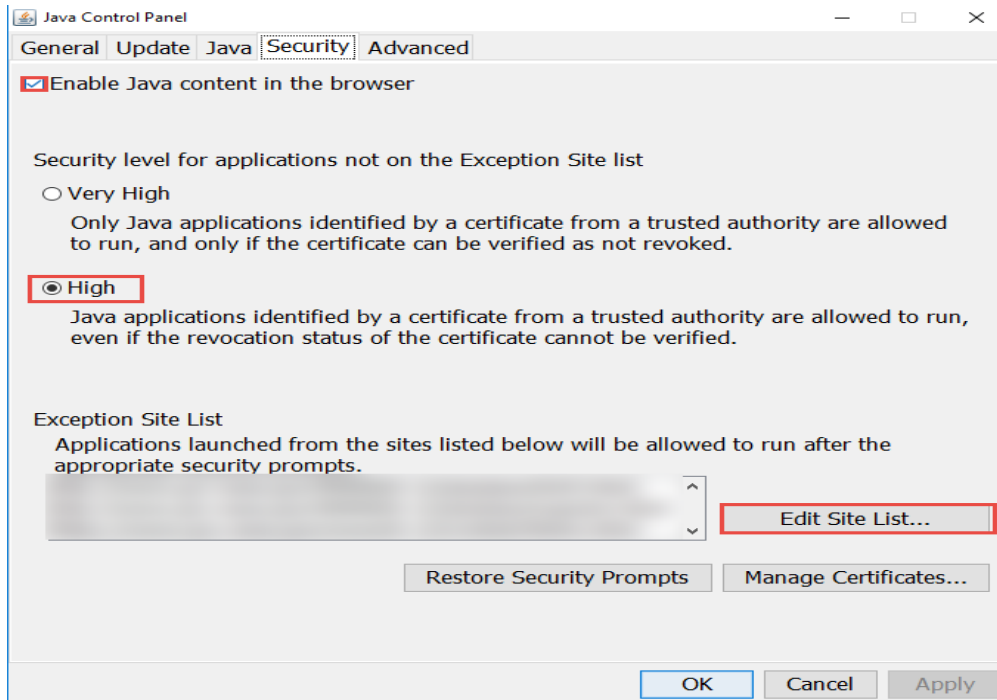
- I. Before running the simulator, you will need to modify the Java settings on your machine.
 - a. On your computer, locate and open the Java settings.



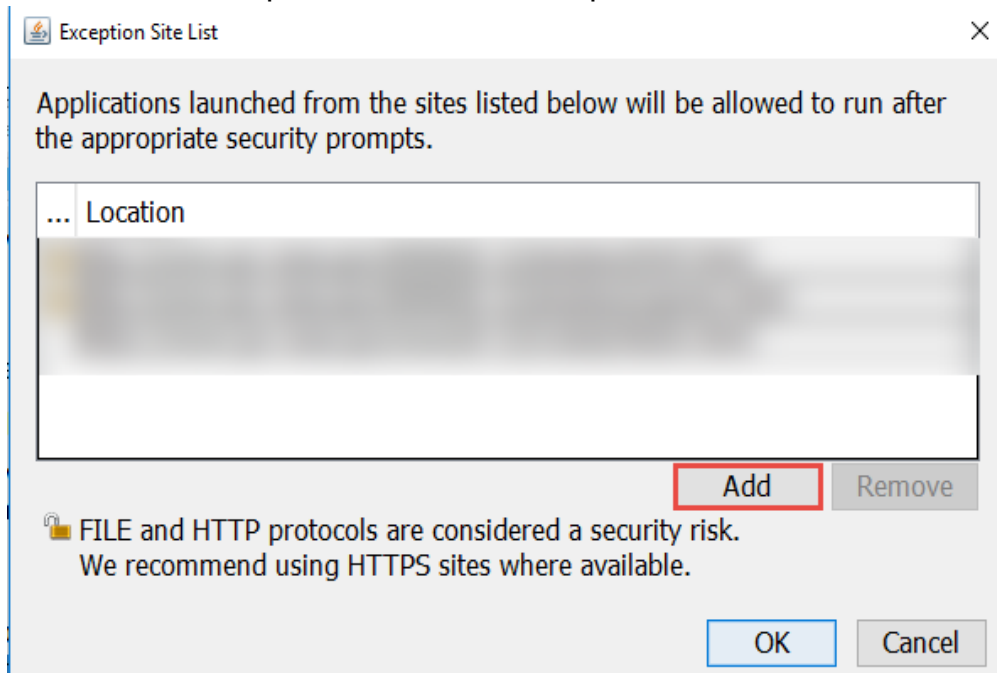
- b. Once you have the Java settings open, select the **security** tab on the top.



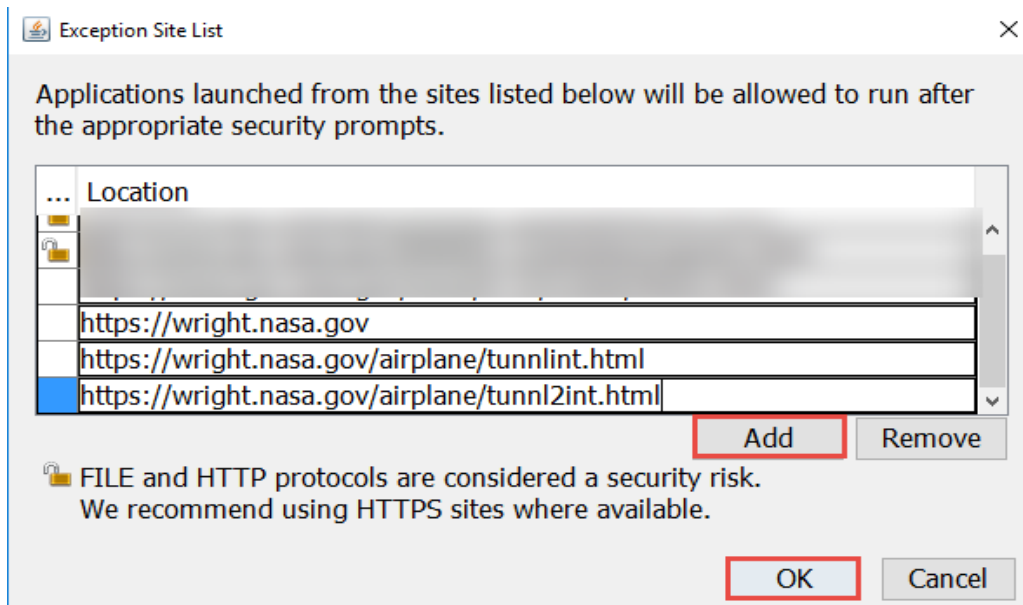
- c. On the Java **security** tab, you will then need to check the **Enable Java Content in the browser** checkbox, select **High** for the security level and select the **Edit Site List** button under Exception Site List.



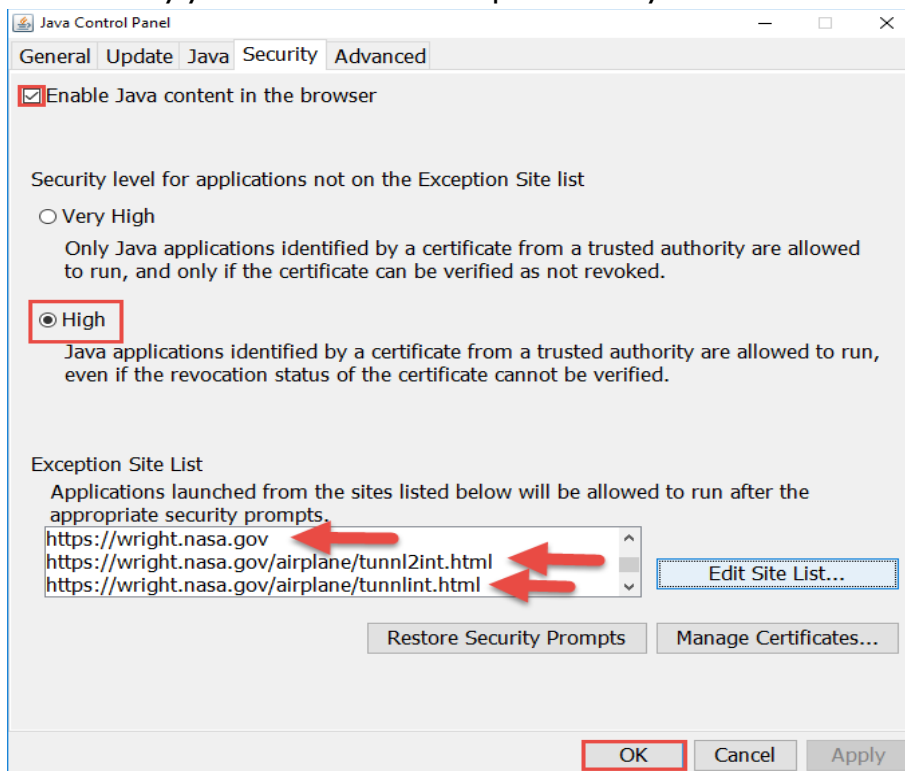
- d. On the Exception Site List box that opens, Select **Add** twice.



- e. Next, type the following URLs into each line:
“https://wright.nasa.gov/airplane/tunnlint.html” and
“https://wright.nasa.gov/airplane/tunnl2int.html” and “https://wright.nasa.gov”
then select **OK**.



- f. Verify your selections were input correctly, and select **OK** to save your changes.

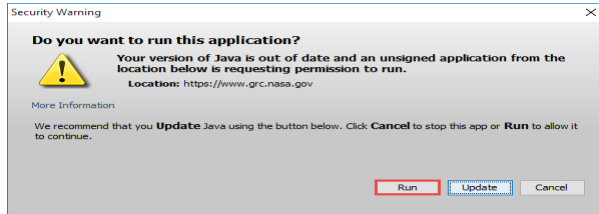


2. Now that your Java settings have been updated, you will be able to run the simulator. Open the simulator by going to the following URL:

<https://wright.nasa.gov/airplane/tunnl2int.html>

Note: This website will only work in Internet Explorer

- a. If prompted to allow Java, select **Run**



- b. Tunnl will now run in the browser, we recommend bookmarking this page for easier future access.

- c. <https://wright.nasa.gov/airplane/tunnl2int.html>

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Interactive Wright 1901 Wind Tunnel

Glenn Research Center

We present here a Java applet derived from [FoilSim](#) which simulates the operation of the Wright 1901 Wind Tunnel. There are two versions of this applet. This version requires the user to manually record data and plot results in the same way that the Wright brothers acquired their data. A more [modern version](#) records and reduces the data and produces plots within the program.

Procedure

Step 1: Select Model

Step 2: Set Angle of Attack

Angle of Attack

Step 3: Start Tunnel

Step 4: Adjust for Drag

Step 5: Record Data

Step 6: Reduce Data

#	Shape	Area-sq in	Cam	AR
1		<input type="text" value="6"/>		1
2		<input type="text" value="6"/>		4
3		<input type="text" value="6"/>		6
4		<input type="text" value="6"/>	1/12	1
5		<input type="text" value="6"/>	1/16	1
6		<input type="text" value="6"/>	1/20	1

#	Shape	Area-sq in	Cam	AR
7		<input type="text" value="6"/>	1/12	6
8		<input type="text" value="6"/>	1/16	6
9		<input type="text" value="6"/>	1/20	6
10		<input type="text" value="6"/>	1/12	6
11		<input type="text" value="6"/>	1/16	6
12		<input type="text" value="6"/>	1/20	6

Lift Data Form
Table of sin(a)
Graph Paper
Drag Data Form
Table of tan(a)