



Description: Guide to using WebHMI with HTTPS/SSL.

OS Requirement: Windows XP / Windows Vista / Windows 7 / Windows 8 / Windows Server 2003 / Windows Server 2008 / Windows Server 2008 R2 / Windows Server 2012

General Requirement: GENESIS32, WebHMI, basic knowledge of WebHMI and SSL

Introduction

This document will walk you through the process of setting up your WebHMI pages to use HTTPS. It assumes that you are familiar with the basics of WebHMI, such as how to publish a page. If you need more information on WebHMI basics, please see our help files or other application notes.

Note on certificates

Websites using SSL require certificates. These steps will walk you through creating your own certificate, but it's recommended that you obtain a validated certificate for your site. Otherwise browsers that attempt to view your site will get a warning that the certificate is not valid. Contact your IT department or search Microsoft's website for more information about obtaining a certificate for your site.

Configuring IIS to use HTTPS

First, we will need to configure your website in Internet Information Services (IIS) to use HTTPS/SSL.

IIS version 6 (Windows Server 2003, Windows XP)

1. If you already have a certificate for your site, skip to step 4. To create your own certificate you must download and install the Internet Information Services (IIS) 6.0 Resource Kit Tools from Microsoft at this address:
<http://www.microsoft.com/downloads/en/details.aspx?FamilyID=56fc92ee-a71a-4c73-b628-ade629c89499&DisplayLang=en>
2. Once the Resource Kit Tools have been installed, go to Start -> Programs -> IIS Resources -> SelfSSL -> SelfSSL.
3. At the command prompt type "SelfSSL" (without quotes) and hit Enter. Type "y" at the prompt. You can close the command window when it is finished.
4. Go to Control Panel -> Internet Information Services (IIS) Manager.
5. Expand your machine -> Websites then right-click on Default Web Site and go to Properties. (If you did not install WebHMI to the Default Website, instead bring up the properties of the site where your WebHMI virtual directory is located.)
6. Go to the Directory Security tab and click the Edit button in the Secure Communications section.

7. Check "Require secure channel (SSL)". If desired, also check "Require 128-bit encryption". You can configure the settings for client certificates as needed. Click OK when you are done.

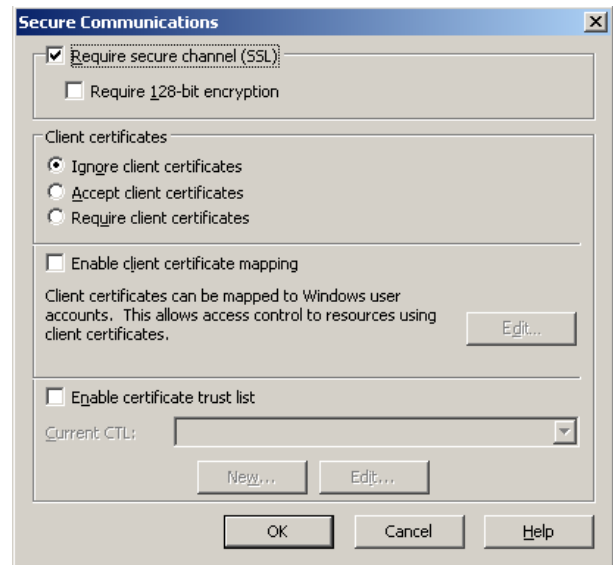


Figure 1: Enabling SSL

8. If you did not create your own certificate in steps 1-3, click the "Server Certificate" button to open the Web Server Certificate Wizard. Follow the wizard to manage this site's Certificate. If you created your own certificate in steps 1-3 you can skip this step.
9. Go to the Web Site tab. Type in 443 for the SSL port if it is not already filled out. If desired, click Advanced to further customize the web site identification information.

IIS version 7 (Windows Server 2008, Windows 7) and IIS version 8 (Windows Server 2012, Windows 8)

1. Go to Control Panel -> Internet Information Services (IIS) Manager.
2. Select your web server in the tree and double-click on Server Certificates in the IIS section.
3. Configure your certificates as appropriate. If you do not have a certificate, click "Create Self-Signed Certificate" in the Actions sidebar and follow the instructions.
4. Expand Sites and select the Default Web Site in the tree. (If you did not install WebHMI to the Default Website, instead expand the site where your WebHMI virtual directory is located.)
5. Click on Bindings in the Actions sidebar.
6. Click Add.
7. Select "https" for the Type and "443" for the port. In the SSL certificate section, choose the certificate you created in step 3. Click OK and then Close.

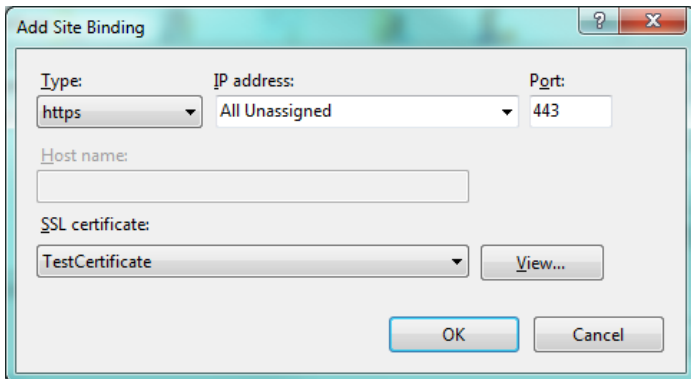


Figure 2: Site Bindings

8. Double-click on SSL Settings in the IIS section. Check the box for “Require SSL” and click Apply in the Actions sidebar.

Publishing GraphWorX32 displays

1. Open the display you would like to publish, then go to Tools -> Publish to HTML or click the publish button on the main toolbar.
2. Publish your display normally using the http path (not https).
3. Once the display has been published, browse to your WebHMI directory (by default, C:\Program Files\Common Files\ICONICS\WebHMI) and edit your HTM file in Notepad or another text editor.
4. Do a Search and Replace to replace all instances of http with https.
5. Save and close the file.

Viewing your WebHMI pages

Now, when you browse for your WebHMI pages, make sure to use HTTPS instead of HTTP in the address. For example, if your machine is named “MyServer” and your display was named Display1.gdf then you would use this URL to view your page:

<https://MyServer/WebHMI/Display1.htm>

NOTE: Depending on your version of Internet Explorer and the certificate you used for your site you may see a page that warns you about the site’s certificate. Click “Continue to this website” when prompted and eventually install the certificate.

