

# Assembly Host™ Technical Manual

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2022

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Assembly Host™ is server-side software allowing the user to continuously download and store torque data from a variety of torque devices.

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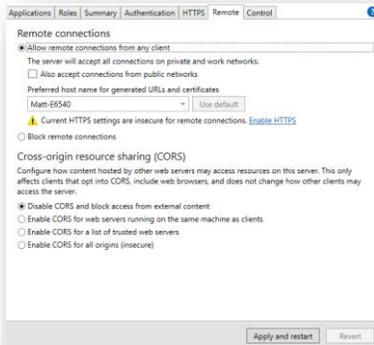
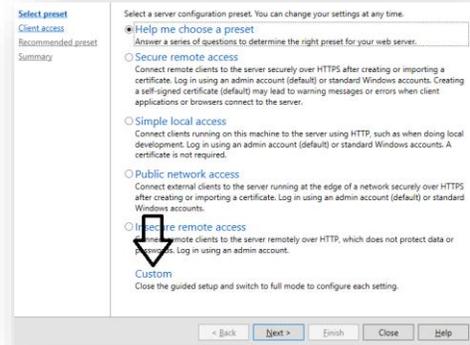
## Assembly Host™ Requirements

- The Assembly Host™ software is designed to run on Windows 10 or later or Windows Server 2008 or later both running 64bit architecture.
- Assembly Host™ requires that .net 4.0 (or later) framework is installed on the machine running the server.
- Assembly Host™ will supports Microsoft SQL, either SQL Express or SQL, or it will run on an internal database.  
*NOTE:* If using Microsoft SQL Express, you must enable remote connections for the Assembly Host™ to connect.

## Software Installation

Installing the Assembly Host™ software is started by simply clicking on the ‘Setup’ icon in the installation package. At the end of the installation process, a window will pop up allowing for the configuration of the web server for basic http usage. (For configuration of https please see the section named Web Server Configuration)

To configure the web server for basic http connections, start by clicking on the ‘Custom’ option as displayed on the right.



This will bring up the window shown to the left that will require the following three actions:

- 1) Click on the ‘Remote’ tab
- 2) Click on the ‘Allow Remote connections from any client’
- 3) Click ‘Apply and Restart’ then close the window.

After initial install, Assembly Host™ will create all necessary firewall rules. Database table structure will be created when the service is run for the first time.

**\*\* NOTE: .NET 4.0 (or later) must be installed prior to running the installer. Failure to do so will result in an incomplete installation. \*\***

## Software Uninstall

Uninstalling the Assembly Host™ is completed using the Windows Uninstaller service. When the uninstaller runs, configuration files and database data is left intact. This allows for newer versions of Assembly Host™ to be installed.

## Software Licensing

Assembly Host™ software can run in one of two modes:

1. Evaluation Mode – Limited to 24 hours of run time between shut downs and a maximum of 2 clients connected at a time.
2. Licensed Mode – All features are activated without any run time limit. The number of clients is limited by the license purchased.

During the first startup of the Assembly Host™ console application, the operator will be prompted to select Evaluation Mode or Licensed Mode. If Licensed Mode is selected you will be prompted to enter an activation code, which will arrive by e-mail after you purchase the software.

To purchase a license contact ATI Technologies by phone at (502) 426-9194 or visit us on the web at <http://www.atihitech.com>.

## Database Setup

Before starting the Assembly Host™ software for the first time, the database options must be setup. This is done by first opening the Assembly Host™ Console, then clicking on ‘Settings’ from the Console’s menu and choosing ‘DataBase Connection Settings’. The Assembly Host™ Database Connection screen will look like the following:

**NOTE:** The Assembly Host™ Service must be stopped in order to modify any of the database settings.

The first step in setting up the DataBase Connection settings is to choose your database type. Assembly Host™ supports two database types Microsoft SQL (full and Express versions) and an internal database. The internal database requires no setup other than selecting the option for use in this screen.

If the ‘**Microsoft SQL**’ setting is chosen, the ‘Server Name’, ‘User ID’ and ‘Password’ settings entered here must match an Administrator account on the selected database. Use of an administrator account is necessary so that the Assembly Host™ Service can create the required database schema and tables required for its operation. After the initial startup of the Assembly Host™ Service, the database account can be changed to a user that has only read/write access to the database. Once the required server login information has been entered, be sure to test the connection by clicking on the ‘TEST Connection’ button.

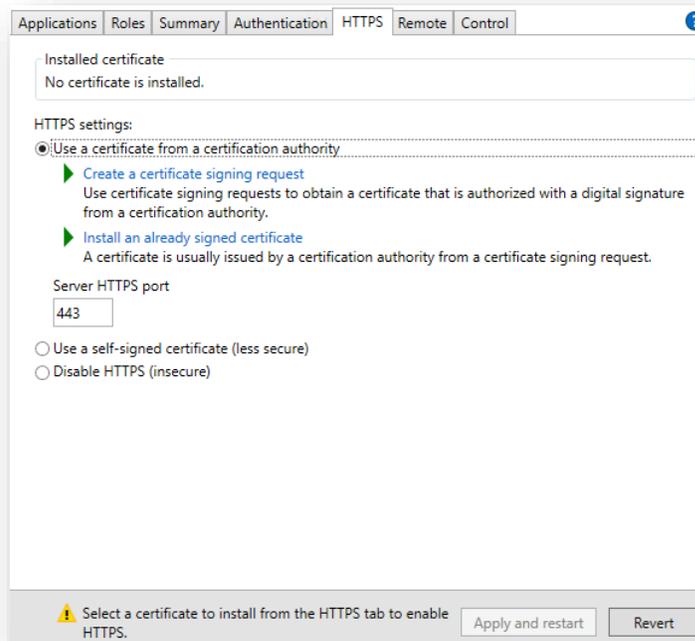


## Web Server Configuration

After installation if changes need to be made to the web server for any reason follow the steps below.

To open the web server configuration tool first open the Assembly Host console and select 'Web Server Config' from the Settings drop down menu. This will open a new window with multiple tabs across the top, press the 'HTTPS' tab for options to configure secure web connections. This tab will also allow you to create a certificate signing request as well as manage which port you would like to use. (We recommend that port 80 is used for http and 443 is used for https.)

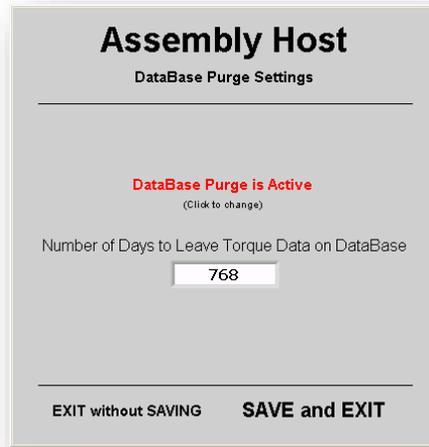
Once changes have been made, press 'Apply and Restart'.





## Database Purge Settings

When database size is an issue, such as when using Microsoft SQL Express, the Assembly Host™ software can be setup to automatically delete data from the rundown tables. This option is defined from the Assembly Host™ console by going to the menu and clicking 'Settings', 'Database Purge Settings', which will bring up the following screen:



When the database purge is activated there is only one setting to configure, 'Number of Days to Leave Torque Data on the DataBase'. This setting will setup the Assembly Host™ to **delete** any rundown data that has a date and time older than the current date and time minus the number of days entered.

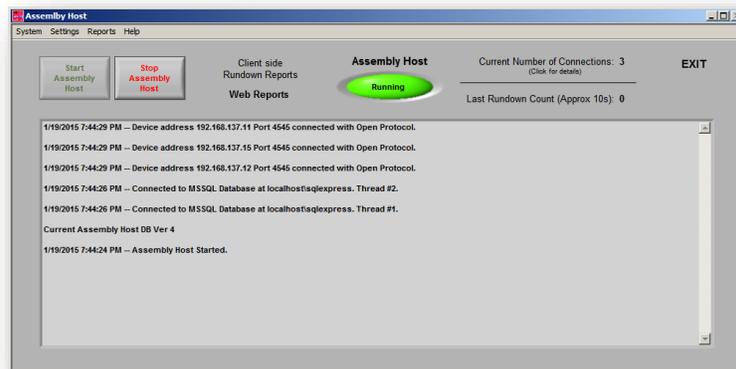
**NOTE:** The number of date and time used to identify each record is the date and time of the rundown according to the clock in the torque device, not the PC at the time of the rundown. Although the Assembly Host™ does update the controller's date and time upon connection, there is still the ability for that date and time to be changed at the controller.

## Starting and Stopping the Assembly Host™

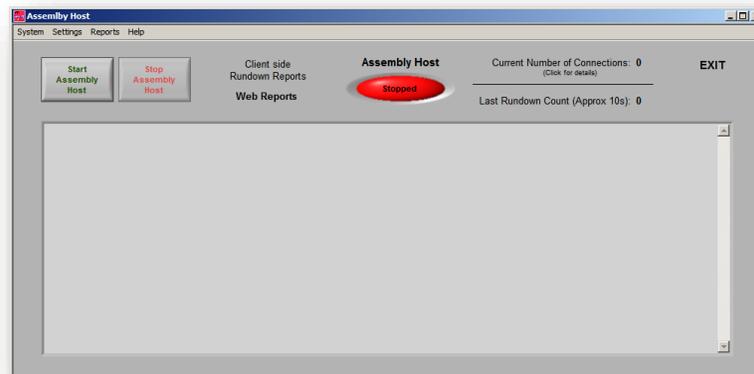
The Assembly Host™ software has multiple installed components including, the Assembly Host™ Service and the Assembly Host™ Console.

The Assembly Host™ Service connects to each of the torque devices, gathers that rundown data and records it to the database and .csv files. The console is not required to be open at any time while the service is running, once the initial configuration of the Assembly Host™ is complete.

To start the Assembly Host™ service, simply click on the ‘Start Assembly Host’ button on the console. This will start the Assembly Host™ service, verified by the light in the center of the screen turning green.



To stop the Assembly Host™ service, simply click on the ‘Stop Assembly Host’ button on the console. This will stop the Assembly Host™ service, verified by the light in the center of the screen turning red.



After initial setup, Assembly Host™ service can also be started and stopped from the Windows Services Controller located in the Windows Control Panel.

**NOTE:** By default the Assembly Host™ service will start on each computer restart, without a user login.

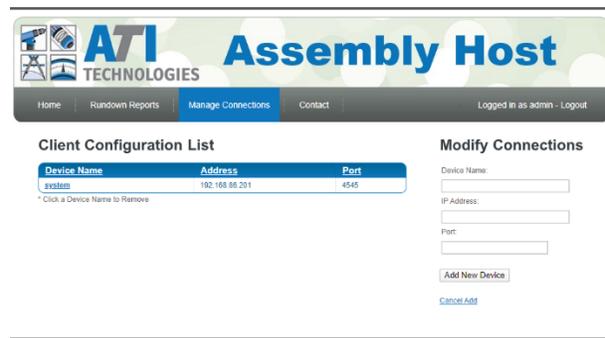
## Setting up System Connections

Assembly Host™ has two connection monitoring/setup screens that are accessible either through the console program running on the server or via a web browser (preferred).

To access the web-based monitoring/setup screens, perform the following steps:

1. Navigate to the Assembly Host web page by clicking on 'Web Reports' on the console application and copying the web address.
2. Log in with an Administrator level user. *Note: if a non-administrator user is used adding or removing of connections is not allowed.*
3. Navigate to the 'Manage Connections' page, to add or remove a tool connection by IP address or DNS name.

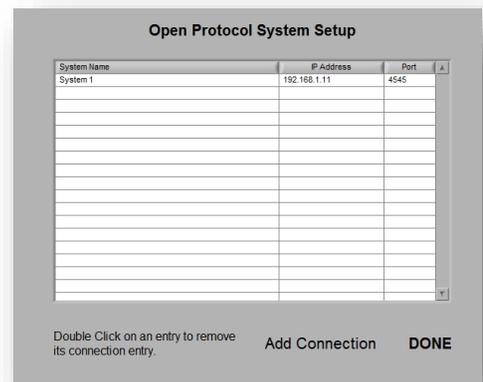
To add a connection, simply click on the 'Add a New Device' link and enter the Device Name, the device IP Address and the Open Protocol port (normally 4545, please see your tool's documentation on how to configure this setting).



To remove a device, simply click on the Device Name in the Client Configuration List then click the 'Remove Device' button.

To access the console-based monitoring/setup screens, perform the following steps:

1. On the server/computer running Assembly Host™, click on the Assembly Host Console link.
2. Next select 'Open Protocol Setup' from the 'System' option in the Assembly Host™ console's menu. This will open the Open Protocol System Setup screen from which the 'Add Connection' button can be pressed. Following the prompts enter the tool's Nickname (user generated), IP Address and Port number (from 1-9999).



## Reports

### Web Based Rundown Reports

Web based reports allow any authorized user to access all the torque data stored by Assembly Host™ from any web enabled device with network access to the server that Assembly Host™ is installed on.

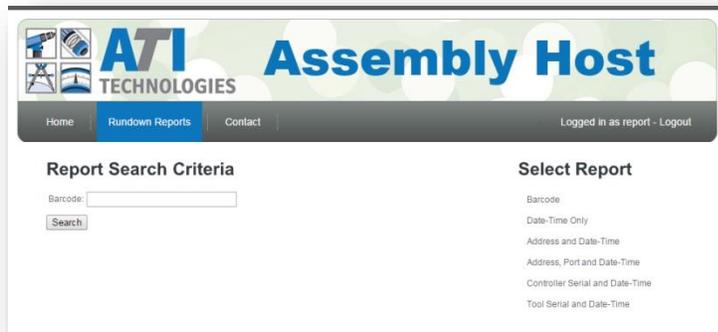
To access Assembly Host™ web reports, open the console and click on 'Web Reports'. This will bring up a web browser window with the login screen. Copy the web address for use on any computer with access to the same network that the Assembly Host server is running on.

Before running any reports, the user will be required to enter their username and password. By default Assembly Host™ comes with one username setup with the following credentials:

**Username:** 'report'

**Password:** 'report'

Users can be added, deleted and modified from the Assembly Host™ console by selecting 'Settings' then 'User Rights' from the menu.



Once logged in, a user is able to execute a variety of reports by selecting the report type from the right side of the web page under the 'Select Report' section.

Report results are shown by pressing the 'Search' button after filling out all search criteria.

Once a report is executed, a user has the ability to export those results to a .csv file (with column headers) to save on their local computer.

**\*\* Note:** Assembly Host™ will install a firewall rule to open TCP port 8040 on the Windows firewall. This allows computers to access the web server when the Windows firewall is active. If a 3<sup>rd</sup> party firewall is used, this rule may need to be manually created. \*\*

**The Assembly Host™ software supports the Open protocol for communication to torque systems.**

## Open Protocol setup

To use Open Protocol with Assembly Host™ simply do the following:

1. **Enable Open protocol on the tool that Assembly Host™ will be connecting to.** Although the Assembly Host™ will work with most default settings of the Open protocol, two of the settings should be reviewed.
  - a. **Port** – The default port number for Open protocol is '4545'. If a value other than the default value is selected here, that value must be entered into the Open protocol setup screen on the Assembly Host™.
  - b. **Wait for Ack** – (Wait for Acknowledgement) Assembly Host™ software works best when this value is equal to '5 seconds'.  
*Note: Some DC tool systems do not have this setup option.*

## User Setup

When using the web based interface to Assembly Host™

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