



**SIMPLIFY
ACCESS &
CONTROL**

**Simple Host Integration Protocol
using HTTP
(SHIPWeb)
Panel Guide**

Intelli-Site

Security Management Software

Simple Host Integration Protocol using HTTP (SHIPWeb) Panel Guide

SHIPWeb Panel Guide

Copyright

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When calling, please be at the computer prepared to provide the following information:

- Product version number, found by selecting the  **About** button from the Intelli-Site Application Menu.
- The type of computer being used including, operating system, processor type, speed, amount of memory, type of display, etc.
- Exact wording of any messages that appear on the screen.
- What was occurring when the problem was detected?
- What steps have been taken to reproduce the problem?
- It is highly recommended that the user generate a support package for transmission to Intelli-Site technical support staff. To generate the package, run the Intelli-Site Configuration Utility. *Create Support Package...* is the last option in the **Tools** menu.

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1 Introduction

The Simple Host Integration Protocol using HTTP (SHIPWeb) panel allows 3rd party software to send Engine-based actions to Intelli-Site.

This guide defines the messaging format that is SHIPWeb so that a 3rd party can write a program or use a standard web browser to send action requests to Intelli-Site. This guide also explains using the SHIPWeb driver and panel in Intelli-Site Security Management Software.

2 The Simple Host Integration Protocol using HTTP

The Simple Host Integration Protocol using HTTP (SHIPWeb) acts like a web service. It interprets all messages it receives using HTTP. The external application or any web client such as Chrome or Edge connects to the driver just like connecting to any website. Instead of requesting pages to display, the client sends an HTTP formatted command. The external application can send many of the Engine-based actions to Intelli-Site as well as SHIPWeb actions.

Messages sent between Intelli-Site and the external application are simple HTTP formatted text strings. Every message from the application is an HTTP string and every message from the SHIPWeb driver is a string. Each message string from the application contains one command and the target. Each message from the driver is a standard HTTP response code number and details if applicable.

Note: Only one message per HTTP request is allowed.

2.1 External Application Messages

Each application request message is an action and a target if necessary. Only one action per request message is allowed. Each request message is independently processed. This means that of the Engine-based actions, the Conditional actions are not allowed. In addition, there is the SHIPWeb action **DownloadCard** used to download a single card.

Every message must begin with "shipweb/execute/". The message is ignored if it doesn't begin with this string. A browser client may receive the error message "No HTTP resource was found that matches the request URI". The format of the action in the request message varies in how the target is specified.

2.1.1 Engine-based Action Message Format

Figure 1 shows the **Actions** dialog for the Engine-based actions. These are the actions that the application can send to the SHIPWeb driver. Because only one action is allowed per request message, the conditional actions are not supported.

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Note: The action string is case-sensitive. It must be sent just as it appears in this figure.

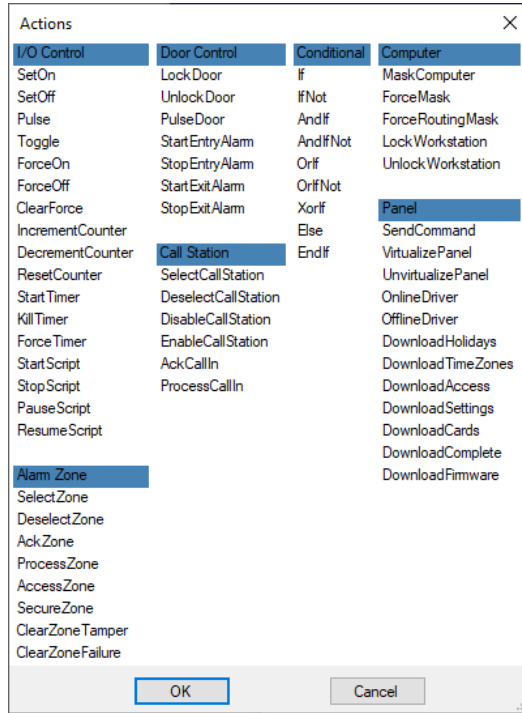


Figure 1 - The Engine-based Actions

An Engine-based action message from the application to the SHIPWeb driver is the action name and its target node separated by a forward slash '/'. The message format is:

```
shipweb/execute/<Action>/<node ID>
```

Suppose there is a virtual point in the project with node ID 1334 that we want to SetOn via SHIPWeb. The driver is on the PS101 computer at port 8080. Assuming our electronic device has network access to PS101, we could open a browser and type the following URL:

```
http://PS101:8080/shipweb/execute/SetOn/1334
```

`http://PS101:8080` tells the browser to connect to PS101 on port 8080 using HTTP. When the connection is established, it sends the command `shipweb/execute/SetOn/1334`. The driver receives the message, validates it, and sends the command to the Engine. The Engine processes the command. The driver sends a response message back if the connection is still active. See [SHIPWeb Driver Messages](#)

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2.1.2 SHIPWeb Actions

A SHIPWeb action message from the application to the SHIP driver is the action name and its target. There is only one SHIPWeb action. It is **DownloadCard**. The target is the card ID. The message format is:

```
shipweb/execute/DownloadCard/<card ID>
```

Where card ID is the card number, site code, and format ID separated by colons. **Card number is required**. Site code and format ID are not. If the format ID for the target card is not the default ID, then all three parts must be included. The default site code is 0. The default format ID is 26. Do not supply the colon separator if the format ID or site code is not included.

Note: The format ID values are found on the access control panel node's properties dialog, on the Card Config tab.

For example, we want to download card 1234567 with site code 5. It is a 35-bit HID Corporate card. The format ID for this kind of card is 35. The URL for our browser is:

```
http://PS101:8080/shipweb/execute/DownloadCard/1234567:5:35
```

The driver receives the message, verifies the card does indeed exist, and sends the download request to the Engine. The Engine downloads the card. The driver sends a response message back if the connection is still active. See [SHIPWeb Driver Messages](#).

2.2 SHIPWeb Driver Messages

The external application uses HTTP GET to send the request to the SHIPWeb driver and receive the response from the driver. The driver sends back the standard HTTP status codes. If an error occurs, the error string is also included in the response.

Note: If the driver is disabled or if the Driver Service is not started, the external application or web client will receive the standard error message: "No connection could be made because the target machine actively refused it <Address:Port>"

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3 Installation Guide

The SHIPWeb driver in Intelli-Site must be installed. No external software is needed.

If Intelli-Site has been installed without the SHIPWeb drivers, run the Intelli-Site installer again and select **Modify**.

During the installation or modify installation process, you are presented with the **Select the drivers you want to install** window.

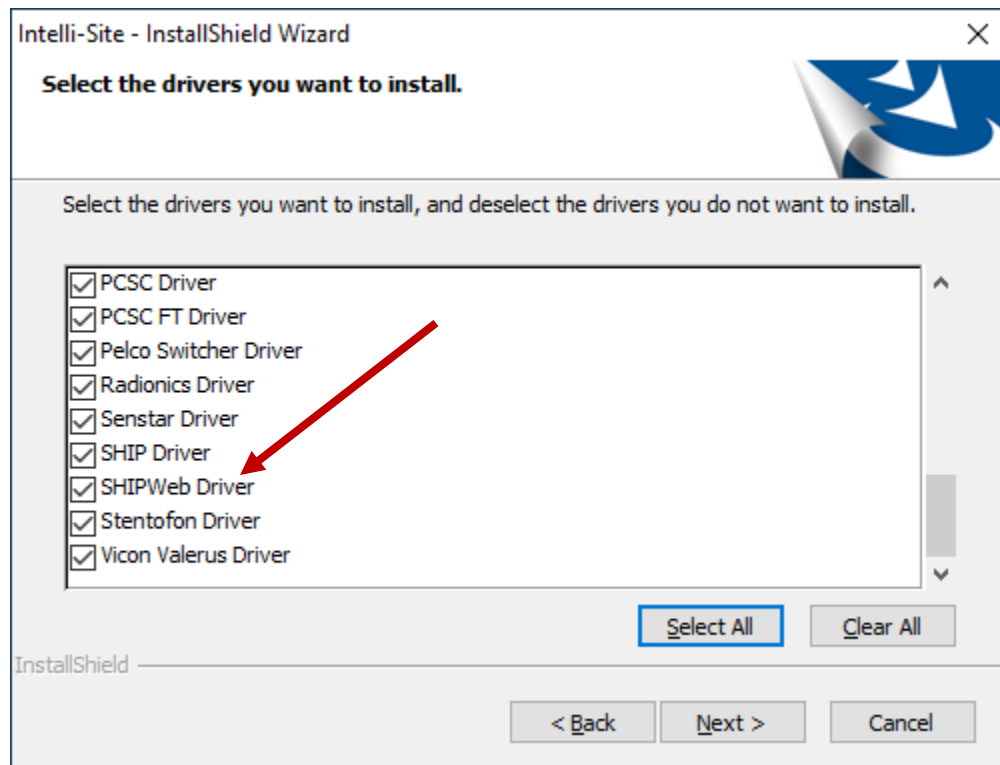



Figure 2 - Select the drivers you want to install.

Ensure the **SHIPWeb Driver** option is checked then continue with the installation or modification. You may need to scroll to locate the driver as the list is in alphabetical order.

4 Hardware Management View

The SHIPWeb driver and SHIPWeb panel are best added and configured in  **Hardware Management View**. The following walks through adding the driver and the panel.

Before we begin, it is important to have the port number the driver will listen to for connections from the external application or web browser. The setup process is straight forward.

1. Add a SHIPWeb Driver
2. Add a SHIPWeb Panel
3. Configure the SHIPWeb Panel
4. Enable the SHIPWeb Driver

4.1 Add a SHIPWeb Driver

Adding a SHIPWeb Driver is simple, but important. Without it, no communication with the external application can occur.

Launch the Desktop Client and login.

Hardware is managed in the  **Hardware Management View**. If you are not in  **Hardware Management View** (Figure below), click on  and select .

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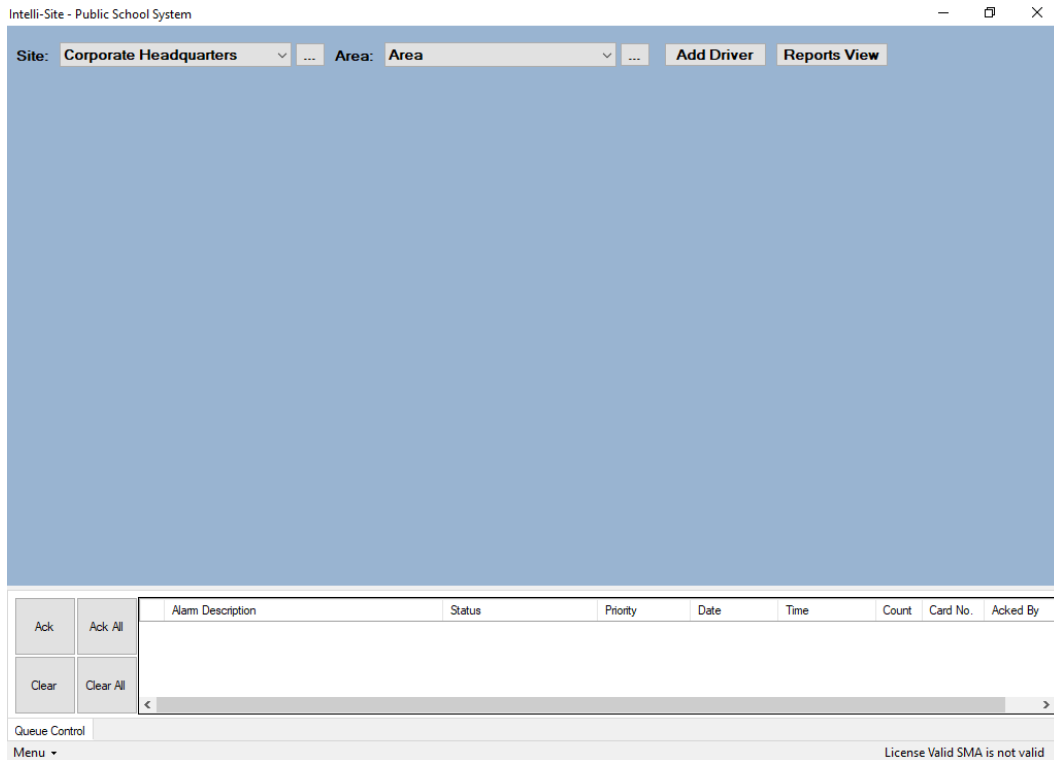


Figure 3 - Hardware Management View

To add the SHIPWeb driver, click **Add Driver**. The **Choose Driver Type** dialog displays.

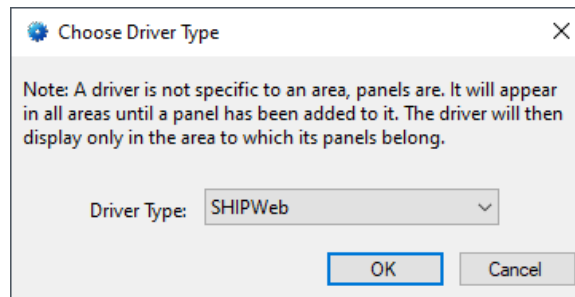


Figure 4 - Choose Driver Type Dialog

Select *SHIPWeb* from the **Driver Type** drop-down menu in the **Choose Driver Type** dialog. Click **OK**. A new SHIPWeb driver icon is added to the screen and its properties dialog opens.

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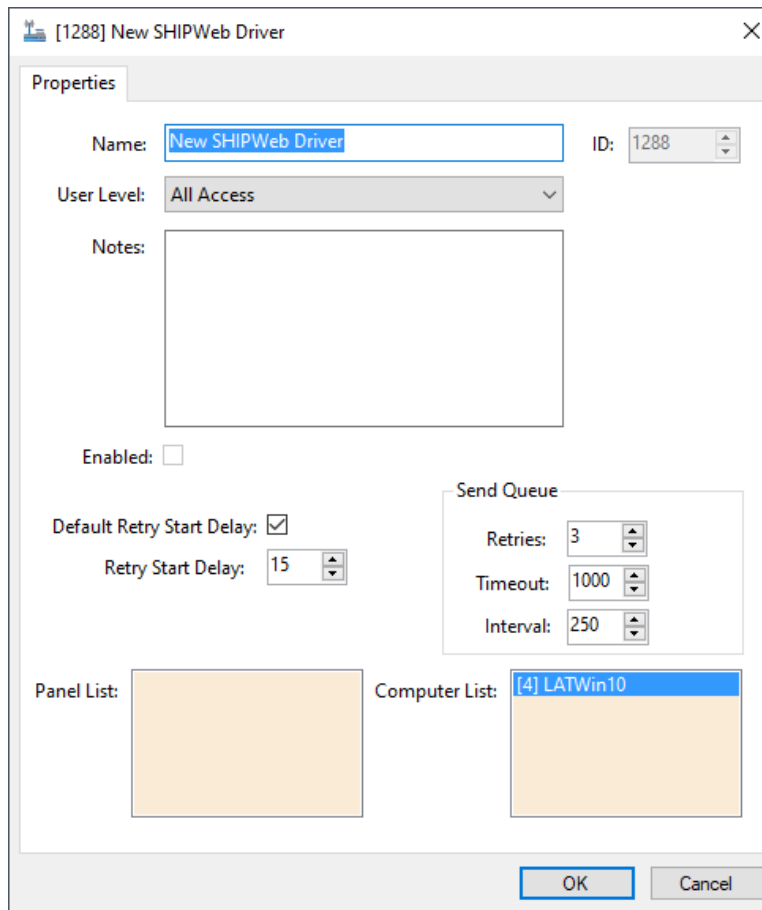


Figure 5 - SHIPWeb Driver Properties Dialog

Please change the name of the driver to reflect the use and/or location of the panels that this driver will manage.

Note: For an explanation of all of the driver properties, see [SHIPWeb Driver Node](#).

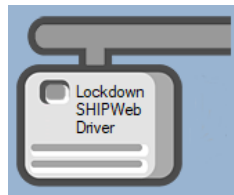


Figure 6 - SHIPWeb Driver Icon

No communication method needs to be added because the driver is emulating a web server. After adding the driver, we move on to adding the panel.

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4.2 Add a SHIPWeb Panel

Once a SHIPWeb driver has been added, it's time to add a SHIPWeb panel to it.

Right-click on the SHIPWeb driver and select *Add Panel*. The **Add Panel** dialog displays.

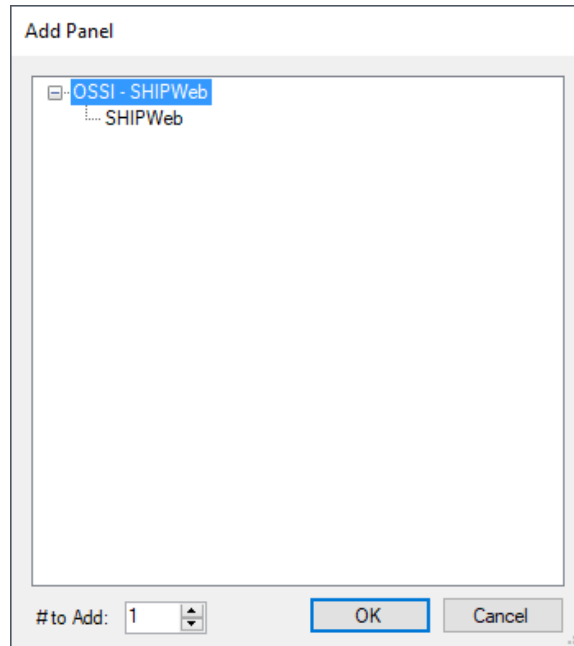


Figure 7 - Add Panel Dialog

This dialog only displays the panels that are appropriate for the target driver. Select the SHIPWeb panel. Leave **# to Add** set to 1. There should only be one panel per driver. Click **OK**. A **New SHIPWeb** icon is added to the target SHIPWeb driver.



Figure 8 - A new SHIPWeb panel attached to the SHIPWeb driver

Next configure the panel.

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4.3 Configure the SHIPWeb Panel

The SHIPWeb panel is configured using the **Quick Config** dialog. To open the **Quick Config** dialog, right-click on the SHIPWeb icon and select *Quick Config*.

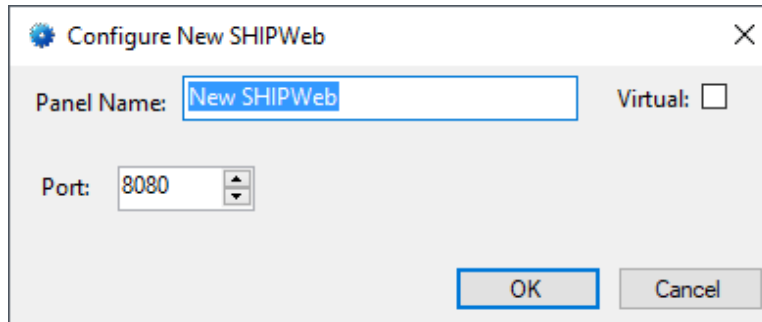


Figure 9 – SHIPWeb Panel Quick Config Dialog

Change the **Panel Name** to describe its use or location. In our example, it is "Lock Down". **Port** is the port number on which the driver listens for connections and messages from the external application or web browser.

Note: For more information on all of the fields and properties of the SHIPWeb panel, see [SHIPWeb Panel Node](#).

4.4 Enable the SHIPWeb Driver

At this point, the SHIPWeb panel and the SHIPWeb driver are configured, but the driver is not online. A quick way to know this is that the communication indicator is grey.

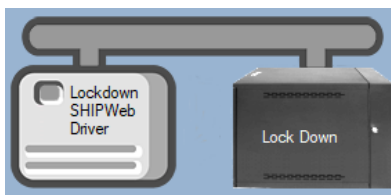


Figure 10 – Disabled SHIPWeb Driver

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Right-click on the driver to open the context menu; select *Enable Driver*. The communications indicator will change color to green when it's online.



Figure 11 - Enabled SHIPWeb Driver

If for some reason the Engine cannot connect to the Driver Service, the communication indicator will be red.




Figure 12 - Enabled SHIPWeb Driver that is not communicating with the Driver Service

Congratulations! The SHIPWeb is integrated and ready to use in screen design for **Live View**. Screen design occurs in **Design View**.

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5 Design View

 **Design View** is the home of the Project Node Tree and the place where screens and screen objects are programmed. The following sections explain the SHIPWeb Driver node properties, and the SHIPWeb panel node properties.

5.1 SHIPWeb Driver Node

The SHIPWeb driver node is found by expanding **Setup->Computer Setup->Drivers**.



Figure 13 - SHIPWeb Driver node in the Project Node Tree

Right-click on the driver node and select *Properties* to open the properties dialog.

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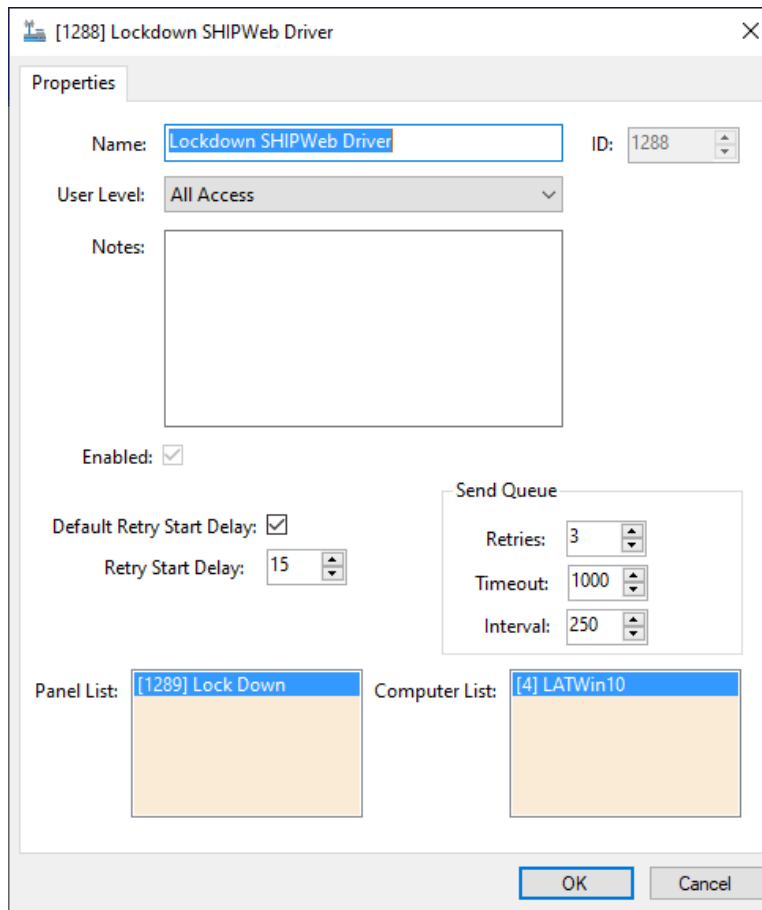


Figure 14 - SHIPWeb Driver properties dialog

Name, ID, User Level, and Notes are standard properties for all nodes. The properties specific to this node are as follows.

Enabled – check box; when checked the driver is enabled

Default Retry Start Delay – check box (default: checked); if the driver did not connect, pause before attempting to connect again

Retry Start Delay – numeric (default: 15); number of seconds to wait between retries on connection attempts

Retries – numeric (default: 3); number of retries for sending a packet

Timeout – numeric (default: 1000); number of milliseconds to wait for a response before assuming the packet was not received


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Interval – numeric (default: 25); number of milliseconds to wait after a timeout before sending the packet again

Panel List- drop box; the SHIPWeb node attached to this driver

Computer List – drop box (default: the computer on which the Engine is running); the computer node on which this driver is running

5.2 SHIPWeb Panel Node

The SHIPWeb panel node is found by expanding **System Layout** then the Site and Area to which the SHIPWeb panel was added in  **Hardware Management View**. In the example below, the panel was added to the site **Corporate Headquarters** and the area **Area**.

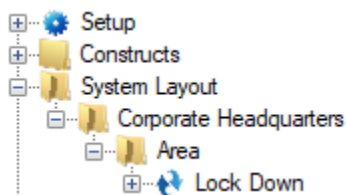


Figure 15 - The SHIPWeb panel node in the Project Node Tree

The SHIPWeb panel node is the root node for the panel. The following sections will explain:

- The properties of the SHIPWeb panel node
- The configuration of the SHIPWeb panel (a.k.a. **Quick Config**)
- The child nodes of the SHIPWeb panel

5.2.1 SHIPWeb Panel Node Properties

Right-click on the SHIPWeb panel node to open the properties. Here there are additional fields that are not accessible through the **Quick Config** dialog. They correspond to those features that aren't part of the day to day running of the system.

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The screenshot shows a dialog box titled "[1289] Lock Down" with a close button (X) in the top right corner. The dialog has a "Properties" tab. Inside, there are several fields: "Name" is a text box containing "Lock Down"; "ID" is a spinner box containing "1289"; "User Level" is a dropdown menu showing "All Access"; "Notes" is a large empty text area; "Virtual" is a checkbox that is unchecked; "Virtual Point" is a text box with a light orange background; "Event buffer delta (min)" is a spinner box containing "0"; and "Port" is a spinner box containing "8080". At the bottom right, there are three buttons: "Apply", "OK", and "Cancel".

Figure 16 - SHIPWeb node properties dialog

Name, ID, User Level, and Notes are standard properties for all nodes. The properties specific to this node are as follows.

Virtual – check box; when checked the panel is virtualized, allowing the driver to be brought online without having the physical panel available

Virtual Point – drop box; this I/O Point will be set when the panel is virtualized, clear when it is not

Event buffer delta (min) – numeric (default: 0); only applies to panels that buffer data; the Engine compares the time an event occurs versus the current time, if the difference is greater than the **Event buffer delta**, the event is logged but not acted upon.

Port – numeric; (default: 8080), the port on which the driver listens for connections and messages

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5.2.2 SHIPWeb Panel Quick Config

The **Quick Config** dialog is accessible either in  **Hardware Management View** or in  **Design View**. To open the **Quick Config** dialog, right-click on the SHIPWeb panel node and select *Quick Config*.

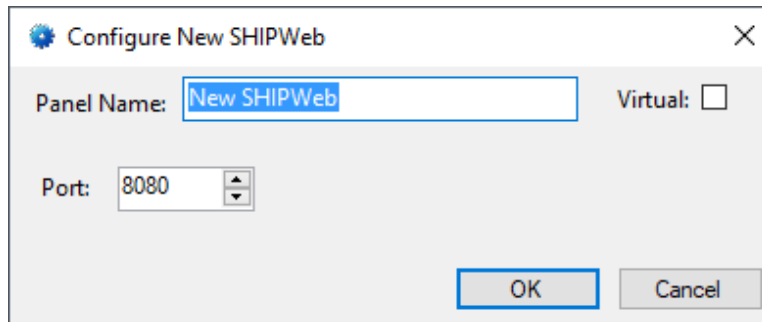


Figure 17 - SHIPWeb panel Quick Config dialog

Panel Name – edit box; the name of the SHIPWeb panel; updating this field will change the name of the node

Virtual – check box; when checked the panel is virtualized, allowing the driver to be brought online without it actually accepting connections

Port – numeric field; the port on which the driver listens for connections and messages from the external application.

5.2.3 SHIPWeb Panel Child Nodes

The SHIPWeb panel has only one child node, the Alarms node.

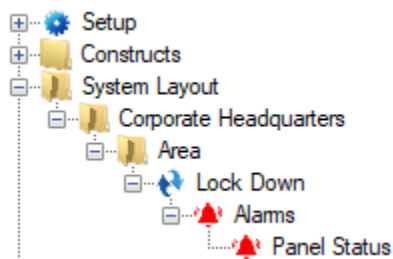


Figure 18 - SHIPWeb panel child node

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5.2.3.1 Alarms

There is only one alarm for the SHIPWeb panel. It is **Panel Status**.

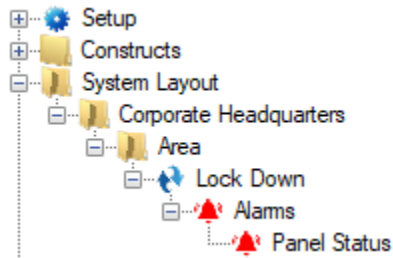


Figure 19 - SHIPWeb panel Alarms child nodes

The **Panel Status** point is high when the panel is offline (assuming the driver is online, and the panel is not virtualized). It is a standard I/O Point. For more information about the I/O Point see the User's Guide.

Revision History

2021-06-30 Creation Date