Apex Fusion is a web based controller management application. It works WITH your Apex AquaController – it doesn’t replace your controller’s existing software. You can use Apex Fusion or the native Apex web application interchangeably. If the Apex Fusion servers were ever unavailable, your controller will continue to function without interruption just as it does today.

**INSTALLATION**

Connecting to Apex Fusion is a simple 3-step process:
1. Enable Apex Fusion on your controller and get a token
2. Create an account on the Apex Fusion server (one-time)
3. Link your controller to Apex Fusion using the token

*Note* – you must be on release 4.31 or higher to run Apex Fusion. You can download the most current firmware here: [http://www.neptunesystems.com/support/sw-updates/]
Enable Apex Fusion on your controller

On your controller, navigate to Configuration -> Network Setup. At the bottom of your network settings are two Apex Fusion options – Apex Fusion Enable and Apex Fusion Control Enable. Click the ‘Enabled’ radio buttons for both options and Update the settings. Remember to reboot your controller.

![Configuration settings](image)

On your Dashboard if you haven’t already placed the “Apex Fusion” tile on your Dashboard, do so now. The Apex Fusion tile will be in your Unused tiles. Once you do this (or if it’s already there) you can click on the tile if it says ‘Link’ and a randomly generated short token will appear.

Create an account on the Apex Fusion server and Link your controller

From your computer’s browser, go to [http://www.apexfusion.com](http://www.apexfusion.com). Here you will create your Apex Fusion account including your user ID and password. After you register you will see your user ID on the far right at the top of the page. The drop down menu has a couple of options. Select Link. Enter your token paying attention to upper and lower case and click ‘Link to Apex’. Tokens expire after 10 minutes. If yours has expired, go back to your controller and click on the Apex Fusion ‘Link’ button to generate a new token.

![Register account](image)

**NOTIFICATIONS**

Notifications (email and/or text) can be created for any email service. No longer are you restricted to certain services or have to know port and SMTP server names. Further, if you add additional users to your Apex Fusion account, each user can have notifications delivered as well.

Back to your user ID, select Settings then Notifications. Then click on “Add Recipient”. Select the Method, either email or SMS, then enter your email address. For SMS text messages to your...
phone, select SMS and the carrier. If your carrier is not listed, please contact Support.

**MENU ICONS**

The main menu icons appear at the top left of the page. They are, from left to right:

- Controller list
- Alarm Log
- Graphs
- Outlet Log
- Profiles
- Additional users

There’s also a second smaller menu that will appear in the same location when you’re in a page other than the Dashboard and those options are:

- Controller list
- Dashboard
- Refresh/Reload

**DASHBOARD**

Like your controller, the dashboard is the main tool you’ll use to monitor and manage your Apex AquaController. The dashboard will appear by default when you select a controller or when you click on the dashboard icon.
The dashboard should look familiar to you. It was modeled after the current Apex dash. Each of your outlets are listed and have the OFF-AUTO-ON slider control. The current mode of that outlet is represented by having the mode colored and the current state of the outlet is listed above it to the right (on/off/profile).

The gear icon will give you access to that outlet’s configuration window.

You might note for light outlets a new state called ‘TBL’ (look at the Hydra outlets in the screenshot above). This indicates that the outlet has been programmed by the Apex Fusion lighting wizard. Since it uses a completely different method to control intensities than profiles, there’s no profile name to display.

MODIFY THE DASHBOARD

You can modify the default dashboard to suit your taste. The process is very similar to the Apex webserver dashboard with a couple of differences:

- There are 3 columns of data which can be outlets, graphs or pictures/video (future)
- There is an unused tiles area that will appear at the top of the page when in edit mode
- New outlets go automatically into the unused tiles area

You can see the 3 columns in the above image. They’re denoted with dashed lines. The unused tiles are at the top. You can scroll left-right to see them all.

Moving tiles is just drag and drop.
**GRAPHS**

The graphing function of Apex Fusion can be accessed via the graph icon. The graphs themselves are fairly intuitive. You can zoom in and out by using the sliders along the bottom of the graph. If you want to layer another probe into a graph, use the drop-down button on the top right of the graph and select the second probe to graph. You can only graph two probes at a time and unlike the controller based software you cannot overlay outlets.

**PROFILES**

Profiles are accessed via the profile icon. From the list of valid profiles you select the one you want by clicking on it. Select the appropriate profile type and complete the rest of the form. When complete, remember to send the completed data back to your controller.

**OUTLETS**

Outlets are programmed after selecting the outlet you want from the Dashboard and clicking on the gear icon (remember, if an outlet is missing, look in the Unused Tiles area – see Modify the Dashboard). Complete the form using either a wizard or by hand in Advanced mode. This is selected from the Control Type field. When complete, remember to send the completed data back to your controller.
LIGHT AND PUMP WIZARD

The light and pump wizard will appear automatically any time you modify an outlet of that type.

Light Wizard:

![Light Wizard Graph]

Pump Wizard:

![Pump Wizard Graph]
The Light and Pump wizards let you easily mix modes and times in an easy to understand format. As you can see there’s a time scale across the bottom and intensity across the top. Where these intersect you can place ‘Points’. A Point can have a profile associated with it. For lights the profile would be a combination of color intensities. The points for Vortech pumps have Vortech modes associated with them.

The wizard has many pre-defined profiles for both pumps and lights. In addition, for lights you can create a custom profile simply by dragging the color sliders at the bottom of the wizard up or down. For the Vortech pumps, you select the pump mode you want. If the particular mode requires some additional data, then you’ll see a box appear to the right. You can see in these examples, the Pulse mode requires a pulse interval and Sync/Anti-Sync require the master pump to be selected.

The wizard also has some icons that will help you program your devices. The copy tool will let you copy the configuration of a similar device to this device. For example, if you have multiple lights that you want to be programmed the same, you only have to program the first fixture. After that, select the second fixture then use the copy tool to copy the program from the first.

The other tool that is unique to the lighting wizard is the ‘preview’ tool. With this tool you can preview the lighting effect over a full 24 hours in just 30 seconds. The preview tool only applies to lights.
Fusion May 2014 Updates

This is a list of the major enhancements in the May release:

Controllers that Fusion cannot reach to are now denoted with a red exclamation point:

<table>
<thead>
<tr>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apex</td>
</tr>
<tr>
<td>apextest</td>
</tr>
<tr>
<td>Matt_Apex</td>
</tr>
</tbody>
</table>

Further, if you select that controller additional information will display to help you reconnect:

New quick access button to other graphs on the graphs page.
A number of wizard enhancements have been made:

You can now compare other outlets in your wizard – very helpful when programming multiple lights or pumps. The device you select will be graphed along with your current device. This will be especially useful with lights that have multiple independent channels like the Kessils.

Email, Sound Warning and Sound Alarm outlets are now locked from being programmed as another device (i.e. a pump).
You can now delete controllers from Fusion if you’re have ‘Owner’ authorization. Select the gear icon next to the controller you want to delete from the list of controllers.

The wonderful Comprehensive Reference Manual and Fusion Guide are now linked from your user name in the top right of the page:

And perhaps saving the 2 best for last, you can now program Varspd outlets using the same graphing wizard that is used for lights and pumps – note in the example 2-Varspd outlets are graphed together – Intensity and Spectrum.
You can now embed streaming video OR photos in your Fusion dashboard. And not just one or even two. And if you do have more than one video stream or photo Fusion will play them as a kind of slideshow.

Note the gear icon. If you drag the media tile from the unused tiles to your dashboard, the gear icon will present you with options to setup a video stream.

The ‘+’ icon will let you add a new media element.

The gear icons let you edit an existing media element, remove an element or view the element in a standard browser window. This last option is helpful if you want to verify your URL string is proper.

For help getting streaming video or still pictures working properly, please visit the Neptune Community Forums. The link is at the end of this document.

**Outlet Locking** – Fusion can lock outlets from being changed with a virtual ‘cover’. In order to change the state of an outlet or modify the program you have to unlock the outlet. You can configure whether you want this locking feature on all the time, only on touch enabled devices or never via the ‘Display’ user settings (see below).

This is what the cover looks like when it is protecting an outlet:

This is what it looks like when the outlet can be updated. Swiping from right to left (finger or mouse) will remove the lock from an individual outlet:
Expanded Outlet Information (requires firmware 4.31_5A14 or greater) – Outlets now display some context sensitive information based on the type of device that outlet is running. Vortech pumps will show the currently running mode and the intensity percentage. Outlets that have intensity will show the intensity and outlets running a profile will show the currently running profile name.

In this screenshot there are two outlets running Vortech pumps. The first is running in Async mode at 35%, the second is running ReefCrest at 43%. Note that your names will be different for these modes – what is displayed is your name for that mode either from a profile or the pump wizard.

User Settings – User preferences have been modified to make it simpler to find and configure the settings you’re looking for. Now there are separate functions for Display, Notification, Password and Profile settings:
Apex Fusion still requires a connection to the Internet from your home. For instructions on how to quickly setup your controller in your home, please see this document: [https://www.neptunesystems.com/downloads/docs/Quick-start-network-guide-V4.pdf](https://www.neptunesystems.com/downloads/docs/Quick-start-network-guide-V4.pdf)

In the event the Apex Fusion servers are ever unavailable, your controller will continue to function and manage your tank. In addition, you’ll be able to log into your controller from your home. However you will not be able to access your controller from outside your home unless you have remote access configured – again, not required with Apex Fusion but only in the event the Apex Fusion servers are unavailable.

If you would like to configure remote access to your controller to use in the event Apex Fusion is not available, there are a number of tutorials and help documents available on Neptune Systems support page. Here are links to some of them:

[http://portforward.com/english/routers/port_forwarding/routerindex.htm](http://portforward.com/english/routers/port_forwarding/routerindex.htm)

As always, the Neptune Systems support team is ready to help and you can get advice 7x24 on the Neptune Systems Community forums:

support@neptunesystems.com
https://forum.neptunesystems.com